

**Postclassic Maya Ceramic Iconography at Lamanai, Belize,
Central America**

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Volume 1

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Abstract

This thesis studies Postclassic ceramic iconography from Lamanai, Northern Belize, Central America. Lamanai sustained occupation through the 'collapse' and demonstrates a continuous building program and ceramic production during a time when other major sites of the Classic Period found themselves in the process of decline or had already been abandoned. Study of the transition period provides potential answers to broad social questions that concern how and why Lamanai was successful during the turbulence which caused some of its neighbours to fail. Findings show that Lamanai's survival involved an ideological shift, expressed in its cultural material.

The research described herein constitutes the first analysis of Lamanai ceramic iconography. Ceramics from elite primary contexts provide the source of iconography at the site and are presented in an extensive catalogue. Readings for Lamanai motifs are proposed, some of which are new and applicable to motifs found throughout the Maya Lowlands. The iconographic record studied extends from the Terminal Classic to the Early Historic Periods (ca. A.D. 800 - 1700), which permits the assessment of ideological and stylistic continuity and change expressed in Lamanai's cultural material.

This study increases our knowledge of the Postclassic Period, about which far less is known than the Classic florescence. It is my hope that it serves to enrich our understanding of the socio-cultural contexts of Postclassic life. Furthermore, comparison of Lamanai symbolism with that of other Mesoamerican sites permits an initial establishment of the site's cultural interaction sphere within the Maya Lowlands.

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Chapter 1: Introduction and research aims

This thesis comprises a study of Postclassic ceramic iconography from the Maya site of Lamanai in northern Belize, Central America (Fig. 2.1). Far less is known about the Postclassic Period than the period of Classic florescence, therefore my hope is that the results of iconographical analysis will enrich our understanding of the world view of the Lamanai Maya at the time, and in turn aid in the establishment of Lamanai's cultural sphere. The Lamanai imagery studied occurs on ceramics from elite contexts (Graham 2004; Pendergast 1981a, 1981c, 1985a, 1986) but not all imagery is specific to ceramics at Lamanai; some images are also found decorating architecture (Shelby 1999, 2000a, 2000b, 2000c). The research described herein constitutes the first analysis of Lamanai ceramic iconography. Imagery also occurred on perishable goods, but little has survived, such as carved bone (Catalogue Fig. 4.6.1). Lamanai utilitarian vessels, such as cooking and storage vessels do not display iconography and were not studied.

Lamanai is distinguished from the rest of the Maya Lowlands by its exceptional dynamism in a time of general unrest, possibly attributable to the site's strategic position – situated on the shore of a large freshwater lagoon – at a point ideal to partake in long-distance commerce within the Maya Lowlands. Lamanai sustained occupation through the 'collapse' (Pendergast 1982a, 1985a, 1986) and demonstrates a continuous building program (Graham 2004; Howie 2006) and ceramic production (Howie 2006) during a time when other major Classic Period sites found themselves in the process of decline or abandonment (Culbert 1973a:3-18). Study of the transition period provides potential answers to broad social questions that concern how and why Lamanai was successful during the turbulence which caused its neighbours to fail. The results of my research indicate that Lamanai's survival involved an ideological shift, expressed in its cultural material.

Ceramics from elite contexts provide a rich source of iconography at the site. The ceramics on which I have focused date to the Terminal Classic to Early Historic Period, ninth to seventeenth centuries A.D., based on evidence from stratigraphy, stylistic comparison with other sites and prior radiocarbon dating (Graham 2004; Pendergast 1981a, 1981c; Table 1.1). Carbonised remains from fifteen caches spanning the Late Classic to Early Postclassic have been identified (*Pinus caribea*) and will undergo analysis for radiocarbon dating

in June of 2007 (Graham, personal communication 2007). Therefore the absolute chronology given in Table 1.1 is provisional. However, the relative stratigraphy – the relationship of the various phases from Terclerp to Yglesias – remains the same. The ceramics' elite contexts are inferred from their association with elaborate masonry architecture in the site's Central Precinct (Graham 2004; Pendergast 1981a, 1982b, 1992). Other factors include the attention given to the complexity of decorative elements relative to the bulk of ceramics at the site and the nature of the artefacts associated with the ceramics such as jade, metals or elaborately knapped chert. A large body of ceramics from primary archaeological contexts is examined from burials, caches and middens (Graham 2004; Howie 2006; Pendergast 1981a, 1981c, 1982b, 1984a, 1984b, 1985a, 1985b).

Research questions

Ceramic data are considered temporally according to phases: Terminal Classic Terclerp, Early Postclassic Buk, Late Postclassic Cib and Terminal Postclassic/Early Historic Yglesias (Table 1.1). Research questions addressed are:

- the definition of Lamanai ceramic *styles*;
- the detection of *key iconographic themes* being mobilised in Lamanai ceramic art and what this reflects about the *broader (archaeological and socio-cultural) context* in which Lamanai symbolism is placed and how this contributes to our understanding of processes of social and cultural change;
- the detection of *inter-site relationships* between Lamanai and other Maya Lowland sites (based on iconographical style and content) and what such iconographic interaction spheres may contribute to our understanding of processes of social and cultural interaction;
- the extent of *symbolic continuity and change* through different Lamanai phases (Terminal Classic to Early Historic; ca. A.D. 800 - 1700; Table 1.1). This research question may provide information on the changing character of culture and society in Postclassic Lamanai (e.g., regarding religious beliefs, political systems, status and power symbols and the role of the elites).

A.D. B.C.	1964	British colonial			
	1700		Yglesias Spanish colonial	Terminal Postclassic/ Early Historic	
	1450		Gatah* Cib		
	1250		Buk		Late
	1000		Terclerp	Early	Postclassic
	800		Tzunun	Terminal	
	600		Shel	Late	Classic
	450		Sac	Middle	
	250	Late	Zotz	Early	
	150	Early			Late
	0		Lag		Preclassic
	100				
	400	Late	Mesh	Middle	
	600	Early	?		

Table 1.1 Preliminary Lamanai ceramic chronology (based on Graham 2004:225). Grey indicates period of vessels studied. *Gatah possibly forms part of a sub-complex (Ball 1977a:3; Gifford 1976:11-12) and is part of the late facet (Gifford 1976:46, Fig. 8) of the Cib phase (see Chapter 7).

Contents summary

This chapter provides an overview of the thesis. Chapter 2 presents Lamanai's environmental and historical context from the end of the Classic through the Early Historic period (Table 1.1). A summary is provided of the region's changing political situation and interaction sphere (trade and exchange). Chapter 2 also presents the background to the Postclassic Period and examines manifestations of Mesoamerican Postclassic art styles in the Maya area.

Chapter 3 is divided into two parts: the first studies the meaning and function of iconography and outlines a methodology that combines iconographical and contextual analyses for the examination of Lamanai ceramic art. The second part presents the Lamanai sample and its context.

Chapter 4 comprises the initial process involved in the iconographical analysis and entails the isolation and categorisation of Lamanai motifs to distinguish the individual elements that make up the site's symbolic repertoire or 'language'.

Chapters 5, 6, 7 and 8 present ceramic data and findings for each Lamanai phase studied: Terminal Classic Terclerp phase ceramics (Chapter 5), Early Postclassic Buk phase ceramics (Chapter 6), Late Postclassic Cib phase ceramics (Chapter 7) and Terminal Postclassic/Early Historic Yglesias phase ceramics (Chapter 8). First, the isolated motifs, motif combinations/substitutions and their relation to the vessels on which they occur are presented to provide a definition of style. This is followed by the ceramic material's examination within its material (archaeological) and socio-cultural (iconographical content) contexts. Finally, conclusions and inter-site relationships for the ceramic symbolism are presented.

Chapter 9 summarises *stylistic* characteristics and *key iconographic themes* mobilised in Lamanai ceramic art, arrived at through the combined reading of iconographical and contextual analyses, to examine the *extent of continuity and change* present in Lamanai symbolism from the Terminal Classic to Early Historic Periods. The diachronic analysis of Lamanai ceramic iconography permitted the definition of reasons for continuity and change detected in the

site's ceramic art. The chapter concludes with a discussion of the *role* of Lamanai ceramic art.

A note about accents for Spanish words: Words of Maya origin that are commonly used in English, such as Yucatan, are not accented. Sites in Belize, even if their origin is Spanish, are normally not accented in Belize maps or usage, so Spanish names of sites in Belize such as 'Marco Gonzalez' are not shown with an accent. However, Spanish personal names and place names in Mesoamerica have the appropriate accents.

Chapter 2: Post-classic Lamanai in its environmental and historical contexts

Chapter 2 presents Lamanai's post-Classic environmental and historical context to provide a cultural framework within which to analyse the site's ceramic art. By 'post-Classic', I refer to the period from the end of the Classic, or Terminal Classic, through Early Historic times (Table 1.1), which includes all ceramic material studied in this thesis. An overview of Lamanai and its environs is provided as well as a brief chronological summary of what is known about the area's political situation and interaction sphere (trade and exchange). Also discussed are the background to the Postclassic Period and manifestations of Postclassic art styles in the Maya area.

Lamanai within its environmental context

The Maya occupy an area of over 300,000 square kilometres, which includes the peninsula of Yucatan, the states of Campeche, parts of Tabasco and Chiapas in Mexico, the entire territories of Belize and Guatemala, and the western parts of Honduras and El Salvador (Sharer 2006:23-24; Fig. 2.1). The Maya area is divided into three basic geographic zones: the Pacific coastal plain in the south, the highlands in the centre, and the lowlands in the north (Sharer 2006:30). The lowlands are further divided into the northern, central and southern lowlands (Sharer 2006:41-53). Belize and Lamanai lie in the Southern Lowlands (Sharer 2006:45-46; Fig. 2.1), although Lamanai is situated close to where the northern lowlands begin.

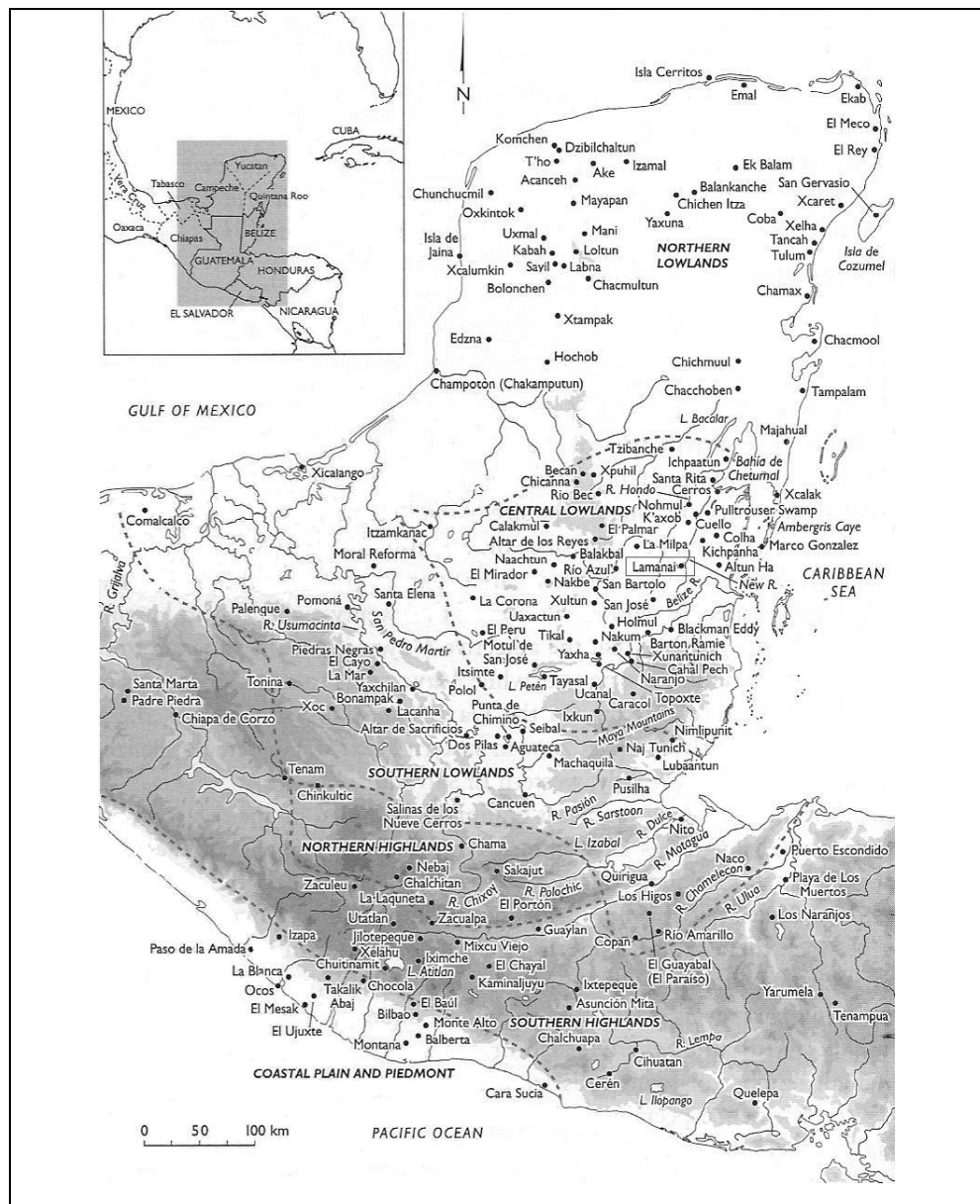


Fig. 2.1. Map of Maya cultural area showing the Southern Lowlands, where Lamanai is located (indicated by box). Adapted from Sharer 2006:24, Fig. 1.1.

The vast territorial expanse that encompasses the Maya area offers great biological and environmental diversity due to different geological, climatic, edaphic, evolutionary, biochemical and cultural characteristics (Gómez-Pompa 1998:39; Sharer 2006:29).

Lowland geography

Belize is part of the Yucatan Peninsula (Fig. 2.1). To the north and west lies the Mexican state of Quintana Roo, whereas Guatemala borders the rest of Belize on the west and south. The Belizean Barrier Reef (the world's second largest barrier reef) includes the largest continuous reef system in the western Atlantic

and stretches north/south off the coast with many islands or 'cays' (Gibson and Carter 2003:171, p. 173, Fig. 1; West 1964:73; Wright et al. 1959:13).

Lamanai is located in northern Belize, in the Orange Walk District, on a low and featureless karst platform composed of Late Cretaceous to Eocene limestone formation that drains poorly and lies only a few metres above sea level (McDonald and Hammond 1985:13-18; Sharer 2006:45; West 1964:70-72; Wright et al. 1959:22). This underlying limestone shelf is tilted towards the north. The shelf's tilt results in shallow soils which lie on the porous limestone. As a consequence, water is quickly absorbed and standing water is rare (West 1964:70-72); water conservation was thus of great importance to the Maya (Sabloff 1998:53).

Lamanai is situated on the northwestern shore of a large freshwater lagoon or lake fed by the New River and by many small streams. In the seventeenth century the New River shared its name with the province in which the site is located: Dzuluinicob or 'foreign people' (Jones 1989:10, 43), possibly referring to foreigners making use of the river to travel into the area during this period. The New River reaches the sea at Chetumal Bay, a large tidal delta, after approximately 70 kilometres. The New River is one of two major river systems flowing through this region, the other being the Rio Hondo. Not only did these rivers provide valuable food resources for the Maya, the rivers also formed important transportation and trade routes and permitted intensive agriculture on their banks and flood plains (Pohl et al. 1996). Little relief characterises this region, particularly to the east of Lamanai, where the Caribbean Sea lies at a distance of about 40 km (Wright et al. 1959:211).

Climate

The climate of Belize is classed as sub-tropical (Wright et al. 1959:15). Mean annual humidity usually lies between 80% and 88% (King et al. 1992:23; Wright et al. 1959:15). The temperature ranges from 50° to 95° F (10° to 35° C) with an annual mean of 79° F (26° C) and a cooler period falling in November to January and a warmer period in May to September (Wright et al. 1959:15). The country experiences distinct dry and rainy seasons. A three-to-four-month dry period, which is more severe in the north than elsewhere, usually begins in February and lasts through March and April (King et al. 1992:21; Wright et al. 1959:19). The beginning of the rainy season is less predictable, starting around

June and lasting to December or January (Wright et al. 1959:19). The yearly variation in length and start of the rainy season results in great variability in rainfall and consequent uncertainty surrounding crop cultivation (King et al. 1992:21; Wright et al. 1959:Fig. 11). The Tower Hill weather station, located in the Orange Walk District, near Lamanai, recorded annual rainfall from 1936 to 1970 ranging between 748 to 2095 millimetres, with a mean of 1417 millimetres (King et al. 1992:21, Table 2). See also Wright et al. (1959:Fig. 1.5) for a monthly weather pattern in northern Belize and Walker (1973) for climatic records of different districts.

Vegetation

At Lamanai, semi-evergreen forests (broadleaf deciduous forests) characterise the area (Gómez-Pompa 1998:45-48; Noyes 1932:346-47; Roys 1943:52; Wright et al. 1959:29-32). The dense vegetation is suggested to be reflected in the 'organic' style of Early to Late Postclassic ceramic art (see Chapters 6-7). The Maya exploited the forests in three ways: they encouraged the growth of many useful forest species, practised agriculture that copied the structure of the forest – for example, cacao plantations were placed under the protective shade of taller forest trees – and imitated the natural process of forest regeneration by planting maize, beans and squash in deforested soils (Gómez-Pompa 1998:44). In wetland and riverside locales, maize, squash, bottle gourd, cacao and cotton were grown (Jones 1982a; Pohl et al. 1996:365-367). Savanna lies eastward across the lagoon from Lamanai. Savannas occur where soils are subjected to flooding during the rainy season and are ecosystems influenced by periodic fire (Furley 1989:10, Fig. 1.1 and p. 23, Table 1.2; Gómez-Pompa 1998:47-48; Jenkin et al. 1976:107; Wright et al. 1959:30-32).

Subsistence

At Lamanai, subsistence almost certainly included agriculture and silviculture, which transformed large forest areas into cultivated fields and habitable zones (Gómez-Pompa 1998:40). Although ancient Maya silvicultural practices are not well known, they are believed to have included cultivation and preservation of trees and rain forest (Gómez-Pompa 1998:41). At Lamanai, maize was the staple diet, especially in the Postclassic Period when, according to skeletal analysis, its production doubled (White 1997:179-80). A raised field system

occurs north of Lamanai, suggestive of a large-scale and intensive cultivation system (Pendergast 1981a:34, 53). Maize consumption was most likely augmented with fruit, nuts, seeds and game such as white-tailed and brocket deer, tapir, collared peccary, armadillo, porcupine, opossum, agouti, paca and birds from the forest, and lacustrine protein – fish, shellfish and turtles – from the large lagoon. See Masson (2000:11-12, Table 2.1) for a comprehensive list of animal species in northern Belize during the Postclassic Period, Eaton (1978:10, Table 3), Vail (1988:67, Table 2) and Wright et al. (1959:319-322). Associated artifactual assemblages suggest that coastal inhabitants, and most likely the population of Lamanai, used various fishing techniques such as line fishing, net fishing, spearing, harpooning and pot fishery (Eaton 1978:5, 12-13; Graham 1994:256-262; Roys 1943:47; Vail 1988:66). Some of the fish caught by the Maya are described by Landa (Baughman 1952:435-457; Graham 1994:257; Tozzer 1941:191-192). Hunting involved blow guns, spears, *atlatls*, bows and arrows, snares, cages and pitfall traps (Landa [in Tozzer] 1941; Pendergast, Jones and Graham 1993:67; Pohl 1976; Rice 1987b:213-214).

Lamanai within its historical context

Phases of Maya chronology

In brief, archaeological evidence supports the development of agriculture in the Maya Lowlands with the introduction of maize and manioc before 3000 B.C., with deforestation marking the increased spread of agriculture by 2500 B.C. and the emergence of a complex society in the Middle Preclassic Period between 1000 - 400 B.C. (Andrews and Hammond 1990; Hammond 1992, 1999; Hammond, Clark and Donaghey 1995; Pohl et al. 1996:366, 368; Sharer 2006:81, 201-219 and p. 98, Table 2.2). For a summary and discussion of the Preclassic and Classic Periods in the Maya Lowlands, see Sharer (2006). Between 3000 B.C. and A.D. 250, the Maya Lowlands were home to a vibrant Maya culture (Pohl et al. 1996:368) until approximately A.D. 900, when the Southern Lowlands experienced major reorganisation (Demarest, Rice and Rice 2004:545-572; Rice, Demarest and Rice 2004:1-11; Sharer 2006:153-157).

Towards the end of the eighth century A.D., many Southern Lowland centres that had grown and flourished for such a long period rapidly declined (Culbert 1973a, 1973b; Demarest et al. 2004; Sabloff and Henderson 1993;

Sharer 2006:499-520). The Southern Lowlands experienced major reorganisation, reflected in a decline in population and the cessation of Classic Period elite activity such as stelae erection and a reduced focus on monumental architecture (Adams 1973a:22; Andrews et al. 2003:151; Chase and Chase 1985:2; Sharer 1977). The reasons for this 'collapse' remain a constant subject of debate, but it seems likely that its causes were 'systemic and multiple with demographic stress, a possible drought, trade disruptions and intercity conflicts' (Sabloff 1998:69; Sharer 2006:505-520) all playing a part. The collapse, however, did not include all areas, as some Southern Lowlands sites, located near water trade routes and rich in cacao and cotton resources, continued to flourish: Lamanai, Santa Rita and Sarteneja in northern Belize; Northern Lowland centres, in particular Chichen Itza, and the Puuc sites Uxmal, Kabah, Sayil and Labna; and a water focused mercantile Maya faction from the Gulf Coast Lowlands of Tabasco and Campeche (Sabloff 1998:69-70; Sharer 2006:520-524). The Chontal or Putun Maya appeared in the Highlands and Lowlands to focus ultimately on the Northern Lowlands. This group maintained close economic ties throughout Mesoamerica. However, Andrews et al. (2003:151-156) argue that Chichen Itza, rather than representing a break with the Classic era, was a continuation of this phase in the Terminal Classic, a last Classic Period site. These authors also call for an abolition of the term 'Early Postclassic' in favour of 'Terminal Classic', as they realign the decline of the Terminal Classic/Early Postclassic Yucatecan sites with the Southern Lowland collapse. Thus, they change the time period of the 'collapse' to a 200- or 250-year period, 'seen as a progressive chain of events that began in the south and culminated with the fall of Chichen Itza in the eleventh century' (Andrews et al. 2003:151).

Considering Maya prehistory in its entirety, the settlement focus of Maya civilisation seems to have shifted from the Southern Highlands to the Southern Lowlands in the Late Preclassic Period of the third and second centuries B.C. (Sharer 2006:278-286, 529-532, 689-690). The Southern Lowlands maintained this trend until around A.D. 800 (Ringle et al. 1998:183), when focus shifted again to the Northern Lowlands, where Chichen Itza emerged as the pre-eminent Maya centre and enjoyed a widespread political power that involved military conquests (Chase and Chase 1985:26; Sharer 2006:558-569). Chichen Itza played a role in the demise of the Puuc sites in the mid-ninth century A.D.

(Kowalski and Dunning 1999:290, 293). During the Late Classic Period, the Puuc region was settled by increasing numbers of people vying for control over fertile agricultural soils (Dunning and Kowalski 1994, 1999). This resulted in the rise of numerous autonomous centres in the east of the Puuc region that carried on the Classic Period Maya tradition of divine kingship (Dunning and Kowalski 1994, 1999:293). During the late ninth century, Uxmal was briefly the dominant political centre in the area, with important links to Chichen Itza (Dunning and Kowalski 1994:81-91, 1999:293-294). However, by A.D. 950, Uxmal and other Puuc sites no longer showed evidence of elite activities (Dunning and Kowalski 1994:63, 66-67). Dunning and Kowalski (1999:293) suggest that the downfall of Uxmal and other Puuc sites was the result of conquest by Chichen Itza, breaking what might have been a prior and very short-lived alliance between the two sites. During the Terminal Classic to Early Postclassic Periods, Chichen Itza held tremendous religious significance as a key pilgrimage site throughout the Northern Lowlands (Ringle 2004:167; Ringle et al. 1998:183). According to Ringle et al. (1998; Ringle 2004), the site might have been a major node in a cult axis, a generalised Mesoamerican phenomenon with 'emergent institution(s) cross-cutting traditional political and ethnic boundaries . . . (which) expressed religious hegemony' (Ringle 2004:169, 213). Participation in this cult encouraged elite goods, a network of trade and potential military allies (Ringle et al. 1998:213-218). Elites travelled to important shrine centres such as Chichen Itza in the east and Cholula in the west to take part in investiture rituals that legitimised their rule (Ringle 2004:213; Ringle et al. 1998:185). The cult probably did not involve extensive population movements and replacements, but is thought to have spread from several centres by means of mercenaries, pilgrims, trade and local political alliances, often the personal political strategies of individual rulers (Ringle et al. 1998:185). The spread of this cult might have been influential in the rise of Tula, the distribution of an 'International style' of art (Miller 1982; Robertson 1970; Smith and Heath-Smith 1980) that shared many symbols such as the feathered serpent – often referred to as the Mixteca-Puebla style (Brockington 1982; Nicholson 1960, 1966, 1982, 1996; Paddock 1982; Ramsey 1975, 1982; Robertson 1959:12-24, 1966, 1970; Smith and Heath-Smith 1980; Vaillant 1938, 1940, 1941, 1944:38; see section on Background to the Postclassic Period) – and the cult may have been the catalyst for strife that broke out between Yucatecan kingdoms in the Postclassic

Period (Ringle et al. 1998:185). The reason for Chichen Itza's decline towards the end of the Early Postclassic, or what is now said to be the end of the Terminal Classic (Andrews et al. 2003), remains unknown, but could well have been caused by a combination of factors such as overpopulation, environmental degradation, drought, leadership failure and warfare (A. Andrews 1990a; Sharer 2006:591-592).

Whatever the causes, the powerful position Chichen Itza had held in Yucatan was filled by a new capital at Mayapan in the Postclassic Period (Landa [in Tozzer] 1941; Milbrath and Peraza n.d.:6; Roys 1943, 1957, 1962; Sharer 2006:592). The 'founding' of Mayapan may have taken place earlier than the conventionally accepted date of A.D. 1263, possibly back in the eleventh century A.D. and thus overlapping with the fall of Chichen Itza (Milbrath and Peraza 2003:1, 3, 6, 21, 38; Paxton 1986:169-171; Robles and Andrews 1986:90). The demise of Mayapan in the fifteenth century in turn resulted in the division of the Northern Lowlands into a number of small independent polities (Demarest, Rice and Rice 2004:545-572; Landa [in Tozzer] 1941:26, 32; Rice, Demarest and Rice 2004:1-11; Roys 1933, 1957:3; Sharer 2006:603-604).

Changes in the Late Postclassic Period (A.D. 1200 to the 1540s) include trade activity increasing in importance (Masson 2000). Trade routes existed along coastal routes around the Yucatan peninsula, probably extending into Mexico, Central America, South America and the Caribbean (Chase and Chase 1985:5-6, 24; Sabloff and Rathje 1975a, 1975b). Roys (1943:52) also noted overland trade routes from southern Yucatan to the northern parts of Belize. Other change in the Late Postclassic Period is evident in urban designs, demise of the elite class's investment in large-scale and labour-intensive architectural projects and innovative forms of political control (Masson 2000; Sharer 2006:626-628). Vargas (1984:30, 36, 40-45) links an increase in fortifications in the Postclassic Period – Mayapan and Tulum, for example, were walled cities – to the rise of militarism, urbanism and large-scale trading networks. With long-distance trade around the Yucatan peninsula increasing in importance, several trading centres, such as Cozumel Island off the east coast, Tulum and Santa Rita, became key centres or ports for the exchange of merchandise such as cotton, honey and salt (Masson 2000:21-22, 26, 107-110; McKillop 2002; Miller 1982:2-3; Roys 1957). Like Lamanai, Santa Rita experienced continuous occupation from Preclassic through Historic times (D. Chase and A. Chase

1986; Chase and Chase 1987:49). During the Early Classic Period, Santa Rita was a large centre in the Chetumal province. At that time it shared trade and political ties with the Peten in Guatemala (D. Chase and A. Chase 1986:18). The site's influence reduced in the Late Classic Period but was rejuvenated in the Postclassic Period, when it possibly became the capital of Chetumal after the decline of Mayapan (D. Chase and A. Chase 1986:18). In the Highlands, regional centres that had appeared in the Early Postclassic Period, such as Utatlan and Iximche, rose in political power and were still flourishing in the sixteenth century (Sharer 2006:621-626). Mayapan, however, had declined by the middle of the fifteenth century (Roys 1933; Sharer 2006:603-604).

The Spanish Conquest began with the early voyages of Hernández de Córdoba, Grijalva, and Cortés from 1517 to 1519, and was mostly over by the 1540s (Díaz del Castillo 1963; Sharer 2006:758-778). Many areas, however, struggled against the Spaniards until the next century (Jones 1989, 1998a, 1998b) and some Yucatec Maya were never completely subjugated. The Caste War of Yucatan in the nineteenth century is an example of modern Maya resistance (Chase and Chase 1985:24; Jones 1989:4, 11; Reed 1964:212, 220). The Spaniards encountered small, decentralised polities which may have developed after the fall of Mayapan, one hundred years earlier, when certain important families founded a number of independent states (Demarest, Rice and Rice 2004:545-572; Rice, Demarest and Rice 2004:1-11; Roys 1933, 1957:3; Sharer 2006:603-604). The Spaniards took control of the coast with its large fishing industry and rich salt beds and established trade networks, which were disrupted by events in the Colonial Period (Scholes and Roys 1968). The Spanish Conquest destroyed much Maya culture and introduced diseases such as measles and smallpox, which significantly reduced the indigenous population (Borah and Cook 1963; Jones 1989:45; Sharer 2006:763).

Phases of Lamanai chronology

The chronology of Lamanai reflects continuous occupation from Preclassic to Historic times, ca. 600 B.C. to A.D. 1700 (Pendergast 1982a:57, 1985a, 1986; see Table 1.1 for a preliminary Lamanai chronology [based on Graham 2004:225]). More importantly, the site sustained occupation through the collapse and demonstrates a continuous building program (Graham 2004; Pendergast 1981a) and ceramic production (Howie 2006) during a time when

other major sites of the Classic Period found themselves in the process of decline or had already been abandoned (Culbert 1973a:3-20).

Evidence of Late Preclassic (300 B.C. or earlier) ceremonial and residential construction occurs north of Lamanai's central precinct (Pendergast 1981a:29, 34, 1986:227-231). The precinct runs in a strip along the western shore of the New River Lagoon (Fig. 3.2.3) and also reveals a great deal of Preclassic activity. This area includes three large structures: Strs. N10-43, N10-9 and N9-56, all with elaborate stair-side masks (see Appendix 1). Str. N10-43 is one of the largest securely dated Preclassic Period buildings in the Maya area (Pendergast 1981a:41, 1986:292; Sharer 2006:258, Fig. 6.22) and, combined with the structure's architectural complexity, points to a time of great vitality at the site.

The Late Preclassic Period saw a surge of construction in northern and north-central Belize (Freidel 1977, 1978, 1979; Sharer 2006:251-252, 258). A three-tiered settlement hierarchy might have existed in northern Belize at the time (Masson 2000:35; Scarborough 1985:339; Sharer 2006:279). Regional centres arose at strategic locations to act as nodes in the developing new long-distance trade routes that linked the Maya Lowlands. Regional centres, defined as such by their large population size and density and amount of monumental architecture (Scarborough 1985:331, 334, 340), most likely included Lamanai, Cerros, Nohmul and Colha (Chase and Chase 1985; Freidel 1979; Hester et al. 1983; Pendergast 1981a). Each regional centre held sway over second-tier (minor sites) and third-tier communities (hamlets), which sustained the populations of the first-tier orders and were consequently located near cultivable land, whereas first-tier polities were located close to trade routes. All first-tier polities were situated along major waterways, apart from Colha, which was located on a vital chert source (Hester et al. 1983; Scarborough 1985:336).

In the Early Classic Period of ca. A.D. 250 - 550 (Sharer 2006:301, 371-376), political decentralisation characterised the northern region of Belize and Late Preclassic centres were greatly reduced in population (Hammond 1977b; Scarborough 1985:338). The exact size of Lamanai's population in the Early Classic Period is not known, but Early Classic evidence abounds along the lagoon and in the Central Precinct (Fig. 3.2.3), as well as in the site's northern zone. The Early Classic Period was followed by significant population expansion in the Late Classic Period (Pendergast 1979, 1981a). The Central

Precinct at Lamanai saw considerable construction during this time.

Unfortunately, no tombs were discovered to date monumental construction more exactly, although a number of Late Classic Period caches from Str. N10-9 and from Str. N10-15 in the Ottawa Group, Plaza N10[3], document extensive activity during this period (Graham 2004).

In the Terminal Classic/Early Postclassic Period, ca. A.D. 800 - 1250 (Demarest, Rice and Rice 2004; Sabloff and Andrews 1986; Sharer 2006:585-587, 626-628; see Chapter 1, Table 1.1), Lamanai and Nohmul in the Northern District, and Barton Ramie in the Eastern Central Zone, show continued social complexity, although with reduced population sizes (Vail 1988:98; Willey et al. 1965). Chase and Chase (1985:1) argue that the Northern Lowlands did not see a reduction in population in the Postclassic Period. Construction continued at Lamanai, represented by additions to Structures N10-7, N10-4, N10-2 and Plaza N10[3]. Along with increased activity along the lagoon, this suggests that Lamanai's population was not reduced significantly (Graham 2004:228). Due to Yucatecan traits found at sites in the northern region (e.g., Nohmul [Chase and Chase 1982; Hammond 1974a]), Hammond (1974a, 1982) and Ball (1974) believe widespread migrations from Yucatan to northern Belize took place during this period (Rice and Rice 2004:126-28, 130; Sidrys 1983:13; Suhler et al. 2004:458). The migration may be linked to the Itza (Demarest, Rice and Rice 2004; Hammond 1974a; Schele and Grube 1995; Sharer 2006:527-529, 558-569; Suhler et al. 2004). Diane Chase (1982) believes that Yucatecan influence reflects trade contexts and/or Itza outposts rather than migration, as no Yucatecan influence is found at Santa Rita.

As noted above, ceremonial construction still occurred in Lamanai's Central Precinct during the Terminal Classic Period (Graham 2004:225). The same zone continued as the focus of Postclassic activity with structures revealing many burials and associated grave goods, including ceramics (Pendergast 1986; Appendix 1: see Strs. N10-2, N10-4, N10-7 and Platform N10-1 sections). The Classic Period Structure N10-9 saw continuous use throughout the Terminal Classic Period and into the Postclassic Period with minor changes to its form in later times (Pendergast 1986:230).

In the Late Postclassic Period (fifteenth and sixteenth centuries), occupation expanded into the southern portion of the site, evidenced by a Tulum-style platform, Str. N12-11 (Pendergast 1986:243). Late Postclassic

pottery has also been discovered along the lagoon in areas where the Belize government has built new tourist facilities (Graham 2004:225, 239). Lamanai and Santa Rita represent two of the largest northern Belizean sites during the Late Postclassic Period. Santa Rita regained importance after its Late Classic Period decline (Vail 1988:110). Fourteenth or early fifteenth century murals at Santa Rita suggest that the site functioned as a trade outpost visited by seafaring merchants, perhaps associated with the spread of an 'International style' of art (Miller 1982; Ringle et al. 1998:185; Robertson 1970; Smith and Heath-Smith 1980; see Manifestations of Postclassic styles in the Maya area section).

At the time of the Spaniards' arrival at Lamanai in about 1544 (Graham et al. 1989:1255; Jones 1989:5, 17; Pendergast 1986:243), the site lay within the Maya province of Dzuluinicob (Jones 1989:5, 9; Pendergast 1993:109). No historical records remain of Lamanai that might have permitted estimation of the community's size. However, Lamanai clearly underwent both change and persistence in technology and belief in line with the limited European influence in northern and central Belize (Graham et al. 1989; Jones 1989:4-5, 11; Pendergast 1993:105). A lack of personnel, difficult travel to the isolated site and the lack of resident clergy probably led to the community being served by a native sacristan, a post often occupied by an adolescent (Jones 1989:4-7, 12; Peñalosa 1969:70; Pendergast 1993:110, 123). This leads Pendergast (1993:110) to suggest that such a system must have subverted Spanish influence and authority within Maya communities.

According to Pendergast (1993:111), Lamanai underwent significant change by the 1500s in comparison to previous centuries, and the population had shrunk before 1500. Evidence unearthed in recent years along the lagoon's edge suggests that population size was larger than Pendergast's earlier estimates (Graham 2004:228, 239), but European diseases may well have begun to affect Maya populations prior to 1544, owing to the conquest of Mexico (Díaz del Castillo 1963; Jones 1989).

Two churches were built at Lamanai, both mixing indigenous Maya and European construction techniques (Pendergast 1993:120-121). The first was probably built shortly after 1544 (Pendergast 1986:243, 1993:120) over a late prehistoric Tulum-style ceremonial structure (Pendergast 1993:120-121). A clandestine Maya cache offering was placed within the consecrated ground,

indicative of conflict between Maya and Christian beliefs (Pendergast 1993:121). The second, much larger church was likely constructed at the beginning of the seventeenth century (Pendergast 1993:120). It had a large masonry sanctuary and thatched nave classed as an Open Ramada Church (Andrews 1991:367-368; Jones 1989:13; Pendergast 1993:124). The grand size of the later church reflects a change in Spanish intentions for the community (Pendergast 1993:124). However, the church was burnt between 1640 and 1641 by a conspiring Maya population, reportedly in league with the nearby site of Tipu (Jones 1989:46-47; López de Cogolludo 1971, Book 11; Pendergast 1986:243, 1993:124, 133). The Maya erected a Precolumbian stela with substela cache in what had been the church's nave (Pendergast 1993:133). A small altar was built close to the stela, probably the focus of ritual activity for some time (Pendergast 1993:133) as it was associated with a considerable amount of Chen Mul Modeled-style effigy censer fragments (Pendergast 1986:244; see Chapter 7). Some time after its desecration, the church was used as a Maya residence (Pendergast 1986:243-244).

The Spaniards arrived at Lamanai with European pottery and metals (Graham 2004:225). Colonial settlement concentrated in the southern portion of the site, in line with the gradual move south of the site's population over proceeding centuries and possibly in an attempt to focus Maya community around the two Spanish churches (Pendergast 1986:243, 1993:125). Most European artefacts were recovered from one structure, Str. N11-18 (Pendergast 1993:118, Fig. 2; Pendergast, Jones and Graham 1993:65). Colonial artefacts from Lamanai include sherds of Spanish glazed wares (Columbia Plain, Seville Blue on blue and white majolica and green-glazed bowls or dishes), Spanish olive jars (Pendergast et al. 1993:66, 70-71, Fig. 5), Venetian glass beads and some iron objects (Pendergast 1993:125-129; Pendergast et al. 1993:66, 67). A sugar-mill was built in the middle of the nineteenth century by the British (ca. 1860 - 1875), although it was only in production for a short while (Graham 2004:225; Pendergast 1982a:57-66, Figs. 2-7).

Lamanai's interaction sphere: trade and exchange

Lamanai's location on the shores of the New River lagoon played a vital role in the site's subsistence procurement and trade (Pendergast 1986:245). Trade and exchange always played an important role in the establishment of Lamanai's cultural sphere. The site was involved in long-distance trade, possibly via the coastal site of Marco Gonzalez (Graham and Pendergast 1989) and Santa Rita. Throughout the Early Classic Period, Lamanai (and Santa Rita), show architectural and ceramic affinities with northern Yucatan and were in contact with non-local goods from northern Yucatan, Highland Guatemala and either Teotihuacan, Tikal or Kaminaljuyu (Chase and Chase 1982; Pendergast 1986).

Northern Belize is located in an optimal position for trade via the coast (north-south facilitated by waterways Rio Hondo, New River and Freshwater Creek; east-west by Belize River; Masson 2003b:270; Figs. 2.1 and 3.2.1). The New River and Rio Hondo flow into the sheltered natural harbour of Chetumal Bay and also provide access to the heartland of northeast Peten. Consequently, Northern Belize occupies a gateway position to the Caribbean Sea and Maya heartland, facilitating interaction with other major Mesoamerican centres (Sidrys 1983:8). Lamanai, located on the shores of the New River, was also probably involved in subsistence trade with the many Belizean coastal sites (McKillop 2002:14; Vail 1988:149, 183, Figs. 2 and 27) that were not located near cultivable land but which enjoyed access to rich marine resources and salt and lime production (Vail 1988:77-86).

During the Classic and Postclassic Periods, some coastal sites acted either as trading stations or transshipment points in long-distance trade – such as San Juan on Ambergris Cay (Guderjan and Garber 1995), Moho Cay (McKillop 1984), the Colson Point sites of Watson's Island and Kakalche (Graham 1994:315-317), Placencia sites (MacKinnon 1989), Frenchman's Cay (McKillop 2005) and Wild Cane Cay (McKillop 1996, 2005). Others served as stopover points and way stations, possibly Ranguana, Gladden, Funk, Quamina, Cary and Wippari cays (A. Andrews 1990b:163-167; Hammond 1976b; McKillop 1996, 2002, 2004:257, 271, 2005; Vail 1988:77-86, 144). It is likely that Ambergris Cay, Hick's Cays, St. George's Cay, Cay Corker and Cay Chapel acted as way stations for trade to and from Lamanai. Most Belizean coastal sites were characterised by a distinct subsistence strategy, with some

sites used only on a seasonal or sporadic basis (Graham 1994; McKillop 2002:8-14, Figs. 1.3-5; Vail 1988:77-86). Some cays specialised in marine resources (Hick's Cays, Cay Chapel and Tobacco Range) and at Placencia Lagoon, salt (Eaton 1978:11-14; McKillop 1996:59; Roys 1957:103; Vail 1988:142) or lime procurement (Graham 1994). Moho Cay, for example, was used exclusively as a manatee killing station. The meat was most likely traded inland in exchange for agricultural and other products (Vail 1988:86).

Trade and exchange were important to Postclassic Period Maya communities (A. Andrews 1983, 1990b; MacKinnon 1989; McKillop 2004; Masson 2000, 2003b:269, 273, 276). Northern Belize was an affluent production zone in the Terminal Classic and Early Postclassic Periods (Smith and Berdan 2003b:26-27, Fig. 3.4 and Table 3.1), exporting cacao, honey and wax (Masson 2003b:270; Piña Chán 1978), cotton and textiles (Smith and Berdan 2003b:28), forest products (dyes, paints, vanilla and *achiote* seasonings, copal, canoes and paddles; Jones 1989; Masson 2000; Piña Chán 1978) and Colha chert (Michaels 1987; Hester 1982; Shafer 1991; Shafer and Hester 1983). Key ports, likely including Lamanai, Santa Rita and Sarteneja shipped large amounts of cacao, honey and wax, along with imported goods such as gold, copper, jade, obsidian and volcanic stone *metates* from the Southern Highlands northward to Yucatan (Masson 2000:26; Sharer 2006:84, 527, 604-605, 664). In turn, salt (A. Andrews 1983:31-34, 1990b:161-162, 1993; McKillop 1996:49, 58, 2002:1-14; Pendergast 1986:246; Ramírez and Azcárate 2002; Roys 1943) and textiles travelled from Yucatan to the Chetumal province (Dillon 1975; Jones 1982:275-293; Roys 1943:52; Sharer 2006:82-85).

Based on the shape and decoration of a Silho (Chichen) Fine Orange vessel at Lamanai in the Early Postclassic, Pendergast (1986:236) links the site to the Northern Lowlands. In fact, the vessel is a Silho ('X') Fine Orange incised vessel (A. Andrews, personal communication 2006; Rands et al. 1982:331-332; see Chapter 6). Fine Orange paste ceramics were widely traded along the coasts of Campeche and northwest Yucatan (found, for example, at Chichen Itza, Mayapan, Dzibilchaltun; Ball 1978:103; Rands et al. 1982:332) and thus represent a widespread marker for the Early Postclassic Period (Bullard 1970a:297). Focus in coastal trade is also suggested as having resulted in the development of an east coast variant of Late Postclassic slipped and unslipped wares called Payil Red (Smith 1971) or Tulum Red (Sanders 1960), Navula (or

Tulum) Unslipped and New River Red at Lamanai from the twelfth through fifteenth centuries (Connor 1983; Graham 1987a; Masson 2003b:270-271; Masson and Mock 2004; Peraza 1993; Robles 1986; Sanders 1960).

Mercury found in Lamanai's ball court is probably from Honduran sources (Pendergast 1982c:543) and is indicative of trade links between Lamanai and Copan or other western Honduran sites around A.D. 900 - 950 (Pendergast 1986:229). The flow of goods into Lamanai is also shown by the presence of metal artefacts (sheet gold and copper) in burials in the twelfth century and later, most likely from Oaxaca (Pendergast 1986:240). However, obsidian imports were reduced in volume by or before the end of the twelfth century (Pendergast 1986:241).

With coastal trade increasing in importance during the Terminal Classic (ca. A.D. 800 - 1000) and Early Postclassic (ca. A.D. 1000 - 1250) Periods (Table 1.1; Demarest, Rice and Rice 2004), Santa Rita, Sarteneja and Cozumel are suggested to have become ports trading extensively with Central Mexico and Central Mexican groups. The increased importance of maritime trade in the Postclassic has been suggested as having coincided with the appearance of a merchant class (Sabloff and Rathje 1975b). Some scholars have posited that Mexican groups took over north Belizean trade routes during the eighth and ninth centuries (A. Chase and D. Chase 1986; Guderjan and Garber 1995:184-185; Sabloff 1977; Sidrys 1983; Vail 1988:145). These Mexican groups are said to have formed a unifying Mesoamerican cult axis made up of centres dedicated to *Quetzalcoatl-Kukulcan*, which focused on rituals of investiture that involved pilgrimage – especially the military aspect of investiture and pilgrimage – with the cult axis centred at Chichen Itza, also Cholula, El Tajin, Xochicalco, Mayapan and Tula (Masson 2000:261; Milbrath and Peraza 2003:33; Pollock 1962:8; Ringle et al. 1998:183; Ringle 2004:167-169).

In the Late Postclassic Period, trade with northern Yucatan continued into the twelfth century (Pendergast 1981a:44, 48-49, 1993:111-112). These trade links might have been severed by the mid-fifteenth century, when trade with Tulum took precedence (Pendergast 1993:112). Trade with the immediate region continued after 1544, despite the arrival of the Spaniards (Pendergast 1993:115-116), although who disrupted obsidian exchange (Graham et al. 1989:1258; Pendergast 1993:116). Further evidence of the site's success in later periods is evident by the appearance of a new ceramic phase (Yglesias;

Graham 1987a:91-95), at the start of the sixteenth century. Developments in metal working (predominantly cast celts and bells) suggest the existence of far-reaching trade links (Pendergast 1993:111-112).

The background to the Postclassic Period

The following section is intended to provide the reader with an overview of cultural factors present in Postclassic Mesoamerica that are relevant for the reading of Lamanai ceramic iconography. The information establishes a frame of reference for the interpretation of Lamanai Postclassic ceramic art and thus focuses on the existence of different art forms (styles and symbol sets).

Similarities in art forms that occur throughout much of Mesoamerica during the Postclassic Period have been related to a widespread artistic phenomenon given various descriptions (Boone and Smith 2003:186; Smith 2003:181-82): 'Mixteca-Puebla' (Vaillant 1938, 1940, 1941, 1944:38); the Mixtec style (Brockington 1982; Ramsey 1975, 1982; Robertson 1959:12-24); the Mixteca-Puebla tradition or Mixteca-Puebla horizon style (Nicholson 1960, 1966, 1982, 1996; Paddock 1982); the 'International Style of the Late Postclassic' (Robertson 1966, 1970); the codex style (see Quiñones Keber 1994); the Postclassic religious style and the Mixtec codex style (Smith and Heath-Smith 1980), characterised from earlier Classic Period styles.

Postclassic international style

The term 'Postclassic International Style' was coined to express a broad grouping for regional painting styles that show similar characteristics (e.g., use of form, line, colour, space and human figural conventions; Robertson 1970; Smith 2003:182). What is called the Postclassic style in relation to the Maya area in fact relates to the Late Postclassic Period.

The characteristics of the 'Postclassic International Style' were first defined by Nicholson (1960, 1982) and Robertson (1959:16-24, 1970:80). The Postclassic international style differs from earlier Classic Period styles (e.g., Teotihuacan, Monte Alban or those in the Maya area) and also differs from the Terminal Classic and Postclassic Maya styles found at Chichen Itza and in the Maya codices (Boone and Smith 2003:187). The Postclassic international style stands in contrast to the organic calligraphic or contour line used by the Classic

and Postclassic Maya (e.g., Bonampak murals, Codex Dresden [Boone and Smith 2003:187]). Instead, Boone and Smith (2003:187) note how the stiff lines of the Mixteca-Puebla style and its stocky proportions are similar to those exhibited by figures represented in Teotihuacan frescoes. However, the figures of the Postclassic international style are ‘more naturalistic, less iconic and, therefore, more easily read than those of Teotihuacan’ (Boone and Smith 2003:187).

The Postclassic international style is defined by its ‘rendering of form, quality of line and colour, figural proportions and positions and employment of images in shallow spaces’ (Boone and Smith 2003:187, Fig. 24.1; Miller 1982:55; Nicholson 1960, 1982; Robertson 1959:16-24, 1970:80). The style’s forms have a geometric appearance through their flat and precise shape (Boone and Smith 2003:187) and because figures are not ‘visually unified...[but] can be divided into separable, component parts.....[with the figure’s] totality created from the addition of the various appendages and the head to the torso’ (Robertson 1959:17, 1970:80). Forms are further flattened and given a sharp edge by bordering with even, black outlines, employed for the purpose of enclosing areas of colour rather than giving ‘variation of width or intensity’ (Robertson 1959:16). Certain symbols stand out due to their frequent use and perceived importance (Nicholson and Quiñones Keber 1994b:vii). Colours are usually intensely bright and show no shading to indicate volume (Boone and Smith 2003:187; Nicholson and Quiñones Keber 1994b:vii). Proportions are squat with the most important elements (e.g., heads) enlarged and figures posed so as to display their most important features in the best possible way (Boone and Smith 2003:188; Robertson 1970:80). The representational plane is usually divided into one or more horizontal bands or registers that contain figures which seem to float in space. The figures fill most of the registers’ two-dimensional spaces, and backgrounds are rarely included, giving the space a flat appearance (Boone and Smith 2003:188; Robertson 1970:80).

Postclassic symbol sets

Mesoamerica’s Postclassic Period stretches over 800 years (Table 1.1) but has been viewed as one entity in regard to art styles (Boone and Smith 2003).

However, the long duration of Postclassic Mesoamerican art history suggests a more complicated situation. This is because art is not stagnant but evolves over

space and time, with change often occurring quite rapidly, specifically in times of strife. Nevertheless, distinction has been made in Maya art studies between Early and Late Postclassic symbol sets. Recently, Boone and Smith (2003:186-193) reviewed the various international styles and symbols that are characteristic of Postclassic Mesoamerica. Boone and Smith (2003:186-187) make a clear distinction between style (for a definition of style as used by these authors see Gombrich [1968:352] and Schapiro [1959:289-290, 304]) and iconography (the representational forms, icons, symbols or messages disseminated by the art work in their treatment of the material). The distinction between Maya style and iconography was first realised by Robertson (1970). Boone and Smith (2003:192) conclude their review with the statement that the two aspects that define the widespread Mesoamerican artistic phenomena during the Postclassic Period are a Mexican – because concentrated in Central Mexico, Tlaxcala, Puebla, and Oaxaca – painting style and symbol set, split into an Early and a Late Postclassic international symbol set.

However, Postclassic style is broken down into many zones, shown to cross political boundaries (Smith and Berdan 2003b:25). ‘Exchange circuits’ identified by Smith and Berdan (2003b:29-31, Fig. 3.5) for the Postclassic Period include: West Mexico, the Aztec empire, the Maya zone (from Yucatan south to the highlands of Guatemala and Chiapas) and the southern Pacific coastal zone. For the Maya zone, Smith and Berdan (2003b:30) write: ‘During the Postclassic Period, exchange and stylistic interaction, particularly along coastal routes, linked this whole area into a single circuit or subsystem of intensive interaction...primarily linked through economic and symbolic exchanges’ (Masson 2000; Scholes and Roys 1968). While these exchange circuits are very varied – West Mexico and the Aztec empire consisted of the territories of empires, whereas the Maya zone and Southern Pacific coastal plain were made up of many cities and towns of various sizes – each circuit developed a unique strategy that permitted its participation in large-scale regional integration (Smith and Berdan 2003b:31).

Early Postclassic international symbol set

The ‘Early Postclassic International Symbol Set’ (Boone and Smith 2003:189, Fig. 24.5) is dated to the Terminal Classic and Early Postclassic Periods. Common symbols (e.g., step-frets, stylised reptiles) are represented on local

ceramics, usually depicted in bands running around the exterior of vessels. Ideas expressed by the Early Postclassic international symbol set are suggested to have spread along coastal routes throughout Mesoamerica at the time (Smith and Berdan 2003a:4). The iconography has been read as reflecting a new religion that focused on the feathered serpent deity *Quetzalcoatl-Kukulcan* (Ringle et al. 1998; see above). The Early Postclassic international symbol set first appeared in West Mexico and Costa Rica (especially the Nicoya region; Lange 1988; Lothrop 1926; Smith and Berdan 2003b:23), to then spread and become popular in other areas (e.g., Mixteca-Puebla region, Basin of Mexico, Gulf Coast) only after the twelfth century (Boone and Smith 2003:189; Smith and Heath-Smith 1980:18-31).

Mesoamerican sites are also believed to have produced the two ceramic trade wares typical of Early Postclassic Mesoamerica: Fine Orange from the Gulf Coast (Smith 1958:153-156, 1971:I:21, 184) and Plumbate from coastal Guatemala (Fahmel Beyer 1988; Rands et al. 1982; Smith 1958, 1971:I:26-27; Smith and Berdan 2003b:24). The ceramics were widely traded in Mesoamerica during the Terminal Classic and Early Postclassic Periods, suggestive of common participation – through distribution and associations among these symbols – in far-reaching trade networks at the time (A. Andrews 1983, 1990b; Boone and Smith 2003:189; MacKinnon 1989; McKillop 2004; Masson 2000, 2003b:269, 273, 276). This network of trade focused on lowland coastal and riverine routes, whereas the highland regions (e.g., Central Mexico) only contributed on a small scale (Boone and Smith 2003:189). Smith and Heath-Smith (1980) believe that the decentralised trade and communication coastal networks are what diffused the Early Postclassic international symbol set (termed ‘Postclassic religious style’ by these authors; Boone and Smith 2003:189). These authors’ interpretation negates theories that claim that the Early Postclassic international symbol set spread outward from Central Mexico (Boone and Smith 2003:189; Meighan 1974; Nicholson 1960; Smith and Heath-Smith 1980).

Due to insufficient data, Smith and Berdan (2003b:31) refrain from giving a formal identification of exchange circuits for the Early and Middle Postclassic Periods. Nevertheless, Smith and Berdan (2003b:31) believe that a main exchange circuit linked Central Mexico, the Gulf Coast and northern Yucatan, and a smaller system existed perhaps on the southern Pacific coast, focused on

the city of Cotzumalhuapa (Parson 1967-1969; Thompson 1948). In the Middle Postclassic Period (ca. A.D. 1150 - 1350), Smith and Berdan (2003a:4-6, Table 1.1, 2003b:31) suggest the larger exchange circuit contracted on just Central Mexico.

Late Postclassic international symbol set

The 'Late Postclassic International Symbol Style' (Boone and Smith 2003:186-187) is a widespread artistic phenomenon in Mesoamerica that occurs after A.D. 1200 (and after the collapse of Tula and Chichen Itza) and is usually related to a particular set of images and symbols, the 'Late Postclassic International Symbol Set' (Boone and Smith 2003:189-193). See above for a description of traits that characterise the Late Postclassic international style. For a list and description of many of the symbols in the Late Postclassic international symbol set, see Boone (2000:31-61), Marcus (1992), Nicholson (1960:614, 1982:229), Ramsey (1982) and Smith (1973:20-35).

At the time, Mesoamerican sites greatly increased contact with peoples of north Mexico, the American Southwest and lower Central America, which brought with it economic and stylistic expansion (Smith and Berdan 2003b:22-23). The sites of lower Central America interacted with Mesoamerican polities throughout the Postclassic Period (e.g., Nicoya; Lothrop 1926; Smith and Berdan 2003b:24; Stevenson Day 1994). Consequently, the onset of the Late Postclassic international symbol set coincides with a time of major social, political and economic change in most of Mesoamerica, with growth in local population and the appearance of regional systems of city-states, increase in long-distance exchange, diversity of trade items, commercialisation of the economy, new forms of writing and iconography and new patterns of stylistic interaction (Smith and Berdan 2003a:4-8). Boone and Smith (2003:189-190) state that the style and symbol set of the Late Postclassic Period are intimately merged, with both evolving out of central or southern Mexico and thus reflecting Mexican customs and cosmology. In the Late Postclassic Period the spread of graphic styles and an iconographic standardisation were intensified in comparison to earlier periods (Smith and Berdan 2003a:3). The spread of these symbols and style were closely linked to commercial networks in 'complex and mutually reinforcing ways' (Smith and Berdan 2003a:8). Regions (e.g., Mixteca-Puebla, Central Mexico, Tlaxcala) picked key symbols from the Late Postclassic

international symbol set and other sources to create local variants of the Late Postclassic international style and Postclassic international symbol set (Boone and Smith 2003:190, 192, Fig. 24.10).

The Late Postclassic symbol set has been linked to the codices (Brockington 1973:84; Hernández Sánchez 2005; Robertson 1966; Smith and Heath-Smith 1980:29-31), which are largely calendrical, astronomical and divinatory in content (Boone 2003:217). However, the symbol set also express more secular imagery (e.g., men and women, old age, stones, hill-signs, fire, earth; see Boone [2000:31-61] and Boone and Smith [2003:189-193, Figs. 24.6-24.8] for a list and description of many symbols in this symbol set.) The Late Postclassic international symbol set also occurs on polychrome ceramics, where motifs are placed on flat backgrounds or in registers as separate images (Boone and Smith 2003:191). Motifs include, for example, rays, reeds, bird and serpent heads, flints, night eyes or stars, disembodied hearts and hands, skulls and bones. See Boone and Smith (2003:191, Fig. 24.9) for a list of these motifs as they occur on polychrome ceramics and Masson (2003a:194-200) for a list of motifs as they occur in the Tulum, Santa Rita and Mayapan murals.

Late Postclassic regional styles

Even though it is argued that the Postclassic international style spread from the northern Gulf Coast to Guatemala and from Guerrero to Quintana Roo, several regional sub-styles – the Aztec, Mixteca-Puebla, coastal Maya mural and southwest Maya style (Fig. 2.2) – are distinguished (Boone and Smith 2003:188; Smith 2003:182-183). Smith and Berdan (2003a:8) argue that ‘these art styles shared many formal traits that link them together under the banner of what has been called the Postclassic international style (Robertson 1970). These art styles can be distinguished from a set of standardised religious motifs – an iconography – we call the Late Postclassic international symbol set. The symbols have their origin in an Early Postclassic symbol set that spread over much of Mesoamerica in the Epiclassic (seventh through tenth centuries A.D.) and Early Postclassic periods’.

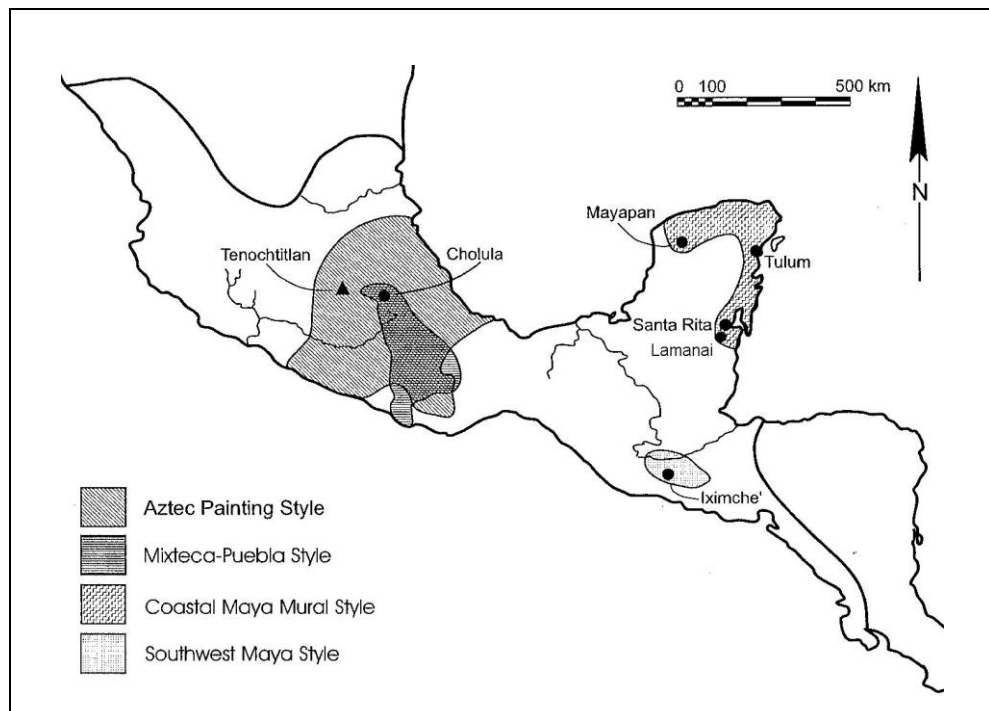


Fig. 2.2. Map of regional styles subsumed under the Late Postclassic International Style. Adapted from Smith 2003:183, Fig. 23.1.

The Maya zone is considered in more detail below. The Mixteca-Puebla style is represented in the Mixtec and Borgia group codices (especially the Zouche-Nuttall and Borgia) and on ceramics and murals from northwestern Oaxaca, Puebla and Tlaxcala (Nicholson and Quiñones Kerber 1994a; Robertson 1959:17-24; see Hernández Sánchez [2005] and Lind [1994:94-95] for a catalogue of symbols as they occur on Mixteca-Puebla style ceramics and codices). This sub-group of the Postclassic international style, in turn, is subdivided into Mixtec, Cholula, Borgia Group, Codex Borgia and Codices Laud and Fejérváry-Mayer (Boone 1990, 2000; Boone and Smith 2003:188; Lind 1967, 1994; Nicholson 1960, 1982; Nowotny 1961:13-16, 1976; Ramsey 1975, 1982; Robertson 1959:17-24, 1963, 1966; Sisson and Lilly 1994a, 1994b; Smith and Heath-Smith 1980). The Aztec painting style is well-defined, predominantly represented in pictorial codices and some murals, and characterised by an increased naturalism in the depiction of form with longer and leaner proportions and a typical way of representing certain symbols (Boone 1982, 1996, 2000; Robertson 1959, 1963; Smith 2003:182; see Pasztory [1983:79-94] for a definition of Aztec art and Boone and Smith [2003:187, Fig. 24.2]). Finally, a southwest Maya style is described for the mural paintings at Iximche, Utatlan, and other south-western Maya sites (Boone and Smith 2003:188, Fig. 24.3;

Carmack and Larmer 1971; Guillemín 1965; Smith 2003:182). Further regional styles might come to light, for example, to include polychrome ceramics from Nayarit (Boone and Smith 2003:188, Fig. 24.4; von Winning 1977) and Postclassic murals and carved shells from the Huastec area (Beyer 1934; du Solier 1946; Smith 2003:183).

Manifestations of Postclassic styles in the Maya area

The definition of Postclassic art styles and their iconographic content in the Maya region is one of the research outcomes of this thesis. For this purpose Lamanai ceramic iconography is interpreted in its cultural (Maya) framework wherever possible, including the use of the following comparative data:

Postclassic Period Maya codices, murals, sculptures, architectural decoration and ceramic art (see relevant Chapters 5 to 8). The Maya codices and murals are discussed in more detail below.

Codices

There are four surviving Maya Codices – screenfold documents painted on lime-coated bark paper – all dated to the Postclassic Period and thought to have originated in the Maya Lowlands. The codices include the Dresden (Thompson 1972), Grolier¹ (Lee 1985:167-172), Madrid (Lee 1985:85-140) and Paris (Love 1994). Even though the specific provenance of the codices within the Maya Lowlands is not known, therefore rendering them unhelpful in terms of establishing inter-site relationships, the codices nevertheless represent a valuable source of comparative Postclassic Maya art. The content of the codices is largely calendrical, astronomical and divinatory: images paired with texts in the form of glyph blocks (Boone 2003:217).

Murals

Much work has been dedicated to the interpretation of the style and iconographic content of Postclassic Maya murals, notably at Santa Rita, Mayapan and Tancah-Tulum. Fragments of what have been described as a Tulum-style mural were recovered at Lamanai, from a temple razed in order to

¹ Even though the Grolier Codex has been suggested to be a fake (Thompson 1975), its authenticity is no longer in question (Carlson 1983; Coe 1973:150, 1992; Mora-Echeverría 1984; Taube 1992a:3-4).

build the first Christian church, Str. N12-11 (Pendergast 1985a:101, personal communication 2007; see Chapter 7; Fig. 7.3.2).

Theories of Mexicanisation or Mexican influence

Maya murals display symbols that have been described as part of the Late Postclassic international symbol set (Boone and Smith 2003; Gann 1900; Peraza 1998; Quirarte 1975, 1982; Robertson 1970; Smith and Heath-Smith 1980; see above). This has led some scholars to infer direct foreign presence at Maya sites during this time (Gann 1900; Lothrop 1924; A. Miller 1974b:47, 1982:64, 74-75, 1986:202-211, 219; Proskouriakoff 1950:157; Robertson 1970:85-88; Sidrys 1983:135; Spinden 1913; Thompson 1970:46). 'Mexican' stylistic-ethnic indicators have been suggested occurring at Postclassic Maya sites in the Lowlands (Chase 1983:1277; Chase and Chase 1982; Lincoln 1986; D. Rice 1986:317-321; Robles and Andrews 1986; Thompson 1970; Tourtellot et al. 1992; see Masson [2000:19] for a list of ethnic traits identified). Hostile migrations (Chase and Chase 1982; Fox 1987; Hester 1982) or peaceful integration (Chase and Chase 1988:83-85; Pendergast 1981a, 1986; Rice 1988) are the reason given at different sites for the spread of these traits (Masson 2000:19-20).

Even though 'Mexican' traits are clearly visible in the murals (Miller 1982:74; Robertson 1970:88), other elements (e.g., hieroglyphs, deities, ritual paraphernalia such as ceramics) are Maya (Masson 2000, 2003a; Miller 1993:410-411; Taube 1992a) and similar in convention as recorded in the Postclassic Maya Dresden and Madrid Codices (Masson 2000:41; Rice 1974:111). This has led some authors to interpret the symbolism of the Maya murals as reflective of local Yucatan and east coast Maya elites selecting the international symbols and style for a use and meaning tied to local politics and religion, simultaneously emphasising the cosmopolitan nature of these local leaders (Masson 2003a:194-195; Sharer 2006:628). The foreign elements are thus suggested to form part of an 'international style' that spread across Late Postclassic Mesoamerica (Ringle et al. 1998; Smith and Heath-Smith 1980) and was most likely the result of centuries of exchange of goods and information (Masson 2003a:198; Sabloff and Rathje 1975b; Sharer 2006:628).

Consequently, it is through the Maya coastal murals that theories pertaining to Mexicanisation or the spread of an international style are based.

The murals are suggested to reflect how international symbols and styles were incorporated into local artistic programmes in the Late Postclassic Period (Masson 2003a:194, 198). The murals represent a valuable comparative source for Postclassic Lamanai ceramic art as they form a contemporary body of material from within Lamanai's cultural sphere, important for the correct reading of its symbols (see Chapter 3).

Coastal Maya mural style

The coastal Maya mural style is described as a regional sub-style of the Late Postclassic international style (Boone and Smith 2003:188; see above). The coastal Maya mural style is characterised by figures with longer and leaner proportions (Miller 1972, 1973, 1982; Quirarte 1975, 1982; Robertson 1970; Smith 2003:182). The style and some motifs of the murals have been linked to the Postclassic Maya codices (see above; Kubler 1984:320; Masson 2003a:198; Paxton 1999:322 [Tulum murals]; Milbrath and Peraza 2003:3, 18, 30-31, 38, n.d.:33 [Santa Rita and Mayapan murals]). See Miller (1982:Plates 25-29, 33-40) for drawings of Tulum murals; Gann (1900:Plates xxix, xxx, xxxi) for drawings of Santa Rita murals; and Barrera and Peraza (2001:443, Plates 5-11 and Figs. 23-24), Milbrath and Peraza (2003:30, Fig. 26), Pugh (2001:255, Fig. 6) and Winters (1955b:Fig. 4) for drawings of Mayapan murals. See Masson (2003a:194-198) for examples of symbols belonging to the Late Postclassic symbol set that occur in these murals. The Santa Rita (Chase and Chase 1988:83-84; Masson 2003a:194-195, 198; Sidrys 1983:133-139), Mayapan (Boone and Smith 2003; Masson 2003a:194-195) and Tancah-Tulum (Boone and Smith 2003; Masson 2003a; Smith 2003) murals have been described as a local variant of the artistic phenomenon widespread in Mesoamerica in the Late Postclassic Period that amalgamated international symbols shared with the Late Postclassic international symbol set and style with local artistic programmes (Masson 2003a:194-195, 198; Robertson 1970). However, the content of the frescoes reflects Maya culture (Robertson 1970), with the actors portrayed representing Mayas depicted alongside objects local to the east coast of Yucatan (Chase and Chase 1988). The murals depict predominantly Maya and some Mexican deities (Masson 2003a:199; Milbrath 1999; Miller 1972:331, 1974a:177-179, 1977:107, 1982:Plate 41; Taube 1992a [Maya deities]; Taube 1992a:125-130, Fig. 67d [Mexican deities]).

Tulum

The Tulum murals (Miller 1982:42, Fig. 74 and Plates 13-24 [Str. 1]; p. 45, Fig. 80 and Plates 25-29 [Str. 5]; p. 41, Fig. 72 and Plates 30-40 [Str. 16]) are dated to the thirteenth to fifteenth centuries (Ball 1982:110-11) or sometime during the fifteenth century (Gann 1900; A. Miller 1982:56-60, 1985; Quirarte 1982; Robertson 1970; Sidrys 1983:126, 147). The murals have been discussed by Love (1994), Masson (2000, 2003a), Milbrath (1999), Miller (1972, 1974a, 1974b, 1977, 1982), Paxton (1999) and Robles and Andrews (1986). Mural scenes portray figures, deities or supernaturals engaged in rituals that are framed by intertwined reptiles (see Chapter 6). Stylistically the Tulum murals (e.g., Structure 5, interior east wall, Mural 1; Miller 1982:Plate 29) are most akin to the mural fragments found at Lamanai (Fig. 7.3.2) in their use of bold black lines to outline motifs, in turn filled with even, flat blue tones or black and placement on a blue background. The murals' stylistic similarities suggest cultural ties between Tulum and Lamanai in the Late Postclassic Period.

Tancah

Murals also occur at Tancah (Miller 1982:Plates 6 and 7 [Str. 12], Plates 8-12 [Str. 44]), contemporarily and politically interwoven with its neighbouring site Tulum (A. Miller 1977:100, 112, 133, 1982, 1985:32; see above). 'Upended' figures are frequent (Miller 1977:123; Taube 1992a:41) and Tancah Structure 12 reveals a mural that depicts *Chac* rituals (Masson 2003a:200) revolving around the Maize God (Miller 1982:50), perhaps an agricultural ceremony (Coe in Miller 1977:139; Miller 1982:57-58; Fig. 6.55). These murals have been dated to the Terminal Classic/Early Postclassic Period and their style is described as 'hesitant and awkward with little understanding of how the parts of human anatomy function' (Miller 1982:50, 58). Figures are outlined with thick black lines and placed on a plain background (Miller 1982:50, 58).

Santa Rita

No consensus has been reached on the exact date of the Santa Rita murals: Gann (1900) believes they belong to the late fourteenth or early fifteenth century; Andrews (1943) assigns them to A.D. 1450-1525; Quirarte (1975) places them in the fourteenth century, and Long (1919) between A.D. 1354 and 1360. The murals have been frequently discussed (Beyer 1921:520-524; Chase

and Chase 1988; Gann 1900: 665-692, Plates XXXI, XXIX; Long 1919; Masson 2000, 2003a; Milbrath 1999; Quirarte 1975; Robertson 1970:84-88; Sidrys 1983; Taube 1992a).

Mayapan

Mural segments also occur at Mayapan (Structures Q80, Q95, Q152, Q161; Peraza 1998; Peraza et al. 2001; Proskouriakoff 1962a:Fig. 3d). Mayapan reflects long-distance contact with Oaxaca and Central Mexico, the east (Yucatan's east coast and coastal Belize) and south (Peten, Guatemala). The Cocom have been credited with bringing an influx of new ideas to the area (Milbrath and Peraza 2003:26). 'Mixteca-Puebla' art at Mayapan has been described by Milbrath and Peraza (n.d.:33) 'to reflect the impact of foreign trade and the desire of its rulers to show their cosmopolitan contacts by displaying the latest art style...the international style of murals are clearly late additions to an eclectic style of architecture developed by a populace drawn from different areas of Yucatan'. This mixture of Maya architecture with Aztec inspired motifs is also described in Milbrath and Peraza (2003:25-26), Pollock (1962:14) and Proskouriakoff (1962a:137, Figs. 10e-f, 11b). The murals on the side of Structure Q162 (The Castillo) have been linked to the Postclassic Period tombs at Zaachila, Oaxaca (Masson 2003a:195; Milbrath and Peraza 2003:18-19, Figs. 14 and 15; Peraza et al. 1999:82, Plate 240, 2001:288). The last phase (perhaps after A.D. 1400) of the Temple of Five Niches (Q80) shows temples that share specific features with those represented in the Mixtec codices (Milbrath and Peraza 2003:3, 26-27, Figs. 23 and 25; Pugh 2001:255, Fig. 6). Central Mexican contact is confirmed by evidence of Aztecs importing pigments from the Mayapan area in later times (Milbrath and Peraza 2003:3). Milbrath and Peraza (2003:19-20, 28) assign a late date to these murals (ca. A.D. 1400) due to their Mixteca-Puebla style. Interpretations on the iconographic content of the Mayapan murals are given by several authors (Barrera and Peraza 2001:430; Masson 2003a:200; Milbrath and Peraza 2003:26-27; Pugh 2001).

Four large serpents with open mouths form the columns or balustrades of temples painted on the back wall of the inner temple of Structure Q80 (Barrera and Peraza 2001:443, Plates 5-11; Pugh 2001:255, Fig. 6; Winters 1955b:Fig. 4). Newly discovered murals (The Temple of the Fisherman; Peraza et al. 2001:286-287) depict an aquatic scene with serpent, fish, and a speared and

bound crocodile (Milbrath and Peraza 2003:30, Fig. 26), linked by Milbrath and Peraza (2003:27-28) to the east coast variant of the Mixteca-Puebla style as seen at Tulum, in the Paris Codex *Katun* pages (Milbrath and Peraza 2003:39, Fig. 31) and Madrid Codex pages 12 to 18 (Milbrath and Peraza 2003:31, Fig. 28). Milbrath and Peraza (2003:28) date this mural to around A.D. 1400.

Another set of Mayapan murals (Q161; 'Palace of the Solar Symbols') have been read as reflecting a solar cult (Barrera and Peraza 2001:Figs. 23-24; Milbrath and Peraza 2003:28), linked by Milbrath and Peraza (2003:28) to the Aztecs (see Pasztory 1983:Plates 36, 85, 90), the Codex Borgia and the late Postclassic Period Mixteca-Puebla style murals at Mitla, Santa Rita and Tulum Structure 5 (Miller 1982:Figs. 109-110, Plate 28).

Milbrath and Peraza (2003:31) give a summary of stylistic change at Mayapan. They state that there is clear evidence of a strong 'Mexican' flavour near the final part of Mayapan's occupation, around A.D. 1440. This is also a time when the 'Aztec' remodelling of the H18a altar occurred. Earlier murals show external contact with the Mixteca-Puebla sphere (Structures Q80 and Q95), whereas even earlier (A.D. 1300) external relations were more localized with a concentration on serpent column temples inspired by Chichen Itza (Structures Q58, Q143, Q159, Q162, Q218). They state that this time might have seen a period of revitalisation that also involved the introduction of Chen Mul Modeled censers and a revival of the *Quetzalcoatl-Kukulcan* cult, linked to the Cocom (Masson 2000:261; Milbrath and Peraza 2003:33; Pollock 1962:8). Towards the end of the Cocom rule, sometime between A.D. 1441 and 1461, their leader is reported by Landa to have invited more Mexicans to live at Mayapan (Landa in [Tozzer] 1941:36-39, 230, n.180; Milbrath and Peraza n.d.:35-36; Roys 1967:140), which initiated a Xiu revolt, confirmed by archaeological evidence (Landa in [Tozzer] 1941:26, 32; Milbrath and Peraza 2003:29; Shook 1954a:96-97). The Xiu destroyed Cocom censers and the Mexican deities of the Structure Q163 colonnade; later they also plastered over the international style murals of Structures Q80 and Q161 (Milbrath and Peraza 2003:20, 29) and reset stelae – previously mutilated by the Cocom – in front of the Round Temple (Milbrath and Peraza n.d.:35). The Xiu stayed on until they were beaten by a severe drought and a subsequent epidemic in the 1450s (Milbrath and Peraza n.d.:37). Mayapan provides a good example of the importance art plays in the struggle for power, with two ethnic groups (Xiu and

Cocom), plastering over or obliterating the art of the earlier power to replace it with their own 'power symbols'. It demonstrates the great importance attributed to art, its symbolism and mode of expression (style) at the time.

This chapter has provided information on the environmental and historical contexts of the site of Lamanai. It has attempted to describe aspects of the dynamic centuries following the Classic Period of which Lamanai was a part. Particularly important for the analysis of Lamanai iconography are the stylistic trends in imagery and iconography that characterised Mesoamerica throughout the Postclassic Period. Subsequent chapters undertake to describe Lamanai ceramic style and iconographical content to show the ways in which Lamanai shared in these Mesoamerican trends.

Chapter 3: Methodology

This chapter, divided into two parts, presents the methods employed in my analysis of Lamanai iconography. In the first part, the theoretical framework is described which supports the claim that visual signs produce meaning; this entails examining the symbolic language and performance (style) of iconographical analysis. The meaning, function, and structural principles of iconography are investigated to see how it is possible to read images. Of particular interest is how ceramic iconography acts as an expression of material culture reflecting social relationships, and how material culture does not just passively reflect social relationships but actively transforms them by entering into a dynamic flow of information and material resource exchange. Description of the theoretical framework is broken down into two sections. The first section focuses on the methods of iconographical analysis and the second on the methods of contextual analysis.

In the second part of the chapter, the approach used to describe the Lamanai ceramic sample and its context is presented. The terms used are structured to implement, at the practical level, the strategies for iconographical and contextual analyses described in the first part. However, some terminology – in addition to the iconographically-related terms such as ‘motif’ or ‘style’ or ‘paradigmatic set’ – is drawn from standards used in the field of Maya archaeology, such as names given to vessel shapes or to modes of decoration or to archaeological deposits. These terms and their method of use are described.

Part 1 : Methodology

Arnheim (1974), Derrida (1972, 1973, 1987), Gell (1998), Gombrich (1977, 1982), Panofsky (1939), Peirce (1985), Saussure (1959) and Schapiro (1973a) influence my methodology of how to extract meaning from the expression of visual art and Lamanai iconography. The methods of iconography are described by Panofsky (1939), who set up a system of interpretation which could find a particular relation between mind and world held within any particular work. How images are produced and perceived (their psychological condition), which represents the first step in the reading of an image, is dealt with by cognitive theory (Arnheim 1974) and perceptual psychology (Gombrich 1977, 1982).

Especially interesting is structural semiotics (Derrida 1972, 1973, 1987; Saussure 1959), which reveals negative aspects in Panofsky's methods of reading art. The discipline of semiotics attempts to provide insight into how motifs and their arrangements, together with their materials and artistic procedures, are employed to create meaningful entities, which reveal the cultural conditions affective upon images. Saussure's theory is expanded by Tilley (1991) and Layton (1981, 1992) and turned into a tool for ascertaining the link that Panofsky proposed between mind and the outside world, between visual signs and their reference to the visible world and culture. Alternative ways of thinking about how art creates meaning are also considered. These include a broader and more philosophical approach to the analysis of how visual signs work – that is, how mind and world are linked – in the work of Peirce (1985), Schapiro (1973a) and, notably, Gell (1998), who describes 'art as agency', actively participating in culture as a social member.

Iconographical analysis

Iconography describes and classifies images and their signs in order to understand the direct or indirect meaning of their subject matter (Bialostocki 1963). Although this statement at first sight appears straightforward, application is problematic (Cassidy 1993:3). How should the content of images be interpreted? There are no precise rules on how images should be read, or at what level the limits of interpretation revealing information should be expected or set.

Morgan (1988a:10) attempts a more precise definition of iconography in her study of Aegean culture and iconography. She states: 'Iconography is a branch of study concerned with visual art which in some way represents; that is, imagery which refers beyond itself, as opposed to the internal reference of ornamental pattern. It has to do with meaning (semantics) rather than solely form (aesthetics)'. Consequently, art consists of deliberate communication through visual forms. Her approach to iconography follows Panofsky (1939) and relies on a division between what she calls the simple and the complex meaning in representational art: things and elements, which Panofsky calls form, and ideas and themes, which mirror Panofsky's subject matter or meaning (Morgan 1988a:15). When Panofsky began writing his essays on art in the 1920s,

formalism, which dealt with the aesthetic properties of form, deliberately separated the object from its historical situation and wider human environment (Holly 1984:24-6). However, 'a successful content exegesis not only benefits a "historical understanding" of a work of art but also — I will not go so far as to say intensifies — enriches and clarifies the viewer's "aesthetic experience" in a peculiar way' (Panofsky 1930:18). Iconography addresses the subject matter of meaning of works of art as opposed to merely their formal characteristics (Panofsky 1939:3). The latter, the formal point of view, 'is nothing but the change of certain details within a configuration forming part of a general pattern of colour...constituting a natural event in space and time' (Panofsky 1939:4). Panofsky provides the example of a man who lifts his hat from his head. Only the change of these details represents the formal expression of the event. To interpret the situation as an object, a gentleman, and the change in detail as an event, the removal of the hat from the gentleman's head in a gestural greeting, prompts an interpretation no longer in a purely formal manner, but as subject matter or meaning and a social custom (Panofsky 1939:4). Consequently, for the art historian and archaeologist, the deceptively simple act of identification of a subject as something represented must be set in the context of iconographical analysis (Davis 1989:59).

Meaning and function

Iconography denotes the study of images not just in the sense of their visual stimuli alone, but as culturally-constructed and conventionally-coded pictures. The minimum definition of art relies upon the notion that art consists of deliberate communication through visual forms (Layton 1981, 1992:1; Morgan 1985, 1988a; Panofsky 1939). Humanly-made and repeated patterns of motifs, which themselves are not demonstrably a by-product of a technical process, are assumed to have been developed to encode information of some kind (Layton 1992:3). Images come into being through the act of becoming pictures. Their development progresses in the first instance from reflecting or incorporating ideas about the visible world, for example, rivers, the sea, rocks and plants, to the gradual sequential realisation of conventionally-constructed images or motifs thereof (Arnheim 1974:173; Morgan 1985, 1988a). The comprehension of motifs, therefore, results not only from the visual stimuli of

vision and ideas, but also from the visual language by which they are expressed over time (Morgan 1988a:14-15).

Iconography as a visual language

Iconography is essential to the study of images since it assumes that information about a culture may be gained through the study of the structure of its visual or symbolic representations (Panofsky 1939). Iconography is a cultural notation that is expressed by a visual 'language', represented by a system of associations through which culture codifies its responses to the natural world (Gombrich 1977; Morgan 1985:7). Systematic observation of this code's associations is necessary to understand its function (Morgan 1985:7). Iconography as a method of research deals with the visual art 'which in some way represents' (Morgan 1985:7) and which refers beyond itself (Panofsky 1939). In this, it is unlike ornamental pattern, which is internally referential. Iconography involves itself with meaning (semantics), rather than merely form (aesthetics). Form (and line) are dealt with by modern psychology, visual perception and creativity, which Morgan terms 'the transference of vision and idea into form' (Arnheim 1974; Gombrich 1977; Morgan 1988a:13). This transference is problematic, as we become aware that a single image or group of images 'may contain its roots in a) the visible world, b) the traditions of art, c) ideas, whether in the form of tangible associations (seaweed = coast, lion = strength), historical allusion, popular beliefs, cosmology or religion. Invariably each motif simultaneously contains its origins in all three areas' (Morgan 1988a:13)².

How to read iconographical language

A method of extracting meaning from visual stimuli involves an initial systematic observation of the associations held within cultural visual codes in an attempt to understand how they function. Saussure's (1959) structuralist linguistic assumption of how linguistic signs operate is readily applicable to non-verbal practices in a general way (Hodder 1987a; Tilley 1991). However, Saussure's

² Morgan (1988a:14) gives an example of the process of transference from vision and idea into motif which is central to her iconographical approach: 'Initially the artists' visual ideas came from (a) the visible world (rivers, sea, rock, plants); (b) the tradition of idiom in portraying that world; (c) the association of ideas: river = riverine plant, river = water / water = coast / coast = rock and seaweed. As the motif developed, the visible world became unrecognizable and only (b) and (c) remained. That is, the motif becomes purely conventional.'

notion of signs being arbitrary is problematic and widely disputed (Derrida 1972, 1973, 1987; Gombrich 1977, 1982; Iverson 1979; Layton 1981, 1992; Morgan 1985, 1988a; Peirce 1985; Schapiro 1973a; Tilley 1991). Rather, visual order is thought imposed onto objects through the psychological translations of their appearance and ideas in conventionally-constructed visual codes developed sequentially over time (Arnheim 1974; Gombrich 1977, 1982). Consequently, the dialectic nature of information exchange within social processes gives meaning to visual signs (Layton 1981, 1992; Peirce 1985; Tilley 1991).

Nevertheless, it is possible to lay the structural principles of language (Saussure 1959) onto the basics of the nature of visual interpretation as defined by Panofsky (1939; Hodder 1987a; Layton 1981, 1992; Morgan 1988a; Tilley 1991) in a general way (Hodder 1987a; Tilley 1991). 'We can speak of a language of a pot design [which refers to] (i) rules of graphic design - what can and cannot occur, (ii) rules of combinations of designs and (iii) rules of contextual association' (Tilley 1991:19). Material signs (Tilley 1991:21) can be classified into various types, for example gestural, iconic and graphic, and in relation to their functional items, for example, pots, temple structures and other grave paraphernalia. Once a structured set of material signs has been determined through the signs' differences, their relationship probably remains conventional and stable over time. As a result, we can expect a structured repetition to uphold a relation of difference which can be studied in an iconographical analysis.

Consequently, of paramount importance is the definition of the basic structural principles that govern visual language. However, meaning is not intrinsic to an image and interpretations are therefore not exclusively conventional, as Saussure suggested for language (Iverson 1979:50, 85-86). If this were the case, then divergence in interpretation would not occur, since a one-to-one relationship would exist between idea and idiom, between signified and signifier, which would reinforce agreement between the two (Morgan 1988a:15). Instead, images convey meaning both through their reference to the object or concept they describe *and* reliance on a conventionally-structured code for this object's or concept's expression (Gombrich 1977). Interpretive divergence (Morgan 1988a:15) creates the need to study the *relationships* between the signifier and what is being signified, for example, the relationship between an image of a lion and its concept. This, in turn, will lead to the

analysis of comparative themes and their broader meaning, for example, the symbolic significance of lions or how they were perceived in the culture studied. Images thus represent networks of symbols, the reading of which relies on an understanding of their language (Morgan 1988a:15); and the creation of images depends on the transformation of what is pictured, the object (lion), through representational codes. The two actions are: '1) three-dimensional objects are reinterpreted into two, establishing an iconic relationship between the object and the image; 2) concepts are given a concrete form, usually through the disposition of iconic elements. Consequently, if meaning is not intrinsic to the image itself, neither does it lie in the ideas or object from which the image is drawn. Instead, meaning lies in the *relationship* between the two states' (Morgan 1985:7, emphasis added).

In order to be able to express our findings through language, necessary since this is our mode of communication, the semiological translation from the linguistic sign to a non-linguistic or non-verbal sign and vice versa has important implications. Like Peirce (1985) and Schapiro (1973a), Tilley is interested in the dialectical exchange between symbols, their 'discursive formations and their relation to strategies of dominance and resistance' (Tilley 1991:18). In the first instance, enquiries are made into how meaning comes about in a material culture text – that is, how meaning is mobilised in contexts of social interaction (Gell 1998) – before looking at what the 'text' actually expresses (Layton 1981, 1992; Tilley 1991:17).

To appreciate how sign systems work, therefore, the first step in interpreting images involves breaking down the structure of images into their smallest definable units (step 1). For the methodology of decoding images, this implies that a necessary subsequent step is to rebuild the images' structure by studying the way in which their units relate to each other (step 2) and to their environment (step 3) to reflect social, political and ideological values or tastes prevalent at the time (step 4).

Even though it is an artificial methodological process to get at the intrinsic meaning of visual representation, it is important to break the art work or image down into what we perceive as its constituent parts and to differentiate between style and iconographical content, as shown by Panofsky (1939). For a distinction between style and iconography used in Maya studies see Robertson (1970) and Boone and Smith (2003:186-193). Panofsky (1939) set up a system

of interpretation which could find a particular relation between mind and world held within any particular work. This relation constitutes both the 'source of a work's internal coordination' and integrates it with its surrounding culture (Podro 1982:202). Art works only reveal a fuller range of meaning through a successive peeling away of the layers of information of which they are constituted (Panofsky 1939:15). The outermost layer displays the basic factual and expressional meaning, the formal meaning and *style* of the motif (level I) that builds up a history of motifs, followed by the secondary or conventional subject matter, the *idea* behind the work (level II), which allows the work to be understood according to the historical world from which it originated. Only when the analyst reaches the core or *content* of an art work (level III) is he/she given insight into the *Weltanschauung* (Mannheim 1993) which shaped the work's appearance. *Weltanschauung*, or world view (Mannheim 1993), describes a comprehensive view of human life and the universe made up mostly of beliefs, principles, habits and assumptions. It contains psychological, societal, cultural, religious, political, spiritual and philosophical forces which jointly create the fundamental relation of the individual artist to the world, to his/her epoch, to people and to culture. World view shapes the existence of the art work (Summers in Lavin 1995:15). Art historians, for example, must familiarise themselves with the world view of an art work's period, expressed in cultural symptoms or symbols (e.g., religious attitudes, manners, style or fashion) that constitute the shared bases of social action, in order to compare and correct, if necessary, their own initial interpretations of the work's content (Panofsky 1955:17). Panofsky's tripartite method reveals the hidden attitude, the *contents* of the image which gave rise to the form and its stylistic expression (level I) to give shape to the idea (level II) to begin with. For example, conscious or subconscious Maya social, philosophical, and religious attitudes, expressed by an image (level III), gave rise to a particular mode of representation of the intertwined band motif (level I) to express, amongst other things, the idea of cosmic conduit and supernatural access (Chapter 6: see Intertwined band section). The skill necessary for discovering the meaning of a work of art on this level is a familiarity with the 'essential tendencies of the human mind' conditioned by personal psychology (Arnheim 1974; Gombrich 1977, 1982; Panofsky 1939:15) and the cultural predispositions inherent in a society's *Weltanschauung* (Panofsky 1939:15). The following table details Panofsky's

three levels of interpretation as applied to the imagery displayed on Lamanai ceramics:

Level I- *Pre-iconographical description*:

The *style*: lines of incision, colour and shape of ceramics (e.g., whether bowls, tripod bowls or pedestal-based jars).

Level II - *Iconographical analysis*:

The *iconographical content*: symbols and associated cultural themes and concepts; a particular religion or ideology related to Lamanai history or cosmology (e.g., reptile, bird, deity symbols).

Level III - *Iconological interpretation*:

Lamanai and Mesoamerican world view embodied in the symbolical values displayed; why these symbols (level II) and their mode of presentation (level I) were chosen, what they hope to express and the cultural symptoms (manners or beliefs) behind them.

Table 3.1.1. Panofsky's (1939:15) three levels of interpretation related to Lamanai ceramic art.

Panofsky (1939:16-17) strongly emphasises the ultimate circularity of his interpretative method. Even though its three levels of interpretation appear separate in a step-by-step analysis, they nevertheless 'refer in reality to aspects of one phenomenon, namely, the work of art as a whole...one organic and indivisible process' (Hart 1993:552; Panofsky 1939:16-17). It is necessary to return, after the step-by-step iconological analysis, better equipped to interpret the work under scrutiny (Panofsky 1939). Only this mental act will permit the retrieval of meaning from a work, and this reconstruction must conform to empirical, archaeological research methods and vice versa, within a methodological circle or historical synthesis (Hart 1993:554). Obviously, the more information available on each level improves this historical reconstruction and, therefore, the work's interpretation (Hart 1993:554).

Hermeneutic principles mirror the circularity important to the practice of iconographical analysis. Their circular nature is outlined as the process of comprehending a text as expressing meaning within a wider context by relating the constituent parts to the whole in a relational way. The hermeneutical method is practised by postprocessual archaeologists such as Tilley (1991) and Hodder (1987a). Morgan (1985:6) extends the relationships in the circularity of interpretation to the interpreter, the text and its context. Some degree of interpretation occurs on the part of the interpreter even before classification of

the work occurs. Iconographical interpretation thus employs all the basics of hermeneutic analysis (Morgan 1985:6): contextual awareness, analysis of the visual language's structural principles and reflective awareness, that is, the interpreters' awareness of their own position in space and time which will always be influenced by current *Zeitgeist* or world views (Baxandall 1988).

Iconographical analysis of Lamanai ceramic art

The previous section justifies the application of iconographical methods in material culture analysis based on the linguistically-structured nature of visual signifying systems. The iconographical analysis of Lamanai ceramic art requires two steps: first, the process of recognition and categorisation of the isolated motifs is examined. Second, the reasons behind the search for motif combinations and substitutions, which are recognisable as paradigmatic sets and syntagmatic chains, are presented.

Iconography: motifs – isolation and categorisation

The first line of enquiry isolates and categorises the motifs of Lamanai ceramic art in a pre-iconographical analysis to distinguish the individual elements that make up the site's symbolic repertoire or 'language'; motifs are recognisable as such by their differentiation from each other (Saussure 1959). Motifs detected form the basic building blocks making up a culture's visual signifying network or its structure and, in subsequent steps, may be related to broader contextual and social questions (Hodder 1987a:2-3, 6; Layton 1992:9; Morgan 1988a:12, 15; Panofsky 1939:15; Tilley 1991:19-22; see below). Morgan (1988a:12) calls this process the 'simple meaning', which corresponds to Panofsky's level I (1939:15).

Archaeological research begins with the identification of the objects, in this case the ceramics displaying the motifs, and with studying the objects' and motifs' contents (Layton 1992; Morgan 1988a). The practicalities involve identification and assemblage of the objects (ceramics bearing imagery), followed by the categorisation of the imagery into motifs. Each motif is subsequently studied for its frequency of occurrence (Layton 1992:9). The isolation and categorisation of the motifs is controlled by my own knowledge of the history of style: how, under varying historical conditions, objects or events

were expressed by forms, and practical experience of recurring combinations or contextual placements of motifs or objects. The degree to which I break down motifs reflects the basis of making distinctions in reading and recognising visual signs and reveals my own experience of reading signs. These visual signs have been shaped by the translation of objects in nature into culturally-developed codes, necessary for their communication (Arnheim 1974; Gombrich 1977, 1978a, 1978b, 1982). The recognition and categorisation of the motifs reflect the popularity of the image and reveal whether we are dealing with common or rare motifs (Layton 1992:9; Morgan 1988a:11-12). It is also important to distinguish between 'representational' and 'non-representational' motifs and to determine their real-world reference, if any, which can lead to specific attributions of the representational content (Layton 1992). These are iconic and geometric motifs, respectively. The isolated motifs presented in Chapter 4 form the foundation of the analysis on which I base my arguments.

Iconography: motifs – combinations/substitutions (paradigmatic sets and syntagmatic chains)

The second process in the iconographical analysis investigates the 'grammar', or structure, which organises Lamanai Postclassic ceramic art. The isolation and categorisation of motifs and the recognition of motif sets provide the foundation for developing interpretations of the Lamanai iconographical data studied on the iconographical basis of the associations identified. Later, the probability of correctness may be judged by examining the motif associations in subsequent relation to their material and broader socio-cultural contexts.

Consequently, the second part of the iconographical analysis examines iconographical patterns of the motifs isolated in the previous step studied for their motif combinations and substitutions. The aid of a statistical package that calculates motif co-occurrences is used. Motif combinations and substitutions detected are analysed to elucidate the isolated motifs' functions and to create symbolically-meaningful sets. This step follows the method Hodder (1987a:2-3), Layton (1992:9), Morgan (1988a:15) and Tilley (1991:19-22) apply to arrive at the idea behind the thing represented, because the structure defined will remain an abstracted set of rules until the contents of ideas held within the isolated signs are merged into a meaningful set. Even though individual Lamanai motifs may convey meaning in isolation, they nevertheless have to be considered in

relation to the entire repertoire of Lamanai Postclassic symbolism if their whole meaning is to be discerned. Put another way, the motifs must be considered within their own 'language' because its grammar creates their meaning.

Calculation of co-occurrences

Specifics in the definition of Lamanai motif sets involved the implementation of a statistical computer package (Jaccard) that calculates (motif) co-occurrences (Doran and Hodson 1975:139-143; Shennan 1997:104-126). Jaccard was chosen because it ignores joint absences which may cause spurious associations (Duncan et al. 1988) and because it has proved valuable in other studies (Baquedano and Orton 1990; Baquedano 1989). The relative rate of co-occurrence of two motifs (for example *i* and *j*) is statistically known as the degree of association between the motifs. Two characteristics of an association are its strength and significance. Strength can be measured by various coefficients, for example, the simple matching coefficient and the Jaccard coefficient (Doran and Hodson 1975:139-143; Shennan 1997:104-126). Jaccard's coefficient S_J deals with simple presence/absence information and counts only agreement scores in assessing similarity (between units/motifs), while ignoring negative matches in counting agreements and in counting valid comparisons for the divisor (Doran and Hodson 1975:140-141; Duncan et al. 1988).

$$S_J = i/(i + j)$$

The statistical table below (Table 3.2) shows the four possible combinations of states by the letters a-d. The letters represent the counts of associated states for any two units.

		unit 1 (motif <i>j</i>)	
		+	-
unit 2 (motif <i>i</i>)	+	a	b
	-	c	d

Table 3.1.2. Conventional lettering for counts used when calculating the similarity between two units/motifs (e.g., *b* = the number of attributes scored 'absent' for unit 1 and 'present' for unit 2). Doran and Hodson 1975:140.

The Jaccard coefficients were calculated using the Jaccard program in the iastats package (Duncan et al. 1988). This package also provided a single link cluster analysis program (slca). The expected values were calculated using the formula in Excel.

The Jaccard program calculates a matrix of Jaccard's similarity coefficients from an incidence data set. Before analysis, Jaccard deletes from the data all types and contexts which have fewer than two occurrences in the matrix and then proceeds to calculate the counts and percentage occurrence of each item with each other, in this case each isolated motif. For example, in the Terminal Classic Terclerp phase, the feather, cross-hatch, intertwined band and organic motif are excluded from the calculations because they only occur once and/or never in combination with another motif. Next, Jaccard calculates a symmetric ($m \times m$) matrix, whose (i, j)'th element is a coefficient of association between the (i)'th and (j)'th items. This is Jaccard's similarity coefficient, which lies between 0 and 1, 1 denoting the highest and 0 the lowest strength of association. Finally, the program passes the output to the slca program, which performs a single link cluster analysis and draws a dendrogram of the data showing the association between motifs (Duncan et al. 1988). The Jaccard matrices were scanned for high and low values that might indicate high or low associations. Highlighted pairs of motifs were then studied in association with the subsequent contextual analysis (see below).

Jaccard identifies motif sets or paradigmatic sets and syntagmatic chains (Hodder 1987a:2-3; Tilley 1991:22). (For the language application of paradigmatic sets and syntagmatic chains, see Saussure [1959:87-88], Hjelmslev [1961] and Hodge and Kress [1988:16]). Syntagmatic chains refer to sequential groupings, whereas paradigmatic sets, in contrast, constitute two or more signs, all of which can occur in the same position, identified through difference and contrast (Hodder 1987a:2-3). In relation to Lamanai ceramics, the syntagmatic chain refers to the actual spatial arrangement of the motifs from top to bottom or around the pot's circumference, whereas the paradigmatic series involves the contrast between motif-type variation, that is, the occurrence or absence of motifs in particular areas of the vessel surface. These motifs and their combinations form prescribed sets (syntagmatic chains) that in combination symbolise particular concepts, with variation in these concepts' expressions possible (paradigmatic sets). Pairing of certain motifs is prescribed

(syntagmatic chains), whereas pairing with others is not strictly necessary for the concept's reading, yet is complementary, providing additional information and variation on the theme (paradigmatic sets).

Applied to a western example, Christian Nativity scenes prescribe the depiction of The Virgin Mary with Baby Jesus (syntagmatic chain) to refer to the 'concept' of the Birth of Christ, but permit variation in the addition of supplementary motifs (e.g., Joseph, shepherds, three wise men, camel, sheep, which constitute the paradigmatic set). Applied to a Lamanai example, the cosmic band theme is reliant on a band that contains cosmic motifs for its expression (syntagmatic chain), but which also provides the possibility of expressing this same concept with different additions or variation in motif combinations (Chapter 6: see Reptile section). Variation occurs in its paradigmatic set in that the cosmic band – sun, earth, Dragon – might be associated with a variety of cosmic symbols enhancing a reading related to a particular aspect of the cosmic band's theme (e.g., flower = sun, cross = sky, triangle band = earth, reptile = Dragon). The next step thus involves a search for meaning for (1) the isolated motifs and (2) their combinations and substitutions. Even though these stages are presented in a step-by-step analysis, they constitute a hermeneutic circle and refer to the work as a whole (Panofsky 1939:16-17; see above).

In order to understand Lamanai's material culture we must, therefore, go beneath the surface appearance to its underlying reality, which involves thinking in terms of relationships between things, rather than only of the things in isolation (Tilley 1989:188; Morgan 1985:7). The analyst needs to study the 'rules of combinations of designs' (Tilley 1991:19), that is what kinds of combinations occur in the grammar, the generative structure of the designs of a culture's material expression, along with their limits (Tilley 1991:30). Motif combinations and substitutions, therefore, lead the analyst to potential psychological and cultural factors involved in the choice of the motif combinations of a particular culture to reveal what they signify. Tanner (1992:170) explains: 'Variation in the way in which these elements are combined in different examples of the artefact point to particular variations in the meaning realised through manipulation of the elements of a common symbolic language'.

Contextual analyses of Lamanai ceramic art: archaeological and socio-cultural

Contextual analysis with regard to iconography involves the search for the meaning of art – that is the *ideas* and *themes* (Morgan 1988a:15) behind representation, achieved by studying the contextual relationships and differences isolated in the iconographical analysis (see above). This corresponds to Panofsky's subject matter or meaning in the latter's twofold division between form and subject matter or meaning (Panofsky 1939:3; see above). Consequently, the analyst must look at the broader archaeological contexts for the recurrence of elements identified and for correspondences or structural changes in the patterning of the same group of elements in other artefacts for comparative purposes (Tanner 1992:170).

The contextual analysis that forms part of the methodology applied to the reading of Lamanai ceramic art is based on that used by postprocessual archaeologists (Hodder 1987a; Layton 1992:7; Morgan 1988a:15; Tilley 1991:21, 30; Wilk and Kosakowsky 1991:19-20). However, the method differs in that the defined unit (or starting point) – isolated in the first two steps of the iconographical analysis (discussed above) and then related to its broader material and socio-cultural environment – constitutes the motif and its combinations (syntagmatic chains and paradigmatic sets defined in the second step of the iconographical analysis; discussed above) and not the object (e.g., ceramic vessel). Different objects (e.g., ceramic vessel, carved bone tube, architectural decoration; all bearing bird imagery) may thus be compared because motifs and imagery transcend material boundaries. However, this level of analysis is rare because the imagery that is preserved occurs almost entirely on ceramics (see Chapters 5 and 7). Preserved wood, carved bone or painted or stuccoed architecture is rare.

The methodology applied to the reading of Lamanai iconography, therefore, provides a slightly different perspective of analysis with readings achieved through the consideration of motifs and their combinations related to the vessels on which they occur and these vessels' placement within their broader archaeological and socio-cultural environment.

Four types of context are employed: 1) the iconographical context (the relationship between motifs and their combinations; discussed above in the iconographical analysis); 2) the object-related context (the defined motif sets'

relation to the ceramic vessels on which they occur; discussed below); 3) the archaeological context (burial, cache, midden contexts and related paraphernalia [e.g., skeleton, shells, worked bone, vessel placement relative to deceased]; discussed below); and 4) the broader socio-cultural context (the comparative visual data, inter-site comparisons and a diachronic analysis; discussed below). The rules and combinations of motifs defined in the iconographical analysis thus structure and give form to the symbolism's broader meaning expressed by their contextual placement (Hodder 1987a:5; Layton 1992:7; Morgan 1988a:15; Tilley 1991:21, 30).

Consequently, the contextual analysis applied to the reading of Lamanai ceramic art – after the initial iconographical analysis that isolates motifs and then studies these for their combinations and substitutions – entails three processes: 1) the object-related contextual analysis, 2) the archaeological contextual analysis and 3) the broader iconographic/symbolic contextual analysis. The first two contextual analyses (object-related and archaeological) are grouped under the heading Material context: the first 'material-context' analysis studies contextual relations at the level of the object to examine, for example, what individual elements and components occur on what type of vessel along with the respective placement of motifs on the vessels. In my analysis, this is subsumed under: *Objects – relationship between motifs and pottery types* and will be referred to as the 'object-related contextual analysis'. This, in combination with results gained from the iconographical analyses, allows a definition of *style* (Panofsky's level I, 1939:15). The second 'material-context' analysis considers the archaeological contexts of objects and examines spatial, temporal and depositional variation and combinations thereof. In my analysis, this is subsumed under: *Archaeological contexts* and will be referred to as the 'archaeological-contextual analysis'.

After consideration of the two different kinds of material contexts of the ceramic data (the objects as contexts for the motifs and the archaeological deposit as an indicator of the context of use), the third process of the contextual analysis looks into meaning (Panofsky's level II, 1939:15) arrived at through an examination of the *broader iconographic/symbolic perspective* (Panofsky's level III, 1939:15). This process will be referred to as the 'broader iconographic/symbolic-contextual analysis'. It comprises the socio-cultural context which reveals the social factors set in motion by the object – for

example, its production, use, circulation and ideological value – and reflects how visual art plays an active role in culture (Gell 1998). This process studies inter-site relationships of Lamanai art, first locally, then within Mesoamerica, to pinpoint the site's cultural connections (based on iconography) and finally, examines the extent of continuity and change in Lamanai ceramic art in a diachronic analysis (Saussure 1959:87-88).

Material context

(1) Objects – relationship between motifs and pottery types

The first step in the contextual analysis of Lamanai imagery involves the object-related contextual analysis, which entails the examination of the motifs and their combination in relation to the vessels on which they occur. This allows an initial interpretation of Lamanai ceramic style based on relating the motif patterns to their object-related material contexts and constitutes Panofsky's first level of iconographic interpretation (Panofsky 1939:15; see above). Morgan (1988a:12) calls the isolated motifs the 'simple meaning' with 'style...[being] the performance, idiom the structure. The artist cannot develop a performance without the knowledge of a language in which to perform, but the language is independent of the individual artist' (Morgan 1988a:12). Performance is a process of selecting among functional isomorphs (Davis 1990:27), in this instance motifs, and using the chosen variant(s) in a given (object-related) context, that is its syntagmatic combination (Davis 1990:27; see above). The initial identification and clarification of the nature of the individual motifs (Panofsky's level I, 1939:15; see Motif isolation and categorisation section) defines the motifs' reference to the real world as being conditioned by style (Morgan 1988a:12) or structural context (Hodder 1987a:6; Tilley 1991:19-20). Variations in motif or vessel patterns may be understood in chronological terms or as adaptations to the material (Layton 1992:9).

This analytical step of examining motifs and their combinations in relation to the vessels on which they occur focuses on the objects themselves and draws on Hodder's approach in determining typological variation to establish significant similarities and differences in the culturally-organised data (Hodder 1987a:5). Applied to Lamanai material, investigation of the relationship between motifs and pottery types will reveal patterns of morphological associations with specific groups and symbols: for example, whether motif x always occurs in

bands beneath the rims of bowls. This is especially relevant to the analysis of Lamanai Postclassic art, since it reveals ‘rules of combinations of designs’ (Tilley 1991:19) or style, which, in further steps, may shed light on the function of the vessel or its particular social and ideological meaning.

The analysis of the relationship between motifs and pottery types is also important as most likely referring to an ideological connection between the vessels or their function, even though vessels may be morphologically different. The functional context of objects or motifs makes up the first type of meaning defined in Hodder’s tripartite division of meaning in contextual archaeology and includes the object’s exchange of information (Hodder 1987a:1-2). A vessel used in ceremonies places its function within the social dynamics of a culture by contributing to an ideological or religious message and to a general sense of the ceremony’s importance. The other two types of meaning in Hodder’s tripartite division of meaning in contextual archaeology are structure (discussed in previous sections) and content (discussed below). Understanding of the object becomes apparent through its placement in relation to the larger functioning whole, in this case its material object-related context. Because most archaeological objects are found in relationship to other objects, the network of relationships, if primary – that is, if the objects’ placement is contemporaneous – can be read (Hodder 1987a:2). Hodder presents a pattern for the reading of the relevant dimension of variation available to the archaeologist necessary for understanding the meaning of an object under study. Typological variation forms part of this pattern of relationships between motifs and pottery types and can reveal statistically significant similarities and differences which make clear that the data has been culturally organised with specific behavioural meaning (Hodder 1987a:5). Consequently, examination of the relationship between motifs and pottery types might uncover patterns of combinations of designs that could illuminate the function or particular social or ideological meaning of the vessels.

(2) Archaeological contexts

The second step in the iconographically-related contextual analysis of Lamanai ceramic art entails the archaeological contextual analysis, which examines the relation of the motifs and motif combinations to their archaeological contexts: burials, caches and middens associated with elite residences, ceremonial

buildings and plazas and associated paraphernalia (Graham 2004; Howie 2006; Pendergast 1981a, 1981c, 1982b, 1984a, 1984b, 1985a; see Chapter 2, Appendix 1). The intra-site distribution of the vessels is also studied. Distinctive of this study is the large body of data from primary contexts, providing additional dimensions to iconographic interpretation.

This step in the material-contextual analysis addresses the material's archaeological contexts of spatial (Hodder 1987a:5; Layton 1992:7; Morgan 1988a:10; Tilley 1991:19, 30), temporal (Hodder 1987a:5; Layton 1992:7) and depositional (Hodder 1987a:5) variation and combinations thereof. Analysis of archaeological context is important for the recognition of the relevant dimensions of variation available to the archaeologist and necessary for the understanding of an object's meaning. Consequently, objects must be placed within varying relevant dimensions to analyse the position they occupy in space and time (their archaeological context). Consequently, the aim of contextual analysis is to 'test degrees of relatedness' (Hodder 1987a:5; Layton 1992:7; Morgan 1988a:15; Tilley 1991:19; Wilk and Kosakowsky 1991:19-20). These dimensions include the more concrete material contexts, for example, the orientation of a grave, sex of interred individual or the width of a pot, and the more abstract socio-cultural contexts (discussed below), such as a pot's use, or the ideological value it expresses. The latter point suggests that an object needs to be viewed culturally in order for it to be able to fulfil its function in the way intended, that is, in the way expected of it by the culture that shaped it (Hodder 1987a:5). However, the boundary between an object's function and symbolic meaning within its contexts is blurred, since the function of an object makes up part of its symbolic intention. The definition of the boundaries of a context in which objects have related meanings can become problematic, since not all categories are clear-cut but can hold many meanings (Derrida 1973; Hodder 1987a:8). Consequently, an 'underlying concern is to locate idea, belief and symbolic meaning in social action' (Hodder 1987a:8-9; Gell 1998). Each cultural product, its use and production, must be viewed as a 'contextualised social act' which involves visual signifying systems that create relationships between signs and other signs or objects (Tilley 1989:188-189). Consequently, cultural objects should be viewed as 'social agents' embedded in and acting upon, and thus reflecting, the socio-cultural situation that shaped them (Gell 1998).

The consideration of archaeological-contextual variation of visual systems and their objects applied to Lamanai material will reveal patterns of spatial variation. This may indicate whether all Late Postclassic Period pedestal-based jars were recovered from graves, as opposed to caches, of a particular structure – revealing patterns of archaeological contexts (cache or burial) and their vessels' motif associations – or whether scroll-incised Late Postclassic Period pedestal-based jars retrieved from Structure N10-4 always originate from burials, as opposed to caches. Temporal variation relates to the period or time of the production of certain ceramics and whether these can be related to particular motifs or combinations thereof. For example, do Late Postclassic Period bowls with scroll incision only occur in a standardised form around A.D. 1400? Finally, depositional variation indicates variation in the stratified deposition of objects to indicate the temporal sequence of particular Lamanai vessels. For example, do all pedestal-based jars with motif x incised on their pedestal bases originate from a particular structure or the same phase of the site? A methodological approach is employed, with all variables of spatial context being considered in relation to motifs of vessels bearing imagery. These variables are: the number of vessels in each context; the assessment of the context (e.g., midden, burial, cache); the state of vessels (e.g., reconstructible, whole or sherds), and associated findings (e.g., skeletal remains and other artefacts). The aim of the analysis is to determine if the archaeological context can contribute to the interpretation of the motif and vice versa.

(3) Socio-cultural context

The third step of the contextual analysis applied to the reading of Lamanai ceramic art examines broader socio-cultural contexts or the wider iconographic/symbolic-perspective of Lamanai ceramics. I employ Morgan's concept of *image-associations*, which involves the definition of the relationship between images, in turn encouraging the analysis of comparative themes (Morgan 1988a:11-12). Morgan (1988a:11) gives comparative iconography the utmost importance because she contends that very few elements have no parallel. She suggests that written sources, even originating from locations distanced from the site in question, can be used to throw light on the subject, perhaps to establish a frame of reference (Morgan 1988a:11). Images and their elements, therefore, must be compared and considered in relation to others, in

order to establish a basis for an interpretation of their broader meaning. These *image-associations* (the relationship between images) in turn lead to the analysis of comparative themes (Morgan 1988a:11-12).

Comparative data from the Maya Lowlands and from throughout Mesoamerica are brought to bear on results gained from the iconographical and contextual (object-related and archaeological) analyses of Lamanai symbolism to discover overlap and difference in symbolic interpretation of the site's iconographical patterns. Comparative work will focus on cultural material from the Maya Lowlands (e.g., Santa Rita, Tulum, Mayapan; see Chapter 2) based on archaeological reports (e.g., Brainerd 1958; Chase 1982; Proskouriakoff 1962b; Smith 1971) and material displayed at the *Instituto Nacional de Antropología e Historia* in Mérida, Mexico, the *Museum of Archaeology* in Belize City and the *Liverpool Museum* in Britain. Cultural material from Mexico, Guatemala and elsewhere in Mesoamerica is considered where relevant. Postclassic Maya and Mexican codices also form part of the comparative study.

Consequently, Lamanai motifs are studied for how they acted to shape ideological concepts expressing the social, psychological and religious values of the site. The process requires the creative insight of the historian (Hodder 1987a:6-7) and reveals the historical content of meaning of a work, 'the changing ideas and associations of the object itself' (Hodder 1987a:1).

Motifs may be grouped into styles if they form the basis of regular associations at a number of sites, or show a supposed common form of motivation through which they were produced, thus being rendered in a particular mode of representation (Layton 1992:9). Consequently, after grouping motifs into styles or phases, possible cultural connections can be defined by plotting the geographical distribution of sites which show the same style (Layton 1992:9) and/or iconographical content.

The final step in the consideration of the broader socio-cultural contexts of Lamanai ceramic art examines its temporal context, focusing on the extent of continuity and change in the site's symbolism. It is important to trace the history of the image in question to establish whether there existed earlier, contemporary and/or later examples, in order to place the image within its diachronic context (Morgan 1988a:11-12). In relation to Lamanai, this requires consideration of the symbolism characteristic of the temporal phases deictic to the Postclassic Period (the Terminal Classic and Historic Periods) to enable the

study of continuity and change of motifs and patterns in their combination. Styles (and their iconographical content) are detected that vary through time, reflective of cultural variation and change in functional and symbolic meaning at the site and possibly elsewhere.

Presentation of methodological results in thesis chapters

The combined iconographical-contextual and archaeological-contextual analyses (discussed above) enable the placement of objects within their relevant dimensions to analyse the positions objects occupy in space and time, and to reveal how visual signs produce meaning and what they signify. However, it must be remembered that even though presented in sequential steps, each step is intricately merged to form a hermeneutic circle (Hart 1993:552; Panofsky 1939:16-17). Only *after* the steps' implementation do the results of their combined readings allow the interpretation of Lamanai ceramic art according to the world view of its makers. Consequently, separation present within this methodology forms an artificial, yet necessary step for the reading of Lamanai ceramic art.

The methodology applied to the reading of Lamanai ceramic art is treated temporally, with each ceramic phase studied (Terminal Classic Terclerp, Early Postclassic Buk, Late Postclassic Cib, Terminal Postclassic/Early Historic Yglesias) considered in a separate chapter (see Chapters 5 to 8) after the initial isolation and categorisation of the motifs that make up the 'language' of Lamanai symbolism in Chapter 4. Each phase or chapter is introduced with a discussion of its material sample, isolated motifs and motif combinations/substitutions and their relation to the vessels on which they occur. This is followed by readings presented in three sections. The first section (1) defines the *style* of the ceramics, arrived at through the combined reading of results gained from the iconographical and initial step of the contextual analysis (the object-related contextual analysis, where motif associations are related to the ceramics on which they occur). The second section (2) presents the *iconographical content* of motifs and their combinations, gained through the combined reading of the archaeological-contextual and broader socio-cultural contexts of the ceramics and their symbolism. Motifs within phases are grouped according to their iconic or geometric nature and are presented in alphabetical

order. The third section (3) examines the style (section 1) and iconographic content (section 2) of Lamanai ceramic art placed within its broader environment to establish Lamanai *inter-site relationships* (based on iconography), first locally, then within Mesoamerica. In the concluding Chapter 9, the extent of *change and continuity* of Lamanai ceramic iconography from the Terminal Classic to Early Historic Periods is considered in a diachronic analysis, along with an assessment of the cultural role of Lamanai ceramic art.

Part 2: The Lamanai sample and its contexts

Unless otherwise designated, the typology of pottery vessel forms used here is based on those described by Sabloff (1975) for Seibal (see Appendix 2). For details see Sabloff (1975) and Willey (1975), whose form typology draws mainly on Shepard (1956), Smith (1971) and Thompson (1939a). See below for a definition of ceramic terms used. Where new forms or shorthand terms are introduced, this will be noted in bold typescript. The ceramic typology for Lamanai has yet to be published in full. However, see Powis (2002) for the Preclassic ceramic sequence and Graham (1987a, 2004) for a proposed but provisional sequence for the Classic and later periods (Table 1.1). All type names noted (Gifford 1976; Willey et al. 1967) therefore remain tentative, and details of typology such as modes, variety names, ceramic groups, wares or complexes are not provided because ceramic classification is still in progress. The combination of proposed type names and illustrative material should provide sufficient information for the integration of the results of my analysis with ceramic typology when it is finalised.

Lamanai the site

The following maps (Figs. 3.2.1-3) act as visual aids to establish the relation of excavated structures at Lamanai. For a summary of what is known about the structures from which the Lamanai vessels studied were recovered and other features with which the decorated ceramics are associated, and a definition of assessment terms, see Appendix 1. The structural information summarised is based on the work of archaeological excavations conducted by Pendergast

from 1974 to 1986 and by Graham from 1998 to the present. Where relevant, this information is integrated as part of the analyses (see Chapters 5 to 8).

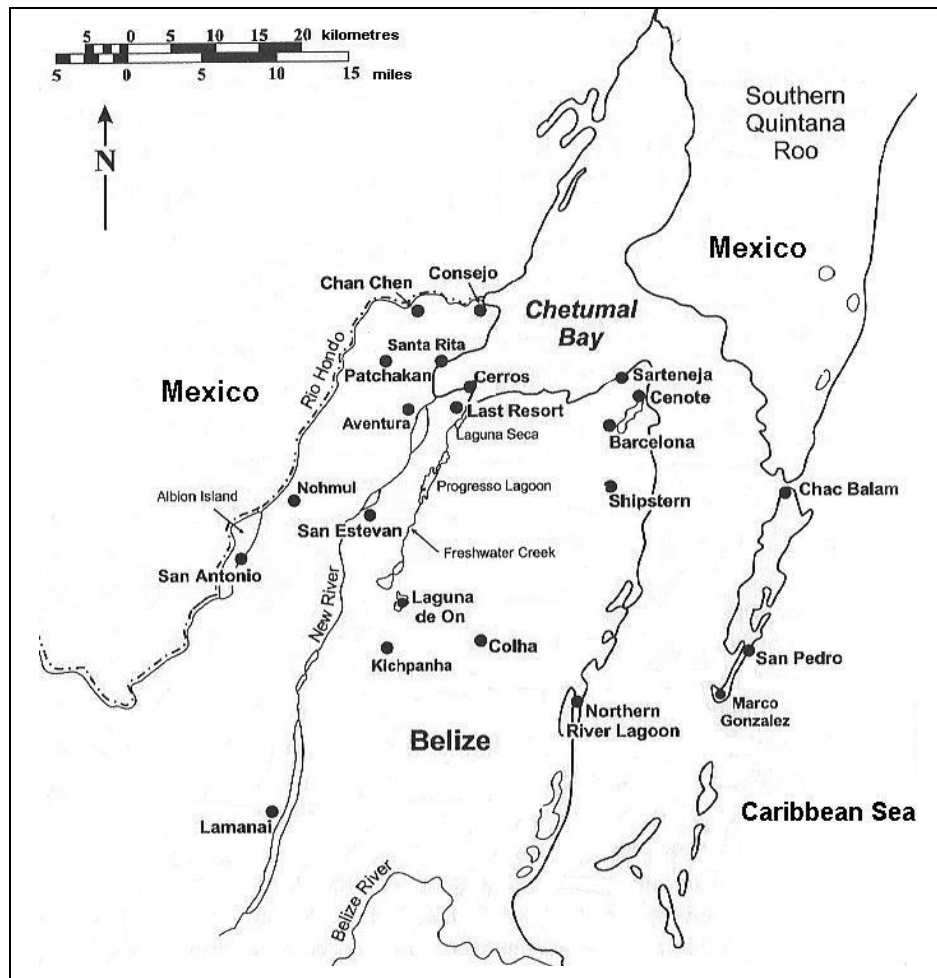


Fig. 3.2.1. Map of northern Belize showing location of Lamanai, the New River and Chetumal Bay. Masson and Mock 2004:368, Fig. 17.1.

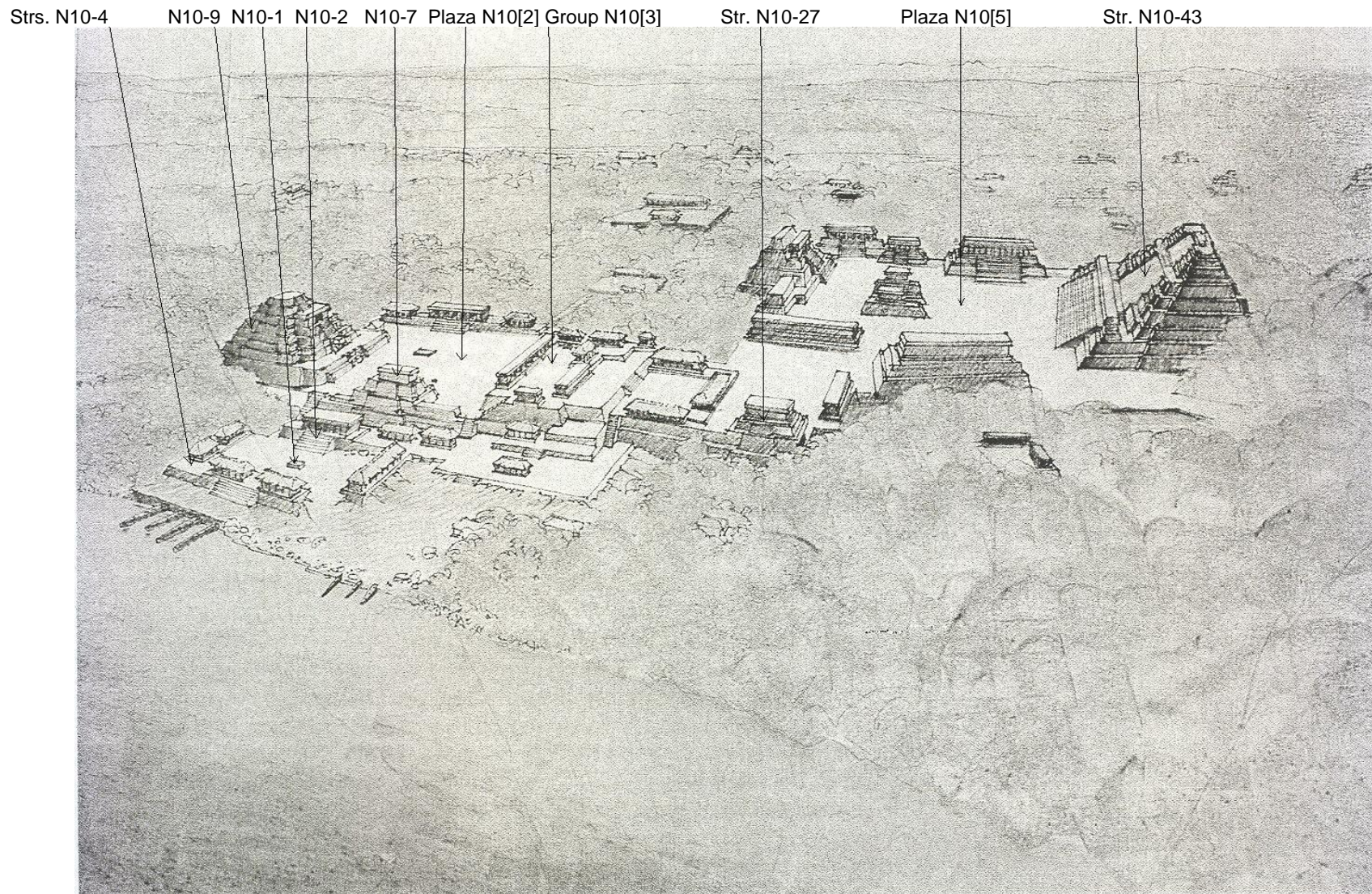


Fig. 3.2.2. Lamanai's central precinct at about A.D. 600. Drawing by Loten. Pendegast 1984a:7.

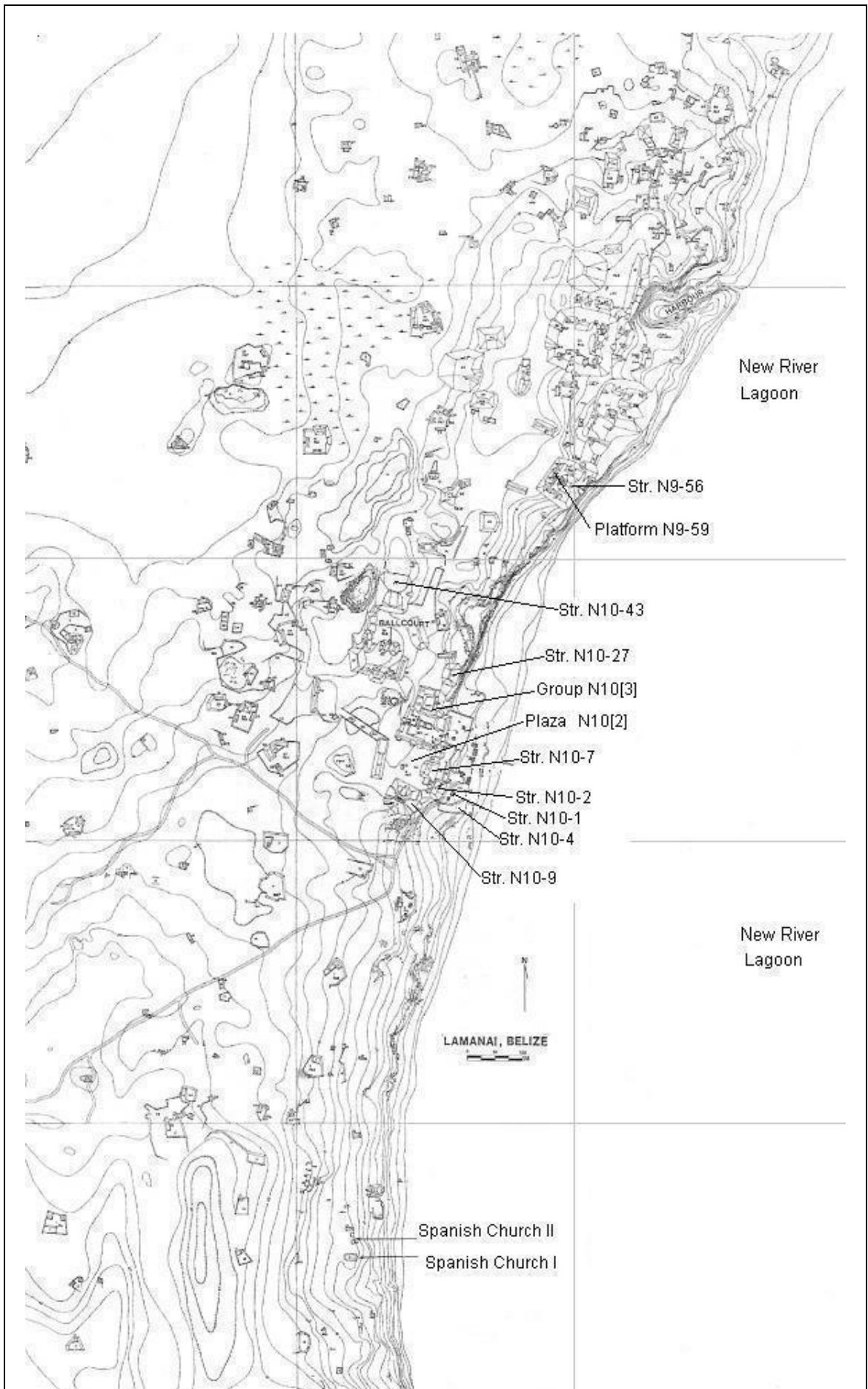


Fig. 3.2.3. Lamanai map, based on Pendergast 1981a:33. See Figs. 6.14, 7.1.3, 7.2.4 and 8.4 for enlarged details of map.

Vessel morphology

The isolation and categorisation of the artistic motifs constituting the primary or natural subject matter required that the material, in the first instance, be sorted according to vessel morphology. Category descriptions and a definition of ceramic terms are provided in Appendix 2 under the ceramic description. Vessel forms distinguished are:

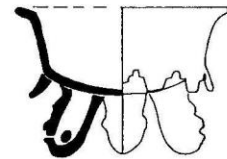
Bowls



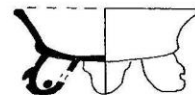
Dishes



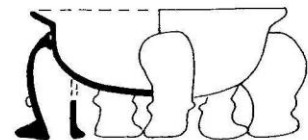
Tripod bowls



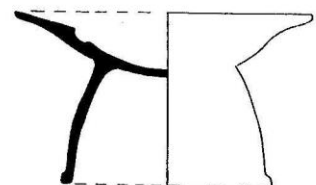
Tripod dishes



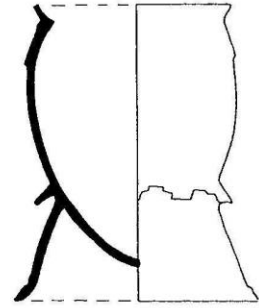
Tetrapod bowls and dishes



Chalices



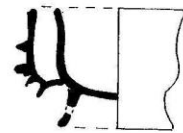
Pedestal-based jars



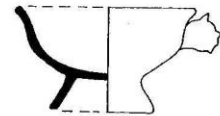
Pedestal-based vases



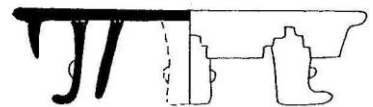
Pedestal-based bowls



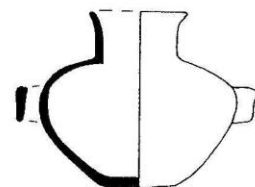
Pedestal-based dishes



Plates and tripod plates



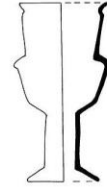
Jars



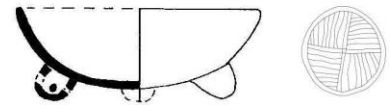
Tripod jars



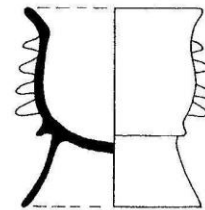
Drums



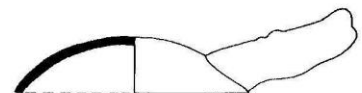
Grater bowls



Censers



'Frying-pan' censers



Effigy vessels



While the detection of vessel morphology constituted a straightforward starting point for the complete (reconstructed or whole) vessels. The ceramics extracted from middens as sherds, mainly from the vicinity of Structures N10-27, N10-12, and N10-2, had to be sorted and grouped according to the morphology of the vessel from which they derived. The sherds with iconographic information were sorted and revealed that they correspond to the same vessel forms as listed

above. Pedestal bases from jars were difficult to differentiate from chalice pedestal bases and, as a consequence, sherds from jars and chalices were grouped together. The broader morphological groups arrived at through the initial sorting and arranging of the Postclassic midden material coincide with those displayed by the whole vessels from the on-site collection. In the next step, imagery was organised according to basic symbolic elements within the groups based on morphology.

Lamanai Terminal Classic to Early Historic vessel typology

The vessel typology devised meets the specifications of the type:variety format in general use in Maya archaeology. The main divisions made are at the level of Group Name (see Gifford 1976; Willey et al. 1967) because type names have not yet been established for the Lamanai sample. Following Graham (1994), I maintain the morphological groups (i.e., jars, bowls, etc.) as descriptive units within the designated Group Name (Lamanai Camp Group, New River Group, etc.).

This typology is provisional and remains to be finalised in consultation with the other ceramicists working on the Lamanai collection. In particular, note should be taken that this typology only includes Lamanai vessels bearing imagery. Details of the provisional typology are presented in Appendix 2. Provisional Group names and their associated time period and phase names are: Lamanai Polychrome (Terminal Classic, Terclerp phase); Lamanai Camp Group (Early Postclassic, Buk phase); New River Group (Late Postclassic, Cib phase) and Indian Church Modelled (Terminal Postclassic/Early Historic, Yglesias phase).

Chapter 4: Isolation and categorisation of Lamanai motifs

Definition and justification of motifs and their families

I begin by defining and describing the motif categories, which constitutes the pre-iconographical level of image interpretation (Panofsky 1939:15; see Chapter 3): the isolation and categorisation of the artistic motifs constituting the factual and expressional primary or natural subject matter. This level of interpretation studies the formal principles which govern the depiction of the visible world while ignoring their symbolic significance. This builds up a history of motifs (Panofsky 1955:17), essential for communication and comparative purposes. Once the motifs are isolated and defined, an iconographical analysis can then be conducted.

Motifs, formal analysis and semantic analysis

The term 'motif' has many definitions. Clegg (1978:42) defines a motif as 'a mark which is complicated enough to be recognised, and which appears on more than one occasion'. This study follows Maynard, who defines motif in both formal and semantic terms as certain shapes which tend to reappear in any group of art and as recurring visual images which demonstrate particular arrangements of components (Layton 1992:143; Maynard 1977:395-396). Formal analysis does not impart any meaning to figures and classifies them simply according to similarities and differences in shape (Layton 1992:141). Semantic analysis, on the other hand, classifies figures according to their interpreted value as visual signifiers (Layton 1992:141). For example, a figure that appears to look like a bird can be said to 'mean' BIRD. The ratios/relations and proportions of form held within a motif are what enable its recognition, which, after initial mechanical processing of its lines, is also read according to the conventional and culturally superimposed codes it expresses. Lamanai imagery includes iconic (representational) motifs, for example, of reptiles, anthropomorphs or birds, surrounded by aniconic (ornamental) motifs, for example, scrolls, crosses or cross-hatch. Consequently, I will employ both formal and semantic analyses, as some of Lamanai's motif categories do not seem to lend meaning to its figures, but can be merely classified according to similarities and differences in shape (ornamental motifs), whereas others

display an iconic resemblance to animals and plants in the natural world (iconic motifs).

Style

Style is a controlling factor which needs to be taken into account in formal and semantic analyses to ensure correct recognition of the motifs. Formal and semantic analyses define the stylistic attributes which let us know that the art work under consideration is from Lamanai. The analyses will reveal the way in which a reptile, a bird or a cross, for example, is represented at the site. Consequently, this chapter concentrates on defining the individual motifs for subsequent stylistic assessment.

The aim, therefore, of the initial formal and semantic analyses is to provide a basis for the discussion of style, since style would be a meaningless concept before the scope of its units is defined. In this case the units are isolated iconic and ornamental motifs. Style will show how each object in the repertoire of Lamanai ceramics is connected to the corpus as a whole. By revealing the formal, external, property of the objects, this chapter will provide the basis for iconographical analysis that is dealt with in Lamanai's cultural material temporally (see Chapters 5 to 8).

Motif groups

Lamanai's Postclassic material shows a limited number of motifs which occur in a variety of combinations. Twenty-six individual motif categories were distinguished, grouped into two main motif groups (Table 4.1). These are iconic motifs and geometric motifs, the latter being subdivided into four sub-groups: geometric motifs, motif bands, plain bands and miscellaneous motifs. Consequently, the data contain five individual motif groups, one iconic and four aniconic. The individual motifs within each group may hold up to five further divisions. For example, scroll in the geometric motif category reveals five sub-groups (scroll_{a-e}), which constitute variations on its theme (Figs. 4.18a-f).

Motif groups

Iconic motifs	<ul style="list-style-type: none"> animal miscellaneous (amphibians, monkey) anthropomorphic bird feline reptile zoomorphic 	
	<ul style="list-style-type: none"> feather flower organic shell 	
Geometric motifs	<ul style="list-style-type: none"> arch cross cross-hatch oval rectangle scroll triangle 	
	<i>Motif bands</i>	<ul style="list-style-type: none"> arc band intertwined band triangle band T-shaped band rectangle band
	<i>Plain bands</i>	<ul style="list-style-type: none"> horizontal band vertical band
Miscellaneous motifs	<ul style="list-style-type: none"> glyph/pseudoglyph other motif 	

Table 4.1. Lamanai motif groups and categories.

Imagery

Three distinct stylistic treatments of motifs occur on Lamanai ceramics from the Terminal Classic to Early Historic Periods. In the Terminal Classic Period, painted imagery dominates with bold motifs painted on the interior of dishes surrounded by motif bands (Fig. 4.18e). The dominant style of Early Postclassic Lamanai ceramics involves complex imagery combining a variety of varying

motifs in bulbous imagery bands. The individual motif forms appear organic, pushing against the framing boundaries of their limiting borders. Variation in the category is usually characterised by bulbous forms of the individual motifs defining and filling in the entirety of the imagery panels. For example, the Early Postclassic pedestal-based jar detail in figure 4.1 displays the reptile motif combined with feather, cross-hatch, cross, rectangle and oval motifs.

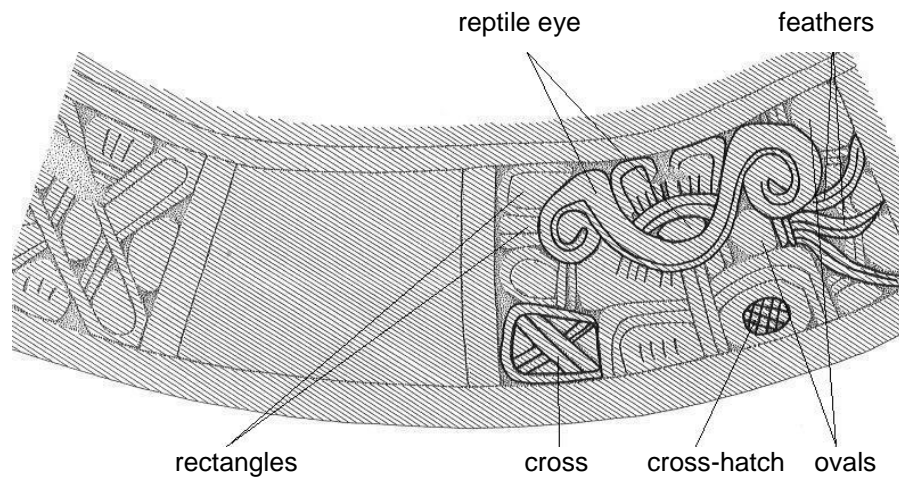


Fig. 4.1. Buk phase pedestal-based jar, pedestal base, detail, LA 95/1.

The third distinct Lamanai imagery treatment occurs on Postclassic ceramics and consists of elaborately appliqué-modelled effigy figures of human, anthropomorphs (supernaturals/deities and/or deity impersonators) and animals. Other motifs sometimes embellish the effigy figures. For example, ovals decorate the headdress and face of the Early Postclassic effigy in figure 4.2. The figure also displays feathers attached to the side of its headdress.

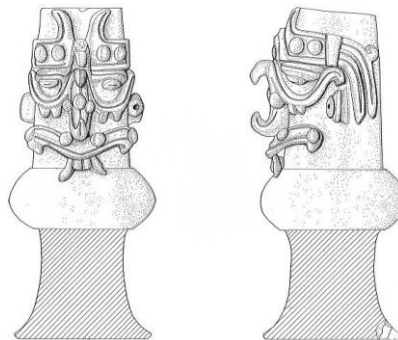


Fig. 4.2. Buk phase pedestal-based jar, LA 158/1.

ICONIC MOTIFS:

Ten motif categories belong to the iconic motif group: anthropomorphic, animals miscellaneous, bird, feline, reptile, zoomorphic, feather, flower, organic and shell (Table 4.1).

Animals miscellaneous

The animal miscellaneous motif category contains animals depicted in a relatively realistic form but not occurring frequently enough to warrant a separate motif category. This motif category contains the following two animals: amphibians (toad or frog and turtles) and monkeys. Motifs in this category occur as appliqué-modelled tripod vessel feet and attachments on vessels, with the vessels' bodies doubling as those of the animals (Figs. 4.3a-c).

Toads or frogs are characteristically represented as squat creatures with large eyes, wide mouth and strong back legs (Fig. 4.3a).



Fig. 4.3a. Buk phase amphibian jar, LA 115/1.

Turtles are represented with smoothly rounded heads on long necks that usually emerge from a carapace (Fig. 4.3b). Even though turtles are reptiles, they are not included in the reptile category (see below) as turtles occur relatively infrequent at Lamanai and the reptile category refers exclusively to ophidian creatures (snakes and crocodiles) from which turtles are distinguished.

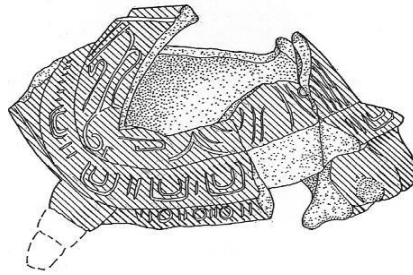


Fig. 4.3b. Buk phase turtle vessel, LA 67/1.

Monkeys display simian facial features, but are distinct from anthropomorphic representations as they always have a long and usually curving tail (Fig. 4.3c). Even though the monkey in figure 4.3c is wearing a helmet, it is not an anthropomorph as it has a tail attached, on the jar's obverse side (Catalogue Fig. 6.2.8b)

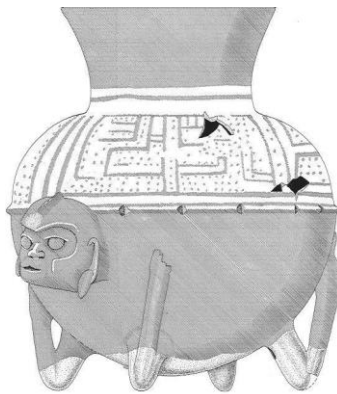


Fig. 4.3c. Yglesias phase monkey jar, LA 774/17.

Anthropomorphic

The anthropomorphic motif category includes representations of human and anthropomorphic figures (supernaturals/deities and/or deity impersonators), or only their heads (Fig. 4.4a).

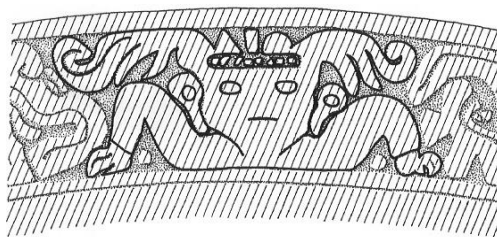


Fig. 4.4a. Buk phase bowl, rim, detail, LA 95/7.

The motif is characterised as anthropomorphic by the figure's physique, made up of a head with the following facial features: two eyes, usually a nose, mouth and ears; and a torso (when present), sometimes clothed, with two arms and two legs. The anthropomorphic motif group frequently occurs as the appliqué-modelled feet of tripod bowls and dishes (Fig. 4.4b), comprises small finds, where the heads make up part of a whole figure, or occur as vessel attachments, allowing the bulk of the vessel to double as the figure's body (Fig. 6.18). These vessels often stand on supports which form the legs and arms of the figure.

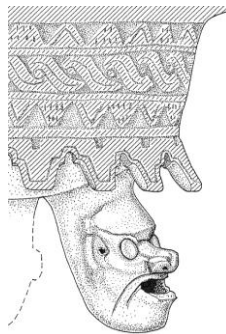


Fig. 4.4b. Buk phase tripod dish with anthropomorphic feet, detail, LA 13/9.

Full-figure figurines also occur in this motif category, such as the Chen Mul Modeled-style effigy censers of warrior-costumed figures (Fig. 4.4c).



Fig. 4.4c. Chen Mul Modeled-style effigy censer, shattered amongst many other Chen Mul figurine sherds atop Structure N9-56.

Bird

The bird motif category is divided into two sub-groups. The first contains representations of large-chested birds with long tail feathers and a long hooked beak (Fig. 4.5a). Birds may also be represented by their heads only, usually in the form of appliqué-modelled tripod vessel feet. The birds are unidentifiable, quite often with humanoid ears and/or ear spools (Fig. 4.5b). This group forms the second bird motif sub-category. Even though the reptile motif category also contains feathers, a feature characteristic of birds, the two motif categories, reptile and bird, may be easily distinguished because the bird motif category represents creatures instantly recognisable as birds by their wings, large chests and by displaying a beak as opposed to the snout of the reptile motif. In Lamanai's Postclassic ceramic material, the bird motif category is incised on the exterior of Early Postclassic ceramics, occurs as appliqué-modelled Early and Late Postclassic tripod vessel feet, jar attachments and small finds. One whistle represents an appliqué-modelled bird with outstretched wings (Catalogue Fig. 3.14.1).

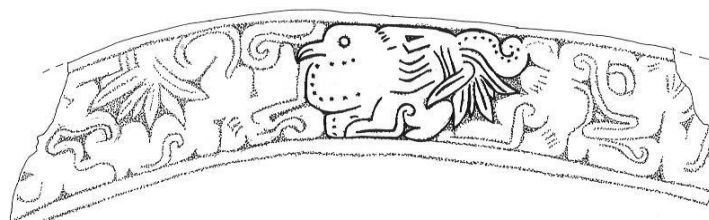


Fig. 4.5a. Buk phase bowl, rim, detail, LA 187.

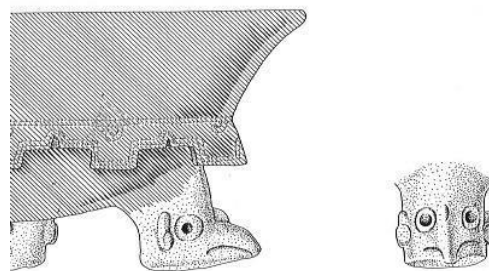


Fig. 4.5b. Cib phase tripod dish with bird-head feet, detail, LA 247/4.

Feline

Creatures bearing a resemblance to the cat family are classed as felines. This might include felines, jaguars, jaguarounds, ocelots, mountain lions or other native cats. Representations must involve the creature displaying small ears, a

snout with sharp canines, clawed paws, long tail and sometimes a spotted pelt. For example, figure 4.6 might represent a mountain lion or feline, recognisable as such by its small ears, clawed paws, absence of spots, snout with sharp canines and long tail.

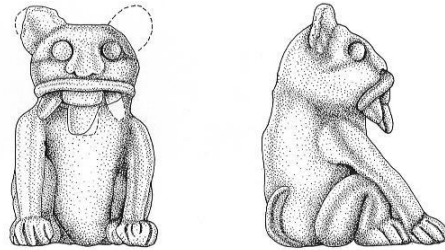


Fig. 4.6. Yglesias phase feline vessel, LA 839/1.

Reptile

Reptiles, when incised on Early Postclassic ceramics, are represented in a variety of forms placed within complex imagery bands. The motif is recognisable by the reptile's distinctive eye, usually with exaggerated supra-orbital eye plate or brow (Figs. 4.7a and b). Reptile eyes occur in a variety of forms that appear alike, but differ in details, such as feathers attached to the back of the eyes (Fig. 4.7a). The reptile eye either stands alone (Fig. 4.7a; also occurs modelled as the eyes of Terminal Postclassic/Early Historic zoomorphic effigy vessels, see Zoomorphic section and Figs. 4.8b and c), is attached to a head (Fig. 4.7b), or is attached to a body, which is often bicephalic (Figs. 4.7c and e) and usually quite abstract in its depiction (Fig. 4.7d and e).

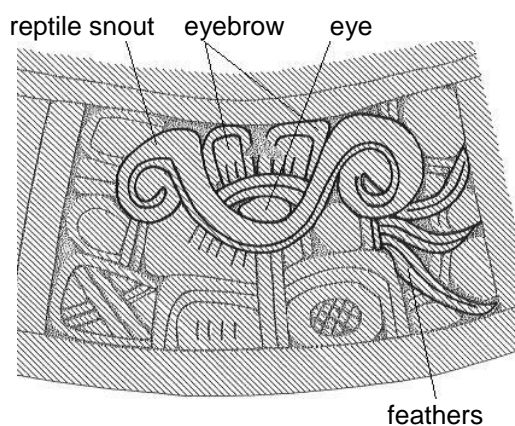


Fig. 4.7a. Buk phase pedestal-based jar, pedestal base, detail, LA 95/1.

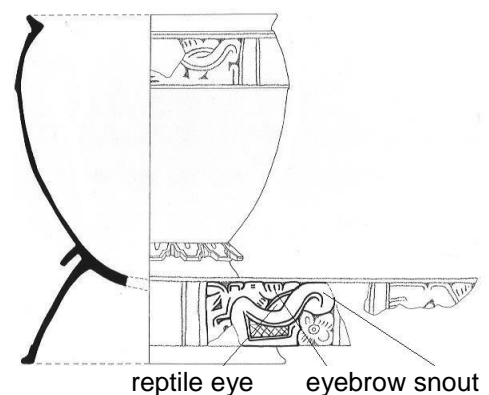


Fig. 4.7b. Buk phase pedestal-based jar, reptile repeated on shoulder, LA 13/1.

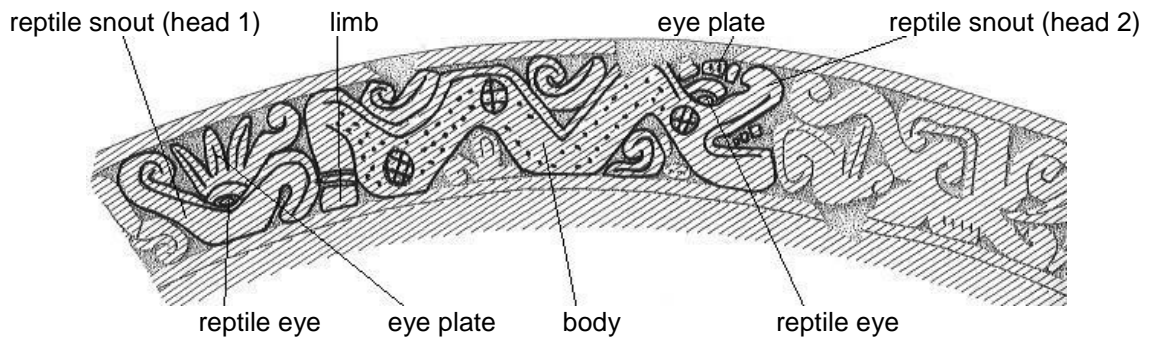


Fig. 4.7c. Buk phase bowl, rim, detail, LA 95/7.

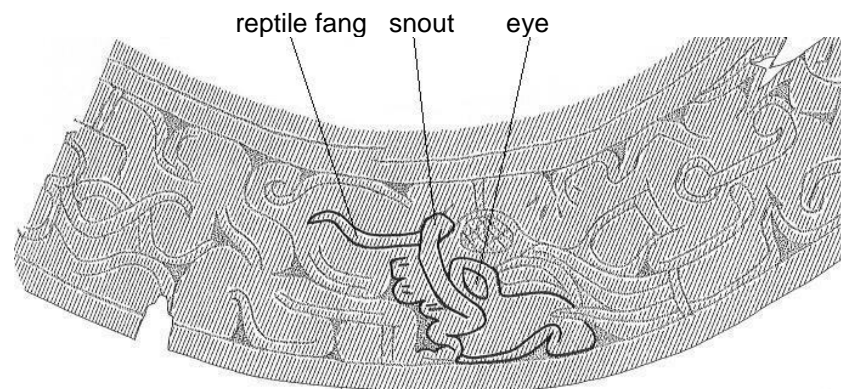


Fig. 4.7d. Buk phase chalice, pedestal base, detail, LA 243/21.

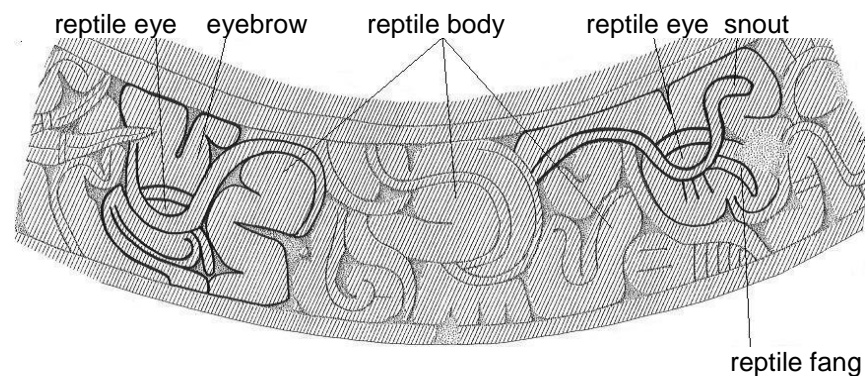


Fig. 4.7e. Buk phase chalice, pedestal base, detail, LA 95/6.

The reptile eye is determined as such due to its direct association with animals that exhibit ophidian (serpentine or crocodilian) traits. The reptiles are distinguished from each other by certain traits which are emphasised in their depiction at Lamanai. Serpentine characteristics may include a down-turned snout and/or fangs (Figs. 4.7a, b, d-e); crocodilian characteristics an upward curving snout, multiple teeth, large supra-orbital eye plate or brow and, when the body is depicted it is bulbous, undulating, with probable dorsal scale

markings (cross-hatch motif and/or dotted) and limb(s) (Fig. 4.7c). In the Terminal Postclassic/Early Historic Period, zoomorphic creatures exhibit both serpentine and crocodilian characteristics (Figs. 4.8a-f). Even though the Lamanai reptiles are sometimes feathered, they are not classed as birds (see Bird section). The fragmentary nature of some of the vessels makes clear definition difficult. Consequently, the reptile relates to the identifiable eye that permits detection of the number of reptiles (often bicephalic) on each vessel.

Naturalistic representations of reptiles, serpents and crocodiles, also occur appliqué-modelled as the 'handles' of Early Postclassic frying-pan censers. The serpent is easily recognisable by its large fangs and smooth head and body (Fig. 4.7f) and the crocodile by the animal's distinctive long snout that ends in an upward-curving curl and displays, along with large teeth, prominent head and back ridges (Fig. 4.7g).

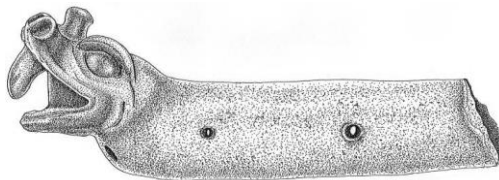


Fig. 4.7f. Buk phase frying pan censer with serpent 'handle', LA 469/Temp1.

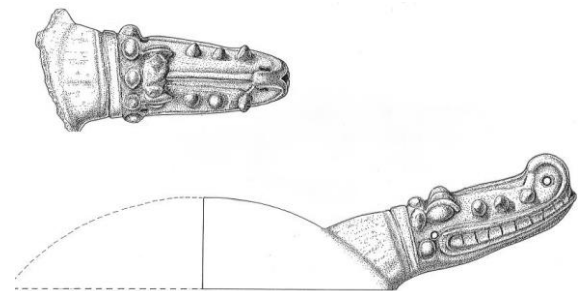


Fig. 4.7g. Buk phase frying-pan censer with crocodile 'handle', south perimeter of site.

Serpents and crocodiles were grouped in one reptile motif category as individual and distinct appliqué-modelled examples are few in number (Figs. 4.7f-g). However, the majority of reptiles display a mixture of characteristics, which may emphasise more serpentine or crocodilian traits. At times it is difficult to determine which of the two reptiles is represented. This is due to their forming one fantastic composite creature (Chapter 6: see Reptile section). Reptiles are thus considered as a unit. Even though the two reptiles are classed together for the statistical analysis of the material (see Appendices 3 to 6), when related to iconographical and contextual analyses (see Chapters 5 to 8), they are considered separately when pertinent to their reading.

Zoomorphic

Zoomorphs are composite creatures, which at Lamanai display elements from a selection of the following animals: crocodile and serpent (see Reptile section), deer, feline (see Feline section), fish, manatee and shark. Six complete Terminal Postclassic/Early Historic zoomorphic vessels have been recovered at Lamanai to date. The zoomorphs form striking appliqué-modelled ceramic containers.

The shark is recognisable by its large and triangular jaw set with rows of sharp teeth along with the creature's very small eyes. Two Lamanai zoomorphs display shark characteristics. The first displays the body and head of a shark with a personage in its maw and 'supernatural eyes' (Fig. 4.8a; Chapter 5: see Organic section).



Fig. 4.8a. Yglesias phase zoomorph, Gann 09.0594. Courtesy: National Museum of the American Indian, Smithsonian Institution.

The other zoomorph is a bicephalic creature with spotted feline body and one feline head with deer antlers and personage in its mouth and one shark head with 'supernatural eyes' (Fig. 4.8b). See Feline section for a description of this animal's distinguishing characteristics.

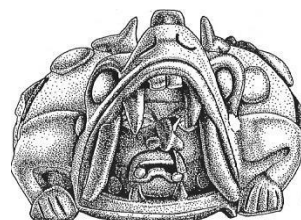
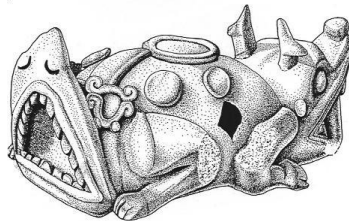


Fig. 4.8b. Yglesias phase zoomorph, LA 767/1.

Another Lamanai zoomorph consists of the body of a feline with spotted long tail and head of a crocodile with 'supernatural eyes' (Fig. 4.8c).

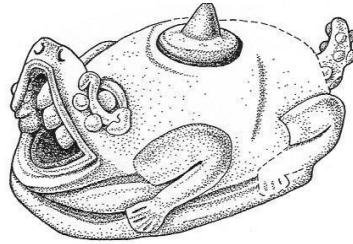


Fig. 4.8c. Yglesias phase zoomorph, LA 423/4.

Fish characteristics make up parts of two Lamanai zoomorphs. In the first example, the fish is represented by the creature's tail fin (Fig. 4.8d). The rest of this zoomorph consists of the body and head of a crocodile with spotted deer antlers and personage peering out of its mouth.

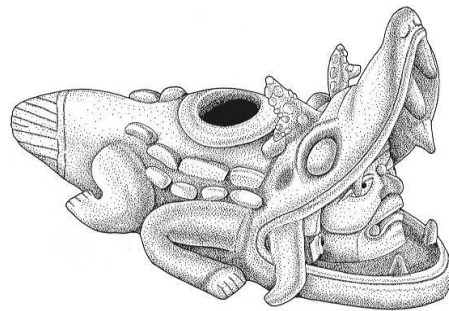


Fig. 4.8d. Yglesias phase zoomorph, LA 833/1.

The second example displaying fish characteristics is a zoomorph with spotted crocodile body and small horns, possibly deer antlers, large ringed eyes and wide open and barbed fish mouth (Fig. 4.8e). See Reptile section for a description of crocodiles' distinguishing characteristics.

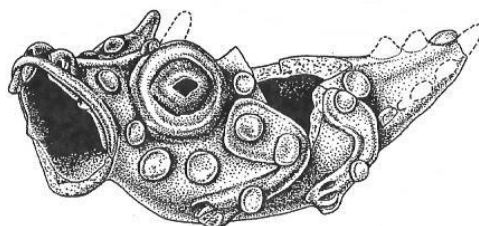


Fig. 4.8e. Yglesias phase zoomorph, LA 757/1.

Another Lamanai zoomorph is made up of the body of a manatee, recognisable as such by the animal's distinctive rotund torso, smooth skin and large, forked tail (Fig. 4.8f). The zoomorph also displays 'supernatural eyes'.



Fig. 4.8f. Yglesias phase zoomorph, LA 740/2.

Three of the Lamanai zoomorphs contain supernatural or deity figures (see Anthropomorphic section), which peer out of, or are in the process of emerging from the creatures' open maws (Figs. 4.8b and d; Catalogue Fig. 6.1.5).

Feather

The feather motif category forms one motif group, which contains individual feathers characteristically represented as two undulating parallel lines that meet at one or two ends in a point (Fig. 4.9). A central incision line runs the length of individual feathers. Feathers usually form parts of bunched feather-sprays held together by a single rectangular plain band. The bunched feather-sprays may represent reptile tails or feathers placed behind the heads of reptiles (see Reptile section; Figs. 4.7a, c and d).

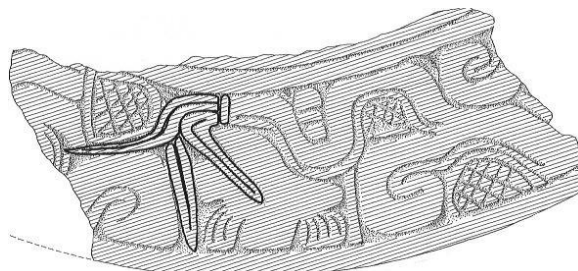


Fig. 4.9. Buk phase pedestal-based jar, pedestal base, detail, LA 64/1.

Flower

The flower motif category is varied, divided into three sub-groups. The first (flower_a) displays bird's-eye views of open flowers, usually with four thick petals, which may be arranged around a central circular stamen (Fig. 4.10a).

Sometimes petals display parallel incision lined running part of their length.

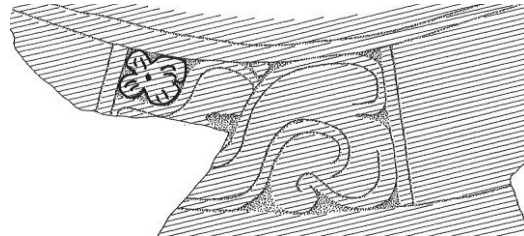


Fig. 4.10a. Buk phase pedestal-based jar, shoulder, detail, LA 72/1.

The second motif group (flower_b) contains single, or groups of, isolated incised petals. The isolated petals may be contained within triangular forms with rounded edges and display parallel incision lines (Fig. 4.10b).

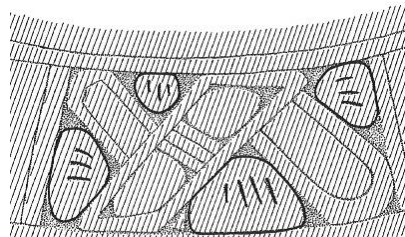


Fig. 4.10b. Buk phase pedestal-based jar, shoulder, detail, LA 95/1.

The second flower motif sub-category may also include the profile view of three or more incised petals fused together in a simplified and standardised inverted triangular or rectangular form (Fig. 4.10c).

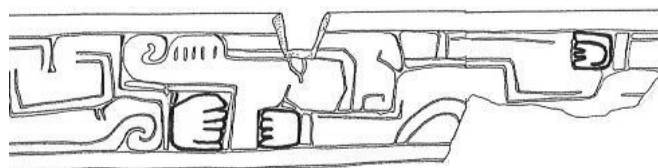


Fig. 4.10c. Buk phase bowl, rim, LA 44/1.

Alternatively, this flower motif sub-group might display aggregated flower petals which metamorphose from other motifs into broad petals, usually around the edges of imagery panels, but not in a symmetrical manner, i.e. not around a central point, but filling vacant spaces left by the other motifs within the imagery bands (Figs. 4.10d and 4.9).

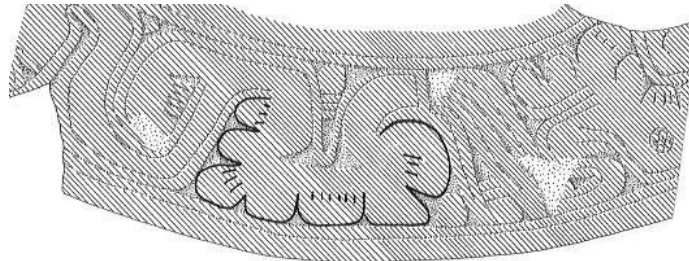


Fig. 4.10d. Buk phase chalice, pedestal-base, detail, LA 102/2.

The third flower motif sub-group (flower_c) consists of bird's-eye views of flowers, much like flower_a (Fig. 4.10a), but which incorporate two diagonally crossing lines. These crosses may be recessive (Fig. 4.10e) or dominant (Fig. 4.10f) within the flower motif.

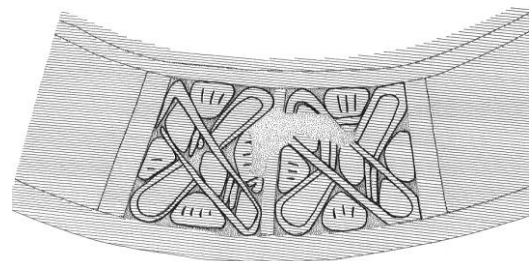
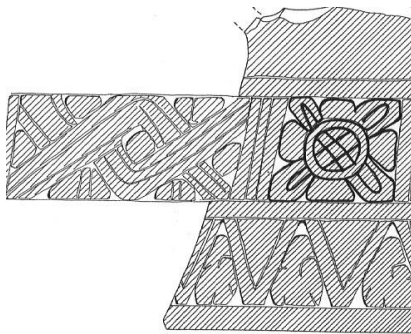


Fig. 4.10f. flower_c with dominant cross. Buk phase pedestal-based jar, pedestal base detail, LA 95/1.

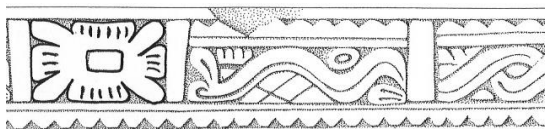


Fig. 4.10e. flower_c with recessive cross on Buk phase vessels. Top: bowl, rim, detail, LA 48/2; bottom: chalice, pedestal base, detail, LA 243/16.

Although the above three flower motif sub-groups differ in appearance, all display flower petals: flowers_a display bird's-eye views of flowers with four or

more petals arranged around a central stamen; flowers_b depict flower petals that may stand isolated or metamorphose into various other motifs; and flowers_c represent bird's-eye views of flowers with incorporated crosses. Consequently, the three flower motif sub-groups all signify or refer to 'flowers'.

Organic

Two Terminal Classic Period dishes display what have been classed as the organic motif. The motif is distinguishable from others through its bulbous irregular shape (Fig. 4.11) and resembles the stylised 'supernatural eyes' found on Lamanai Terminal Postclassic/Early Historic zoomorphic creatures (see Zoomorphic section, Chapter 5: Organic section; Figs. 4.8a-c and f).

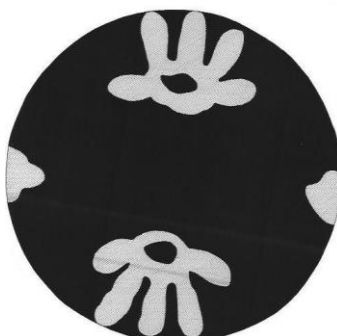


Fig. 4.11. Terclerp phase dish, interior, LA 625/2.

Shell

The shell motif category only contains one example (Fig. 4.12). The Terminal Postclassic/Early Historic vessel depicts a naturalistic representation of a spiked Caribbean conch shell. The shell forms the distinctive spiral form of the calcareous protective outer layer built up by a sea mollusc around its body. An anthropomorphic figure, interpreted as the aged creator God N (Chapter 8: see Anthropomorphic), emerges from the shell's opening.

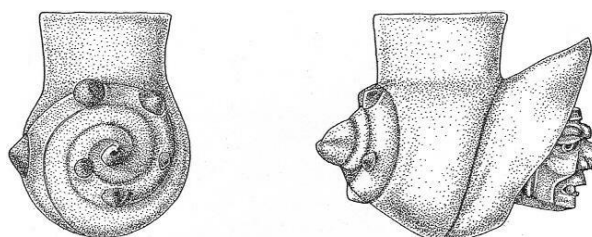


Fig. 4.12. Yglesias phase effigy vessel, LA 411/1.

GEOMETRIC MOTIFS:

The geometric motif group contains seven motif categories: arch, cross, cross-hatch, oval, rectangle, scroll and triangle (Table 4.1).

Arch

There are few occurrences of the arch motif in Lamanai ceramic art. Arches resemble halved ovals (Fig. 4.13) and embellish other motifs.

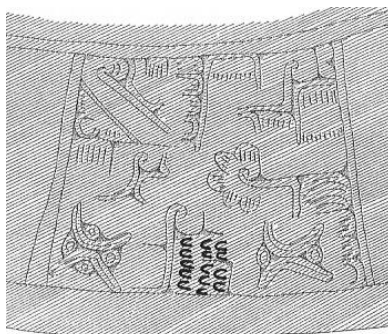


Fig. 4.13. Buk phase chalice, pedestal base, detail, LA 127/7.

Cross

The cross motif category is divided into three sub-groups. The first sub-group ($cross_a$) displays wide crosses formed by broad horizontal- and vertical-crossing dotted bands (Fig. 4.14a). Lamanai $cross_a$ only occurs on Terminal Classic ceramics: incised on the exterior of one cylinder vase and painted on the interior of one polychrome dish.

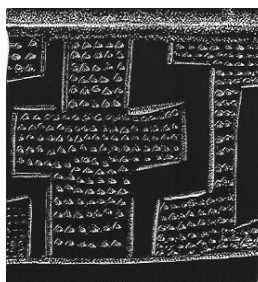


Fig. 4.14a. Terclerp phase vase, detail, LA 508/7.

The second sub-group ($cross_b$) displays bands crossing diagonally that are sometimes placed within cartouches with rounded edges (Fig. 4.14b).



Fig. 4.14b. Buk phase pedestal-based jar, pedestal base, detail, LA 95/1.

The third cross sub-group (cross_c) displays two diagonal lines crossing at right angles that are contained within a circular frame (Fig. 4.14c). The diagonally crossing lines divide the resulting circular area into triangular, striated areas, at times arranged in complex designs. However, in the majority of cases, the horizontal lines of the striated areas meet at right angles to the adjacent triangular areas' lines. Cross_c only occurs on the interior of Early to Late Postclassic grater bowls.

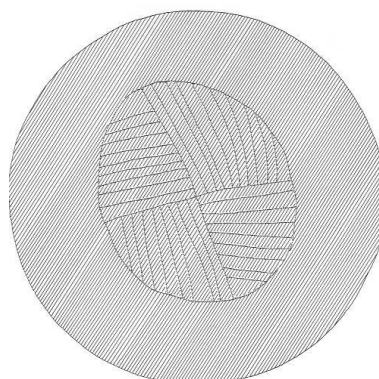


Fig. 4.14c. Buk phase grater bowl, interior, LA 13/10.

Cross-hatch

Cross-hatch motifs are uniform in appearance thus forming one motif group. What has been termed the cross-hatch motif in this study, in the past has been considered a convention for representing black in sculpture (Thompson 1970:223), or has been interpreted as a net (Stone 1985:39). I consider the Lamanai cross-hatch motif consisting of diagonally placed parallel lines that cross at right angles (Figs. 4.15, 4.9 and 4.14b). The surrounding form of the

cross-hatch motif is varied, but is usually contained within a rectangular cartouche with rounded edges and is framed by a narrow band. The cartouches sometimes appear very rounded, resembling a semi-circle rather than a rectangle. In some examples, the cross-hatch motif occurs within ovals – for example, marking the body of reptilian creatures (Fig. 4.7c), within triangular forms (4.10e [bottom]), or the triangular forms that make up the triangle band motif (see Triangle band section; Catalogue Fig. 3.8.1).

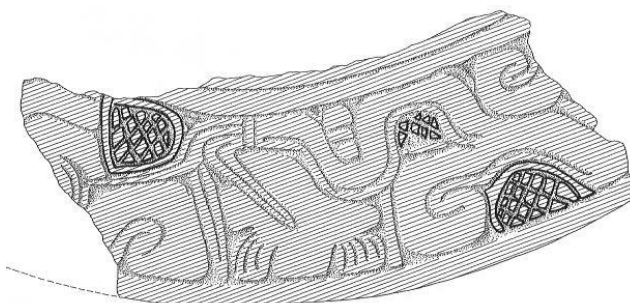


Fig. 4.15. Buk phase pedestal-based jar, pedestal base, detail, LA 64/1.

Oval

The oval motif category includes elliptic and circular shapes which are plain or incised (Fig. 4.16) with lines cutting into them vertically and laterally, and/or in a curve following their contour line. The ovals may also contain circular elements, or are marked with a central cross (+), or are halved, or form appliqué-modelled rows attached to vessel exteriors.

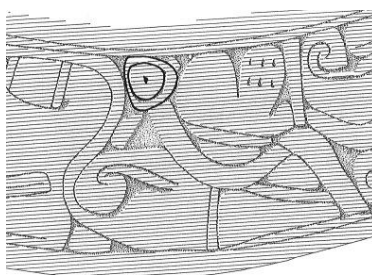


Fig. 4.16. Buk phase chalice, pedestal base, detail, LA 95/8.

Rectangle

Rectangles comprise one motif category; they consist of parallelograms having four angles with rounded outer edges that in sum add up to 360°. The

rectangles are framed in a variety of different ways, most frequently by thin bands (Fig. 4.17) or other motifs. Rectangles are very frequent and are always surrounded by many different motifs. Rectangles may be plain or embellished with incised lines, slits or dots.

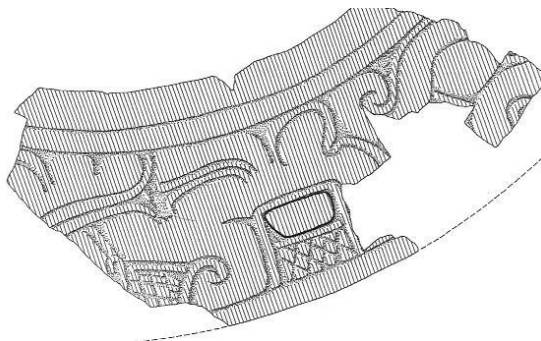


Fig. 4.17. Buk phase pedestal-based jar, pedestal base, detail, LA 64/1.

Even though rectangles are frequent, their occurrence is interpreted as having little symbolic meaning and being of ornamental, rather than symbolic, use, filling spaces between other motifs. Evidence for rectangles as space-fillers is found in the fact that the motif is never combined with the motifs anthropomorphic, bird or animal. The anthropomorphic, bird and animal motifs are unusually not placed within complex imagery bands but form isolated appliqué-modelled figures. Furthermore, rectangles are never combined with motif bands. Motif bands, such as T-shaped bands, do not provide a border enabling the definition of a space that could be interpreted as a rectangle (see T-shaped band section). The fact that rectangles display great variation in form reinforces their interpretation as spaces defined by adjacent motifs in complex imagery scenes. Rectangles thus define blank spaces within Lamanai imagery.

Scroll

The scroll motif category is divided into five sub-groups. The first (scroll_a) consists of wide bands contained by parallel lines that end in broad, rounded hooks and are embellished with additional lines that follow the scroll's contour lines (Figs. 4.18a, 4.5a, 4.7e, 4.9, 4.10a/c, 4.13, 4.15, 4.16 and 4.17). The latter lines usually follow the inner scroll hook. In addition, parallel lines sometimes

cut across the stem of the scroll immediately beneath the scroll hook, giving this motif the appearance of a hooked staff. Bands that end in scroll hooks sometimes widen and turn into petal and flower elements (see Flower section). Occasionally, scrolls_a are spotted.

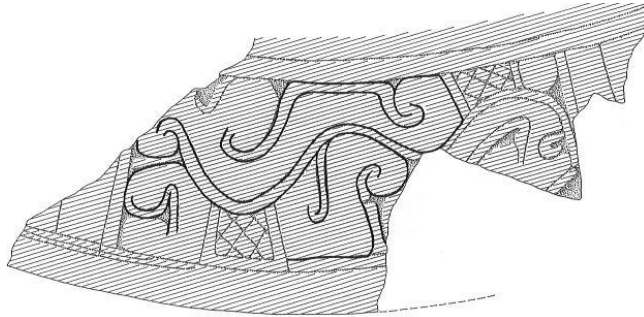


Fig. 4.18a. Buk phase pedestal-based jar, pedestal base, detail, LA 72/1.

The second scroll sub-group (scroll_b) contains isolated scrolls rotated to lie horizontally. These scrolls are either isolated in panels, with the scrolls repeated in a continuous row within the panels, or they form part of complex imagery bands (Fig. 4.18b).

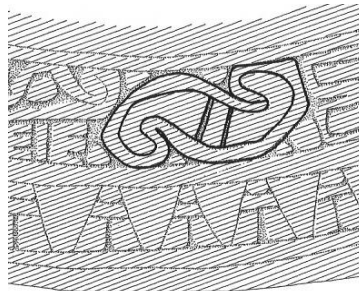


Fig. 4.18b. Buk phase chalice, pedestal base, detail, LA 243/6.

The third scroll motif sub-group (scroll_c) comprises imagery panels which are made up of a multitude of interlinked and slanting scrolls of different sizes and forms (Fig. 4.18c), the majority of which are incised with 'decorative' markings and appear angular (Fig. 4.18d). Some of these scrolls are dotted, others are segmented.

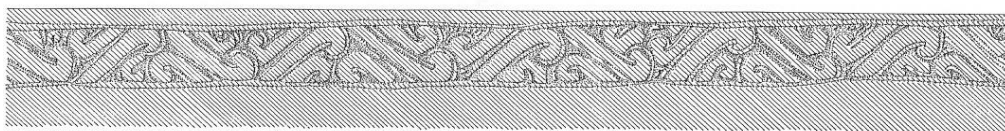


Fig. 4.18c. Cib phase bowl, rim, LA 243/6.

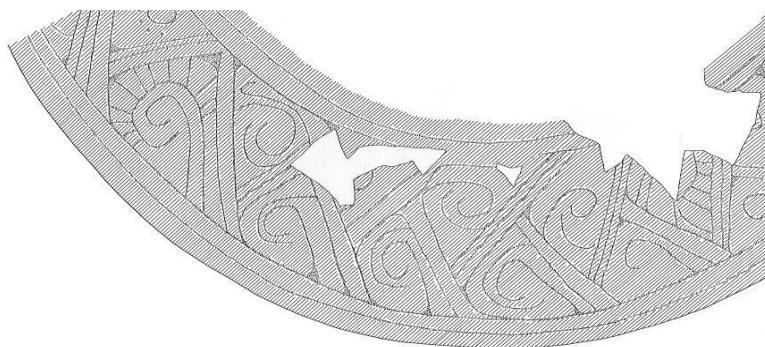


Fig. 4.18d. Buk phase chalice, pedestal base, detail, LA 243/22.

The fourth scroll motif sub-group (scroll_d) consists of single (Fig. 4.18e) or bands (Fig. 4.18f) of large and angular scrolls that push against the borders of their framing imagery bands. Scroll_d occurs on the painted interiors of Terminal Classic polychrome dishes (Fig. 4.18e) and the exterior rim of one Early Postclassic bowl (Fig. 4.18f).



Fig. 4.18e. Terclerp phase polychrome dish, LA 694/7.

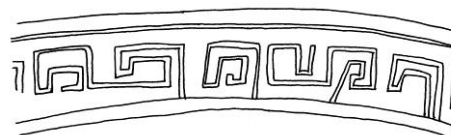


Fig. 4.18f. Line drawing of Buk phase bowl, rim, sherd, midden associated with Str. N10-27.

The fifth scroll motif sub-group (scroll_e) consists of isolated, small and hooked-shaped pendant scrolls (Fig. 4.18g).

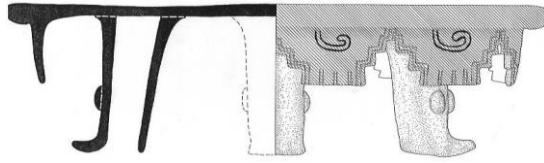


Fig. 4.18g. Cib phase tripod plate, LA 77/1.

Triangle

The triangle motif consists of a closed figure bound on three sides in a three-sided polygon, the sum of whose interior angles add up to 180°. The triangles display rounded points (Fig. 4.19) that are often incorporated on one or more sides into an imagery band. Triangles are occasionally dashed.

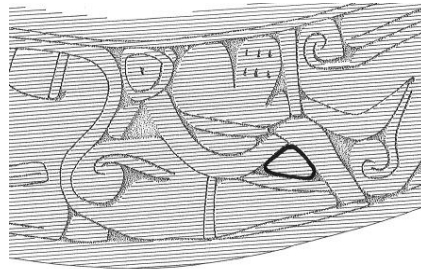


Fig. 4.19. Buk phase chalice, pedestal base, detail, LA 243/2.

As was the case with the rectangle motif (see Rectangle section), triangles fill spaces formed by surrounding motifs. Consequently, they are most likely of ornamental use with little symbolic meaning. Triangles and rectangles are thus omitted from the contextual analyses conducted in the following chapters.

Motif bands

The motif bands group contains five motif categories: arc band, intertwined band, triangle band, T-shaped band and rectangle band (Table 4.1).

Arc band

The arc band motif category contains arc-shaped, semi-oval elements forming bands (Fig. 4.20). Arc bands often entirely frame other imagery ‘scenes’ and either occur as rows of concentric half circles (a), display small arcs along their bottom edge (b), or are dashed.

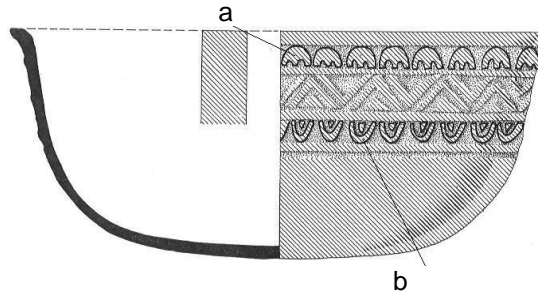


Fig. 4.20. Buk phase bowl, LA 182/4.

Intertwined band

The intertwined band motif belongs to one motif category divided into three sub-groups. The first intertwined band motif sub-group forms a *plait of three interwoven bands* consisting of rows of parallel hooked elements arranged at a forward or backward slanting angle (Fig. 4.21a). The hooked elements are often incised in the centre with lines following the contour of the hooked element’s main body.

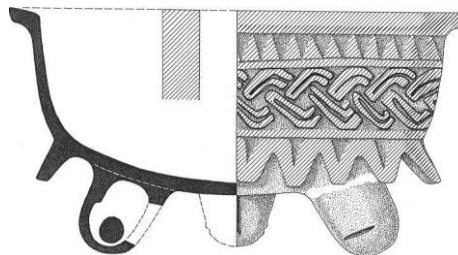


Fig. 4.21a. Buk phase tripod bowl, LA 127/2.

The second intertwined band motif sub-group displays *two interweaving bands* forming *sinuous* bands. Sinuous intertwined bands consist of hooked elements that form an S-motif with hooks at their beginning and end (Fig. 4.21b). These are arranged at a forward slanting angle in horizontal bands. Sometimes, flower petal elements (see Flower_b section) incised with parallel lines or ovals are

placed in the gaps created by the end and front hook of the two adjacent hooked elements that meet to form the continuous sinuous intertwined band.

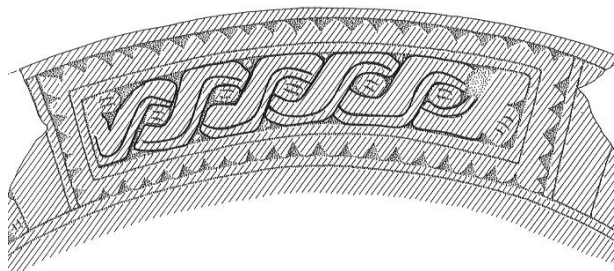


Fig. 4.21b. Buk phase bowl, rim, detail, LA 72/4.

Alternatively, the two-band sinuous intertwined band motif in the second intertwined band motif sub-group displays hooked elements that merge and interlink by crossing, as if woven (Fig. 4.21c).

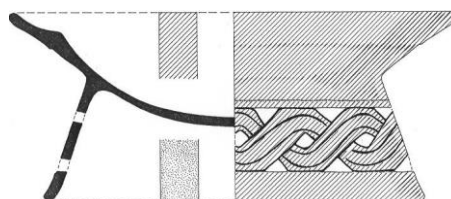


Fig. 4.21c. Buk phase chalice, LA 72/3.

The third intertwined band motif sub-group displays *two interweaving bands*, much like the second intertwined band sub-group, but which form more *angular* bands (Figs. 4.21d-f). Examples were detected that show the motif changing from a sinuous intertwined band (as classified in the second sinuous intertwined band motif sub-group [Fig. 4.21c]) to a more angular band (Fig. 4.21d) . . .

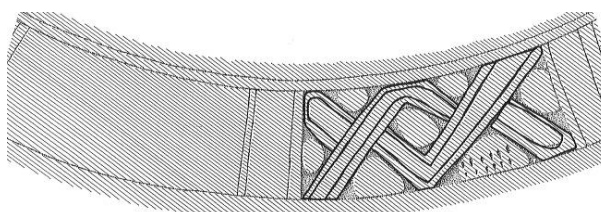


Fig. 4.21d. Buk phase pedestal-based jar, shoulder, detail, LA 95/1.

. . . into a rectangular shape (Fig. 4.21e).

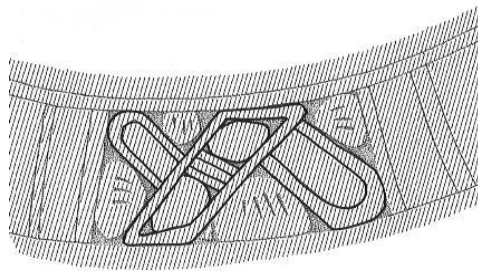


Fig. 4.21e. Buk phase pedestal-based jar, shoulder, detail, LA 95/1.

On one occasion this last form is made up of parallel lines (Fig. 4.21f).

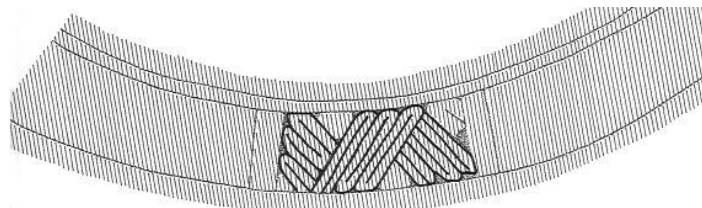


Fig. 4.21f. Buk phase pedestal-based jar, shoulder, detail, LA 95/6.

Triangle band

Triangle bands occur in two different forms. This motif category includes alternating triangles and inverted triangles joined to form rectangular incised bands (Fig. 4.22a). The triangles often alternate between being plain or having horizontal bands that diminish in size towards the apex of the triangles. Sometimes both forms are combined, with one triangle shape plain, followed by the next being striated, the next plain etc. (Fig. 4.22a).

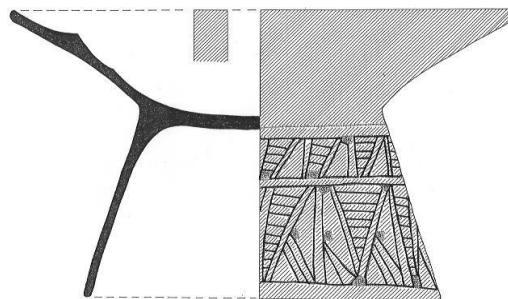


Fig. 4.22a. Buk phase chalice, pedestal base, detail, LA 243/19.

Occasionally, the triangles of these bands are divided by a capital or upper case T-shape (Fig. 4.22b), are dashed, or have interior contour lines. In some versions, circles or arches are placed within the triangles.



Fig. 4.22b. Buk phase chalice, pedestal base, detail, LA 243/6.

Triangle bands often frame, and/or are framed at the sides, with plain bands. The band may also be plain and joined at mid-height, often with flattened tops (Fig. 4.22c).

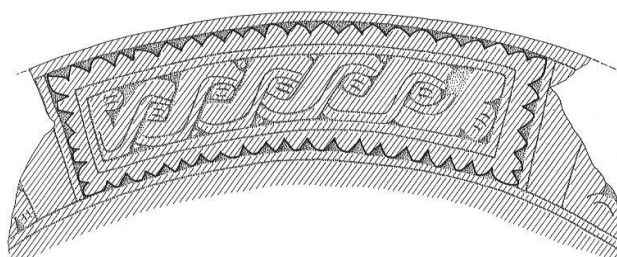


Fig. 4.22c. Buk phase bowl, rim, detail, LA 72/4.

T-shaped bands

The T-shaped band motif category contains segmented flanges that run around vessel exteriors (Figs. 4.23a and b, 4.5b and 4.21a). The individual flange segments are made up of individual T-shaped symbols (Fig. 4.23a) or step-frets (Fig. 4.23b), with incision lines following the flange segments' lines and/or running parallel down the segments' centres from the top and along the top. Crosses formed by a horizontal and vertical band crossing at a right angle occasionally decorate the flange segments.

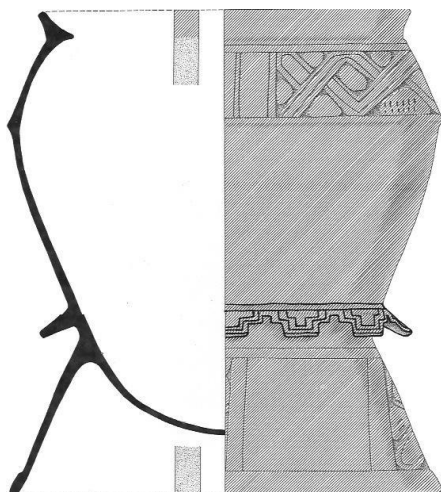


Fig. 4.23a. Buk phase pedestal-based jar, LA 95/1.

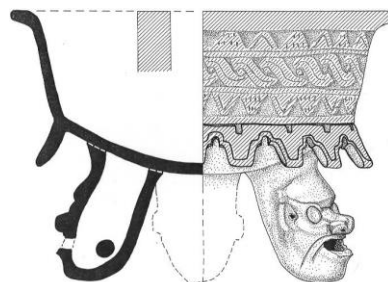


Fig. 4.23b. Buk phase tripod bowl, LA 13/9.

Rectangle band

The rectangle band motif category consists of continuous rows of rounded rectangles that may merge at mid-height and are incised with lines that follow part of the rectangles' contours or are arranged in parallel, vertical rows (Fig. 4.24). Rectangle bands often frame other imagery.

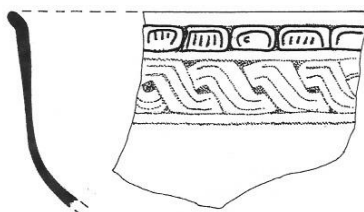


Fig. 4.24. Buk phase bowl, rim sherd, LA 187.

Plain bands

Two motif band categories are plain and include horizontal bands and vertical bands. Horizontal bands are always combined with vertical bands. Their pairing represents a lack of variability in expression, suggestive of a functional use. Closer visual examination established that horizontal bands and vertical bands act as framing and separating devices placed around the ceramics' main imagery bands/panels. Consequently, both motifs were interpreted as having little symbolic meaning, beyond serving a structuring nature, and consequently do not form part of the iconographical and contextual analyses performed in the following chapters.

Horizontal band

The horizontal band motif category (Fig. 4.25) includes rectangular plain bands that horizontally frame imagery panels. In three instances horizontal bands are dotted.

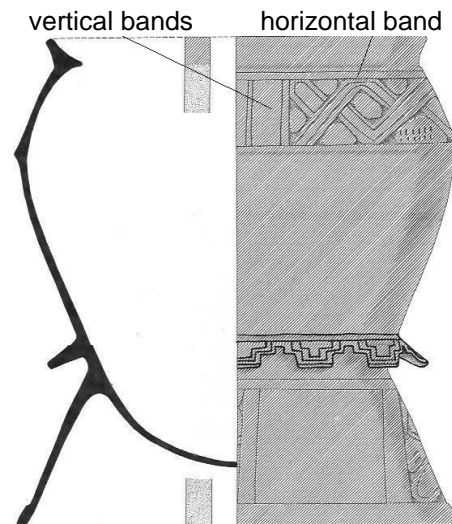


Fig. 4.25. Buk phase pedestal-based jar, pedestal base, detail, LA 95/1.

Vertical band

Vertical bands (Fig. 4.25) consist of plain rectangular bands of different widths and heights that act as separating devices placed between imagery 'scenes'. Very occasionally they are dotted.

Miscellaneous motif group

The miscellaneous motif group contains glyphs/pseudoglyphs and other motifs.

Glyphs/pseudoglyphs

Glyphs constitute Maya hieroglyphs (Fig. 4.26) and 'pseudoglyphs', illegible 'nonsense' glyphs (Catalogue Figs. 2.2.2 and 2.2.3).

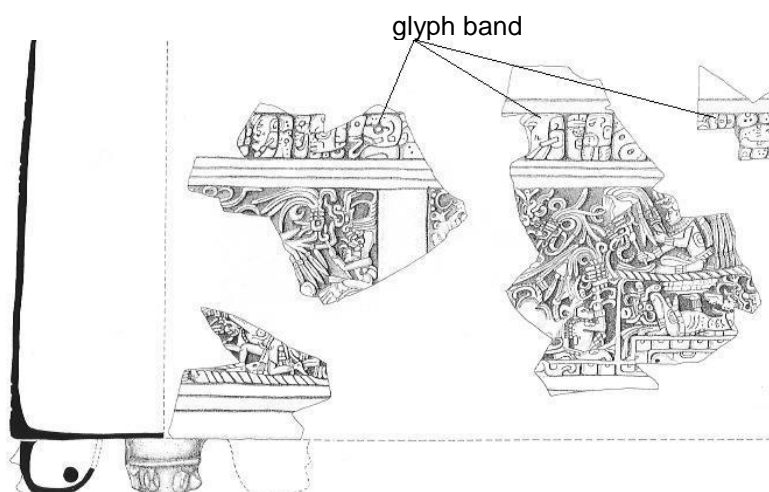


Fig. 4.26. Terclerp phase Molded-carved tripod vase, LA 661/1.

Other motifs

The other motifs group contains unidentifiable, individual motifs that could not be attributed to motif categories in their own right and were consequently grouped together as a practical measure. Although Other motifs contain individual motifs, a study of motif combinations would be meaningless and is therefore not included in the iconographical analysis in following chapters.

Chapter 5: Terminal Classic ceramics (Terclerp phase; ca. A.D. 800 - 1000) (Catalogue Figs. 2.1.1-2.3.3)

Sample

The Terminal Classic data sample contained 24 examples, all ceramics in the on-site collection and in storage. Jaccard (see Chapter 3) deleted from the calculations all vessels that displayed no motif combinations or motifs with fewer than two occurrences. Consequently, 14 Terclerp phase examples were scored on 8 isolated motifs to reveal significant motif combinations (see below and Appendix 3, Tables A3.2-4). Although the sample size is relatively small, it must be remembered that this sample represents only the ceramics that revealed imagery. Most Terclerp phase vessels display no imagery.

Four ceramic populations occur, three believed to have been manufactured at Lamanai, Lamanai polychromes, incised black cylinder vases and fire-clouded bichrome dishes (Daylight Orange: Darknight Variety [Gifford 1976:301-302, Fig. 199]), and the imported Molded-carved vessels (Adams 1971; Sahcaba type [Helmke 2001:17, Table 2]). Molded-carved vessels represent foreign imports to the site evident by their distinctive style and paste characteristics. Lamanai polychrome predominates with thirteen examples. Only two bichrome dishes and two black incised cylinder vases were recovered. The three ceramic groups are dated at Lamanai to the Terclerp phase (ca. A.D. 800 - 1000; Graham 1987a:76-81).

Individual motifs

Glyph (7), oval (7), triangle band (6), cross_b (5), other motif (5), scroll_d (3), feline (3), flower_a (3), anthropomorphic (2), cross_a (2), reptile (2), organic (2), cross-hatch (1), intertwined band (1), feather (1).

Motif combinations/substitutions (key paradigmatic sets)

Cross_b/oval/flower_a/triangle band/feline (0.25 S_J).

Anthromorphic/glyph/reptile (0.65 S_J).

Motifs and motif combinations related to the vessels on which they occur

Cross_b/oval/flower_a/triangle band/feline on polychrome dishes.

Glyphs on black incised cylinder vases.

Anthromomorphic/glyph/reptile on molded-carved vessels.

DEFINITION OF STYLE

The style of each ceramic group defined (Lamanai polychrome, black cylinder vases, bichrome fire-clouded, and Molded-carved) is considered in turn, characterised by different motifs, their combinations and substitutions, and relation to the vessels on which they occur. This includes an examination of the expression of motifs (whether painted or modelled) and placement of motifs relative to vessel body (location of motifs on vessels and motif arrangement). For tabulated data concerning isolated motif number counts, motif combinations and substitutions, and relation to the vessels on which they occur see Appendix 3, Tables A3.1-5.

Lamanai polychromes (Catalogue Figs. 2.1.2-2.1.9)

Flower_a motifs are significantly combined with cross_{a/b} and oval (see Appendix 3, Tables A3.2-4). There are no examples of flower_a combined with any other motifs. Felines are only significantly linked to triangle bands, although they also occur with other symbols (reptile, cross_b, oval and scroll_d). Flower_a and felines are never combined. Cross_b is significantly linked to ovals and flower_a. Iconic motifs do not occur in combination with each other, such as feline with flower_a. This leads to an overall visual effect of well defined motifs that concentrate on a symbolic message expressed with immediacy and strength in a single, often centrally placed, motif. This stylistic trait stands in stark contrast to the treatment and presentation of motifs in later phases (see Chapters 6 and 7).

All Lamanai polychrome vessels are dishes displaying painted imagery in bands on their interiors, usually black and red on orange (Fig. 5.1). The vessels were slipped then painted. Lamanai polychrome dishes show some strong patterning in terms of where motifs are placed on the dishes. For example, flower_a is always painted on the interior base of polychrome dishes (Catalogue Figs. 2.1.4-5, 7, and possibly 6). The painted nature of the vessels is what characterises Lamanai polychromes (the majority of Terclerp phase ceramics)

and is the most striking attribute of this style, differentiating this ceramic group from those of subsequent phases. The dishes reflect how style may be influenced by technique. In the ceramic sample examined, motifs occur painted only in the Terminal Classic Period. Later phases express their symbols with incision and appliqué-modelling, occasionally embellished with paint.



Fig. 5.1. Terclerp phase polychrome dish, LA 694/7.

Lamanai polychrome dishes display a standardised treatment of imagery bands. Multiple bands circumscribe the dishes' interiors to form concentric ovals with an outer rim panel designated as the main band by its size and motif contents (Catalogue Fig. 2.1.8). The polychrome dishes display isolated central motifs, usually surrounded by bold motifs drawn in thick black outline and placed in these bands. The central motif is the symbolic focus of the dish. The imagery bands focus attention on the central motif and are usually subdivided into panels by triangle bands which, when viewed in combination with the central and oval interior bases of the dishes, resemble sun rays (Catalogue Figs. 2.1.4-9). The motifs within these bands do not merge or overlap with other motifs. This differentiates Terminal Classic imagery from subsequent Early Postclassic Buk phase imagery (see Chapter 6). It also differentiates the style of Lamanai polychromes from other Terminal Classic phase imagery, e.g., Molded-carved vessels, which display a more sinuous 'organic' style (see below).

Black cylinder vases

Three black-slipped incised cylinder vases with motifs (Catalogue Figs. 2.2.1-3; Fig. 5.2) occur in the Terclerp phase. The vases' exteriors are pre-slip incised, displaying motifs placed in bands: two that contain pseudoglyphs (Catalogue Figs. 2.2.2-3) and one cross_a (Catalogue Fig. 2.2.1). Although distinct in motif

treatment (incised), placement on vessels (exterior) and vessel form (vases), in comparison to Lamanai polychrome dishes (imagery painted on dish interiors), *cross_a* is represented in the same stylistic manner (filled with dots) on one black incised vase (Fig. 5.2; Catalogue Fig. 2.1.3). The stylistically similar treatment of motifs, although in typologically distinct ceramic groups, demonstrates that motifs and style may cross-cut material boundaries, in this instance, ceramic groups.

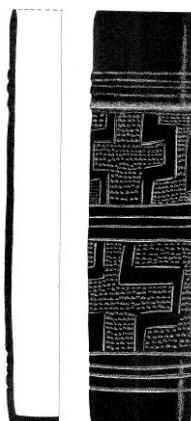


Fig. 5.2. Terclerp phase incised black cylinder vase, LA 508/7.

Bichrome dishes (Catalogue Fig. 2.1.1)

Two fire-clouded bichrome dishes (Daylight Orange: Darknight Variety [Gifford 1976:301-302, Fig. 199]), occur in the Terclerp phase, one decorated on its interior (Fig. 5.3; Catalogue Fig. 2.1.1) and the other on its exterior. The two dishes are the only Terminal Classic Period vessels that do not display imagery contained in bands; instead they depict the single motif classed as ‘organic’ (see Chapter 4). The overall visual effect of the dishes is strikingly bold, simply and directly transmitting its symbolic message.



Fig. 5.3. Terclerp phase fire-clouded dish, LA 625/2.

Molded-carved vessels (Catalogue Fig. 2.3.1-2.3.3)

Wholly different in appearance to the polychrome dishes are the Molded-carved vessels, most likely imports to the site, which display a larger range of motifs placed within busy imagery bands (Fig. 5.4). The vessels combine the iconic motifs reptiles and anthropomorphic – unlike Lamanai polychromes, in which iconic motifs do not occur in combination with each other (see above) – which results in the expression of more visually-complex scenes and resultant symbolic messages. Furthermore, the motifs are finely (pre-slip) incised or moulded onto the exterior of the vessels and, even though the motifs do not overlap, the imagery seems compressed with multiple motifs covering the entire exterior surface of the vessels. Detailed imagery scenes depict individuals engaged with supernaturals and reptiles. Glyphs occur on the imported Molded-carved ceramics, where they are placed above or below imagery scenes in bands. The style of Molded-carved vessels is more typical of that of Classic Period Maya art, as is its iconographical content. This opinion agrees with that held by Adams (1973b:146, 153-155, Appendix B), whose stylistic analysis of Pabellon Molded-carved vessels and Seibal sculpture led him to conclude that they exhibit substantial ‘Classic’ components which are, furthermore, distinct from ‘Mexican’ styles (D. Chase and A. Chase 2004:25; Chapters 6 and 7: see Inter-site relationships sections).

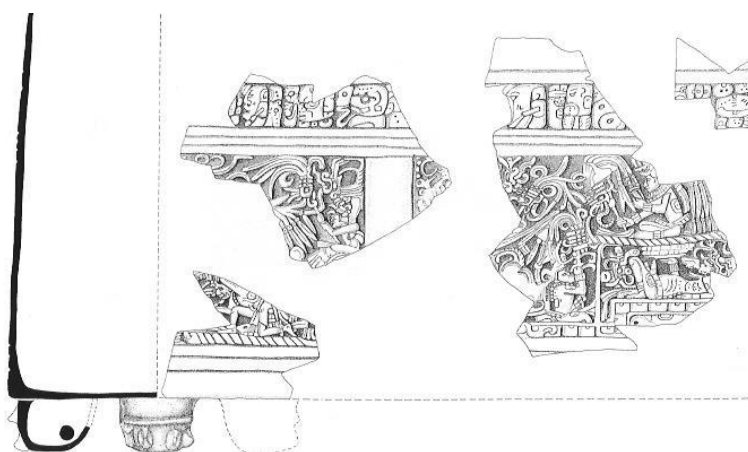


Fig. 5.4. Terclerp phase Molded-carved tripod vase, LA 661/1.

MATERIAL AND SOCIO-CULTURAL CONTEXTS (ICONOGRAPHICAL CONTENT)

Archaeological-contextual analysis

Examination of archaeological contexts (see tabulated data in Appendix 3, Table A3.6) revealed a small and widely distributed Terclerp phase sample, with caches in Str. N10-12 – within the elite compound N10[3] – containing Lamanai polychrome dishes that display flowers or felines (combined with cross/oval/triangle band). Notably, the elite compound N10[3] is located near Str. N10-9 and its jaguar masks. A specific ceremonial offering associated with the imagery displayed is likely.

Terminal Classic ceramics are from a variety of archaeological contexts. Examples are spread throughout the site and the vessels reveal no pattern distinct from any other period with relation to structures or contexts, except for all caches containing dishes. It is possible that offerings were made in large polychrome dishes as a cultural tradition at the time. Burials and caches make up 46% of the data sample of reconstructible or whole vessels, with caches dominating. Terminal Classic ceramics also occur frequently in middens. However, they make up only a tiny proportion of the total Terminal Classic/Early Postclassic Period midden sherd counts. Consequently, it is difficult to draw conclusions from the sherds and fragmentary material, especially with regard to motif combinations. Most iconographical interpretation in this phase is based on a small number of complete (re-assembled) vessels such as the ‘feline dishes’ (see Feline section). All lots represent primary material except for LA 115 and LA 62, which are from the core and collapse of Str. N10-2; and LA 656 and LA 630, from the fill and core of Str. N10-15 (see Appendix 3, Table A3.6). Terminal Classic motifs are grouped according to their iconic or geometric nature and presented in alphabetical order, where interpretation was possible.

Socio-cultural contextual analysis

ICONIC MOTIFS:

Anthropomorphic motif (Catalogue Figs. 2.3.1 and 3)

In the Terminal Classic Period, anthropomorphs occur on Molded-carved vessels. One Molded-carved tripod vase is much eroded. However, the depiction of an elite ceremony is discernible in which individuals perform penis perforation, indicated by the supernatural bloodletters they hold between their legs (Fig. 5.4; Catalogue Fig. 2.3.1; Chapter 6: see Reptile section). The bloodletters are topped by feathered supernatural bird masks. Similar supernatural bloodletters are depicted on Classic Period ceramics (e.g., Kerr vessel No 8665 [http://research.famsi.org/kerrmaya_hires.php?vase=8665], No 3844 [http://research.famsi.org/kerrmaya_hires.php?vase=3844]) and in architectural carvings (see Stuart 1988:209-210, Figs. 5.38 and 5.39). Two discernible deities are represented on the Lamanai vessel, *Itzamna* (Chapters 6 and 8: see *Itzamna* sections) and a deity supporting something on its back. The elite figures wear feathered beast headdresses typical of Classic Period art (see Stuart 1988:193, Fig. 5.23). The headdress beasts are not identifiable due to their eroded nature. The elite individuals stand on bands that contain abbreviated reptile heads.

Feline (jaguars and flower_a) (Catalogue Figs. 2.1.2, 8 and 9 [jaguars]; 2.1.4, 5, 7 and possibly 6 [flower_a])

In the Terminal Classic Period, jaguars, recognisable by their distinctive spotted pelt, and flowers occur on dishes used in dedicatory rites exclusive to the elite compound N10[3]. All polychrome dishes in this sample were retrieved from caches, not burials and thus would have contained non-funerary related offerings. At Lamanai, the jaguar in context most likely represents the Jaguar Sun. The Jaguar Sun was a deity that underwent bloody sacrifice at sunset and travelled through the otherworld to be reborn at dawn the next day (Florescano 1999:19; Robicsek and Hales 1988:166; Thompson 1960:12). The jaguar is indicative of sacrifice (Miller and Taube 1993:102-103; Thompson 1960:115-116), the otherworld (Florescano 1999:19; Miller and Taube 1993:102-104;

Robicsek and Hales 1988:166; Thompson 1960:74), and was considered a powerful spirit used by shamans to access this realm (Markman and Markman 1989:104; Miller and Taube 1993:102, 122-123, 152, 176; Furst 1976). The jaguar is furthermore associated with many chthonic deities (Ardren 1993:241; Miller and Taube 1993:104). The jaguar simultaneously acted as a powerful royal emblem inherited through the male line (Benson 1980:158; Coggins 1975:125, 270; Taube 1992a:54).

Jaguars occur on polychrome dishes retrieved from two caches in this sample (Caches N10-12/8 and N10-15/8), both located within the elite compound N10[3]. Across a large plaza, N10[2], south of the elite compound, stands the Classic Period Structure N10-9, embellished at its stair-side outsets with large jaguar masks. The concentration of jaguar imagery associated with the Plaza N10[2] area reflects a focus on the animal in the Terminal Classic Period and earlier in this portion of the site. The following three Terminal Classic Lamanai caches (N10-12/8, N10-12/2 and N10-15/8) within the elite compound N10[3] are discussed below to elucidate their symbolic meaning through an examination of their ceramic symbolism and archaeological contexts.

Structure N10-12, 1st, caches

Cache N10-12/8: Night-time (jaguar) sun offering

Two near-identical dishes recovered from Cache N10-12/8 depict three jaguars each placed in bands around the vessels' interior rims (Catalogue Figs. 2.1.8-9). The cache also revealed two ceramic discs (8-10 cm in diameter) and four small jars, one of which contained carbon (*Pinus sp.*, probably *Pinus caribea*; Graham personal communication 2007). The jaguars are displayed between the triangular segments of a triangle band, reminiscent of the rays of a large disc. Representing the sun, the disc takes up the majority of the dish's interior centre. Discs with radiating triangular segments representing sun rays form a symbolic convention first identified in the Terminal Classic Period, which became frequent in Postclassic Mesoamerican art (Miller and Taube 1993:158; see Codex Cospi, page 12 [Biederman 1971:88-89]; Codex Borgia, Plate 23 [Díaz and Rodgers 1993:55]). The Jaguar Sun in his manifestation as the night sun was further closely associated with fire rituals (Stuart 1988:408) evidence for which is also present in the Lamanai cache.

This Lamanai cache was thus most likely dedicated to the Jaguar Sun and his bloody sacrifice at sunset that permitted the deity's rebirth the next day. The jaguar is symbolic of the sun, sacrifice (Thompson 1960:115-116) and also the otherworld (Thompson 1960:74). The sun's quotidian death and rebirth represents a Mesoamerican metaphor for the cyclical renewal of time and life and was frequently adopted by the elite to symbolise their nurturing role (Rice n.d.). This might explain why the jaguar is such a widespread Mesoamerican symbol of royalty and elite power (Benson 1980:158; Coggins 1975:125, 270; Taube 1992a:54), represented at Lamanai by its deposition in caches within the elite compound N10[3] during the Terminal Classic Period.

Cache N10-12/2: Day-time (flower) sun offering

Three near-identical dishes recovered from Cache N10-12/2 depict a central flower motif surrounded on the dishes' interior rims by triangle bands (Catalogue Figs. 2.1.4-5, 7 and possibly 6). Four-lobed³ flowers double as the Maya sign for *kin* or 'sun' and 'day' (Chapter 6: see Flower_a section). The cache also contained three obsidian blades and ash/charcoal (*Pinus sp.*, probably *Pinus caribea*; Graham, personal communication 2007; see Appendix 3, Table A3.6). The triangle bands represent sun rays similar to the ones described for the jaguar motif and thus also relate to the sun, although in its day-time, rather than nocturnal, aspect. The sun in its fierce-nocturnal aspect was represented on dishes combining the sun and jaguar motifs (see above). The jaguar's nocturnal hunting habits and reflective eyes would have drawn attention and formed an association with the night-time sun and dark otherworld, while the feline's absence during the day would have been equally noted and related to the day-time sun and earth. A flower day-time sun/jaguar night-time sun dichotomy is supported by all flower dishes also displaying cross_b between their sun rays, whereas cross_b is absent on the two jaguar dishes found in Cache N10-12/8 of the same structure. The cross is an ancient symbol related to the sky (Carlson and Landis 1985:125; Chapter 6: see Cross_b section). The crosses' sky association thus reinforces a dedication of the flower dishes to the day-time sun, which is visible in the sky during the day, whereas its absence on offering dishes dedicated to the night-time Jaguar Sun is also wholly appropriate, as the sun disappears beneath the earth after sunset.

³ However, the Terclerp phase flower examples are five-lobed.

Consequently, at Lamanai the sun might have been honoured in its day-time aspect with offerings presented in dishes displaying the sun, flower and cross motifs. The containment of jaguar dishes in one cache and flower dishes in another cache on the axis of Structure N10-12, 1st, further supports a dichotomy between symbolisms displayed, although when read in combination (i.e., both oppositions: night and day) expressing the totality of the concept (solar cycle). The Structure N10-12 cache that contained the flower dishes (Cache N10-12/2) was placed slightly to the east of the cache that contained the jaguar dishes (Cache N10-12/8), supporting a reading of the rising day-time sun offering related to the east and setting night-time jaguar sun offering related to the west of the axis of Structure N10-12.

Cache N10-15/8: Night-time (jaguar) sun offered to, or descending into, the otherworld

A polychrome dish within Cache N10-15/8 displays a spotted jaguar at its interior centre surrounded by concentric bands that follow the dish's contour line from centre to exterior rim (Catalogue Fig. 2.1.2). One rim band is wider than the others and displays crocodilian reptile heads alternating with scroll_a and dotted cross_b motifs. The central jaguar motif is thus surrounded by a cosmic band: the crocodile heads refer to the earth aspect of the Dragon (Chapter 6: see Reptile section), the crosses to the sky (Chapter 6: see Cross_b section) and scroll_e to the abbreviated form of the Dragon as frequently found in Classic and Postclassic Maya cosmic-band representations (Chapter 7: see Scroll section).

Cache N10-15/8 represents a complex offering (Pendergast 1982e; see Appendix 3, Table A3.6 for details). The jaguar polychrome dish was placed alongside eight plain dishes to total nine vessels. Nine was one of the numbers that held great ritual importance for the Maya (Thompson 1960:10), metaphorically referring to the nine realms or nine lords of the otherworld (Thompson 1960:12). The western placement of the jaguar dish in relation to the central focus of the cache – two lip-to-lip-vessel offerings (LA 694/1 above /2 and LA 694/3 above /4 [the latter filled with an offering consisting of organic-decay product, an obsidian blade, jade bead, two jade discs and a possible bone pin]) – provides evidence for a symbolic reading of the jaguar dish in relation to the setting sun. Consequently, the sun (jaguar) passes down through the first two lip-to-lip-vessel offerings to set in the west on its daily path into the otherworld in the

south, symbolically represented by an obsidian-blades offering (in a lip-to-lip-vessel offering [LA 694/8 above /9] beneath the jaguar dish) and a large amount of eccentric flints (22+) placed to the south beneath the jaguar dish and offering. The west is associated with the setting sun and the south with the otherworld in Maya thought (Aveni 2001; Milbrath 1999; Sharer 2006:731). Obsidian and flint are recovered from the surface of the earth and are thus linked to the otherworld thought contained within the earth (Chapter 6: see Cross-hatch section).

Specifically, the knapped flints seem to refer to the lunar cycle, an astronomical event that was critical in the timing of the cache's deposition: the flints are predominantly crescent shaped (10) with one serrated crescent hooked with a serrated disc, most likely referring to phases of the moon (e.g., full moon represented by a disc [LA 694/24], new moon by a disc with central hole [LA 694/41] and lunar phases by multiple crescents [LA 694/12, 16, 27-28, 36, 38, 42]); while the flints knapped as anthropomorphic figures (LA 694/26, 30-31) were, therefore, likely associated with the Moon Goddess, whose most important identifying characteristics are a lunar crescent, often displaying the cross-hatch motif, and the rabbit (Seler 1904:50-52; Taube 1992a:64-69, Figs. 30-31; Thompson 1972:47-48). Objects (flints, obsidian) and creatures related to the earth, specifically its surface, frequently display the cross-hatch motif (Chapter 6: see Cross-hatch section). Consequently, read in combination with the cache's jaguar-dish symbolism, the moon (knapped flints) was probably associated with the jaguar 'night-time sun'; it is thus possible that the jaguar was considered a companion spirit to the moon.

The cache likely also contained sacrificial offerings, indicated by obsidian blades, dedicated to the Jaguar Sun in emulation of its bloody nightly sacrifice. Sharp obsidian blades were used by the elite for penitential bloodletting (D. Chase and A. Chase 1986; Chase 1991:89-90), believed to establish contact with the otherworld (Chase 1991:96). Bloodletting is further closely linked to jaguars throughout Mesoamerica (Stuart 1988:189), possibly also the case at Lamanai in the Terminal Classic Period. Consequently, the jaguar motif on the Terminal Classic cache offering dish was tied to the sacrificial paraphernalia that formed part of the cache contents, related to the Lamanai elite through its archaeological deposition in the elite compound N10[3] and jaguar motif's symbolic associations.

Antiquity of ceremonial practices surrounding celestial themes at Lamanai

Antiquity of an elite preoccupation with celestial ceremonial themes at Lamanai is established by earlier Classic Period iconographic expressions (Sun God effigy, jaguar, deer and hummingbird motifs) pertaining to this theme. Emphasis on celestial symbolism is evident in the Classic Period at Lamanai linked to the elite compound N10[3] and Structure N10-9, which face each other across the large Plaza N10[2] (Figs. 3.2.2-3; see Appendix 1).

In the elite compound N10[3], the central theme of the Classic Period stucco façade of Structure N10-28 depicts a ruler surrounded by symbols attesting his power and divine kingship (Graham 2004:224; Shelby 2000a, 2000b, 2000c). The Maya Sun God's head, *Kinich Ahaw* ('sun-faced or sun-eyed lord'; Harris and Stearns 1997), was recovered from amongst the façade's debris. Classic Period rulers equated themselves with the Sun God (GIII of the Palenque Triad; Freidel and Schele 1988:67-72). The deity is usually identified by the four-petalled *kin* flower (Freidel and Schele 1988:67, 61, Fig. 2.3; Chapter 6: see Flower_a section) and is closely associated with jaguars (Freidel and Schele 1988:71-72).

Large jaguar masks flank the stair sides of the Early Classic Period Structure 9 (Pendergast 1981a:35). Caches N10-9/8 and /9 within this structure revealed two large early Late Classic Period black-on-red dishes (Pendergast 1981a:35-36; Fig. 5.5; Catalogue Fig. 1.1). Cache N10-9/9, contained a dish with central deer motif (Catalogue Fig. 1.1) and nine small flake flints. The same cache also revealed many obsidian blades and a very large number (33) of eccentric flints. The dishes are stylistically similar to the later Terminal Classic Period polychrome dishes discussed above (Catalogue Figs. 2.1.2-9), although the interior motif represented is a deer rather than jaguar or flower. The deer is the lord of animals and patron of hunters and the forest (Taube 1992a:61). The animal occurs as ceremonial staffs, such as a beautiful Aztec alabaster deer head (see Matos and Solís Olguín 2002:312-313, Fig. 276) and is, therefore, associated with the sun and lords (Freidel and Schele 1988:71; Hammond 1985b:171; Robicsek and Hales 1988:273). Deer are symbolic of the daily solar cycle (Freidel and Schele 1988:71) and are associated with sacrifice (Taube 1988b:333), penitential rites (Taube 1980) and death (Coe 1989:175-176; Taube 1988b:333; Taylor 1992:521). Read in combination with the jaguar masks displayed on the exterior of Structure 9, the location of the dishes'

deposition, the deer is indicative of elite ceremonies surrounding celestial themes practised also in earlier times, which persisted from the Early through Terminal Classic Periods at Lamanai.



Fig. 5.5. Early Late Classic dish (A.D. seventh-eighth centuries; Pendergast 1981a:35-36) with deer on interior, LA 240/1.

Royal ceremonies including the display of sun-related symbolism are also evident earlier at the site, evidenced by a stylistically similar polychrome dish with central hummingbird motif painted on its interior. The dish was recovered from the principal Early Classic Period royal tomb, N9-56/1, in Structure N9-56 (Fig. 5.6). Thompson (1939b) describes the hummingbird as an avatar of the Sun God, who changed himself into a hummingbird during his courtship of the Moon, while Hammond (1985b:171) states that hummingbirds, when depicted alongside deer, are associated with the sun. Hummingbirds were also believed to be the souls of dead warriors, returned to earth, as the souls of dead ancestral kings (Bierhorst 1985:19; Burkhardt 1992:89; Furst 1995:23-32, 160-72; Markman and Markman 1989:148; Mendieta 1971:97; Pohl 2003:201; Sahagún 1950-1982, 3:47-48, 6:162-63 and 1956, 1:297-298; Chapter 6: see Bird section). Consequently, the hummingbird depicted on the Early Classic Lamanai dish refers to symbolic concepts surrounding the sun and, simultaneously, alludes to the soul of the deceased king, contained within the tomb, passing to the afterlife.



Fig. 5.6. Early Classic dish (ca. A.D. 500; Pendergast 1981a:38) with hummingbird on interior, LA 322/22.

Jaguar and flower summary

Terminal Classic Lamanai polychrome dishes were deposited in offertory ceremonies (elite cache deposits) surrounding celestial themes, possibly a royal practice traceable to the Early Classic Period at the site. The Maya frequently amalgamated space (cache deposits) and time (celestial cycles) in symbolic concepts (see Chapters 6: Reptile; Chapter 8: *Itzamna* sections). The dishes were used in specific ceremonies: rites that included incineration and most likely bloodletting dedicated to the nocturnal sun (jaguar, moon) and day-time sun (flower_a) and linked to the elite compound N10[3]. The motifs simultaneously indicate the power of the residents of that complex, possibly royalty, due to the cache vessels' predominance in the elite compound and royal associations of jaguar and sun symbolism. It seems, therefore, that the Lamanai elite maintained power by symbolically feeding the celestial bodies and thus cyclical renewal of time via cache deposits placed within elite structures. Temple structures were considered emulations of sacred mountains (Carrasco 1990:21-23; Coggins 1980; Reilly 1999:15), thought to contain the otherworld where the sun disappeared each night.

The sun's sacrifice, permitting its diurnal path across the sky, was thus copied by Terminal Classic Lamanai cache deposits presenting offerings to the sun to ensure continued life on earth. The day-time/night-time sun dichotomy evident in the dishes' symbolism reflects cosmic harmony that was embodied in the combination of opposites in Maya thought. In this instance, cosmic balance was achieved through offerings presented to the sun in its diurnal and nocturnal aspects. In the light of a hermeneutic reading (see Chapter 3) applied to the polychrome dishes and their symbolism, the vessels' stylistic treatment

(painted), choice of vessel form (large dishes), motifs (jaguar, flower), and placement of motifs on chosen vessel form (interior centre of dishes), establishes a reading of symbolism pertaining to celestial ceremonies that may be linked back to the initial choice of the vessel form: large round polychrome dishes replicating the shape of the celestial bodies (day-time sun, night-time sun as moon). Thus, motifs (symbolism), offerings (function) and dish (object) form one indivisible and organic unit (Hodder 1987a; Panofsky 1939:16-17; Tilley 1991) that, only when read in summation, after an initial breaking down of the artefact into its constituent components (see Chapter 3), permits a comprehensive interpretation of its meaning: in this instance, symbolism tied to ceremonies surrounding celestial themes in the Terminal Classic Period at Lamanai.

Organic motif (supernatural eye) (Catalogue Fig. 2.1.1)

The organic motif is very abstract; however, on the one Lamanai Terminal Classic fire-clouded dish (Daylight Orange: Darknight Variety [Gifford 1976:301-302, Fig. 199]; Fig. 5.3) examined, the motif resembles what I have termed the 'supernatural eye'. Mesoamerican art displays many examples of these supernatural eyes (e.g., Olmec [Fig. 5.7], Teotihuacan [Fig. 5.8], Maya [Fig. 5.9], Aztec [Fig. 5.10]).



Fig. 5.7. Early Formative roll-out design of a seal, attributed to Las Bocas. Taube 1996:87, Fig. 5b.



Fig. 5.8. Classic Period feathered serpent eye, Teotihuacan. Taube 1996:87, Fig. 5d.



Fig. 5.9. Late Postclassic Period supernatural eye (highlighted) of *Itzamna*, Tulum, Structure 16. Staines Cicero 1998:178, Fig. 105.



Fig. 5.10. Feathered serpent with supernatural eye, pottery stamp, Mexico City. Enciso 1953:76, Fig. II.

Even though stylistically distinct, all examples portray a central eye with exaggerated brow and inferior placed drop pendants or ovals. Lamanai examples, specifically from the Terminal Classic Period onwards, include the supernatural eye marking Terminal Classic offering dishes; forming the eyes of the Dragon and rain deity *Chac* in the Early Postclassic Period (Chapter 6: see Reptile, Anthropomorphic sections); forming the eye of a long-nosed deity on a mural fragment in the Late Postclassic Period (Chapter 7: see Inter-site relationships section); and forming the eyes of the Dragon in the Terminal Postclassic/Early Historic Period (Chapter 8: see Zoomorphic section). Maya supernatural eyes are recognisable by their distinctive eyelids, which form bulbous scrolls (Fig. 5.9). Lamanai supernatural eyes represent its Postclassic Period Maya form, characterised by bulbous scroll eyelids marked on its lower lid with small ovals. The Postclassic Period Maya form of the eye contrasts with earlier Mesoamerican (e.g., Olmec, Teotihuacan) and Mexican versions in its stylistic execution (Figs. 5.7-10). Nevertheless, the eye's basic form remains the same, even though its style might vary. In fact it is through symbols like the supernatural eye that the study of style and its evolution is easiest.

Supernatural eyes resemble what have been termed RE ('reptile eye') glyphs (Caso 1962:53; Ringle et al. 1998:209; von Winning 1961). Examples of RE glyphs are widespread in the Postclassic Period and can be found at Cacaxtla, Teotenango, Ixtapaluca, Xochicalco (see Ringle et al. 1998:210, Figs. 23.1-2), Piedra Labrada (Veracruz), and in the Codex Nuttall (Ringle et al. 1998:209-210). The RE glyph is related to the supernatural eyes found on Lamanai zoomorphs and supernaturals throughout Mesoamerica in its form, which resembles the eyes' bulbous lids which end in upward and downward

curling scrolls. The different interpretations of the RE glyph – as *cipactli* (von Winning 1961), wind or *Ehecatl* (Caso 1961:81-82; 1962:53; Nicholson 1978), and associated with the feathered serpent deity *Quetzalcoatl* (Ringle et al. 1998:209) – may all be unified in the supernatural eye at Lamanai representing an abbreviated form of the Dragon (Chapter 6: see Reptile, Chapter 8: Zoomorphic sections). The upper lid has upward curving scroll ends and might represent an abbreviated crocodilian reptile, whereas the lower lid with downward curving scroll ends might represent an abbreviated serpentine reptile, as they occur in the Early and Late Postclassic Periods at Lamanai (Chapter 6: see Reptile, Chapter 7: Scroll_b and _c sections).

The supernatural eye as it occurs at Lamanai is widespread in the Maya area from the Terminal Classic to Early Historic Periods. It forms the eyes of 'long-nosed' rain deities on Puuc style architecture (see Longhena 1997:Fig. on pp. 144-145) and the eyes of the deity *Itzamna*, who embellishes the corner of Tulum Structure 16 (Staines Cicero 1998:178, caption to Fig. 105; Fig. 5.9). Late Postclassic Tulum reveals other symbolic and stylistic ties to Lamanai, such as intertwining bicephalic reptiles with serpentine and crocodilian heads (Chapter 6: see Intertwined band section) and similar ceramics (Chapter 7: see Inter-site relationships section). A Lamanai mural fragment, linked stylistically to the Late Postclassic Tulum murals, depicts the fragmentary face of a long-nosed deity with supernatural eye (Fig. 7.3.1). Further examples of supernatural eyes occur on Postclassic Period Chen Mul Modeled-style effigy censers from Mayapan. The effigy censers depict supernatural-eyed deities sometimes wearing elaborate beast headdresses also displaying the eyes (see Longhena 1998:Fig. on pp. 52-53; Schmidt et al. 1998:Fig. on p. 492; Sidrys 1983:264, Fig. 155; Smith 1971:102-103, Fig. 67d and pp. 114-115, Fig. 73d).

The supernatural eyes on the Lamanai bichrome dish could refer to a specific deity's eyes, although no other deity characteristics are represented that would allow identification. It is possible that the eyes instead refer to the supernatural power they embodied. Notably, supernatural eyes are not restricted to any specific deity, instead, marking many different gods. Consequently, the eyes refer to some common general aspect, possibly supernatural vision or 'true or absolute vision' possessed by the gods but denied humans. Nevertheless, humans may gain momentary acumen during offertory ceremonies. The Quiche Book of Council (*Popol Vuh*) recounts how

during the creation of mankind, many attempts failed due to the humans not having enough or too much 'knowledge' to appropriately venerate their gods and creators (Tedlock 1996:68-73, 145-148). Eventually, humans were created who possessed 'veiled vision' into the workings of the universe and, therefore, understood the importance of making offerings to the gods, their creators, to uphold the cosmos's fragile balance.

The Lamanai Terminal Classic dish displaying supernatural eyes was recovered from a cache placed within the elite compound N10[3] (Cache N10-18/3), alongside obsidian blades. Obsidian blades were used as bloodletting instruments throughout Mesoamerica (D. Chase and A. Chase 1986; Chase 1991). Burning of blood-soaked paper granted the elite visions to the supernatural via the reptile medium (Chapter 6: see Reptile section). Consequently, it is likely that the dish was used for divination providing supernatural vision or acumen and otherworld contact through bloodletting to attain wisdom or 'truth'. In the Mixteca-Puebla Codex Vindobonensis Mexicanus I (or Vienna), page 3a, eyes frame circular enclosures or discs, sacred ritual spaces and probable mirrors (see Biederman 1971:80-81; Furst 1978:304, Figs. 96 and 97). Mirrors were frequently used in divination ceremonies in Mesoamerica (Taube 1992a:33; Houston and Taube 2000). The placement of the eyes around the mirrors or sacred spaces establishes a close association between divination or supernatural sight and the eyes, and further confirms the mirrors' symbolic function as divinatory tools.

In form, the eyes are related to the three-lobed Teotihuacan blood symbol that occurs beneath the Classic Period feathered serpent eye symbol at Teotihuacan (Fig. 5.8; see Miller 1973 for further Teotihuacan examples) and beneath the feathered eyes of Olmec Avian Serpents (Fig. 5.7). The three drop-shaped lobes placed over (Fig. 5.8) or beneath (Figs. 5.7 and 5.10) the reptiles' lower eye lids represent the three lobes of the supernatural eye on the Terminal Classic Lamanai dish (Fig. 5.3). The lobes or dots represent an exaggerated form of the dots found attached to the lower eyelids of some Terminal Postclassic/Early Historic Lamanai zoomorphs (Catalogue Figs. 6.1.2-3 and 5) and other Mesoamerican supernaturals. The ovals refer to precious liquids, such as blood (Coggins and Shane 1984:52, 105; Stuart 1988:175-182; Chapter 6: see Reptile, Oval sections), and the nourishing aspects and generative abilities of the deities that display these eyes, possibly via sacrifice

(see Taube 1992a:21, 32, 35, 43, 51, 57, 70, 72 and 89, Figs. 6a [God B], 12 f and 14a-d [God D], 18f [Diving God E], 22b, c, f-g [God G], 25d and c [God H], 32a-f and 34c [God K], 44a [God M]).

In summary, the Lamanai supernatural eye refers to supernatural vision or acumen, perhaps knowledge possessed by gods or supernaturals, momentarily given to humans during offertory rites. Supernatural eyes thus lent otherworld '(in)sight' to the people who deposited the caches. Simultaneously, the supernatural eyes may form an association with the Dragon and this entity's or concept's all-seeing or all-knowing 'vision' (Chapter 6: see Reptile section). Consequently, the eyes indicate the 'all-seeing' and 'all-powerful' abilities of the figures that display them. The longevity of the motif at Lamanai suggests some cultural continuity from the Terminal Classic through to the Early Historic Periods along with the deep-rooted hold of its concept within the site's ideology.

GEOMETRIC MOTIFS:

Cross_a (Catalogue Figs. 2.1.3 and 2.2.1)

With only two examples occurring in the Terminal Classic Period – incised on the exterior of a burial cylinder vase and painted on the interior rim of a midden polychrome dish – it was difficult to attribute any meaning to cross_a.

Nevertheless, comparative data support a reading of Lamanai cross_a surrounding the *Kan*-cross, symbolic of yellow, but also the concepts of blue-green, centre and preciousness (beads, jade and water; Headrick 2004:371; Thompson 1960:275, 45). Carlson and Landis (1985:125-126) noticed the *Kan* cross in sky bands that form the body of the Dragon. Reilly (1995) interprets the *Kan*-cross surrounded by further symbols on the Olmec Humboldt Celt as a Middle Formative cosmological image of the world: the cross forms the centre and the four clusters of symbols surrounding it are very early glyphs for the four world directions (Headrick 2004:370, Fig. 16.3). The entire symbolic complex is worn by a ruler, thus placing him at the centre of the world. One Lamanai cross_a example was recovered from a burial that contained a mature male. In this light, the age, sex and deceased's association with the cross_a motif would seem to indicate his high status, with his power and person placed at the centre of the Mesoamerican concept of the cosmos.

CONCLUSIONS: the Lamanai Terminal Classic context of elite ceremonies surrounding celestial symbolism

Although the sample size of Terminal Classic Lamanai ceramics is relatively small, it is nevertheless important in establishing Lamanai's iconographical style and content in this period and permits comparison to temporally later Lamanai ceramic styles and iconographic themes. Even though in likelihood incomplete and from varied contexts, the Terminal Classic Period ceramic sample is consistent in its depiction of iconographical scenes: imagery centred on elite figures, accompanied by hieroglyphic texts, along with a focus on celestial symbolism (jaguars, possibly the Jaguar Sun, moon, and sun symbols [*kin* flowers, sun representations]).

The glorified portrayal of elite individuals as seen on Lamanai Terminal Classic Molded-carved vessels disappears in subsequent phases (see Chapters 6 to 8). Terminal Classic elite themes at Lamanai might reflect earlier Classic themes such as the expression of the elite person in imagery and hieroglyphic texts that pertain to his power (Carlson and Landis 1985:129; Rice et al. 2004:9; Thompson 1970:232), the elite ritual of auto-sacrificial bloodletting (see Anthropomorphic section) and ceremonies surrounding celestial themes, in particular jaguars, symbolic of the night-time Jaguar Sun (Florescano 1999:19; Robicsek and Hales 1988:166; Stuart 1988:408) and the otherworld and sacrifice (Benson 1980:158; Coggins 1975:125, 270; Taube 1992a:54; Thompson 1960:74, 115-116) and *kin* flowers, symbolic of the day-time sun. It may well be that the elites associated with the architecture where the caches were found were royal. Archaeological context of the cache vessels bearing elite symbolism suggests their relation to royals because of their prominence in the elite Lamanai compound N10[3] and Classic Period symbolism strongly associating the jaguar and flower motifs with royal themes.

INTER-SITE RELATIONSHIPS

Although the iconographical content of Lamanai Terminal Classic Period imagery is the same as that expressed at other Terminal Classic Maya sites – in that symbolism focuses of the person of the ruler (and celestial themes) – the Lamanai vessels are stylistically distinct. Nevertheless, in relation to the placement of Lamanai Terminal Classic Period ceramics within their broader

environment, the following few interactions of ceramics similar in style and/or iconographical content have been noted that establish specific cultural and ideological ties between Lamanai and other Terminal Classic Maya Lowlands sites.

Lamanai polychromes

(Late to) Terminal Classic polychrome vessels similar in style and perhaps also motifs (see Masson and Mock 2004:380, Fig. 17.17a-e) to Lamanai Terminal Classic polychrome dishes (Catalogue Figs. 2.1.2-9) occur at Northern River Lagoon and Saktunja, Belize (Masson and Mock 2004:379-380). Published Northern River Lagoon and Saktunja polychrome vessels are sherds that do not permit full appreciation of all the motifs once displayed on the dishes (Chapter 6: see Sample section). Nevertheless, the dishes establish stylistic overlap with Lamanai Terminal Postclassic dishes in that motifs are painted in a sweeping manner and placed in bands that run around the interior rim of large dishes. Archaeological context is not provided in the Northern River Lagoon and Saktunja publication (Masson and Mock 2004). Consequently, the additional contextual information that led to further readings for the Lamanai dishes is not possible in this instance.

Black cylinder vases

A tall vase similar in style and iconographic content to the Lamanai Terminal Classic black cylinder vases (Catalogue Fig. 2.2.1-3) occurs at Barton Ramie, Belize, in the Spanish Lookout Complex (A.D. 700-1000; Puhui-zibal Composite: Puhui-zibal Variety; see Willey et al. 1965:383, Fig. 245). The vases are similar in their treatment of motifs (incised on exterior), form (vases) and choice of motifs (Lamanai cross_a, oval and pseudoglyphs). The archaeological context of the Barton Ramie vase is not provided.

Bichrome dishes

Terminal Classic Period Daylight Orange dishes (Darknight Variety), identical in style and iconographical content to the Terminal Classic Lamanai bichrome fire-clouded dishes (Catalogue Fig. 2.1.1), occur at Nohmul (Hammond 1985a:230-231, Fig. 3.23), Northern River Lagoon (see Masson and Mock 2004:384, Fig. 17.9) and Laguna de On (Valdez 1993; Masson and Mock 2004:392), Belize.

Images of published examples (Hammond 1985a:230-231, Fig. 3.23; Masson and Mock 2004:384, Fig. 17.9) all display the motif that I describe as the 'supernatural eye' (see Organic section), executed in the identical style to that of Lamanai Terminal Classic bichrome dishes. Context is not provided for the Northern River Lagoon example (Masson and Mock 2004), whereas the Nohmul (Hammond 1985a:230) and Laguna de On dishes are surface finds, the latter retrieved from surface occupations of three house mounds (Masson and Mock 2004:392; Mock 1997).

Molded-carved vessels

Terminal Classic Period (ca. A.D. 830 - 950) Molded-carved vessels are more widespread in the Central Maya Lowlands and are grouped into three ceramic spheres (Helmke 2001:11, 15, 17 and 19, Tables 1-3; see A. Chase and D. Chase 2004:357, Fig. 16.7b(l) for a Caracol example). The largest sphere is that of the Pabellon type. Pabellon Modelled-carved pottery (of the Altar Fine Paste Group) was widely traded (Rands et al. 1982:315). It is attributed to the Pasión and Usumacinta sub-regions, reaches into central Peten, a portion of Chiapas and Copan. The second Sahcaba type is smaller in its geographic distribution, restricted to the eastern part of the Peten, with small amounts also found in the Maya Mountains, Central Belize (including Lamanai), and southern parts of Campeche. The Ahk'tu' type is concentrated along the course of the Belize River and its tributaries, reaching from Ucanal to Ambergris Caye. Molded-carved vessels throughout the Maya area and at Lamanai show overlap in stylistic treatment and iconographic content, with slight variation in style most likely attributable to regional variation. Iconographic content is quite standardised: complex scenes centred on deities and supernaturals or elite individuals, as is the case on Lamanai examples. Lamanai Molded-carved vessels were recovered from inconclusive surface context that does not permit additional contextual information to be added to the vessels' archaeological and iconographical reading.

Chapter 6: Early Postclassic ceramics (Buk phase; ca. A.D. 1100 - 1250) (Catalogue Figs. 3.1-3.17)

Sample

Early Postclassic ceramics comprise the largest ceramic sample studied, with 916 examples (vessels and sherds) displaying twenty different motifs on a large number of vessel forms. Two distinct ceramic populations were identified within the sample. The two populations are defined by different contexts and vessel states: a burial/cache and a midden sample. The burial/cache vessels (106 examples) were, on the whole, recovered fragmented yet reconstructible and, consequently, revealed the entire extent of their motifs when reassembled. The midden sample (556 sherds) was predominantly (92%) recovered from the southwest side of Structure N10-27, with probable accumulation activity linked to the nearby elite compound N10[3] (Graham 2004:230-231; see Appendix 1). Although the specific function or purpose of this 'elite' midden is unknown, a concentration of elite ceramics and absence of usual midden waste (household waste and utilitarian ware), suggests a ritual function associated with the elite. The midden sample consisted of sherds, which only represent a portion of the vessel and motifs once displayed (Catalogue Figs. 3.3.38-39). The number of motif combinations that can possibly occur on a sherd fragment is determined by sherd and motif sizes: smaller motifs are more easily identified, whereas larger motifs may occur over several sherds and therefore elude detection (e.g., Reptile, Anthropomorphic). All midden motif combinations thus have a relatively low statistical significance, the highest being scroll_a/feather at 0.26 S_J (see Appendix 4, Tables A4.2-3). Consequently, sherds reveal an incomplete picture of the extent of iconography originally recorded on a vessel, leading to the conclusion that the midden sample did not permit an accurate assessment of style and iconographical (motif) interactions.

Data analysis of the total sample revealed a clouded picture due to mixing of the two distinct populations. Statistical significance of intricate combinations of motifs identified in the burial/cache ceramics was obscured by the inclusion of the large midden sample. Instead, the two samples are separated on the basis of context: burial/cache and midden. The burial/cache sample reveals stronger motif associations due to the predominantly complete state of the vessels in contrast to the large percentage of sherds in the midden

sample. The burial/cache sample, although containing fewer pieces, reveals a more secure picture of significant Early Postclassic motif combinations related to vessel form, which therefore allows a definition of style and consideration of iconographical content. Although not considered in its entirety, when applicable to an iconographical reading, reference to the midden material is sought. See Appendix 4 for tabulated data on both Early Postclassic ceramic populations.

Burial/cache sample

The Early Postclassic burial/cache data sample contained 106 examples. Jaccard (see Chapter 3) deleted from the calculations all vessels that displayed no motif combinations or motifs with fewer than two occurrences (i.e., feline, foliage and rectangle band). Consequently, Jaccard scored 72 examples on 17 isolated motifs (see Appendix 4, Tables A4.1-3 and 5).

Individual motifs

Scroll_a (41), flower_b (32), oval (29), reptile (27), anthropomorphic (23), feather (23), T-shaped band (21), cross-hatch (21), triangle band (15), intertwined band (14), cross_c (9), bird (7), cross_b (6), arc band (5), animal miscellaneous (4), flower_a (3), flower_c (3), triangle (3), rectangle band (2), feline (1), scroll_b (1).

Motif combinations/substitutions (key paradigmatic sets)

Flower_b/scroll_a (0.57 S_J)

Flower_b/scroll_a/reptile (0.40 S_J)

Flower_b/scroll_a/reptile/T-shaped band/feather/oval (0.35 S_J)

Anthropomorphic/cross-hatch (0.25 S_J)

T-shaped band/intertwined band/triangle band (0.20 S_J)

Motifs and motif combinations related to the vessels on which they occur

Although there are some trends (e.g., tripod vessel feet often appliqué-modelled as anthropomorphic or bird heads), motifs and their combinations are not specific to vessel form. Motifs and their combinations thus cross-cut

material (type:variety defined) vessel-form groups (see Appendices 2 and 4, Table A4.10).

DEFINITION OF STYLE

Early Postclassic (Buk phase) Lamanai ceramic art displays contrasting elements: complex or convoluted 'organic' incised imagery contained in bands or panels, juxtaposed with structured or organised and clearly defined geometric motif bands; and the addition of appliqué-modelled iconic motifs.

Uniformity of appearance is attributable to the standardised placement of imagery, motif treatment, colour, surface treatment and size, which all almost always conform to vessel form. The large majority of Early Postclassic iconography is incised in bands or panels on vessel exteriors. A notable exception is the cross motif occurring on grater bowl interiors (Catalogue Figs. 3.13.1-6). Most (95%) Early Postclassic imagery is orange-red, post-slip, post-drying incised (Figs. 6.1-4). Frequently, vessels also display appliqué-modelled imagery, sometimes embellished with paint (Figs. 6.2-3). Paint is not employed to form images in their own right, rather embellishing other modes of representation, such as modelling and incision. All bowls display imagery incised in bands on their exterior rims, are orange-red, slipped and similar in size (height and rim diameter), apart from some very small and one very large bowl (Fig. 6.1). Chalices display incised imagery on their pedestal bases; occasionally remnants of paint remain added to their incision lines (Fig. 6.3) or, infrequently, chalices display cut-away imagery (Fig. 6.4; Catalogue Figs. 3.2.10, 19 and 23). Pedestal-based jars display incised imagery on their pedestal bases, incised and occasional appliqué-modelled imagery on their exterior shoulders, and/or appliqué-modelled basal flanges (Catalogue Figs. 3.1.1-14). Tripod dishes and bowls display incised imagery on their exterior rims and appliqué-modelled imagery on their feet and/or basal flanges (Catalogue Figs. 3.4.1-17). Most jars display incised imagery on their shoulders, some with the addition of appliqué-modelled bird heads (Catalogue Figs. 3.8.1-8; see Appendix 4, Table A4.10 for complete list).



Fig. 6.1. Buk phase bowl, LA 127/3.



Fig. 6.2. Buk phase tripod dish with painted bird-head feet, LA 13/7.



Fig. 6.3. Buk phase chalice with remnants of blue paint in incision lines, LA 243/3.



Fig. 6.4. Buk phase open-worked chalice, LA 245/6.

Early Postclassic Lamanai ceramics exhibit a large number of motifs varying in their execution (e.g., incised, open-worked, appliqué-modelled) and motif combinations. Artists or craftsmen were likely influenced by culturally prescribed factors, such as their commissioning by rulers or the elite (Pasztory 1983:91-94; Reents-Budet 1994:50-51, 63, 67). The flexibility of motif choice at Lamanai also reflects, to a degree, the personal control of the artist or potter, potentially able to pick from a repertoire of symbols or modes of expression (Pasztory 1983:91-94). For example, the reptile motif may be incised or modelled and occurs combined with multiple motifs. Generally, no particular motif combinations stand out, bar one (flower_b/scroll_a). This is reflected in the large number of Jaccard values that range from 0.2 to 0.4 (see Appendix 4, Table A4.2, 3 and 5) and suggests a dynamic system of symbols from which the producers chose motifs and motif combinations according to particular emphases on themes or concepts.

Early Postclassic ceramics display rules of motif treatment and patterns of motif placement. However, the motifs contained within the complex imagery scenes are not tied to vessel type but occur on many vessel forms and with no

particular patterning. Thus, the reptile motif occurs incised on a large range of vessels (e.g., pedestal bases and/or shoulders of pedestal-based jars [Catalogue Figs. 3.1.1, 3, 6 and 8], chalice pedestal bases [Catalogue Figs. 3.2.6 and 17], bowl exterior rims [Catalogue Figs. 3.3.2, 4, 7 and 12]; see Appendix 4, Table A4.10 for complete list). All motifs behave in this manner, in that they occur on a variety of vessel forms. Consequently, no specific patterns in relation to vessel forms and placement of motifs on vessels could be established for Early Postclassic ceramic art, as motifs transcend vessel forms. It is the vessels' colour, incised treatment of the imagery placed in bands and panels, choice of motifs and motif combinations, and the imagery's complexity that lend Early Postclassic Lamanai ceramics their uniform appearance, rather than any patterns of motif placement related to vessel types.

This initial establishing of the Early Postclassic Lamanai style suggests imagery is best considered in detail according to the way in which it was organised by its Lamanai producers. Early Postclassic Lamanai art is distinguished by imagery placed on vessel exteriors: complex imagery scenes incised in panels (Catalogue Fig. 3.1.8) or bands (Catalogue Fig. 3.1.9), incised geometric motif bands or panels (Catalogue Fig. 3.4.12) and appliqué-modelled iconic motifs (Catalogue Fig. 3.1.3). Certain motifs (e.g., oval) mark other motifs (e.g., anthropomorphs; Catalogue Fig. 3.1.3b). The different forms of motif treatment are considered below: Complex imagery scenes, Geometric motif bands, Appliqué-modelled iconic motifs and Motifs marking other motifs.

Complex imagery scenes

Complex imagery scenes vary in appearance and range between portraying distinct motifs usually clustering around a main motif, often reptiles (Catalogue Fig. 3.1.1), and very convoluted scenes in which the motifs merge and change shape (Fig. 6.5); this gives the imagery a vibrant yet unorganised organic appearance. Even though panels are frequently inverted, the imagery is visually unbalanced (Catalogue Fig. 3.1.8). Two notable exceptions display balanced symbols, discussed below (Catalogue Figs. 3.1.2d and 3.3.29; see Anthropomorphic: *Itzamna* and Cross-hatch sections). The rich and dense imagery, described here as 'organic', reflects the influence of the tropical environment in which it was produced (see Chapter 2). Motifs metamorphose, fill the panels and bands and push against their framing borders. Main motifs

change shape around their edges and/or are marked by other motifs (see below). The secondary motifs are of an adjectival nature, employed to embellish the reading of the main motifs. Complex imagery scenes are always incised. A very small number of examples (10) are also open-worked: five chalices (Fig. 6.4), two drums (Catalogue Fig. 3.9.3), two pedestal base sherds (Catalogue Fig. 3.2.23) and one tripod jar (Catalogue Fig. 3.5.1). Complex imagery scenes are either contained within continuous bands (Figs. 6.5-10) or panels (Catalogue Fig. 3.1.1). Larger vessels, such as pedestal-based jars and large jars and bowls, usually display imagery panels. The panels displayed on the pedestal-based jar pedestals are sometimes repeated on the jars' shoulders (Catalogue Fig. 3.1.1). Reptiles, flowers_a and c, intertwined bands and triangle bands are frequent in panels, whereas the scroll_a/flower_b motif combination is more numerous in its occurrence in imagery bands, where it gives the band a convoluted or sinuous appearance.

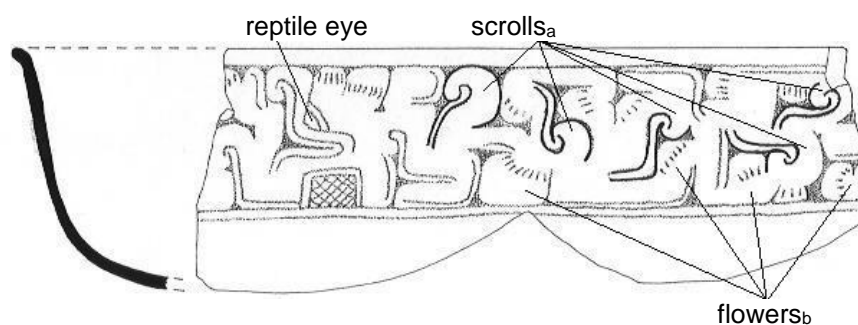


Fig. 6.5. Buk phase bowl, rim detail, LA 187(?).

Symbolic representation of metamorphosis occurs in Lamanai Early Postclassic complex imagery. This is evident in main motifs metamorphosing or extending into scroll_a (Fig. 6.6) and flower_b motifs (Fig. 6.7) around their edges. Complex scenes are usually based around the flower_b/scroll_a motif combination (Figs. 6.5-8). This stylistic trait results in convoluted and (to us) unclear images permitting only glimpses of supernatural and fantastic creatures. The flower_b/scroll_a motif combination reveals the highest similarity coefficient (0.57 S_J; see Appendix 4, Table A4.2, 3 and 5). Flower_b is combined with scroll_a 78% of the time (see Appendix 4, Table 4.4). Although not absolute, this suggests that the two motifs are linked. An inference that can be drawn, therefore, is that the two motifs reinforce each other's meaning and represent things as

symbolically different, although in combination expressing or reinforcing a particular theme or concept (as a syntagmatic chain; see Chapter 3).

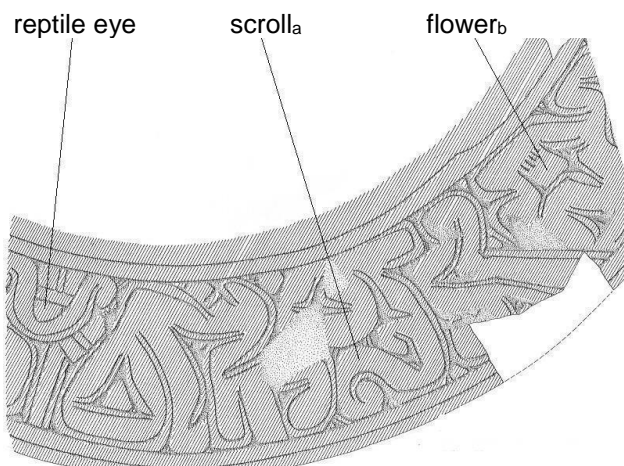


Fig. 6.6. Buk phase chalice, pedestal base, detail, LA 95/5.

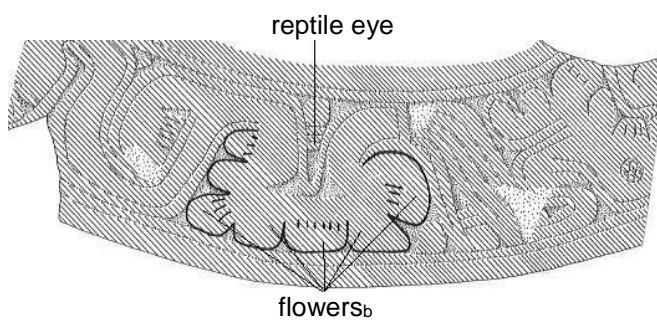


Fig. 6.7. Buk phase chalice, pedestal base, detail, LA 102/2.

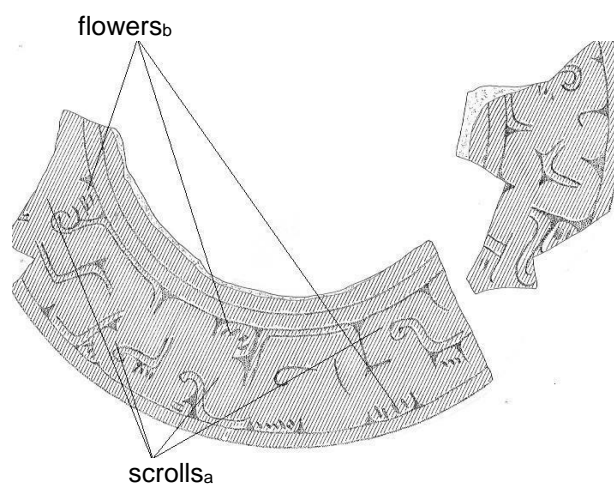


Fig. 6.8. Buk phase pedestal-based jar, shoulder, detail, LA 1962/1.

Scroll_a motifs flow away from the reptile motif (and sometimes the bird motif) and are not tightly curled upon themselves (Figs. 6.5-7, 9 and 10); the scrolls trail across the ceramics comparable to the manner in which smoke travels across a room or currents eddy in water. On bowl LA 95/7 (Fig. 6.9), in particular, main motifs (reptiles) appear to be going up in smoke. The majority of scroll_a instances take this 'trailing' form in combination with the reptile motif (Figs. 6.5-7, 9 and 10). Smoke and water distort perception of what lies behind or beneath. Consequently, Early Postclassic Lamanai ceramic art looks as if it has been stretched with a smoky or watery film prohibiting full appreciation of its motifs. The resultant visual effect forms an intentional stylistic trait of Early Postclassic Lamanai ceramic art, possibly visually expressing the evanescent concept of contemporary humans' limited understanding of the world's natural phenomena. The properties of fire and its processes of incineration, or water, were explained through supernatural concepts in Maya thought. Association of supernatural creatures (reptiles) and images with these unknown elements is thus highly appropriate.

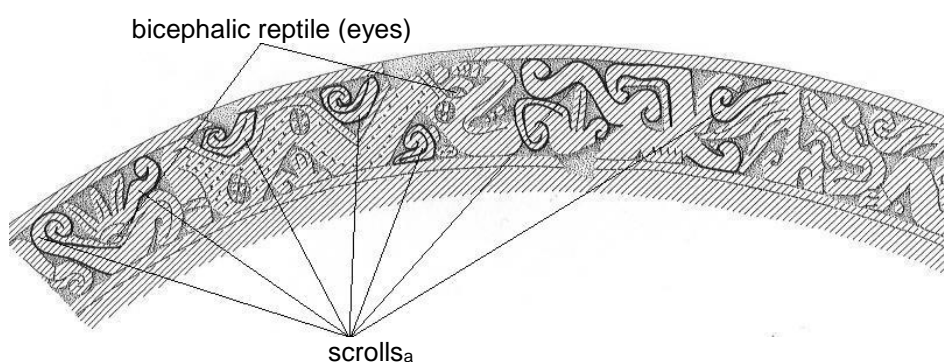


Fig. 6.9. Buk phase bowl, rim, detail, LA 95/7.

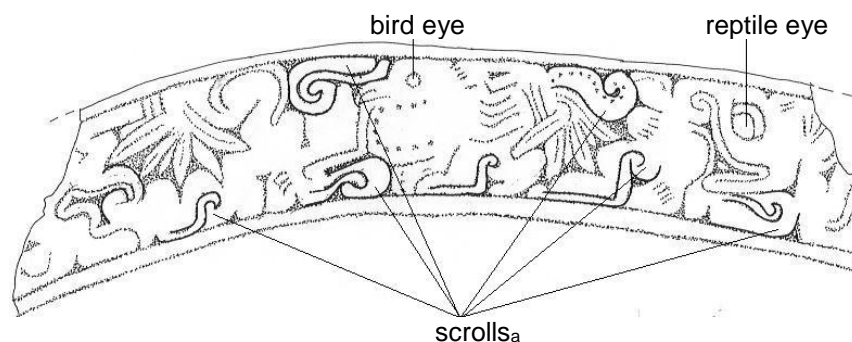


Fig. 6.10. Buk phase bowl, rim, detail, LA 187(?).

The smoky 'haze' or watery 'surface' permits glimpses into a fantastic world made up of ever-changing figures and shapes. It is up to the viewer to 'fill in the picture'. The shape-shifting characteristic of Early Postclassic art explains the difficulty encountered in providing a strict classification system for its motifs, with motifs rarely repeating exactly, instead always exhibiting slight variation in form (see Chapter 4). The stylistic trait of 'shifting' motifs and imagery is further supported by the very large number of possible motif combinations, with only scroll_a/flower_b carrying any strong significance (see Appendix 4, Tables A4.2-3 and 5) and intentionally employed to give Early Postclassic Lamanai ceramic imagery its 'fluid' appearance. Nevertheless, certain motifs and motif groupings may be detected, in particular clustering around the reptile motif.

In complex imagery scenes, energies are concentrated on the reptile and its associated motifs where they dominate the bands or panels in which they occur. The reptile is represented with varying degrees of abstraction (Figs. 6.5-7, 9 and 10), exhibiting serpentine and/or crocodilian characteristics. Identification of the reptile motif is therefore achieved through the detection of its eyes (Chapter 4: see Reptile section). Scroll_a, flower_b, oval and feather motifs complement the reptile motif. There is great variation in the reptile's portrayal which, in combination with their bodies metamorphosing into scroll_a and flower_b motifs, provides evidence for 'shape-shifting'. The motifs' frequent occurrence and convoluted representation define the style of Early Postclassic Lamanai ceramic art, whereas the broad distribution of their depiction on vessel forms (see above) indicates that the motifs carried significant cultural meaning, reflective of socio-cultural dynamics at the time.

Occasionally, panels placed on the shoulders of pedestal-based jars repeat reptile motifs displayed on the jars' pedestal bases, albeit in a more abstract or 'reduced' form (Catalogue Fig. 3.1.9). This, along with contemporaneously-occurring naturalistic depictions of reptiles at Lamanai (see below), suggests that the abstraction or 'reduction' of visually-complex motifs formed a deliberate stylistic trait of Early Postclassic Lamanai ceramic art and points to the sophistication of this phase's symbolism. Complex imagery bands require considerable effort or close familiarity with the imagery and subject matter to read their meaning. Consequently, the process entailed drawing in and engaging the viewer. Postclassic Lamanai ceramicists – who can be defined as artists (Gell 1998) – make use of technology (the complex design) to

mediate agency for the specific purpose of enmeshing Lamanai viewers in relations and the intentions implied by the agent (the art work [Gell 1998:31]) or the ideological concepts embodied by Lamanai motifs.

Geometric motif bands

Early Postclassic motif bands are either plain or contain incised bold geometric bands affecting a direct or immediate visual experience on the viewer. The bands act as a design tool (framing and separating device) for each other and the complex imagery bands and panels described above (e.g., Catalogue Figs. 3.8.4, 3.9.1 and 3.11.1). Motif bands include plain vertical and horizontal bands, incised intertwined bands, triangle bands and arc bands, and appliqué-modelled T-shaped bands. The bands do not communicate with other imagery displayed on the vessel, instead framing the imagery. This is unlike motifs placed within complex imagery scenes (e.g., scroll_a/flower_b motif combination), which metamorphose with other motifs. The bands' style is boldly geometric, repetitive and structured to contrast with the chaotic or 'organic' complex imagery bands they bind.

All arc bands occur on bowls and were recovered as sherds. Arc bands frame intertwined bands and triangle bands (Catalogue Fig. 3.3.23). Triangle bands frame complex imagery scenes (Catalogue Figs. 3.2.13 and 3.3.2) and more frequently, intertwined bands (Catalogue Figs. 3.1.10, 3.3.6, 23, 33-35, 37, 3.4.3, 10, 12, 17, 3.8.4 and 7). When triangle bands occur on tripod bowls, these always display T-shaped band flanges and the triangle bands top intertwined bands (Catalogue Figs. 3.4.3, 10 and 12). Triangle bands occur on a large variety of vessel forms, although notably never on large pedestal-based jars. Only one miniature pedestal-based jar displays a triangle band (Catalogue Fig. 3.1.10). Triangle bands occurring on tripod vessels and bowls are simpler in execution than those found on chalices. Triangle bands incised on tripod vessels are plain, whereas those on chalices display incision contained within the triangular elements that make up their bands (Catalogue Fig. 3.2.21). On chalices (Catalogue Figs. 3.2.1, 13-16 and 21) and pedestal-based vases (Catalogue Figs. 3.11.1-2) triangle bands always run along the bottom edge of vessel pedestal bases.

T-shaped bands always form appliqué-modelled flanges, restricted in their occurrence to certain vessel forms, where they are placed on the vessels

at mid-height. T-shaped basal flanges occur on all tetrapod dishes (Figs. 6.17 and 26; Catalogue Fig. 3.7.1), 78% of tripod vessels (Catalogue Figs. 3.4.1-5, 7-10, 12-13, 15, 17 and 3.5.2) and half of all pedestal-based jars (Catalogue Figs. 3.1.1-5, 7, 8 and 10). Occasionally, the basal flanges are incised.

Appliqué-modelled iconic motifs

In the Lamanai ceramic sample studied, many iconic motifs form appliqué-modelled figures (7% or 65 vessels): all frying-pan censers (Fig. 6.11; Catalogue Figs. 3.12.1-5); tetrapod bowls and dishes (Figs. 6.17 and 6.26; Catalogue Figs. 3.7.1-3); whistles (Catalogue Figs. 3.14.1-3) and tripod jars (Catalogue Fig. 3.5.2); 92% of tripod dishes and bowls (Catalogue Figs. 3.4.1-17); 40% of pedestal-based jars (Catalogue Figs. 3.1.1-5, 7-8, 10-12 and 14); 25% of jars (Catalogue Figs. 3.8.1, 4 and 9); and an effigy vase of a feline (Catalogue Fig. 3.6.1). Thirty-nine (60%) of these modelled vessels also display incision. The appliqué-modelled imagery expresses isolated motifs forming distinctive ‘high-effort’ effigy vessels. The figures were once brightly painted; remnants of stucco, covered in flecks of pigment, remain on some of the pieces (Fig. 6.2).



Fig. 6.11. Buk phase frying-pan censer, LA 187.

Appliqué-modelled motifs form animal – turtle, frog/toad, monkey, bird, feline and naturalistic representations of serpents and crocodiles – and anthropomorphic effigy vessels. Appliqué-modelled iconic motifs are related to a variety of vessel forms, either forming effigy vessels (frying-pan censers, whistles, jars, pedestal-based jars, tetrapod vessels), where the motif *is* the vessel (Figs. 6.12-13), or attached to vessels as their tripod feet (Fig. 6.2). Naturalistic representations of reptiles, both serpents and crocodiles, form the

appliqué-modelled 'handles' of frying-pan censers (Fig. 6.11; Catalogue Figs. 3.12.1-4). The reptile constitutes the only animal motif that is also frequently incised on Early Postclassic Lamanai ceramics. A whistle is modelled as a bird (Catalogue Fig. 3.14.1). Vessel bodies of pedestal-based jars (Fig. 6.13; Catalogue Figs. 3.1.3-5 and 11) and tetrapod vessels (Figs. 6.17 and 6.26) double as the torsos of appliqué-modelled deity figures. In contrast, the appliqué-modelled feet of many tripod vessels form the heads of anthropomorphs or birds that are not physically related to the rest of the vessel (Fig. 6.2). The tripod vessels often display T-shaped band flanges and, less frequently, intertwined bands and triangle bands.



Fig. 6.12. Buk phase bird jar, LA 69/8.



Fig. 6.13. Buk phase pedestal-based jar of rain deity *Chac*, LA 158/1.

The modelling of iconic motifs carries a general yet important implication. The appliqué-modelled and isolated treatment of motifs defines the shape of the creature in a readily discernible, three-dimensional manner. The motif's treatment is immediately, or directly, perceived by the human eye because the motif is more akin to the physical object it represents in the world and is thus naturalistic with regard to our neurological transmission or interpretation of objects into visual forms (Arnheim 1974; see Chapter 3). Simultaneously, the appliqué-modelled motifs define the shape of the ceramic vessel. Early Postclassic appliqué-modelled iconic motifs, therefore, *are* the creatures *and* the vessels. The appliqué-modelled portrayal of the motifs reflects their importance and such motifs were possibly intended to capture the spirit of the

creature displayed. This is conceivable since the object *is* the creature. Unlike Western culture, the Maya imbued inanimate objects with life (see description of destruction of wooden people recounted in the *Popol Vuh*; Tedlock 1996:71-72), reflected in ritual 'killing' (Coe 1988:234) practices of objects or vessels that had served their intended function (see below). Consequently, a particular anthropomorphic vessel *is* the rain god *Chac*, rather than a mere representation of this deity; a whistle modelled as a bird *is* the bird represented; and crocodile and serpent censers *are* smoke and steam-breathing reptiles (see also whistles appliqué-modelled as anthropomorphic figures [Catalogue Figs. 3.14.2-3]). Consequently, Early Postclassic Lamanai ceramics provide evidence for art actively reflecting and affecting culture (Gell 1998; see Chapter 3). *Chac* and the bird whistle thus directly influenced Lamanai's environment and cultural setting as independent 'spirits'. In this light, the tripod feet appliqué-modelled as bird and anthropomorphic heads – although only forming part of the vessel they are attached to – create an intimate link between motif and vessel form to indicate the vessel's function.

Great effort was invested in the modelling of often very large vessels (Catalogue Figs. 3.1.3-5), with modelling probably once always accentuated with paint. Consequently, iconographic messages are not shown through abstract and two-dimensional incision relying on motif combinations for the expression of symbolic concepts; instead messages are delivered by the appliqué-modelled motif alone. This suggests that iconic motifs form powerful symbols in their own right. The occurrence of iconic motifs as modelled effigy vessels, with the motif standing in an isolated state, explains the few motif combinations involving iconic motifs. For example, anthropomorphs predominantly occur as appliqué-modelled effigy vessels that are embellished with few adjectival motifs, such as feathers (in headdresses) and ovals (on headbands; Fig. 6.13; Catalogue Fig. 3.1.11).

Motifs marking other motifs

Certain motifs were used to mark others. They carry an adjectival meaning in Lamanai symbolism, occurring placed within complex imagery scenes, geometric motif bands and adorning appliqué-modelled iconic motifs. These motifs include the cross-hatch motif marking anthropomorphs (Catalogue Figs. 3.2.1 and 3), when the motif is contained within rectangular forms, and marking

reptiles, when the cross-hatch is either contained in ovals (Fig. 6.9; Catalogue Fig. 3.1.8) or rectangular shapes (Fig. 6.5; Catalogue Figs. 3.1.1). Ovals are widespread and mark many motifs: either occurring on appliqué-modelled anthropomorphs (Fig. 6.13) or incised within complex imagery scenes (e.g., Catalogue Figs. 3.1.8, 3.2.5 and 6). The motif is closely linked to anthropomorphs, who wear oval ear spools and/or jewels in their headdresses and frequently have faces decorated with ovals. Feathers are usually attached to main motifs such as reptiles (Catalogue Figs. 3.1.6, 8 and 9) and anthropomorphs (Fig. 6.13). Even though not physically marking the reptile motif, flower_a is sometimes depicted placed within reptilian mouths (Catalogue Fig. 3.1.1).

MATERIAL AND SOCIO-CULTURAL CONTEXTS (ICONOGRAPHICAL CONTENT)

Archaeological-contextual analysis

The Early Postclassic Lamanai ceramics studied are from primary deposits, except those retrieved from deposits assessed as core, collapse or surface (Fig. 6.14). (See Appendix 1 for detailed information on structures; Appendix 4, Table A4.11, for Lamanai structures related to function and occurrence of reconstructible [midden and burial/cache] ceramic data sample; Table A4.12 for occurrence and percentage of these vessels related to assessment; and Table A4.13 for ceramics related to structures, motifs/motif combinations and burial/cache contents). The majority of ceramics, based on studied sherd counts, come from middens, predominantly the midden abutting Structure N10-27. Only 12% were retrieved from burials and caches (see Sample section).

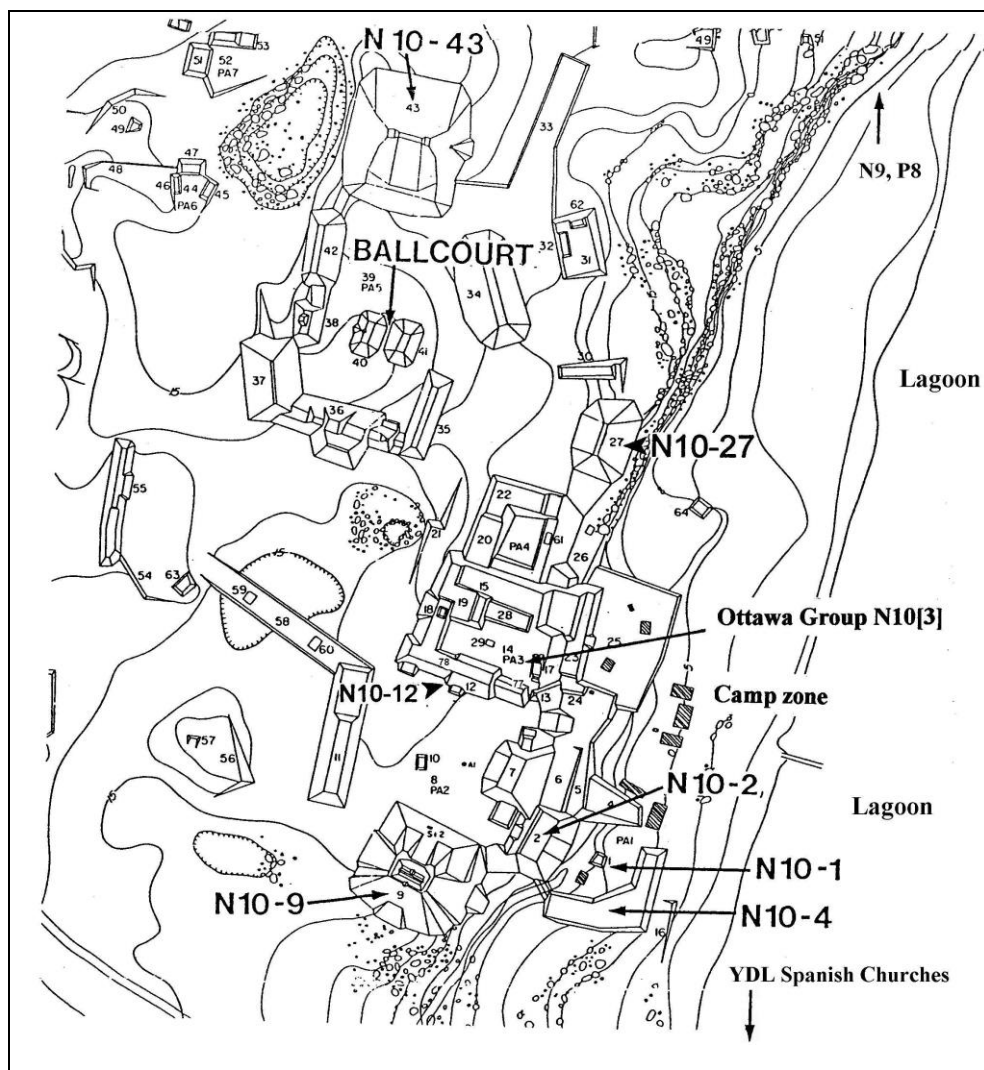


Fig. 6.14. Map of Lamanai N10 precinct, enlarged detail of Figure 3.2.3.

Summary of archaeological readings

Skeletal remains are sometimes found that reflect a face-down position with legs bent (and probably tied) back, and feet resting in the area of the buttocks (Graham 2004:235; Pendergast 1981a, 1981c; 15 of 54 individuals or 28%; six adult males, five adult females and four children). This burial position occurs in burials containing both ceramics displaying and lacking imagery and other grave goods. The position represents a funerary practice independent of sex, age and grave paraphernalia. Consequently, details of individuals buried in this position are not discussed. Instead other patterns of skeletal remains are examined and highlighted in Table A4.13, Appendix 4. For example, skeletal remains were sometimes broken and scattered along with smashed vessels in burials, or some vessel fragments show patterning in their placement relative to the deceased's body (e.g., around heads and/or shoulders).

The majority of vessels were subjected to pre-inhumation breakage (PIB). Consequently, if not stated otherwise, all vessels may be considered to have been ritually broken before interment. Exceptions will be noted, such as a very large pedestal-based jar (LA 13/3, Burial N10-1/1), deposited whole, which contained the body of an adult male.

Detailed descriptions of each context have been drawn upon to produce summaries leading to interpretations. However, maps detailing the relative locations of all burials within structures were not available and could therefore not be analysed. General and specific interpretations related to the archaeological context of Lamanai Early Postclassic ceramics are detailed below.

General interpretations

Burial contents indicate the status of the deceased; their rank is reflected in the quantity and prized nature of burial goods included in the graves. Burials containing the most precious goods (e.g., gold sheet, pyrite mirrors, jade, shells, obsidian) reveal the highest vessel counts, which are correspondingly rich in imagery. Consequently, the number of vessels placed in a grave indicates the status of the deceased. Adults are buried with more vessels and grave paraphernalia than children, suggestive that more than inherited status is involved.

Children are predominantly buried in Structure N10-2. Over half this structure's burials were those of children. The children were interred with few grave goods, often only a single grater bowl, used to grind foodstuffs such as chilli, maize or herbs. Vessels in child burials are less rich in imagery than those accompanying adults. No child-burial vessels display the reptile, cross-hatch, flower, feather and T-shaped band motifs, intimately associated with adult burial vessels and, therefore, adult themes or responsibilities. Children are occasionally buried alongside appliqué-modelled anthropomorphic effigy vessels (e.g., Burial N10-2/38). Children are further rarely associated with scroll and oval motifs. Older children and teenage burials are also associated with a smaller number of vessels and grave goods than adult burials. These older child burials are associated with vessels displaying some of the above-mentioned 'adult' motifs, but never display reptiles. This suggests a specific cultural adult-

versus-child theme reflected in burial practices at Lamanai in the Early Postclassic Period.

Principal adult graves contain vessels displaying main motifs, usually reptiles, anthropomorphs or animals. The only exception is Burial N10-4/9, which contained a plain bowl and stingray spines, generally associated with elite bloodletting (Chase 1991:89, 91-92; Coe 1988:226-227). Bloodletting was a practice maintained during both Classic and Postclassic Periods (Chase 1991:89, 96).

Lamanai Early Postclassic Period caches are associated with turtles and bloodletting implements (stingray spines, obsidian blades). Every cache contains blades (e.g., chert blades, obsidian flake blades and blades, flint flakes), indicative of bloodletting. A large eccentric flint also occurs in Cache N10-12/1. Throughout the Maya area in the Postclassic Period, caches frequently contain bloodletting paraphernalia (Chase 1991; D. Chase and A. Chase 1986). Terminal Classic caches recovered from Lamanai's elite compound N10[3] frequently contain obsidian blades and burnt offerings (Graham 2004:235). Consequently, Lamanai caches were likely linked to elite bloodletting ceremonies, possibly including the incineration of offerings, from Terminal Classic times onwards.

Midden material in this sample was, for the most part, retrieved from around Structure N10-27. The fragmentary nature of the midden data did not permit many conclusions to be drawn. However, sherds are predominantly from bowls. The overall profile of absence of utilitarian ware (cooking and eating vessels) and household waste, compared to domestic middens at the site, indicates this midden to be the consequence of elite ritual activity (Howie 2006), linked to the elite compound N10[3] (Graham 2004:230-231).

Specific interpretations

Principal burials

Burials N10-2/10 and N10-4/3 contained high-status individuals (Pendergast 1981a:44-49, 1981d). Their importance is indicated by the amount of associated vessels rich in imagery and other grave paraphernalia. Both males are interred with similar objects, including the only two examples of pyrite mirrors, the only occurrences of copper bells, along with pieces of gold sheet. The deceased in Burial N10-4/9 was also accompanied by gold sheet; a probable third important

burial. Burials N10-2/10 and N10-4/3 both revealed vessels displaying reptile and anthropomorphic motifs, containing grater bowls and tripod dishes with T-shaped band flanges. Burial N10-2/10 contained an appliqué-modelled pedestal-based jar of a 'long-nosed' deity and Burial N10-4/3 displays a 'long-nosed' deity incised on a chalice. Consequently, principal burials are strongly linked to the anthropomorphic motif.

Burial positions

Three individuals, all principal males, were buried in a seated position (Burials N10-1/1, N10-1/2 and N10-2/10). On six occasions, vessels (predominantly bowls), were placed beneath or atop the deceased's skull. The bowls either display imagery (e.g., Catalogue Fig. 3.3.4) or are plain.

Aquatic burial paraphernalia

Many Early Postclassic Lamanai burials contained marine and freshwater items such as shells, stingray spines and, on one occasion, a shark tooth. Jade also occurs, closely associated with water throughout Mesoamerica (Coggin 1983:26-27; Proskouriakoff 1974:3; Thompson 1960:44, 49, 78; see Oval section). The supernatural world was considered a watery place (Hellmuth 1987:310; Houston and Taube 2000:284; Reilly 1985), as was, possibly, the afterlife. Early Postclassic aquatic burial paraphernalia are particularly associated with ovals and scrolls. Fourteen burials, of a total of forty-two, contained individuals adorned with shells. This number is significant considering that many Early Postclassic Lamanai burials only contained fragmentary pieces of bone or were those of children, usually unaccompanied by grave goods.

Lamanai Structure N10-4, in the proximity of the lagoon, is particularly associated with aquatic themes. For example, Burial 9 contained many shells (freshwater mussel shells and *Marginella* and *Oliva* shell beads), the shark tooth and stingray spines.

Burials N10-4/1, /5, /23 and /45 of the same structure all contained shells (*Oliva* or *Marginella* shells or beads). Structure N10-4 also revealed the most turtle representations in this sample. In fact, apart from the occurrence of a single feline vessel, turtles represent the only animal motif associated with this structure. The habitat of turtles closely links them to water. Consequently,

Structure N10-4 is generally linked to water symbolism (turtle, oval, scroll) and water related grave paraphernalia (shell, shark tooth, jade).

Copper bells

At Lamanai, copper bells are associated with high-status burials in the Early, Late and Terminal Postclassic/Early Historic Periods (Catalogue Fig. 3.15.1). In the Early Postclassic Period, bells accompanied the only two burials also containing pyrite mirrors. The sound of bells carries a protective function related to war (Hosler 1994:233, 2003:162) and, in combination with mirrors that were used in divinatory rites throughout Mesoamerica (Taube 1992a:33), underscores the high-status and shamanistic power, or role, of the two individuals interred.

Evidence of burning

Evidence for incineration forming part of offertory ceremonies conducted in the Early Postclassic Period at Lamanai, is indicated by vessel types, with forms designed to optimise burning, along with burn marks detected on some vessels (e.g., frying-pan censers, pedestal-based jars, chalices). Vessels possibly burned copal or other incense. Frying-pan censers frequently display appliqué-modelled reptilian 'handles', suggesting a close link between reptiles, the censers and, by extension, burning and smoke (see Reptile section). Pedestal-based jars may also display evidence of burning: LA 13/3 contained charcoal and pieces of burnt soil, products of an earlier burning activity. Pedestal-based jars LA 95/2 and /3 from Burial N10-7/1 show evidence of burning in their interiors. Cache N10-2/2 contained a burnt organic offering placed within an effigy vessel. Tripod vessels also reveal burn marks (e.g., LA 62/7, LA 62/72, LA 215/2), while chalices display charring on their interiors, possible evidence of incineration.

Motifs related to archaeological context

Anthropomorphic: Strong principal burial association (21 of 23 vessels).

Turtle: Associated with an important agricultural, possibly harvest, offering (Str. N10-2).

- Bird: All funerary vessels from high status burials, apart from one bird whistle recovered from a midden context. All identifiable skeletons are sexed as male (5 of 7).
- Reptile: Associated with mature adult burials, therefore, adult funerary theme. There is some evidence of ritual activity involving incineration (see above).
- Cross_c: Child and principal male adult funerary association.
- T-shaped band: Strong adult funerary association (21 of 24 vessels).

Socio-cultural contextual analysis

Iconographic parallels to Lamanai Early Postclassic material will be drawn from contemporaneous comparative data and periods deictic to the Early Postclassic (i.e., Classic and Late Postclassic Periods). Wherever possible, readings will be based on Maya sources. The rationale for this is provided in the Conclusions section of this chapter. However, in brief, it comprises two main reasons: the first stems from the reading of Early and Late Postclassic Lamanai ceramic material as a unit, with the latter forming a refined or reduced (stylistic and iconographical) continuation of the first; and the second follows the contention of the importance of reading Lamanai's material culture within its own Maya cultural framework.

ICONIC MOTIFS:

Animals miscellaneous

Amphibian (toad or frog) (Catalogue Fig. 3.8.9)

Only one example of an amphibian occurs in Lamanai's Early Postclassic ceramic art. The amphibian most likely represents a toad due to its squat figure and large belly (Catalogue Fig. 3.8.9). The vessel's context lends specific meaning to the motif. The toad jar is associated with Structure N10-2, where it was deposited in its core. Consequently, the toad jar could have marked or 'consecrated' a construction ritual. Toads are thought to have represented the earth and are symbolic of birth and rebirth (Baudez 1994:260; Miller and Taube 1993:168), as they are sometimes depicted swallowing or giving birth to

anthropomorphs in Mesoamerican art (Miller and Taube 1993:168).

Consequently, the construction ritual involving the toad jar may have signified the 'birth' of Structure N10-2.

Toads (or frogs) are indicative of rain and fertility (Baudez 1994:260; Reents-Budet 1994:243-244; Taube 1988b:338-340). A rain interpretation of the motif is supported by Structure N10-2 also containing effigy vessels of the rain deity *Chac*. Structure N10-2 is related to agricultural ceremonies and themes reliant on rain and water (see Turtle section).

The toad jar, relatively small in size (height: 4.4cm; jar neck rim diameter: 3.1cm), simultaneously draws attention to its containerage function of a precious and rare liquid, as modelled as a very small jar. The amphibian's large belly doubles as the body of the jar. Consequently, any fluid poured out of the vessel appears to come directly from the toad's belly. The vessel and its precious fluid, possibly a drug, were likely used in the ritual surrounding the 'consecration' of Structure N10-2. Evidence of drug use dates from 1000 B.C. in Mesoamerica (Iverson in Gregory 1987:653; Furst 1976, 1990). Drugs were consumed in ceremonies that sought supernatural access or contact (Furst 1976) and intoxicants are closely associated with toads (Miller and Taube 1993:168). The *Bufo Marinus*, a giant toad indigenous to Mesoamerica, has parotid glands that exude intoxicating liquid (bufotenine) used to induce ecstatic trances (Miller and Taube 1993:168). Amphibians might also specifically relate to otherworld access facilitated by the use of drugs, and supported in comparative iconography when amphibians are sometimes depicted emerging from the otherworld waters (see Hellmuth 1987:112, Fig. 172).

The Early Postclassic toad jar's liquid or water associations may also reflect a relationship to rain. Perhaps the onset of the rains could be ensured through otherworld access via drugs (intoxicants, hallucinogens), contained in the jar when it was deposited in Structure N10-2. This suggests that this building and possibly some of its functions were associated with themes and ceremonies surrounding agricultural fertility (see also Turtle section).

Monkey

One Lamanai whistle is modelled as a monkey (Fig. 6.15). Monkeys are closely associated with music, the arts (Benson 1994:138-140; Miller and Taube 1993:117-118) and wind (Benson 1994:137; Coe 1977; Nicholson and

Quiñones Keber 1983:127), making the creature's modelling as a whistle wholly appropriate, as whistles are instruments of breath. Howler Monkeys are frequently sighted at Lamanai, their loud bellows possibly encouraging an association with music. The Lamanai whistle is associated with wind and song through its iconographical content (monkey) and vessel form (whistle). The monkey has puffed-up, or 'blowing', cheeks and represents a good example of 'art as agency' (Gell 1998; see Chapter 3), with both the object (whistle) and symbol (monkey) 'activated' by blowing. Consequently, the monkey may be argued as constituting an object imbued with its own life to immediately affect the site's environment, rather than passively reflecting Lamanai world view.



Fig. 6.15. Buk phase monkey whistle, LA 62/18.

The only other occurrence of a monkey effigy vessel in the Lamanai sample studied is a tetrapod jar dated to the Terminal Postclassic/Early Historic Period (Catalogue Fig. 6.2.8; Chapter 8: see Animals miscellaneous section), making a specific reading of the motif and its evolution difficult at Lamanai. Definition of specific monkey species represented was not possible. However, it is unsurprising that a frequently-sighted animal would persist in the site's symbolism.

Turtle (Catalogue Figs. 3.4.8, 3.5.2, 3.7.3, 3.12.5 and 3.17.1)

Species of Lamanai turtles could not be defined due to the eroded nature of the vessels and abstract expression of the motif. However, it is possible that the examples refer purely to the concept of a turtle or turtle aspects. Turtles embody the sea and earth in ancient Mesoamerican thought (Miller and Taube

1993:174-175). At Lamanai, the earth aspect of turtles (Taube 1985:175, 1988b:198; Quenon and le Fort 1997:894), related to themes of renewal (Reents-Budet 1994:244; Taube 1992a:92-99) and fertility (Kurbjuhn 1985a:169; Miller and Taube 1993:175) surrounding the Maize God (Quenon and le Fort 1997:894-897), and specifically linked to structure completion, is reflected in the following way...

A turtle vessel was retrieved from the only cache in this sample within Structure N10-4, Cache N10-4/3; while a representation of the Dragon in its anthropomorphised form *Itzamna* (Catalogue Fig. 3.7.1; see Reptile section), with emphasis placed on the Dragon's turtle (earth) aspects (see Anthropomorphic: *Itzamna* section), was placed in one of two caches in this sample within Structure N10-2, Cache N10-2/2 (see below). Both caches contained probable bloodletting implements (obsidian blades and flake fragments). Caches frequently contain bloodletting paraphernalia in Mesoamerica (Chase 1991:91-93; D. Chase and A. Chase 1986) and turtles are often linked to elite bloodletting themes in the Maya Lowlands during the Postclassic Period (Chase 1991:95; D. Chase and A. Chase 1986; Kurbjuhn 1985a:168; Taube 1988a:184, 199). Turtles are also closely linked to depictions of blood sacrifice in offerings recovered from Santa Rita caches (Chase 1981, 1982, 1991; D. Chase and A. Chase 1986, 1988), such as ceramic effigy figures of deities that stand on the backs of turtles while perforating their penises (Chase 1991:95, Fig. 9). Turtle symbolism linked to bloodletting and cache deposits is thus also reflected at Lamanai in the Early Postclassic Period, when several caches contain bloodletting paraphernalia (see Appendix 4, Table A4.13). Cache deposition at Lamanai is also associated with elite bloodletting in the Terminal Classic Period (see Chapter 5).

Consequently, Maya lowland caches were deposited to mark important dates or occasions, sometimes accompanied by the offering of elite blood. Turtles are associated with the calendar (D. Chase 1985a:228; Landa [in Tozzer] 1941:192; Taube 1988a:196, Fig. 8) and deposits that mark specific dates throughout the Maya Lowlands during the Postclassic Period. At Santa Rita, turtles mark important calendar dates, in some instances linked to bloodletting (D. Chase 1985a, 1985b:124, 1991; D. Chase and A. Chase 1986:89; Taube 1988a:184). The Postclassic Maya Madrid Codex also displays

turtles in association with calendrical rites (see Lee 1985:93, Plate17, and p. 120, Plate72).

Turtles lend themselves particularly well to themes surrounding cache deposits. The majority of turtle species lay their eggs at the same date and location each year, possibly the origin of the reptile's symbolic use to mark renewal occasions. Such events are linked to themes of fertility and growth, as the Maya were probably aware of the large number of eggs turtles lay. Furthermore, turtles bury their eggs, which could be said to be symbolically paralleled by caches deposited in structures. Structures were considered symbolic emulations of mountains and the earth (Carrasco 1990:21-23; Coggins 1980; Reilly 1999:15; see T-shaped band section). The earth was thought of as a huge monster providing access through caves – symbolic monster mouths – into the otherworld (Grove 1970:11; Stone 1989:327). After a specific time lapse, hundreds of turtles emerge from the sand. The emergence, or literal 'birth' from the earth, is a characteristic also mirrored in striking detail in Maya art by the Maize God. The deity descends into the otherworld, thought to be accessed via the earth (Quenon and le Fort 1997:884-899), and after a certain time period has elapsed, emerges as new corn from a turtle carapace, symbolic of the earth (see Hellmuth 1987:209, Fig. 439). Consequently, corn kernels planted in the earth might have been symbolically equated with turtles burying their eggs in sand. In Belize, sea turtles abound: the Loggerhead (*Caretta Caretta*), Green Turtle (*Chelonia mydas*) or Hawksbill (*Eretmochelys imbricate*; Graham 1994:255-256; Henderson and Hoeyers 1975:56; Landa [in Tozzer] 1941:192; Lee 2000:135-142). Nesting takes place in spring or early summer, with a six to eight week incubation period (Lee 2000:138-141). The inhabitants of Lamanai were probably aware of this phenomenon and symbolically equated the laying and hatching of turtle eggs with the sowing and harvesting, respectively, of corn. Freshwater turtle bones occur in the site's midden material (Stanchly, personal communication 2002; Pendergast 1981a:53). Several freshwater species occur locally: Central American River Turtle (*Dermatemys mawii*), Mexican Giant Musk Turtle (*Staurotypus triporcatus*), Tabasco Mud Turtle (*Kinosternon acutum*. See Lee [2000:145-161] for a comprehensive list of local freshwater turtles, also Henderson and Hoeyers [1975:55-56]). The natural behaviour of freshwater turtles is less well studied; however, what is known corresponds in general with that of sea turtles,

in that species usually nest in the dry season (January to May) with eggs hatching up to eight weeks later, early in the rainy season (Campbell 1998:106-115; Lee 2000:161). The remains of many turtles (*Staurotypus sp.*) have been recovered further down the New River from Pulltrouser swamp excavations (Pohl et al. 1996:363-364), attesting to the animal's dietary significance in ancient times.

Association between caches, important dates or occasions and turtles is supported by findings in Cache N10-2/2. The cache formed an offering linked to agriculture. It contained amongst other things burnt material, beans and corn stalks plastered and painted in the form of human figures and a smashed *metate* (Pendergast 1974, 1985a:89; see Appendix 4, Table A4.13). The beans and corn suggest links to a mid-summer or early autumn, probably a first harvest yield, offering (Pendergast, personal communication 2005). The cache represents the last activity atop the 'Gom' floor for Structure N10-2 and is, therefore, a highly important offering in relation to this structure (Pendergast, personal communication 2005). Str. N10-2 also revealed a turtle vessel deposited in its core (Catalogue Fig. 3.17.1). The placement of the two turtle vessels – one in the core and the other in a cache that marks the last activity atop an important construction phase of the structure – underscores the ceremonial function of the motif, particularly linked to important dates or occasions and the agricultural themes associated with Str. N10-2. The smashed *metate* in Cache N10-2/2 indicates corn grinding in a ritual context. Burnt corn and a frying-pan censer placed in this cache link the cache further to the incineration of offerings and the Maize God, which, in turn, are closely linked to turtles. Both the Maize God and turtles are intimately linked to themes of renewal (see above). Consequently, Cache N10-2/2 celebrates an agricultural event, a start, or end, of harvest offering, intended to ensure future crops. This interpretation supports the idea that the cache marked the completion of Str. N10-2 and thus relates to both the completion of the structure and the year's harvest.

The Maize God is frequently depicted emerging from turtle carapaces (see Hellmuth 1987:209, Fig. 439). It is conceivable, therefore, that the completion of Structure N10-2 was linked to, or symbolised, the descent of the Maize God into the otherworld to reappear the next agricultural season as new corn. As such it is symbolic of the perpetual cosmic cycle of corn and life. In this

light, the purpose of the cache's deposit and surrounding rites (which included incineration) was to tie the completed structure to its surroundings and to the cyclical concept of the Maya universe.

Early Postclassic Lamanai caches may be linked to auto-sacrificial bloodletting through the occurrence of obsidian blades and turtle effigy vessels. Maize was equated with the life blood of people (Sandstrom 1991). Present-day man was created when the feathered serpent deity known amongst Nahuatl-speaking peoples as *Quetzalcoatl* and other deities let blood onto bones ground and mixed with corn in a pottery vessel. *Quetzalcoatl* had retrieved the corn from the Mountain of Sustenance located in the otherworld (Florescano 1999:192-193; Garibay 1964:18-20; Graulich 1997:109; León-Portilla 1959:183-184; *Leyenda de los Soles* 1938:330-340, 1945:120-121; Markman and Markman 1989:144). Burnt corn material (Pendergast 1974, 1985a:89), possibly cornstalks plastered and painted in the form of human figures, contained in Cache N10-2/2 (Pendergast, personal communication 2005), might refer to the creation myth. The burning of corn in Cache N10-2/2 was thus likely symbolic of sacrificial offerings with incineration converting the corn from one state to another, from corn to ash, smoke and steam, symbolic of transference from life to death and offerings from the earth to the supernatural (see also Scroll_a section).

Anthropomorphic

With regard to the discussion of the existence of specific deities in Maya culture, Taube (1992a:7-9) writes that the argument that the Classic and Postclassic Maya lacked gods (Kubler 1969:32; Marcus 1978:180; Proskouriakoff 1965:470-471, 1978, 1980) – in favour of anthropomorphs representing costumed performers donning aspects of natural forces or abstract concepts (Proskouriakoff 1978:113, 1980:9) – no longer holds true. Although deity impersonation is described in ethnohistorical accounts and Maya art (e.g., masks, body suits), Taube (1992a:7) continues, this must be regarded separate to the discussion of specific deities. *Ku* or *ch'u* signifies deity or sacredness in Mayan languages and may 'refer to both specific gods and to the general quality of sacredness' (Taube 1992a:8). Consequently, the Maya had a sacred energy running through their cosmos *and* gods (Taube 1992a:8). This

fits with the position in this thesis, at least at Lamanai in the Early Postclassic Period, that the Maya saw a sacred energy penetrating the cosmos that, in its entirety, as the essence of life, was the Dragon (see Reptile section). Specific deities (e.g., *Chac*, *Itzamna*, *Cauac* Earth Monster) represent dynamic or fluid manifestations of this energy, identifiable by repeated characterising traits. Subsequently, Lamanai anthropomorphic figures are grouped according to identifiable deities (Group 1: *Chac*, *Itzamna*) and unidentifiable supernaturals/deities or deity impersonators (Group 2); each group is discussed below.

Group 1: Identifiable deities

Identifiable Early Postclassic Lamanai deities include the rain deity *Chac* (Taube 1992a:17; Thompson 1960:10-11), the *Cauac* Earth Monster or *Kauil*, the personification of royal lineage and power in Classic times (Taube 1992a:69-79), the aged creator god *Itzamna* (Taube 1992a:37; Thompson 1960:11, 1970:209-282) and an 'upended' figure – possibly the Postclassic Maize God (Taube 1992a:41). *Chac* and *Itzamna* are considered below. The section ends with a discussion of other supernaturals who represent specific deities (e.g., an 'upended' figure, possible *Cauac* Earth Monster or *Kauil* representations) but whose secure identification was not possible.

Chac (Fig. 6.16; Catalogue Figs. 3.1.3 and 3.3.40)

The most distinctive feature of the rain deity *Chac* is a long and pendulous nose frequently displaying serpentine characteristics (Taube 1992a:17, 21, Fig. 6a). At Lamanai, representations of 'long-nosed' deities (Fig. 6.16; see also Catalogue Fig. 3.1.11) occur in the Early Postclassic Period. The effigy vessels' identification with *Chac* is suggested by their long noses, which on one pedestal-based jar forms a serpent (Fig. 6.16). This example is embellished with ovals, a motif symbolic of precious fluids, water or blood (see Oval section). The vessel depicted in figure 6.16 displays a forked serpentine tongue in addition to its pendulous and serpentine nose. The deity's face is framed at top and bottom by T-shaped bands, interpreted as indicative of the interface between the natural and supernatural worlds (see T-shaped band section). T-shaped bands suggest the ability of this deity to move between worlds and indicate its otherworld habitat. The deity's link to the supernatural is

emphasised by an intertwined band, symbolic conduit linking the earth to the otherworld (see Intertwined band section). The vessel is spiked. Crocodiles are associated with spiked censers (see Reptile section), and when read in combination with the serpentine nose and cosmic interface and access symbols (T-shaped band and intertwined band) refer to the Dragon (see Reptile section) and rain deities *Chac*. Rain and the rain deity form an important aspect embodied within the concept of the Dragon.

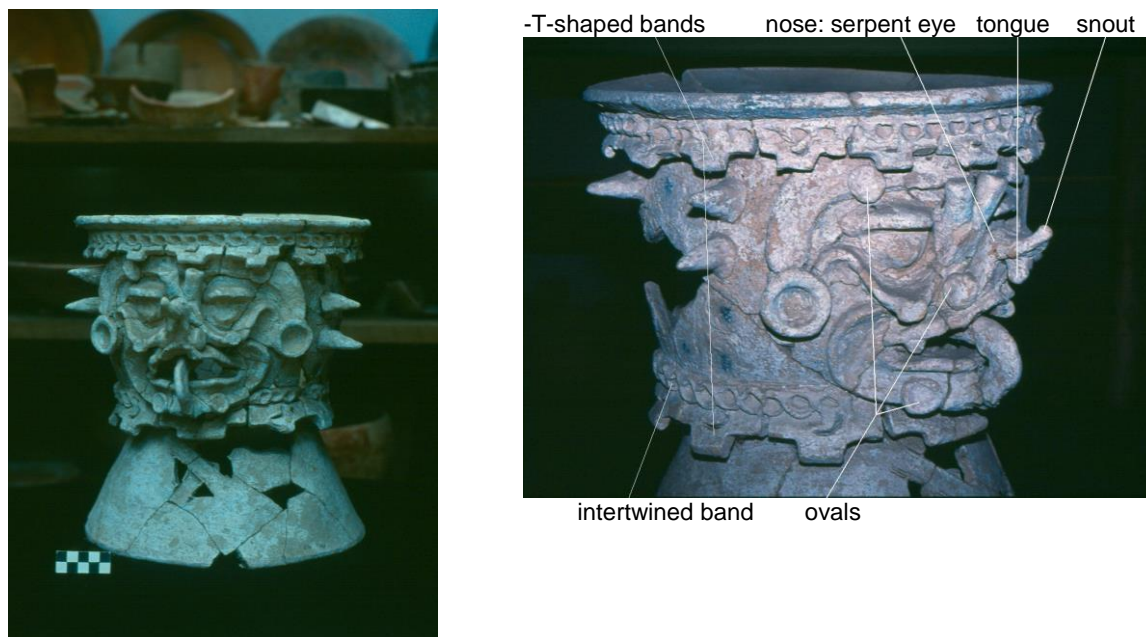


Fig. 6.16. Buk phase effigy vessel of rain deity *Chac*, LA 95/2.

The close association between *Chac* and the Dragon attested on the Lamanai vessel is supported in the Postclassic Maya codices. The Madrid Codex depicts the rain deity standing on the head of the Dragon (see Lee 1985:99, Plate 30), while in the Dresden Codex, *Chac* is linked to the Dragon's cosmic-band body via a liquid stream exuding from the latter's body (Fig. 6.39). Both *Chac* figures pour water from a jar.

Another Early Postclassic 'long-nosed' effigy vessel from Lamanai represents *Chac*. The deity is attached to the shoulder of a pedestal-based jar (Catalogue Fig. 3.1.3). The figure displays fangs and wears a headband decorated with precious water or blood ovals (see Oval section) and feathers are attached to its headdress. Incised imagery panels on the vessel's pedestal base and shoulder display feathered serpents, closely linked to rain and fertility (see Reptile section). Further spiked pedestal-based jars with attached

anthropomorphic figures occur in Lamanai's Early Postclassic ceramic sample. However, these vessels are too eroded to allow secure identification of their effigy figures (Catalogue Figs. 3.1.4-5).

Itzamna (Figs. 6.17 and 26; Catalogue Fig. 3.16.1 and possibly 3.7.1)

Please also refer to the *Itzamna* section in Chapter 8 for a discussion of this deity. *Itzamna* was probably considered the paramount lord-deity of the Maya pantheon, an aged god of creation and sustenance (Thompson 1960:11, 1970:209-233). This deity forms part of or *is* the Dragon (Spinden 1975:53-56; Stone 1983, 1985; Thompson 1970:212) as its anthropomorphic aspect (de la Garza 1998a:235; Thompson 1960:11, 1970:212-214, 228-229) and is symbolic of the 'supreme sacred energy penetrating the entire cosmos' (de la Garza 1998a:235). The *itz* in *Itzamna*'s name translates as 'iguana' or 'dragon' (Thompson 1970:212-215). In Colonial Yucatec *itz* reads as 'divination or witchcraft' and the *na* means 'to contemplate', 'understand', 'know' and 'divine' in several Mayan languages (Barrera Vásquez 1980:271, 272; Coe and Kerr 1997:102; Taube 1992a:33). For the Maya *itz* represented many things: human or animal milk, tree sap, morning dew, the nectar of flowers, human sweat, tears and semen, melted candle wax or the rust of metal; all substances excreted drop by drop, considered very precious, and nourishment for the gods (Freidel et al. 1993:413; Schele and Mathews 1998:229, 265; Sosa 1985:435; Taube 1992a:31-34). *Itzam* translates literally as 'one who does *itz*' or an '*itzer*' and is the term for shaman or wizard, the person who opens the portal to the otherworld and brings *itz* into the world (Scarlin 2000b:44), and the *na* postfix translates as 'first', 'house' (Freidel et al. 1993:412; Romero Conde 2000:74), a Maya model ('Dragon House') of the universe (Thompson 1970:212-215; Chapter 8: see *Itzamna* section). In light of the Dragon's interpretation as an entity or being that subsumed all elements of life, an all-powerful and all-knowing or all-seeing entity (Chapter 6: see Reptile section), the *Itzam* in the Dragon's name possibly refers to the beast's supernatural abilities to travel between the natural world and otherworld; this ability was mimicked by shamans whose role required supernatural access.

All deities of the Maya pantheon have been argued as forming part of this one supreme god (Chapter 6: see Reptile section), with the Dragon's main roles incorporated in the deities *Kinich Ahau* (sun aspect), *Itzamna Cab Ain*

(earth and fire aspect), *Bolon Dzacab* or God K (vegetal aspect associated with images of sprouting maize), *Itzamna* or God D (creator god) and his zoological alter ego the Principal Bird Deity (de la Garza 1998a:235-236; Milbrath 1999:285; Taube 1989a:9; Thompson 1960:11, 1970:209-233).

Itzamna represents the anthropomorphised aspect of the Dragon, represented three (possibly four) times in this form on Early Postclassic Lamanai ceramics: once as a fanged anthropomorph with crocodilian headdress with deer antlers (Catalogue Fig. 3.16.1), found associated with Structure N10-2, and twice (possibly three times) as the head of a quadruped retrieved from caches and a burial (Figs. 6.17 and 26; Catalogue Fig. 3.7.1; see Appendix 4, Table 4.13).

The figure with crocodilian headdress might simultaneously represent a ruler or official who has taken on the guise of *Itzamna*. The figure has wide-open, pupil-less eyes, indicative of supernatural transformation or a trance-like state. *Itzamna* is closely associated with priests and shamans (Taube 1989a:4). Furthermore, shamans (Furst 1976), *Itzamna* and the Dragon – interpreted as supernatural medium (see Reptile section) – frequently underwent supernatural transformation to establish contact with the beyond.

Other Early Postclassic Lamanai *Itzamna* manifestations form quadrupeds supporting large round dishes that double as the effigies' backs (Figs. 6.17 and 26; Catalogue Fig. 3.7.1). Each dish rests on the front legs and kneeling hind legs of the beast. The front legs are truncated like deer hooves, albeit not cloven, and resemble the truncated limb of the crocodilian haunches embodied within Early Postclassic Lamanai Dragon representations (Fig. 6.27). The Dragon is frequently depicted with deer (de la Garza 1998a:237) and crocodilian attributes (see Reptile section; Chapter 8: *Itzamna* section). The effigy figures' deer and crocodilian traits thus identify the quadrupeds as the Dragon. The Dragon's anthropomorphic aspect, *Itzamna*, is visualised by the effigy heads displaying a prominent aquiline nose (Fig. 6.17). *Itzamna* was considered an aged deity with toothless mouth and prominent nose (de la Garza 1998a:237; Hellmuth 1987; Taube 1992a:31; Thompson 1970:209-233), a characteristic trait mirrored by the Lamanai quadrupeds and also depicted in the Postclassic Maya codices. On Plate 9 of the Dresden Codex, *Itzamna* is depicted with aged face, prominent aquiline nose and Dragon headdress (Fig. 6.18). Further Dragon representations are incised on the side of the Lamanai

tetrapod dish doubling as the creature's back. The figures' kneeling posture shows *Itzamna* buckling under the weight of the cosmos, symbolised by the round dish and its incised Dragon representations. Consequently, tetrapod effigy vessels *are and* support the Maya concept of the cosmos on their backs, in these instances, specifically stressing the Dragon's turtle-aspect (large round back), symbolic of the earth, its spatial structuring and agricultural renewal (see Turtle section; Chapter 8: *God N* section). The dishes simultaneously stress the containerage function of the vessels with any offerings placed within dedicated to, or embodied by, the Dragon. One Lamanai quadruped representation of the Dragon, recovered from Cache N10-43/1 deposited at the base of the stair of Structure N10-43, contained a single jade bead (Pendergast 1982b:29, 58, Fig. 19, 1998:59; Fig. 6.26). Jade beads are argued to have been placed in the mouths of the deceased, when laid to rest in burials, to capture their departing breath soul (Houston and Taube 2000:267; Miles 1957:749). In this light, jade beads placed in cache offerings are suggested to refer to the essence of the being or concept addressed, in this instance the placement within the Dragon's body specifically refers to the beast's essence, or *itz* (see above), encapsulated within the jade bead (see Scroll_a section).



Fig. 6.17. Buk phase tetrapod dish of *Itzamna*, LA 13/5.

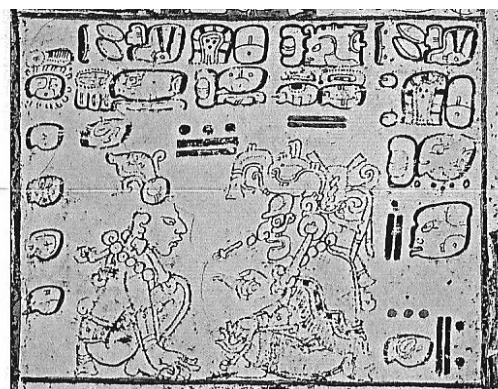


Fig. 6.18. *Itzamna* (right), Dresden Codex, Plate 9. Thompson 1972:Plate 9.

The *Itzamna* quadruped shown in figure 6.18 was placed alongside a large burial urn that contained the tightly-flexed body of a male (LA 13/3, Burial N10-1/1). A possible symbol ('symmetrically-branching scrolls') for the Dragon or his anthropomorphised aspect *Itzamna* might be represented in a shoulder panel of the urn (Fig. 6.19). The symbol consists of two scrolls branching up and outwards from a shared base. The symmetry of the symbol is striking. Lamanai

Early Postclassic ceramic art usually displays motifs merging and overlapping in an organic style (see Definition of style section). The only other Early Postclassic symmetrical symbol at Lamanai occurs on a bowl (LA 789/3, Burial N10-69/2), possibly representing a frontal view of the *Cauac* Earth Monster (see Cross-hatch section; Catalogue Fig. 3.3.29). The rare occurrence of symmetrical-balanced symbols – at odds with the intentional chaotic or organic style of Early Postclassic Lamanai ceramic art – suggests that the symmetry of the two symbols was intended to stress the balance or harmony embodied within the being or concept expressed. In the Postclassic Madrid Codex, Plates 75 and 76, the ‘symmetrically-branching scrolls’ symbol occurs atop a temple structure doubling as the World Tree and which forms the centre of a quincunx cosmogram (Fig. 6.20). *Itzamna* sits within the structure to the viewer’s right. The symmetrically-branching scrolls’ form and symbolic context in the Madrid Codex associates the symbol with the World Tree and centre of the cosmos. *Itzamna* is closely linked to the World Tree (Taube 1992a:40) and four(or five)-part structuring of the Maya cosmos (Thompson 1960:10, 1970:212-214; Chapter 8: see *Itzamna* as a bicephalic reptile divided into four parts section). The symbol’s symmetry reflects the balance which was thought to exist at the world’s centre, the position of the World Tree. As such the symbol forms an important aspect of *Itzamna* and the four(or five)-part structuring of the Maya universe. The symbol also forms the headdress of a deity grasping the decapitated head of an elite bird warrior represented in the Grolier Codex, Plate 9 (Fig. 6.25; see Bird section). Consequently, the motif may also identify this deity as *Itzamna*, in turn, establishing an association between *Itzamna* and bird-warrior spirits. Notably, the back feet of the Lamanai quadruped depicted in figure 6.27 form appliqué-modelled bird heads, similar to the bird-head feet of tripod vessels linked to bird-warrior symbolism at the site (see Bird section).

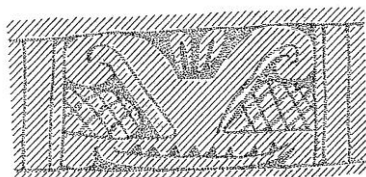


Fig. 6.19. Buk phase pedestal-based jar, shoulder panel, LA 13/3.

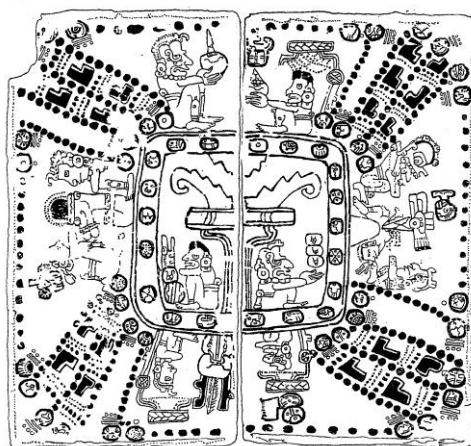


Fig. 6.20. Maya 260-day calendar organised as quincunx representation of cosmos, Madrid Codex, pages 75-76. Boone 2003:218, Fig. 27.23.

Specific deities that elude secure identification

'Upended' figure (Fig. 6.27; Catalogue Fig. 3.3.7)

Please refer to the Anthropomorphic section in Chapter 8 for a discussion of 'upended' figures as they occur in the Maya Lowlands in the Postclassic Period. At Lamanai, an Early Postclassic bowl displays a possible early form of an 'upended' figure (Fig. 6.27; Catalogue Fig. 3.3.7). Even though the figure's legs are not depicted, the unnatural outward-thrust from its body of the figure's elbows might suggest a down-ward flying position akin to that adopted by Postclassic 'upended' figures widespread in the Maya Lowlands (Figs. 6.21-22).



Fig. 6.21. 'Upended' figure, Santa Rita. Liverpool Museum No. 20.11.1913.39.



Fig. 6.22. 'Upended' figure, Progreso District. Liverpool Museum No. 20.11.1913.62.

The 'upended' figures might represent the Postclassic Diving God – erroneously identified by Roys (1933:63) as “bee gods” (Taube 1992a:41) –

widespread in the Maya Lowlands (Masson 2000:229-234), related to the Maize God (Bricker 1986:147; Taube 1992a:41) and associated with agricultural cycles, transformation, death and rebirth (Bricker 1986:147; Taube 1992a:41-43, 50, Figs. 17-18; Chapter 8: see Anthropomorphic section).

Even though the Lamanai 'upended' figure may not be securely identified, the vessel's paradigmatic motif set (see Reptile, Scroll_a sections) suggests the figure to be a supernatural, deity or deity impersonator rather than a human, in the process of entering or exiting between, or perched at the interface of, the natural and supernatural worlds.

'Long-nosed' deities (Fig. 6.47; Catalogue Figs. 3.2.1, 3 and 8)

Three Early Postclassic Lamanai chalices depict 'long-nosed' deities varying slightly in their appearance. Even though the figures form clear representations of non-humans or supernaturals, their identification is problematic. Their long noses suggest identification with the rain deity *Chac*, *Kauil* or a crocodilian reptilian deity, possibly *Itzamna*. The figures' incised and abstract form is unlike other specific deity representations at Lamanai (e.g., appliqué-modelled *Chac* or *Itzamna* effigy vessels; see above) and does not aid in their identification. However, the cross-hatch motif marks the anthropomorphs' eyes and bodies, possibly relating the figures to the earth's surface (see Cross-hatch section) and the *Cauac* Earth monster, who often bears the cross-hatch symbol and is sometimes also characterised by a long and bulbous nose (see Hellmuth 1987:279, Fig. 615; Taube 1992a:82, 87, Figs. 39b, 43b). Alternatively, since all three chalices were recovered from principal adult burials, their archaeological context establishes an association with high status. In this light, the 'long-nosed' anthropomorphs possibly represent *Kauil*, the personification of royal lineage and power in Classic times, whose distinguishing characteristic is a long and upturned nose (Taube 1992a:69-79).

Group 2: Unidentifiable supernaturals, deities and/or deity impersonators

Early Postclassic Lamanai tripod vessel feet (Catalogue Figs. 3.4.3, 5-6, 11, 13-14 and 16) and effigy vessels (Catalogue Figs. 3.1.4-5, 3.14.2-3, 3.16.2) display anthropomorphic heads or figures, respectively. The majority of anthropomorphic figures occur as appliqué-modelled tripod vessel feet, retrieved from burials. Most tripod vessels displaying the anthropomorphic motif

contain small beads in their hollow feet that rattle when moved (Catalogue Figs. 3.4.3, 5-6, 11, 13-14 and 16). The tripod vessels were used to make noise or sound in specific ceremonies that involved the vessels' movement.

No specifying features allow identification of any one supernatural in this group of Early Postclassic Lamanai figures. The anthropomorphs vary in appearance between displaying humanoid characteristics and supernatural facial traits. Some display two small 'stubs' placed in the corners of their mouth (Catalogue Fig. 3.16.1; Chapter 7: see Gatah ceramics section). The anthropomorphs and Lamanai Postclassic anthropomorphs in general usually display pronounced naso-labial flaps, interpreted as the edges of masks (Catalogue Figs. 3.1.3, 3.1.5, 3.4.3, 3.4.16 and 3.7.1). Most have expressionless faces with hollow eyes, also reminiscent of masks (Catalogue Figs. 3.4.5, 11 and 13). Early Postclassic anthropomorphs contrast with Late Postclassic (Gatah phase) anthropomorphic-head feet, which display animated expressions (see Chapter 7). Many Maya supernaturals and deities display fangs or mouth-corners stubs, or wear masks (see Jones 1998a:Fig. on p. 487; Taube 1992a:51, Fig. 22). The masks are symbolic of metamorphosis that enabled otherworld access. Masks are worn in ceremonies throughout the world to confer on the wearer the identity and power of the being or concepts donned (Jung 1964:236; Markman and Markman 1989:106); and at Lamanai were most likely worn during ceremonies surrounding the deposition of the tripod vessels. Most anthropomorphs also display ear spools, regalia reserved for supernatural beings and the elite (e.g., Catalogue Fig. 3.4.13).

Bird (Catalogue Figs. 3.3.14, 3.4.1, 4, 3.5.1, 3.8.1, 4 and 3.9.3)

Early Postclassic Lamanai burial vessels display appliqué-modelled bird motifs, either as the feet of tripod vessels (all with T-shaped band flanges; Catalogue Figs. 3.4.1, 4 and 3.5.1) or attached to jar shoulders (Catalogue Figs. 3.8.1 and 4). Archaeological and iconographical analyses of the bird motif at Lamanai support its functioning as a specific warrior-group emblem linked to funerary rites during the Early to Late Postclassic Periods (Chapter 7: see Bird section).

Bird iconography is connected to the elite amongst the Maya, as water birds often occur placed in the headgear of elites (Freidel and Schele 1988:62). The whole headdress was read as 'bird' due to large feathers attached like

wings to the elite figures' backs (Freidel and Schele 1988:62). Birds are also associated with transformation and elite warrior groups. Shamans wear masks and possess the magical powers of transforming themselves into a bird, serpent or powerful warrior (Florescano 1999:158). Maya bird warriors are depicted in the Terminal Classic Period Cacaxtla murals fighting jaguar warriors (Nagao 1989:83, Figs. 1-2; Taube 1994a:665-667). Warriors also occur dressed in bird costumes at Chichen Itza (see Tozzer 1957:Figs. 434, 436, 437, 529a-h, n) and in the Postclassic Maya Grolier Codex (see Lee 1985:167-172).

A warrior-related interpretation for the Lamanai bird motif is supported by the following archaeological data. The only primary contexts where birds are found are funerary ones. The motif never occurs in caches and only once as a bird whistle in a midden associated with Structure N10-9. However, bird vessels (and a carved bird jade pendant) are not found in all graves, but only in mature male burials, usually associated with much grave paraphernalia (i.e. not in women or child burials). Four of the burials that revealed bird vessels contained bodies whose sex is determinable as male and two whose sex is indistinguishable. Consequently, it is likely that the bird motif holds a specific function or meaning as found in specific burials: those of important mature males (see Appendix 4, Table A4.13: Burials N10-1/1, N10-1/2, N10-4/3, N10-4/45, N10-28/1 and N10-2/21 [teen burial, possibly considered adult]).

The skeleton of the male interred in Burial N10-4/45 has a healed fracture to the left hand (Pendergast 1977). The healed hand fracture may be associated with violence, experienced by the deceased at a date earlier to his death. It is conceivable that the injury was gained by the deceased in conflict and, when read in combination with comparative data, are suggestive of battle.

Grave paraphernalia placed with the men might also suggest a war-related theme of a functional or ritual nature: a celt was placed in Burial N10-4/3 and a bipointed blade in Burial N10-28/1. In fact, all examples of what might be described as ceremonial weaponry in Early Postclassic Lamanai burials accompany bird vessels. Copper bells were worn on a necklace and arm ornament by the young male interred in Burial N10-4/3. Bells were thought to protect their wearer in battle and their sound was likened to that of singing birds and the voices of deities (Hosler 1994:233, 2003:162). In this light, a bird drum contained in Burial N10-28/1 (Catalogue Fig. 3.9.3) likely held the same function

of creating 'protective' sound magic for the deceased 'bird' warrior as the copper bells accompanying Burial N10-4/3.

The small number of Lamanai burial vessels displaying the bird motif (twelve) suggests that not all elite warriors were interred with such a vessel, or that not all bird warriors have been unearthed. Consequently, bird vessels designate particularly powerful warriors, or those that died in battle, considered the ultimate sacrifice (Thompson 1960:12). In Mesoamerican belief, dead warriors were thought to enter a plentiful paradise (Thompson 1960:12). In the Early Postclassic Period, I have noticed that when multiple bird tripod vessels occur in burials these are of a particular type (this is also the case in Late Postclassic Lamanai burials⁴; Chapter 7: see Bird section). For example, Early Postclassic Burial N10-1/1 contains vessel numbers LA 13/7 (Fig. 6.23) and LA 13/11 (Catalogue Fig. 3.4.4), two tripod dishes with identical blue-painted and modelled bird-head feet displaying large beaks; whereas Burial N10-4/45 contains vessel number LA 246/4, a tripod jar with different bird feet (Fig. 6.24). In the Early Postclassic Period, each burial that contains bird vessels displays different bird forms, specific to burial. The birds possibly represent different species of water birds. It is conceivable that the association of specific bird types to individual burials is reflective of the personal emblem of the deceased.



Fig. 6.23. Buk phase tripod dish with bird-head feet, LA 13/7.



Fig. 6.24. Buk phase tripod dish with bird-head feet, LA 246/4.

Lamanai bird tripod vessels also display T-shaped band flanges (Fig. 6.23; Catalogue Figs. 3.4.4). The T-shaped band is interpreted as indicative of the interface between the natural and supernatural worlds (see T-shaped band section). The motif associates the birds with supernatural access and,

⁴ Late Postclassic Burial N10-4/46 contains vessel numbers LA 247/4 (Catalogue Fig. 4.3.4), LA 247/5 (Catalogue Fig. 4.3.5), LA 247/6 (Catalogue Fig. 4.3.6), LA 247/15 (Catalogue Fig. 4.3.7) and LA 247/16 (Catalogue Fig. 4.3.8), five tripod dishes displaying identical bird-head feet; whereas tripod dish LA 580/2 (Catalogue Fig. 4.3.11) in Burial N10-14/1 displays different bird-head feet.

considering the vessels' funerary context, the deceased's journey to the afterlife. The natural phenomenon of birds diving into water possibly resulted in the belief that birds were able to cross the liminal borders between the earth and the supernatural. In Mesoamerican thought the otherworld was thought to be accessed via the earth through water and caves (Grove 1970:11; Stone 1989:327). Birds are also able to walk on the earth and fly in the sky, the terrestrial and celestial realms of the Maya universe. The ability of birds to traverse the different regions of the Maya cosmos led to an avian association with supernatural metamorphosis and power. Consequently, birds were closely associated with the supernatural and its access. Most Lamanai birds wear ear spools, regalia reserved for supernaturals and the elite. Consequently, the birds possibly embodied the spirit of deceased warriors. Rather than simply wearing a bird costume, the deceased is transformed into the spirit or co-essence of the bird, to be imbued with the entire animal's power.

Bird jar LA 128/1, interred with the teen in Burial N10-2/21 (Fig. 6.45) – possibly a young warrior aged thirteen to eighteen years – specifically relates to the departure of his 'soul breath' (Houston and Taube 2000) to the afterlife, as combined with metamorphosing scroll_a/flower_b panels. At Lamanai, scroll_a motifs metamorphosing into flower_b motifs, and vice versa, when depicted on funerary ceramics, are interpreted as visually depicting the soul breath of deceased elite (see Reptile, Flower_b, Scroll_a sections).

The souls of individuals who died in battle or sacrifice were thought to turn into hummingbirds (Bierhorst 1985:19; Burkhart 1992:89; Furst 1995:23-32, 160-172; Markman and Markman 1989:148; Mendieta 1971:97; Pohl 2003:201; Sahagún 1950-1982, 3:47-48, 6:162-163 and 1956, 1:297-298), and enter an abundant and 'flowery' paradise (Graulich 1997:249; Sahagún 1956, 1:293-298; Thompson 1960:12). At Lamanai, access to this paradise required the release of the warrior's spirit or soul breath, possibly activated by the smashing of the vessel and its symbolism (bird, T-shaped band, scroll_a/flower_b) to facilitate the spirit's travel to the otherworld. All bird vessels were subjected to pre-inhumation breakage and an intimate link between vessel and deceased is created by the vessels' burial distribution (see Appendix 4, Table A4.13). The vessels are deposited in important male burials, occasionally relative to the deceased's skull and/or shoulder (see also T-shaped band section). Burial bird jars are linked to the interred skulls: all jar fragments of vessel number LA 246/4

are placed atop the skull in Burial N10-4/45 and jar fragments of vessel number LA 69/3 are spread over the rear of the skull and right shoulder of the individual in Burial N10-4/3. However, the pieces of the bird jar found in the teen Burial N10-2/21 (Fig. 6.45) were placed at the south side of his body.

The Postclassic Grolier Codex (see Lee 1985:167-172) depicts warriors and deities related to war themes. The warriors hold spears and are dressed in bird attire: one individual has clawed bird feet and a bird headdress (see Lee 1985:170, Plate 9). Plate 10 (Lee 1985:171) depicts a deity characterised by an unusual headdress consisting of two upward-branching scrolls with T-shapes added to their sides forming a continuation of his forehead (Fig. 6.25; see T-shaped band section). The deity holds the decapitated head of a bird warrior suspended by a rope, establishing a close association between victim and deity, possibly identified as *Itzamna* (see Anthropomorphic: *Itzamna* section). The victim is characterised as an elite bird warrior by his bird headdress consisting of a full-figure bird arching upwards and away from the severed head and T-shaped//K pendant, frequently found accompanying elite burials or forming elite regalia on Classic Period ruler representations (see T-shaped band section) and, in this instance, refers to the elite warrior's bird spirit releasing to the afterlife.



Fig. 6.25. Possible *Itzamna* holding decapitated head of a bird warrior, Grolier Codex, Plate 9. Lee 1985:171, Plate 9.

The association between *Itzamna* and birds is further suggested by a Lamanai tetrapod vessel representing *Itzamna* as quadruped with appliqué-modelled bird-head feet (see Anthropomorphic section; Fig. 6.26).



Fig. 6.26. Buk phase tetrapod dish of *Itzamna*, cache at base of stair of Str. N10-43. Pendergast 1982b:58, Fig. 19.

In summary, Lamanai burial ceramics displaying the bird motif are associated with war themes and seem to identify the deceased as warriors. The bird motif acted as a warrior emblem associated with particular warrior groups at the site; it was also employed by its members as a mnemonic and symbolic device to link them to power gained through supernatural access and transformation. Consequently, Lamanai birds occur on burial tripod vessel feet as warrior emblems, with the birds related to the deceased warrior's spirit.

Reptile (Catalogue Figs. 3.1.1, 3, 6, 8-9, 12, 3.2.4-6, 16-17, 19, 23, 3.3.2, 4, 7, 10, 12, 14, 16-17, 3.4.19, 3.9.1, 3.12.1-4 and 3.16.1)

This section discusses and defines reptiles as they occur at Lamanai in the Early Postclassic, with information added from the comparative literature. Lamanai reptiles are identified as the Dragon. The concept of the Dragon is explored, and then its crocodilian (see Crocodilian traits section) and serpentine (see Serpentine traits section) aspects are examined. Finally, a summary of findings is presented.

In the Early Postclassic Period at Lamanai, reptiles occur predominantly as bicephalic creatures formed of varying body parts. Two-headed snakes sometimes occur in nature (Benson 1997), a phenomenon that the Maya might have been aware of and incorporated into bicephalic Dragon representations.

The *Nahuatl* word *coatl* means ‘serpent’ or ‘twin’ and occurs in the names of important deities such as *Mixcoatl*, *Quetzalcoatl* and *Coatlicue* (Miller and Taube 1993:149).

The composite reptiles show great variation in elements combined, even though many vessels are attributable to a specific phase (the Early Postclassic Buk phase, see Appendix 1). This demonstrates that the pronounced variation in reptile representation at the site is not reflective of this motif’s evolution, but that the variation instead forms an intrinsic component or stylistic trait of Lamanai Early Postclassic ceramic art (see Definition of style section). Coterminous naturalistic depictions of reptile-handled, frying-pan censers occur at Lamanai. This proves that the ideographically dense representations did not reflect inability to portray reptiles naturalistically. Instead the complexity in depiction represented a range of stylistic traits accepted as the embodiment of the beast.

The Lamanai reptiles are composed of either crocodilian and/or serpentine characteristics that often combine to form single bicephalic reptilian beasts via bulbous scroll_a/flower_b bodies. No two examples are the same, demonstrating great flexibility in elements combined within the being or concept. The reptiles and their different elements vary in the degree of abstraction, which makes their identification (to us) difficult at times. The abstraction and amalgamation of the two reptiles, crocodile and serpent, thus formed an integral part of the supernatural beast in its iconographical content and stylistic portrayal.

In Aztec representation, the creator or artist was able to pick from a repertoire of symbols (Pasztory 1983:91-94). This element of choice was also present in Lamanai’s Early Postclassic ceramic imagery (see Definition of style section). However, emphasis in manifestations always returns to crocodilian and serpentine traits (sometimes depicted lacking a lower jaw), with bodies usually composed of flowery scrolls (see Flower_b, Scroll_a sections).

Consequently, Lamanai reptiles refer to a single beast, able to shift and change shape depending on the aspects being emphasised. In combination, the traits refer to the concept, embodied in what has been termed the Cosmic or Celestial Dragon, the embodiment of all things including gods (Carlson and Landis 1985:115; de la Garza 1998a:235; Thompson 1970:209-233). I will refer to this concept as the Dragon.

Identification of Dragons on Early Postclassic Lamanai ceramics

Traits that allow identification of the Early Postclassic Lamanai Dragon include it usually displaying one crocodilian and one serpentine head. The serpentine heads are identified by their down-turned snout and fangs, whereas crocodilian heads are distinguished by their upturned snouts (Thompson [1970:222] also identifies crocodilian creatures by their upturned snouts), their haunch and limb characteristics and body markings (cross-hatch placed within ovals and dots). Either reptile head may be feathered. No exact matches for individual Lamanai reptiles were found in the comparative data. However, their assimilation within one motif group or cluster (expressed in paradigmatic sets; see Chapter 3) displaying reptilian characteristics, allows comparisons to (bicephalic) reptile groups as they occur in the comparative data (see also Inter-site relationships section).

The Dragon is an ancient Mesoamerican concept, with roots in Olmec art (Taube 1996:83). Consequently, over space and time, Dragon representations underwent much change and adaptation specific to the cultures which employed its concept. At Early Postclassic Lamanai, Dragons display characteristics that may attest to the theme's ancient roots (e.g., feathers, reptiles lacking a lower jaw). The concept of the feathered serpent is ancient (Miller and Taube 1993:141; Taube 1996:83-85). Taube (1996:83, Figs. 4a-g) believes the Olmec Dragon represents the Avian Serpent (feathered serpent) due to its flame or feathered eyebrow. The Avian Serpent combines serpent and bird characteristics and is interpreted as the sky serpent (Taube 1996:86). Lamanai Dragon representations may display reptile heads with flame or feathered supra-orbital plates akin to that of the Olmec Avian Serpent (Catalogue Fig. 3.4.19). Another ancient symbol is the 'serpent face-wing', which consists of a bird wing made up of the profile view of a skeletal serpent's head (Hellmuth 1987:220, Figs. 461-469). The bone ridge of the bird wing combines a serpent's upper snout with an infixed eye and the supra-orbital plate of a mythical Maya serpent without lower jaw (Hellmuth 1987:220, Figs. 461-469, 1988:167). Lamanai Dragon reptiles may lack a lower jaw and display a supra-orbital plate akin to the 'serpent-bird wing' motif (Catalogue Fig. 3.1.1 and 8g).

After the establishment of the ancient roots of the Lamanai Dragon, consideration is here given to Classic and Postclassic comparative data in

order to approach, as closely as possible, a correct iconographical reading for the concept as expressed at Lamanai in the Early Postclassic Period. Even though Lamanai Dragons display elements that may link them to aspects of the Maya Fire Serpent and feathered serpent entity known amongst *Nahuatl*-speaking people as *Quetzalcoatl* – smoke or steam scrolls in the first case and feathers in the second (discussed below) – closer inspection reveals Dragon manifestations as distinct. However, since the Dragon encompasses all elements of life (see Reptile summary), it may be argued that, to a degree, these deities are subsumed within the totality of the being or concept of the Dragon.

Even though some Lamanai Dragon representations may display feathers, they are distinct from feathered serpents occurring at identified *Quetzalcoatl-Kukulcan* cult sites that experienced much Mexicanisation in the Terminal Classic Period (e.g., Chichen Itza; Ringle 2004; Ringle et al. 1998; see Inter-site relationships section; Chapter 2). *Quetzalcoatl* representations, often rattlesnakes, depict the serpent completely covered in plumage (see Tozzer 1957:Figs. 109, 119, 395 and 398; see Conclusions section). However, the bodies of Lamanai Dragons are never wholly covered in plumage, do not form rattlesnakes and always (when the complete pot is available for study) display both crocodilian and serpentine aspects. Instead, Lamanai Dragon representations are similar to those displayed at other Classic and Postclassic Period Maya sites, thus reinforcing the importance of the reptiles' identification and reading in their own Maya cultural context.

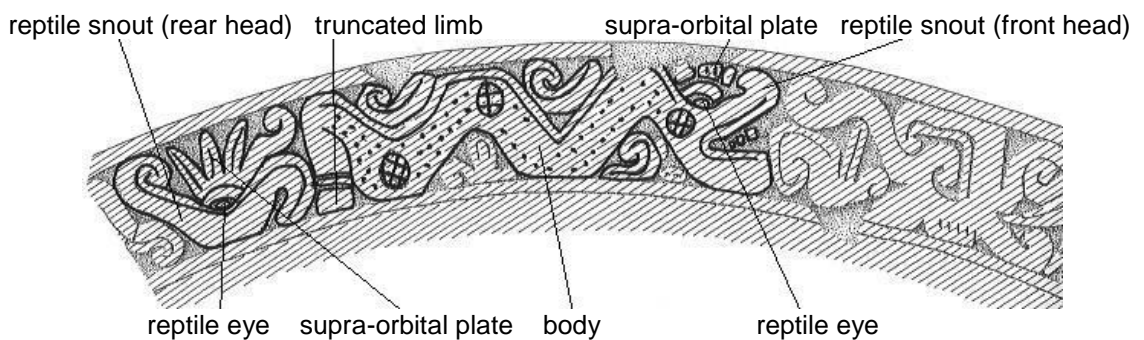
Aspects of the Maya Fire Serpent may be linked to the Lamanai Dragon as depicted 'breathing', surrounded by, or metamorphosing into, smoke and steam scrolls. The Fire Serpent, analogues to the *Xuihcoatl* of Late Postclassic Central Mexico (see Baquedano 1984:Fig. 39; Hernández Sánchez 2005:51-52, 129), has a burning tail and often exhales flames. In the Terminal Classic Cacaxtla murals and the Temple of the Jaguars at Chichen Itza, conflation of feathered serpents and the Bearded Dragon breathe fire or smoke. The Classic Period Vision Serpent may display a body turning into scrolls while it rears out of vessels containing smoking offerings (see Serpentine aspects section). The Postclassic Period *Relacion de Valladolid* records priests holding serpent-tailed hyssops during fire-walking ceremonies (Taube 1992a:35, Figs. 14a-d). A serpent-tailed hyssop is also held by the Postclassic *Itzamna* (de la Garza

1983:39; Taube 1992a:34), who stands on a cosmic reptilian conduit in the Santa Rita murals (see Serpentine traits, Intertwined band sections; Fig. 6.53). Consequently, serpents frequently metamorphose into, or are linked to scrolls when associated with burning. However, Lamanai Dragon serpentine aspects lack the beard that is usually associated with the Bearded Dragon (Taube 2003a:303-304), a form of the Fire Serpent (Miller and Taube 1993:87-88). Lamanai Dragon manifestations further may simultaneously display crocodilian and avian aspects.

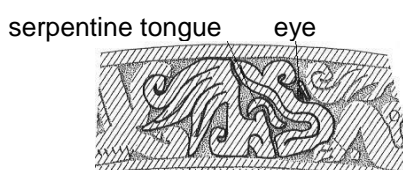
Kubler (1962a:66) observed that the depiction of the Dragon on Classic Period Quirigua Monuments (e.g., Monument 16; Stone 1985) was ideographically dense. He suggested that such ideographic density reflects the fact that the concept had great time depth as well as a history of variation in expression. The result is symbolic complexity, which required familiarity with the concept and its significance. Familiarity with the Dragon and its symbolic complex – on the part of the viewer – is required to permit interpretation of the great variation (in paradigmatic sets; see Chapter 3) of its conceptual expression. Stone writes (1985:46): ‘We see, then, that any single example of the Cosmic Monster Theme is an incomplete and, to varying degrees, abstract portrayal of a theme that only existed in its totality as a concept. The complete picture of the Cosmic Monster Theme can conceivably be reconstructed by combining the known iconographic components of all examples.’

Reconstruction of the ‘complete picture’ of the Dragon concept is accordingly attempted by a combined reading of all its known iconographic elements. Lamanai examples given have been chosen as more naturalistic, relatively intact and because they reveal most of the imagery intended at the point of the vessels’ conception. They therefore delivered a more complete motif context than fragmentary vessels, permitting thorough interpretation. The examples form a fraction of the sample. However, discussion of each of the forty-four pieces is impractical and the characteristic traits identified for the reptiles below are applicable to all Early Postclassic Lamanai examples.

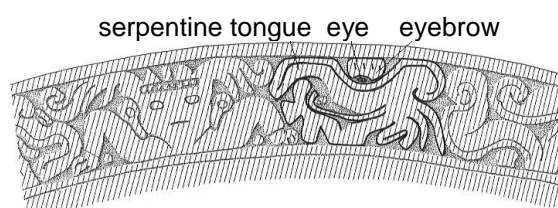
Lamanai Dragon example LA 95/7



View 1



View 2



anthropomorph

View 3

Fig. 6.27. Buk phase bowl, various details (Views 1-3), LA 95/7.

Bowl LA 95/7 (Fig. 6.27) displays a scene featuring an essentially crocodilian bicephalic reptile (View 1) and a figure, possibly an early manifestation of an 'upended' deity, widespread in the Maya Lowlands in the Postclassic Period (View 3; see Anthropomorphic section), flanked by reptilian heads with long and thin serpentine tongues; one reptile displays an upturned snout, the other a down-turned snout (Views 2-3).

The crocodilian reptile (View 1) displays two crocodilian heads, characterised by their upturned snouts, feathered supra-orbital plates, dotted body marked with the cross-hatch motif and haunch with truncated limb (Chapter 4: see Reptile section). Even though both heads are essentially crocodilian, they vary in detail of their representation. The first head (to viewer's right) displays both upper and lower jaw with a row of teeth. This head represents a relatively naturalistic image of a crocodile. In contrast, the second head (to viewer's left) is missing its lower jaw and displays a more exaggerated feathered or flamed supra-orbital plate. The crocodilian beast's undulating body is covered in scrolls. A possible flame element of the second head's supra-orbital plate metamorphoses into Lamanai scroll_a, as does this head's snout.

The beast is flanked by further bulbous scrolls, possibly issuing from the crocodilian beast's jawless head.

Two serpentine reptile heads flank the anthropomorph depicted on the obverse of the bowl. The first serpent head (to viewer's right; View 3) is represented with down-turned snout, feathered supra-orbital plate or eyebrow, and feathers or possible flame element attached to the posterior of its head. The back of the serpent's head turns into a bulbous scroll_a. The serpent is engulfed in further scrolls. The second serpentine head (to viewer's left; View 2) displays an upturned snout, supra-orbital plate, and possible flame elements in front of its head that metamorphose into scrolls_a. The scrolls are 'breathed' out of, or are consumed into, this serpent's open maw. Another scroll metamorphoses from the upper snout of the serpent and multiple further scrolls engulf both serpents and the anthropomorph.

Lamanai Dragon example LA 68/4

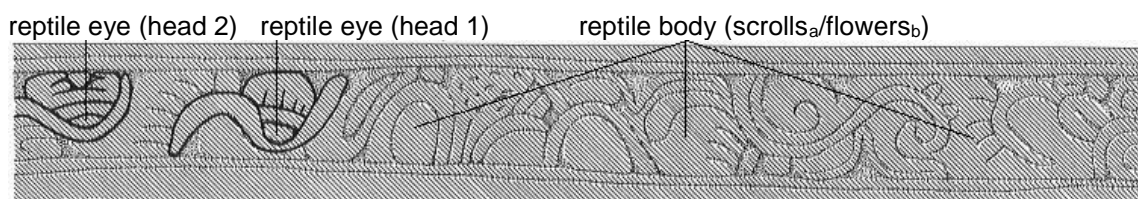


Fig. 6.28. Buk phase bowl, rim, LA 68/4.

Bowl LA 68/4 depicts another bicephalic Dragon (Fig. 6.28). The beast's two heads meet to face each other, with the remaining bowl's imagery band forming the reptile's bulbous scroll_a/flower_b body. The head to the viewer's right (1) displays a feathered supra-orbital plate and looks serpentine due to its down-curving snout. The second head (2), to the viewer's left, is crocodilian, characterised by an upward-curving snout. The crocodilian head displays a different supra-orbital plate, possibly to distinguish it from the serpentine head. Both heads are missing their lower jaws. The reptile's body is formed by the imagery band's bulbous scrolls that metamorphose into flower_b motifs and is dotted or dashed and marked with ovals. A fragment of the bowl was placed beneath the skull of the interred, suggestive of a close association between the deceased and the Dragon.

Lamanai Dragon example LA 176/2

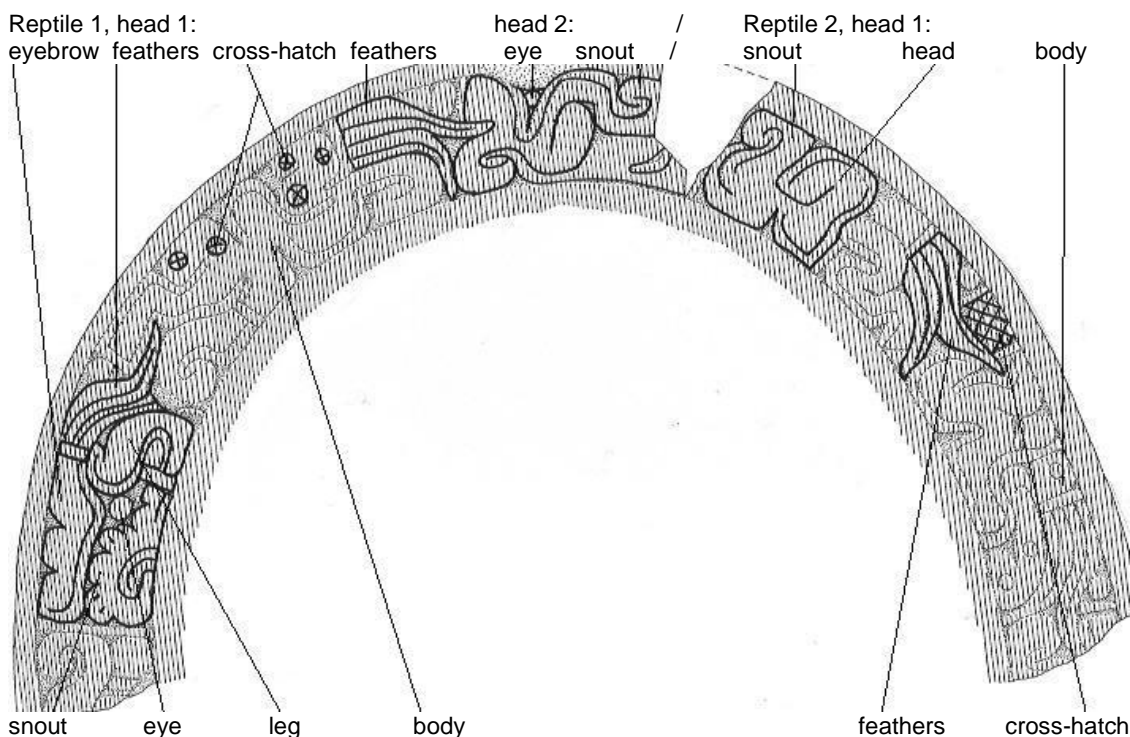


Fig. 6.29. Buk phase tripod dish, rim, detail, LA 176/2; see Catalogue Fig. 3.4.1 for clearer picture .

Although tripod dish LA 176/2 is much eroded, two bicephalic creatures with bulbous scroll_a bodies are discernible (Fig. 6.29). The more complete beast (to viewer's left) displays two heads. The first (left-hand) head has a down-turned snout that metamorphoses into flower_b motifs, oval eye with exaggerated supra-orbital plate, feathers attached to the posterior of its head and a haunch with bent leg. The second head (on the viewer's right) is much eroded. However, it reveals a long and upturned snout and feathers attached to the posterior of its head. The body of the creature consists of bulbous scrolls_a, marked with cross-hatched ovals. The reptile's body markings, haunch and bent leg designate it as essentially crocodilian (Chapter 4: see Reptile section). Another much-eroded bicephalic creature also occurs on this vessel (to viewer's right). Only one head (on the left), which displays a down-curved and bulbous snout and feathers attached to the posterior of its head, is preserved.

Lamanai Dragon example LA 243/21

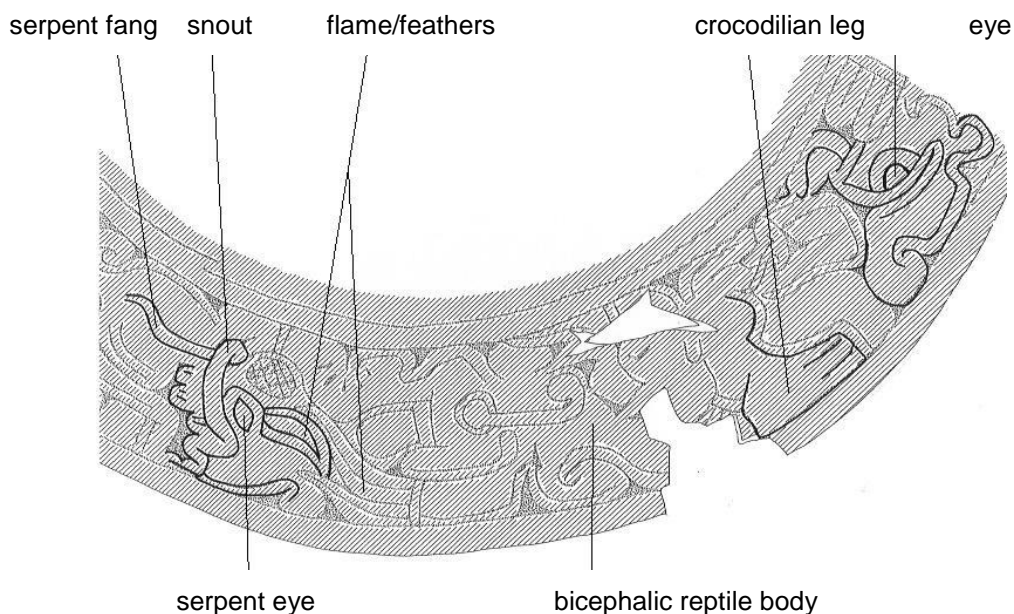


Fig. 6.30. Buk phase chalice, pedestal base, detail, LA 243/21.

Chalice pedestal base LA 243/21 displays a bicephalic reptilian creature with scroll_a/flower_b body engulfed by further scrolls (Fig. 6.30). One of the creature's heads is distinctly serpentine (to viewer's left), whereas the other displays crocodilian traits (to viewer's right). The serpent head has an upturned snout and flames or feathers attached to the rear of its head. A long fang protrudes from its upper jaw and scrolls pour out of, or into, its open mouth. The serpent thus breathes scrolls. The cross-hatch motif is placed in an oval frame above the serpent's head. The crocodilian head is difficult to discern; however, it displays an upturned snout – a characteristic trait of crocodile representations in Maya art – and a haunch. The two heads join via a bulbous scroll_a/flower_b body to form one bicephalic reptile.

Lamanai Dragon example LA 102/2

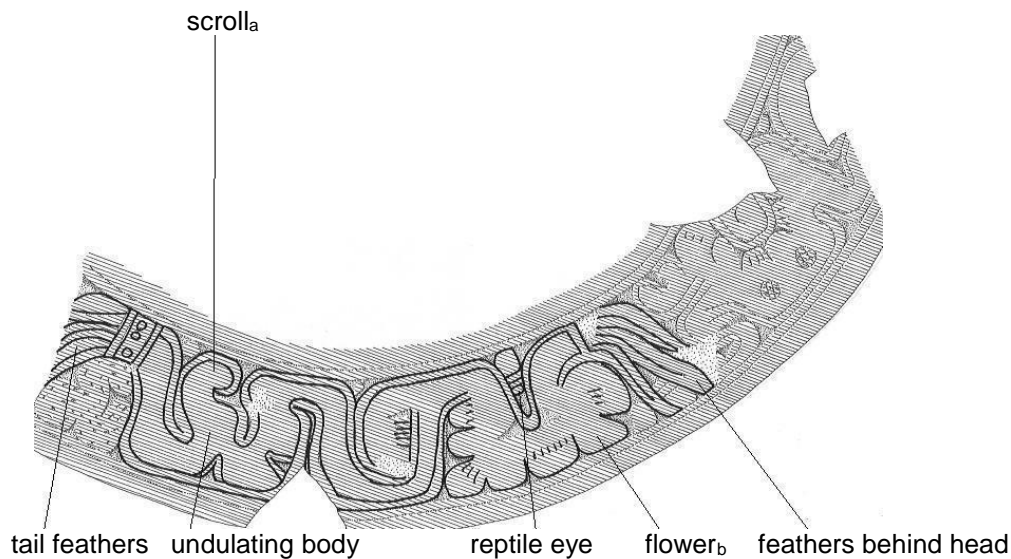


Fig. 6.31. Buk phase chalice, pedestal base, detail, LA 102/2.

Chalice pedestal base LA 102/2 depicts another Dragon with scroll_a/flower_b body and feathers attached to the posterior of its head and tail (Fig. 6.31). A further probable crocodilian body is depicted to the right of the reptile, characterised by its body markings: cross-hatch motifs contained within ovals (see also Fig. 6.27:View 1). Since the rest of this reptile is eroded, further identifying characteristics are not discernible.

Lamanai Dragon example LA 95/6

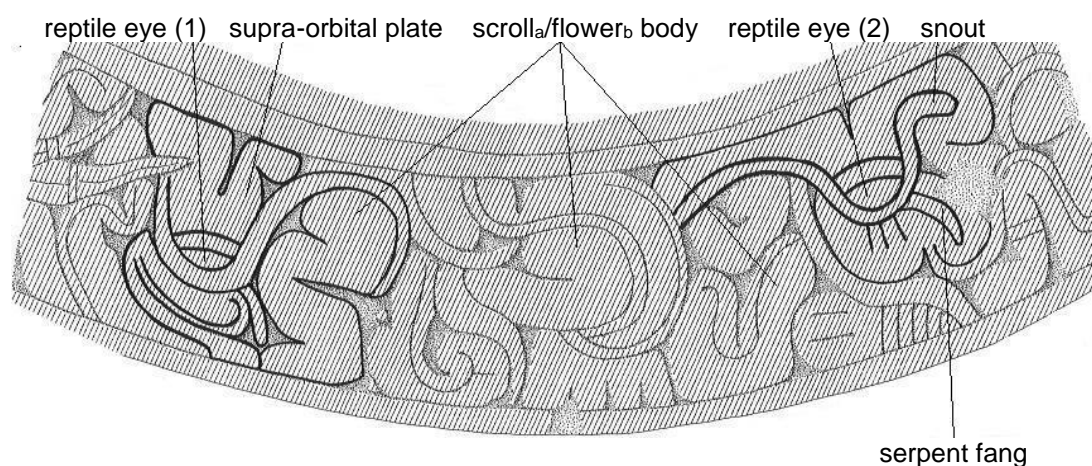


Fig. 6.32. Buk phase pedestal-base jar, pedestal base, detail, LA 95/6.

The base of pedestal-based jar LA 95/6 displays a bicephalic Dragon with serpentine and crocodilian heads and scroll_a/flower_b body (Fig. 6.32). The

serpentine characteristics of the viewer's right-hand head (2) include a downward-curving snout with distinctive serpentine fang. The serpent head displays a bulbous supra-orbital plate that extends over the reptile's entire head. The crocodilian head on the viewer's left (2) is identified by its upturned snout, its supra-orbital plate and the associated haunch with bent leg. The two heads join in a body made up of bulbous scroll_a/flower_b elements. Other reptiles occur on this vessel, indicated by an undulating body that ends in a spray of feathers to the left of the reptile. Unfortunately, this portion of the vessel is missing. LA 95/6, LA 176/2 and LA 102/2 (see above; Figs. 6.29 and 31) demonstrate the difficulties encountered with fragmentary ceramic samples.

Dragon as the 'consumer' of the breath soul of elites

The previous six examples (reflective of the whole sample) support the reading of Early Postclassic Lamanai reptile motifs as the Dragon due to their forming bicephalic reptiles with different heads (crocodilian and serpentine).

Consistently, Lamanai Dragon bodies are formed by scroll_a and flower_b motifs. Dragons metamorphose into, are surrounded by, or 'breathe' scroll_a and/or flower_b motifs. Consequently, the Dragon/scroll_a/flower_b motif combination forms an important syntagmatic chain in relation to the Dragon (see Chapter 3).

Scrolls and flowers also metamorphose from the heads of Dragon manifestations in the Late Postclassic Tulum murals (Mural 1; Fig. 6.52; see Intertwined band section).

On Lamanai funerary ceramics, scroll_a metamorphosing into flower_b motifs are interpreted as representing the breath souls of elite, possibly visualised through smoke or steam (see Flower_b, Scroll_a sections).

Consequently, the Dragon is depicted consuming breath souls into the otherworld, thus acting as supernatural medium (Figs. 6.27-32).

The Dragon's metamorphosis into breath souls further suggests absorption of the breath souls into the Dragon's body. The individual and Dragon are thus indivisible, uniting its concept or being with life. As composed of the breath souls of many individuals, or not restricted to any one individual, the Dragon therefore is symbolic of the essence of life, the most basic and important quality of the idea, or belief, of life. Consequently, the Dragon forms the totality, or essence, of life, from which all elements are manifested and abide to, until dissolved back into the otherworld that was the Dragon's body.

Dragon as the cosmos (cosmic bands)

As interpreted as composed of, *and thus forming*, the essence of life, the Dragon was also viewed as representing the cosmos. This is evident from Classic to Postclassic times and is depicted on Lamanai Early Postclassic ceramics (see also Chapter 8).

Lamanai Dragon example LA 48/2

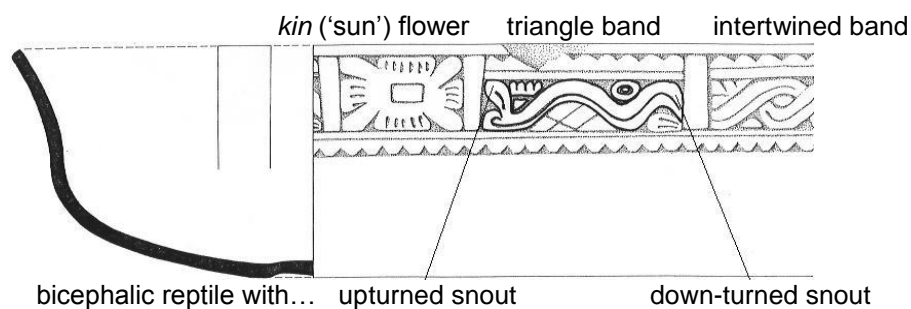


Fig. 6.33. Buk phase bowl, rim, detail, LA 48/2.

Bowl LA 48/2 (Fig. 6.33) depicts multiple representations of the Dragon with left hand crocodilian head with upturned snouts (possibly referring to the west) and right-hand serpentine head with down-turned snout (possibly referring to the east⁵; Coggins 1980:729; see Crocodilian and serpentine aspects embodied within the Dragon section; Chapter 4: see Reptile section). The crocodilian head displays a feathered eyebrow. The bicephalic reptile's placement in panels alongside cosmos-related symbols, *kin* or 'sun' signs (see Flower_a section), intertwined band, cross-hatch and triangle bands, supports a cosmos-related interpretation for the vessel's scene.

Intertwined bands are interpreted as symbolic of interwoven reptile bodies that form conduits between the earth and supernatural (see Intertwined band section). The undulating Dragon bodies rest on triangular shapes that contain the cross-hatch motif, indicative of the surface of the earth (see Cross-hatch section). Triangle bands frame the reptiles and intertwined bands at the top and bottom, and the *kin* symbols at the bottom. Triangle bands are read as indicative of the earth (see Triangle band section). Consequently, the bowl

⁵ However, Maya thought did not invariably associate 'left' with the crocodile and west and 'right' with the serpent and east; Lamanai Postclassic ceramics reveal no such standardisation in relation to the reptiles' depiction. Such a connection would disassociate the viewer and/or object from their 'true' physical or astronomical orientations, important in Maya culture (see Milbrath 1999; Milbrath and Peraza Lope 2004; Chapter 8).

represents a Lamanai microcosm: the earth, its cardinal directions and time are symbolised by the crocodilian head of the Dragon (see Crocodilian traits section); the sky by the beast's serpentine head (see Serpentine traits section) and sun (and time) by the *kin* signs (see Flower_a section). The earth, specifically its surface, is further emphasised by the cross-hatch motif on which the Dragons rest and triangle bands that frame its bodies, while the scene's link to the otherworld is symbolically established by the cosmic conduit intertwined band motif and Dragon's concept as supernatural medium (see above; Serpentine traits section). Consequently, the crocodilian aspect of the Dragon, its serpentine traits, *kin* symbols, intertwined band and triangle bands form a cosmic scene with the crocodile emphasising space-time, in totality referring to the Dragon as the spatial structuring of the cosmos (see also Anthropomorphic section; Chapter 8: *Itzamna* section). The Lamanai cosmic band, thus, is the (body of the) Dragon.

Lamanai Dragon example LA 127/3

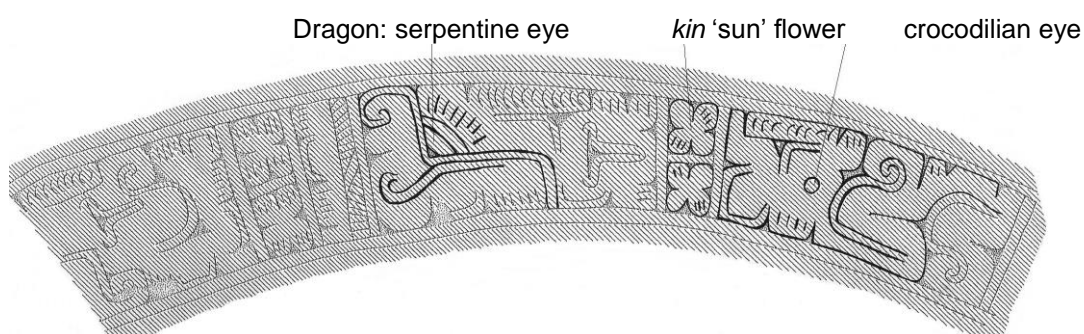


Fig. 6.34. Buk phase bowl, rim, detail, LA 127/3.

Bowl LA 127/3 (Figs. 6.1 and 34) displays another cosmic band forming the body of the Dragon. Panels display serpentine reptiles with down-turned snouts (to viewer's left) alternating with crocodilian reptiles with upturned snouts (to viewer's right). In combination, the reptiles form the bicephalic Dragon, whose body is represented by bulbous scroll_a/flower_b (breath soul) panels placed around and between the reptiles' heads. The Dragon band is further interspersed with panels containing *kin* 'sun' symbols (flowers_a). The polysemy inherent to bowl LA 127/3's symbolism establishes the Dragon as cosmic band *and* as composed of breath souls. Consequently, as the embodiment of the

cosmos and breath souls of individuals, the Dragon is symbolic of the totality, or essence, of life that was the cosmos.

Classic Period comparative data

Ancient examples of the Dragon forming the cosmos are numerous (e.g., Izapa, Olmec [Coe 1973, 1976; Joralemon 1971, 1976; Quiratre 1973], Classic Period Teotihuacan [Coggins 1980:729; Ringle et al. 1998:193; see Inter-site relationships section]). Representations of Dragons forming cosmic bands, and/or appearing as abbreviated scrolls (Chapter 7: see Scroll section) within these bands, are also numerous in Classic Period Maya art (Carlson 1988:277-278; Carlson and Landis 1985:129; see Freidel and Schele 1988:84, Fig. 2.16b; Hellmuth 1988:154-155, Fig. 4.2; Stuart 1988:194-211, Figs. 5.24, 26, 31, 32 and 40; Thompson 1970:213, Fig. 4a). Multiple examples of Dragon ceremonial bars occur held by rulers in Classic Period Maya art, specifically monumental art (see Beetz and Satterthwaite 1981:Figs. 1, 7a, 15a; Carlson and Landis 1985:118-119, Figs. 3 and 5; Freidel and Schele 1988:84, Fig. 2.16b; Stuart 1988:194-220, Figs. 5.24, 26, 29, 32, 40, 44 and 48). Lamanai's Middle Classic (A.D. 625) Stela 9 depicts the power of the Lamanai king *K'ahk' Yipiiy Chan Yopaat* (Martin, personal communication 2004) holding a Dragon ceremonial bar and, in his right hand, a Dragon head with deer antlers and deer ears (Stone 1983:198-200; Fig. 6.35a). Lamanai Stelae 1 (Fig. 6.35b) and 2 (Reents-Budet 1988:21, Fig. 2b), probably also dating to the Middle Classic Period, although placed slightly earlier than Stela 9 due to stylistic attributes (Reents-Budet 1988:17), represent further ruler depictions holding Dragon ceremonial bars. The stelae indicate the time-depth of an occupation at Lamanai with the Dragon theme as reflective of the cosmos. However, Lamanai and Maya Lowland Classic Period representations of the Dragon show it forming relatively small cosmic bands relative to the rulers holding them; this expresses the rulers' control over the supernatural and pivotal position within the cosmos. Dragon representations form ceremonial bars held by rulers to demonstrate the latter's central position within, and power over, the cosmos (Carlson and Landis 1985:129; Thompson 1970:232; see Freidel and Schele 1988:65-77, Figs. 2.5 and 13d). Consequently, in the Classic Period, bicephalic Dragons, when held by rulers, refer to their power sourced from the cosmos through an ability of supernatural otherworld access (see Intertwined band

section). The expression of the Dragon in a subsidiary role disappears on Early Postclassic Lamanai ceramics, where Dragons command the entirety of visual panes and royal figures are no longer depicted. It may thus be argued that in the Early Postclassic Period at Lamanai, the elite were no longer represented as controlling the Dragon and thus the cosmos.

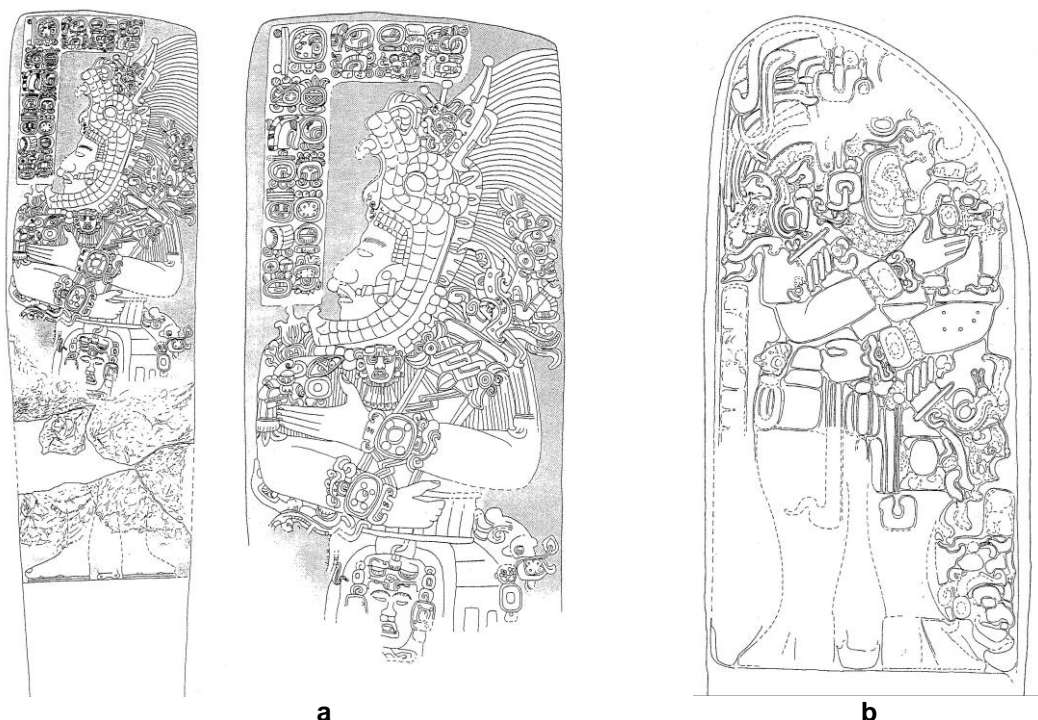


Fig. 6.35a-b. Middle Classic Lamanai stelae: (a) Stela 9, (b) Stela 1. Drawings by H.S. Loten. Reents-Budet 1988:18, 20, Figs. 1a,b and 2a.

Postclassic Period comparative data

Contemporary Postclassic Period Maya comparative sources of Dragons include the Postclassic Madrid (Lee 1985), Dresden (Thompson 1972) and Paris (Love 1994) codices. Quite striking in similarity is the Madrid Codex (Lee 1985:85-140), which contains multiple Dragon representations, often with cosmic-band bodies (Plates 5 and 12) that may omit the beast's two heads (Plates 34-37; Fig. 6.36). Dragons are closely linked with cosmic bands, even though not always physically attached to the bands (Fig. 6.37, left). As in the case with the Lamanai Dragons, the Madrid Codex reptiles display feathered eyebrows and bodies marked with the cross-hatch, scroll (Lamanai scroll_b), oval and possible flower motifs (see Lee 1985:90-92, Plates 12-16; Figs. 6.36-37).

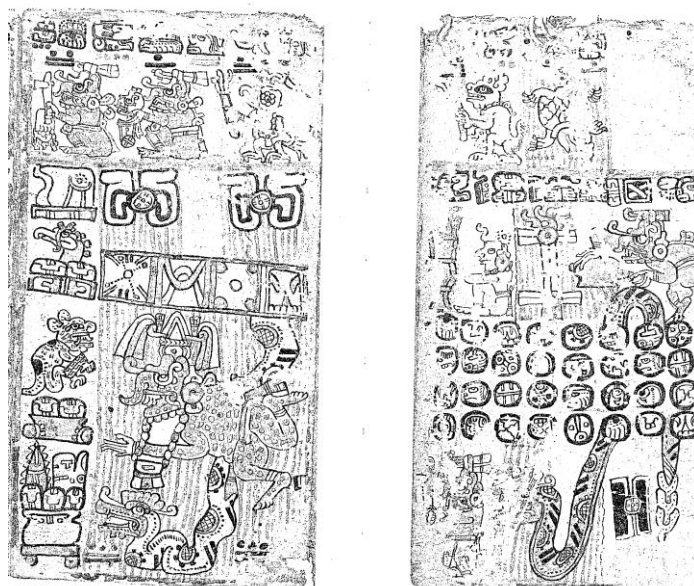


Fig. 6.36. Cosmic band Dragons, Madrid Codex, Plates 12-13. Lee 1985:90-91.

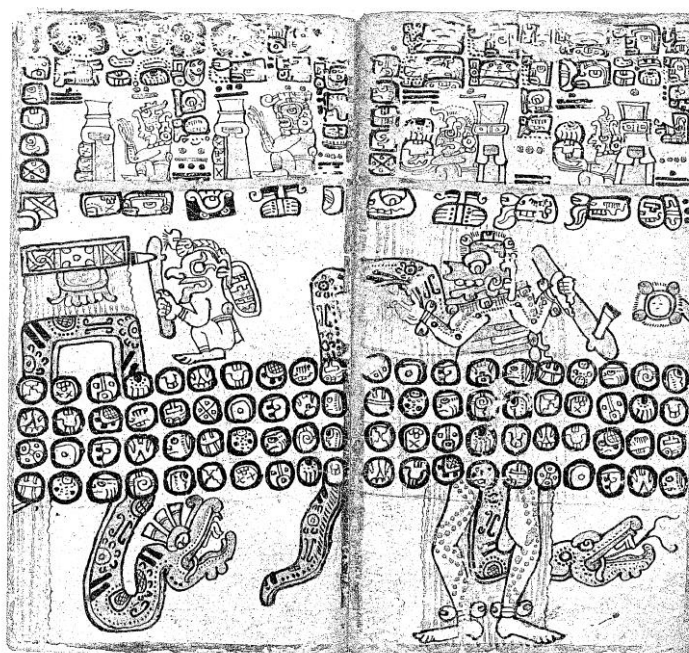


Fig. 6.37. Dragons associated with cosmic band, Madrid Codex, Plates 15-16. Lee 1985:92.

The Dresden Codex (Thompson 1972) also depicts Dragons (Figs. 6.38-39), often represented by their cosmic bodies alone (see Lunar Tables; Thompson 1972:52-57). Paris Codex (Love 1994) Dragon representations are similar to those found in the Dresden Codex, which has been described as stylistically similar yet more refined than the Paris Codex (Boone 2003:220).

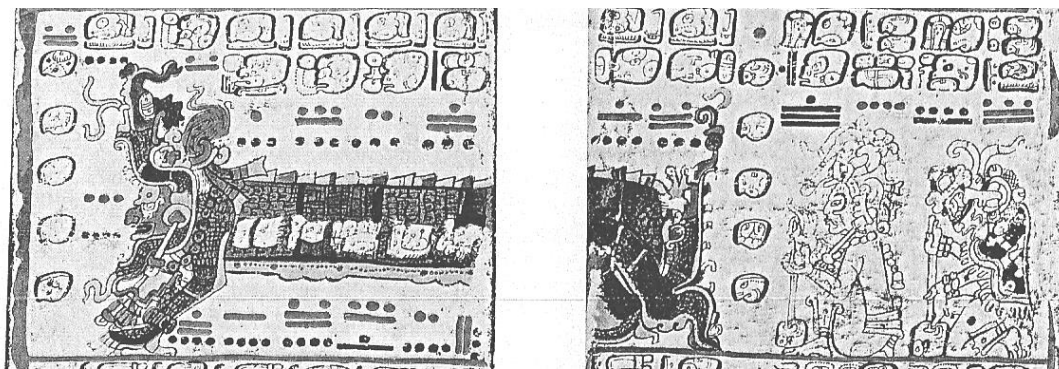


Fig. 6.38. Dragon, Dresden Codex, Plates 4-5. Thompson 1972:Plates 4-5.



Fig. 6.39. Dragon representation, Dresden Codex, Plate 74. Thompson 1972:Plate 74.

Dragon as linking the realms of the Maya cosmos, supernaturals/deities to humans and ancestors to humans in a ritual context

Lamanai Early Postclassic representations of the Dragon as the cosmos (see above) show the reptile linking the different cosmic realms to form a supernatural medium for humans to communicate with the otherworld. This is reflected in deity effigies all displaying aspects of the Dragon, in particular the

Dragon's anthropomorphic aspect *Itzamna* and the Dragons' combination with otherworld-interface-related symbols.

An appliqué-modelled long-nosed effigy vessel of the rain deity *Chac* displays spikes, associated with the crocodilian aspect of the Dragon (see Crocodilian aspects; Fig. 6.16). A pedestal-base jar displays an appliqué-modelled effigy of the rain deity surrounded by incised Dragon panels, albeit stressing the Dragon's serpentine aspect (Catalogue Fig. 3.1.3; see Anthropomorphic: *Chac* section). Two (possibly three) tetrapod vessels form quadruped manifestations of *Itzamna*, the anthropomorphic aspect of the Dragon (Fig. 6.17 and 26; see Anthropomorphic: *Itzamna* section). The *Itzamna* quadrupeds support the cosmos – large round dishes incised with Dragons – on their backs, equated with the round backs of turtles (see Turtle section). Turtles are symbolic of the earth and its four-part structuring, interpreted as yet another aspect of the Dragon (see Chapter 8). One *Itzamna* quadruped displays bird-head feet, evidence of the assimilation of further (avian) concepts within the Dragon entity or concept (Fig. 6.26; see Bird section).

Lamanai Early Postclassic Dragon manifestations are combined with otherworld-interface-related motifs (intertwined band, T-shaped band, cross-hatch, bird; see relevant sections), emphasising the Dragon's ability to transcend realms as a supernatural medium. Finally, otherworld access, embodied by the Dragon, was made tangible to humans in a ritual context. Ceremonies activated the Dragon medium through the smashing of vessels, sometimes accompanied by offertory burning. Ritual actions thus 'released' the vessels that *were* the Dragon and any associated symbolism to aid the ceremonies' aim, and in a funerary context, the deceased spirit's journey to the otherworld and afterlife that *was* the Dragon. Consequently, death was considered a form of symbolic rebirth.

Classic Period comparative data

Classic Period Maya art also shows the Dragon linking the realms of the Maya cosmos, supernaturals/gods to humans and ancestors to humans in a ritual context. The sarcophagus lid of the Palenque king *Pakal* displays the ruler presented to the otherworld in a large offering dish (see Stuart 1988:200, Fig. 5.29). The dish is placed within the open maw of the *Cauac* Earth Monster, from which rises a cruciform depiction of the Maya World Tree. The World Tree,

thought to connect the different realms of the Maya cosmos (see Crocodilian traits section), displays a Dragon winding around its horizontal bar. *Pakal's* ancestors are further depicted around the edge of the sarcophagus lid (see T-shaped band section). Consequently, the Dragon may be interpreted as binding, or linking, the supernatural with the offering of the dead king, World Tree and ancestors who were thought to reside in the otherworld. Symbolism on both the Lamanai ceramics and Palenque sarcophagus lid is displayed in a ritual funerary context.

Postclassic Period comparative data

The position that the Dragon forms a link between the different realms of the cosmos, supernaturals/deities and humans in a ritual context is supported in the Postclassic Maya codices. On Plate 18 of the Paris Codex (Fig. 6.40), a Dragon with cosmic-band body is wrapped with intertwining 'umbilical cords' interlinking deities with humans or ancestors engaged in ritual activity.



Fig. 6.40. Dragon interlinking deities with humans/ancestors, Paris Codex, Plate 18. Thompson 1972:Plate 18.

The close association or link between the Dragon and *Chac* attested on some Lamanai vessels (see above) is also depicted in the Postclassic Maya codices. The Madrid Codex frequently represents the Dragon physically attached to the rain deity *Chac* (Figs. 6.36 and 41), while in the Dresden Codex on Plate 74 the Dragon with a cosmic-band body is linked to *Chac*, who pours water from a jar (Fig. 6.39). The examples demonstrate the Dragon also functioning as a supernatural medium for the actions (e.g., rain) of gods.

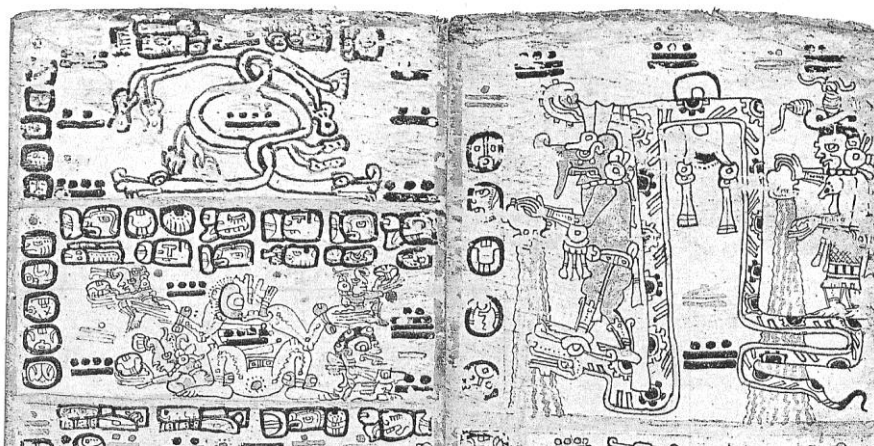


Fig. 6.41. Intertwining reptiles, Madrid Codex, Plate 29. Lee 1985:99, Plate 29.

Similar representations, at least in concept, of the Dragon linking cosmic realms and deity figures occur in the Late Postclassic Tulum murals, where intertwined bands form parts of the Dragon's body (Tulum Mural 1; Fig. 6.52). Please refer to the Intertwined band section for a detailed discussion of the Tulum murals.

Crocodilian and serpentine aspects embodied within the Dragon

Lamanai Dragon manifestations consistently display different reptilian traits (serpentine and crocodilian), studied below to discern the meaning of each aspect. However, as reasoned above, these reptilian traits do not appear in a standardised naturalistic form, due to their forming elements of the Dragon. In general terms, crocodilian traits emphasise the earth, time and space (nature) and serpentine traits sky, rain and fertility and governance (man's control over nature or culture), while both reptilian traits relate to otherworld access.

Discussed below are the individual elements that make up Early Postclassic Lamanai Dragons (Crocodilian traits and Serpentine traits sections), subsequently considered in combination for their relational associations in a

hermeneutic method of analysis (Hart 1993:552-554; Hodder 1987a; Morgan 1985:6, 1988a; Panofsky 1939:16-17; Tilley 1991; see Chapter 3; Lamanai reptile in context and Reptile summary sections). However, it must be stressed that these aspects merge visually and conceptually, representing a characteristic trait of the 'interbeing' or polysemy inherent to Maya philosophy and art; this was represented by the Dragon in Early Postclassic Lamanai ceramic art.

Crocodilian traits

On Early Postclassic Lamanai ceramics, crocodilian reptile traits include any of the following characteristics: upturned snout, haunch with bent leg, truncated limbs, and body markings consisting of the cross-hatch motif contained within ovals, possibly likened to mirrors (see Cross-hatch section; Chapter 4: Reptile section). As crocodilian traits are more distinctive in their detection than serpentine traits, crocodilian characteristics form important identifying features. No exact matches of Lamanai crocodilian creatures were found in the comparative data. However, the general conceptual meaning attributed to crocodiles throughout the Maya area is probably applicable to aspects of the Lamanai beasts. The community's inhabitants were familiar with crocodiles because the lagoon and streams that fed it were the habitat of crocodiles. The crocodile's cultural importance is reflected in the site's name, which translates as 'submerged crocodile' (Pendergast 1981a:32 [personal communication with MacLeod, 1978]).

Crocodile imagery has encouraged multiple interpretations of its representations in Mesoamerican iconography. The crocodile has been linked to the 'spiny' surface of the earth and otherworld waters (Taube 2001a:219), cosmology (Hellmuth 1988:163-164; Miller and Taube 1993:48, 57; Reilly 1985:125, 130; Roys 1933:99-100; Taube 1988c:154-161, 2001a:219), the calendar (Taube 2001a:218-219), birth and regeneration (Taube 1988c:168-169, 1992a:37), rain and fertility (Ackerman 1988:64-65; Reilly 1996:419-420; Vliet 1989:1021), the sky (Freidel and Schele 1988:75-6; Reilly 1996:420-421), the wind (Taube 2001a:219), *Itzamna*, priests (Taube 1989a, 1992a:32, 37) and lords (Hellmuth 1988:171; Rice 1989:308). The following interpretations of crocodile symbolism bear specifically on the reading of the motif at Lamanai.

Crocodiles representative of the earth and related to time

The bodies of Dragon representations at Lamanai and throughout the Maya area are frequently marked with the cross-hatch motif. Crocodiles are associated with the earth and its access (Taube 2001a:219) and the cross-hatch motif is read as marking the surface of the earth, and more accurately, as the surface of the natural world (see Cross-hatch section). Crocodiles are representative of the mountainous earth (Thompson 1970:11) and the open maws of crocodiles and serpents were considered symbolic portals into the earth and otherworld (Grove 1970:11; Masson 2000:234; Scarlin 1999; Taube and Miller 1993:150). This is possibly replicated in the Lamanai 'frying-pan' censers with appliqué-modelled crocodilian 'handles'. The censer bodies simulate cavernous mountains, with offerings encapsulated within the censers' overturned 'pans' (Fig. 6.11; Catalogue Fig. 3.12.2).

Crocodiles were thought to be able to transcend worlds, possibly because they live in water but breathe air. Among the Aztecs, crocodiles were known as *cuetzpalin* or 'water lizard'. The better known term *Cipactli*, translated as 'spiny one' in *Nahuatl*, refers to the prominent dorsal and caudal scales of a mythical crocodilian being (Taube 2001a:219). Consequently, crocodiles, due to their aquatic habitat, size and spiny back, represent a Mesoamerican metaphor for the mountainous earth that floats on the sea (Thompson 1970:11). The spiny backs of crocodiles are emulated in spiked incense burners in the Postclassic Period (Miller and Taube 1993:48, 57; see León-Portilla 1977:100, Fig. 7; Fig. 6.55). Such a spiked censer occurs at Lamanai in the Early Postclassic Period (Catalogue Fig. 3.10.1), representative of the spiny back of the crocodile and this creature's association with burning. An Early Postclassic drum also displays a crocodile placed in a cartouche that is framed by spikes (Catalogue Fig. 3.9.1).

Crocodiles are further associated with cosmology and the calendar (Taube 1989a:5, 2001a:218-219). The animal is related to the sacred *ceiba* or World Tree (Hellmuth 1988:163-164; Reilly 1985:125). In Maya belief, the World Tree linked the cosmic realms of the Maya universe (Miller and Taube 1993:186; Taube 1992a:36, 40). This imposing tree was thought to grow from the otherworld. The Maya called the *ceiba* 'yaxche', 'first' or 'green' tree. When young, the *ceiba* is covered in thorns, emulated in spiked censers referring to the spiny backs of crocodiles. In the Maya Postclassic Dresden Codex, Plates

40, 67 and 69 (see Love 1994:50, Fig. 17), crocodiles occur as World Trees. Crocodilian characteristics occur within the Dragon's anthropomorphised aspect *Itzamna* (de la Garza 1998a:236; Thompson 1960:11), who is also closely associated with the World Tree (Taube 1992a:36; see Anthropomorphic section; Chapter 8: *Itzamna* section). Crocodiles are also associated with calendrical dates (Taube 2001a:218-219). The bones of a crocodile grow throughout its life, possibly why this creature was linked to calendrical cycles and creation (Taube 2001a:219; Roys 1933:99-100). The crocodile is associated with birth and regeneration (Taube 1992a:37). Crocodiles that hold personages in their mouths decorate the corners of the Terminal Classic Puuc Palace at Labna (see Stierlin 1997:Fig. on p. 199; de la Garza 1984:Fig. 52). The reptiles' heads emerge from wide bands of concentric ovals, scrolls and T-shaped bands interspersed with flowers, a motif combination mirrored on Early Postclassic Lamanai ceramics. The motifs' combination might suggest the Labna crocodiles emerging from the fertile otherworld waters (see Flower, Oval, Scroll_b sections) through the supernatural interface portal (see T-shaped band section).

Crocodiles related to the sky, rain, wind and fertility

Lowland tropical environments are the habitat of crocodiles (Castillo 1997; Denver 2000), explaining its cultures' representation of the creature in their art (e.g. Olmec [Reilly 1996]; Maya Lowlands). The lowland tropical inhabitants' relationship with the symbol was probably different from the relationship the highland or dry-area people held with the symbol. At Chalcatzingo, Olmec representations of crocodiles on Monuments 6, 7, 8, 11, 14 and 15 rest on lazy-s celestial scroll motifs (see Scroll_b section). Large double-scroll clouds billow from their mouths. The clouds release rain on vegetation depicted below the crocodiles (Reilly 1996:420, Figs. 4 and 9). The lazy-s motif acts as a cosmological locator placing the supernatural saurian above the earthly level and in the sky, but below the celestial level containing the clouds. The plants below the lazy-s motif represent the earthly domain (Reilly 1996:421). Consequently, crocodiles are closely linked to rain, fertility and supernatural realms (Ackerman 1988:64-65; Reilly 1996:419; Vliet 1989:1021). The Olmecs also associated the crocodile with the wind that brought the clouds at the beginning of the rainy season (Taube 2001a:219). They believed that wind and

rain clouds were 'breathed out' of cave openings, symbolically represented by the maws of crocodilian creatures (Taube 2001:a219). In Maya art, the crocodile is also related to the sky and, by extension, rain. The long-snouted front head of the Maya Dragon often displays numerous protruding teeth and lidded eyes, usually with crossed bands or Venus sky-sign infixes (Freidel and Schele 1988:75-76, Fig. 2.16; see also Carlson and Landis 1985:Fig. 5, Appendix II; Stuart 1988:Fig. 5.24; Taube 1988b:Figs. 12.14-15 and 17). The body is variable and may consist of a crocodile, sky band with serpent markings, *cauac* earth head or blood (Freidel and Schele 1988:75-76). An Early Postclassic Lamanai effigy vessel of the rain deity *Chac* is spiked (Fig. 6.16), in reference to the deity's and crocodile's close association via rain and link to the supernatural.

The Early Postclassic Lamanai sample revealed three naturalistic depictions of crocodiles, forming the appliqué-modelled 'handles' of frying-pan censers (Catalogue Figs. 3.12.2-3). Naturalistic serpent-modelled frying-pan censers also occur (Catalogue Figs. 3.12.1 and 4), supportive of a close association between the two reptiles (crocodiles and serpents), in relation to burning. Given their specific shape, the 'frying-pan' censers probably held incense, which was burnt to produce both smoke and scent. Close matches of the serpent-handled Lamanai censers are depicted in the Late Postclassic Mexican codices (e.g., Codex Borbonicus [see Longhena 1998:Figs. on pp. 80-81 and 83]; see Scroll_a section). The censers are used by deities in burning rites, indicated by smoke scrolls issuing from the censers' overturned 'pans'. The Mexican censers suggest that Lamanai frying-pan censers were likely used in similar ceremonies that involved the incineration of offerings.

Burning incense, possibly *copal*, was placed in the hollow created by the Lamanai 'frying-pan' censers' overturned 'pans'. The censers' 'ladles' are hollow and connected to the frying-pans' bodies. Strategically-placed nostril openings vent copal smoke (and its scent) bringing the reptiles to life. Consequently, the reptiles 'breathe' smoke and steam, linking them to clouds and verdant rain. In nature, crocodiles may emit vapour from their nostrils, especially at the beginning of the mating season, which coincides with the onset of rains (Ackerman 1988:64-65); this closely associates the animal with rain-bringing clouds (Reilly 1996:420). Consequently, crocodiles formed particularly significant symbols of supernatural communication, possibly

because they live in water but breathe air, thus transcending worlds. The censers might have been involved in common prayer or incantation rites (possibly linked to clouds and life-giving rain), serving as the vehicle (smoke) by which the prayer or request was transported to the supernatural.

Serpentine traits

Early Postclassic Lamanai ceramics display serpentine characteristics embodied within the Dragon that may include any of the following: down-turned snout, fangs, feathers attached to head posterior and/or tail ends and cross-hatch placed within mouths or close proximity to body (Chapter 4: see Reptile section). Serpentine aspects of the Early Postclassic Lamanai Dragon relate to varying themes, depending on their manifestation. Serpents incorporated within Lamanai Dragon manifestations emphasise aspects related to themes elaborated on below: sky, cosmos and time; rain; blood, sacrifice and fertility; and supernatural media. No Lamanai examples of serpentine reptiles (and crocodilian and bicephalic reptiles; see above) exactly match those referred to in the comparative data.

The following three sections provide information gained from a literature review that sheds light on the symbolism Lamanai serpentine aspects – embodied within the Early Postclassic Dragon – lend the beast: Serpents associated with the sky and rain, Serpents associated with blood, sacrifice and fertility, and Serpents as supernatural media.

Serpents associated with the sky and rain

A sky-related interpretation for serpents is supported in the literature (Hellmuth 1988:166-167, footnote 12; Houston 1984:800; Rice 1989:311; Taube 1996); this is possibly applicable to the reading of serpentine aspects embodied within the Early Postclassic Lamanai Dragon. The words for ‘snake’ and ‘sky’ are homonymous in the Mayan language (Hellmuth 1988:166-167, footnote 12; Houston 1984:800; Rice 1989:311). Serpentine aspects of the Early Postclassic Lamanai Dragon may also lend the beast rain associations. In the Classic and Postclassic Periods, serpents are associated with rain deities (Houston 1984:800; Rice 1989:311; Taube 1992a:17) and rain (Fewkes 1894:266; Spero 1986:172; Taube 1992a:17-22). The Classic Period sky/rain-association of the serpent led to its adoption as a Classic Maya royal symbol (Landis and Carlson

1985:129; Rice 1983:121). Classic Period Maya rulers, depicted holding sky-serpent ceremonial bars, formed a microcosm of the Maya universe in which they were the lords of the cycles of time (Landis and Carlson 1985:129; Thompson 1970:232), to rule at the centre of the cosmos (see Dragon as the cosmos: Classic Period comparative data section).

Serpents associated with blood, sacrifice and fertility

Serpents are also symbolic of blood. As such they are related to sacrifice and elite bloodletting (Chase 1991; Schele and Miller 1986; Stuart 1988:197-208) and are representative of the concept of elite blood and sacrifice connected to fertility (Graulich 1991; Stuart 1988:197-208). This aspect of serpents is possibly incorporated into Lamanai Early Postclassic Dragon representations by their serpentine traits. Serpents form literal representations of blood related to fertility and offerings. 'Blood-serpents' spurt alongside a large flowering vine from the beheaded neck of a ball player on a sculptured panel from Chichen Itza's Great Ball Court (Structure 2D1; see Tozzer 1957:Fig. 474 [middle panel]). The player's sacrifice was thought to open a portal to the supernatural at completion of the game, while the 'blood serpents' and vine demonstrate themes of fertility linked to serpents, the ball game, human sacrifice and rites including blood offerings.

The fertility association of the serpent motif (see also rain association of serpent above) may explain why the motif was used as a Classic Period royal symbol (Landis and Carlson 1985:129; Rice 1983:121, 1989:308). The serpent is furthermore representative of *Kauil* or God K (Taube 1992a:79), the personification of Classic Period royal power (Landis and Carlson 1985:129) and particularly associated with the accession of rulers (Miller and Taube 1993:150; Schele 1982; Schele and Miller 1986:179, 216), lineages and royal auto-sacrifice (Freidel and Schele 1988:92; Schele 1976).

Serpents as supernatural conduits (media)

Serpents swallow their prey whole and periodically shed their skins (Campbell 1998:181-182), behaviour that linked them to transformation and rebirth in Maya thought (Miller and Taube 1993:149-150). At Lamanai, symbolic meaning attributed to Early Postclassic Dragon representations, through their serpentine traits, may also be attributable to the beast's ability to transcend the natural and

supernatural world as supernatural medium. In the Classic Period, serpents play an important role in vision rites (Schele 1986; Stuart 1988). Bark paper soaked in elite auto-sacrificial blood was burnt to encourage the appearance of Vision Serpents that revealed ancestors and deities in their mouths (e.g., Yaxchilan Lintels 15 and 25; see de la Garza 1984:Fig. 31; Schele 1989:146, Figs. 1 and 3; Stuart 1988:185-186, Figs. 5.10 -11). Serpents, or possibly centipedes, appeared in the rising smoke and steam clouds (Boot 1999:2-3). Serpents also form cosmic umbilical cords linking the living to the gods (Miller 1974a:181-183; Taube 1994a:659-660) and are thus symbolic of supernatural access (Masson 2000:234; Scarlin 1999; see Intertwined band section).

Serpents also symbolise the earth (Baudez 1994:260), thought to contain the supernatural (Grove 1970:11; Stone 1989:327), and form symbolic vehicles of transformation and rebirth (Miller and Taube 1993:149-150). Evidence of the serpent acting as a conduit in relation to the earth is strong. The earth is frequently represented as a serpent, its scaly body doubling as its surface (Florescano 1999:146). Serpents also refer to the earth at Classic Period Copan (Baudez 1994:260). The reptiles occur as the pedestal base of the jambs of Structure 18, and on Structure 24 swallow the setting sun. Consequently, the act of swallowing represents power transference from earthly to supernatural realms, with the sun's diurnal journey passing over into the otherworld.

In particular, the open maws of serpents (and crocodiles; see Crocodilian traits section) are symbolic of a direct link between the earth and the supernatural⁶ (Masson 2000:234; Miller and Taube 1993:149-150; Scarlin 1999; see Cross-hatch section). The concept of serpent maws forming portals to the otherworld is expressed in the Postclassic Maya Dresden and Paris codices, where figures sit atop wide open serpent maws (see Thompson 1972:62-62, 69; Love 1994). On Plate 18 of the Paris Codex (see Love 1994), a Dragon with cosmic-band body is wrapped with intertwining 'umbilical cords' that interlink deities with two figures below, possibly ancestors characterised by their death collars (see Intertwined band section; Fig. 6.40). The two figures sit above wide open serpent maws that issue in a 'vision' from the eyes of an earth monster. Consequently, serpents acted as supernatural media also in the Postclassic Period. At Lamanai, the serpent symbolism embodied within the Early

⁶ Serpents also enter and exit holes in the earth, considered a supernatural place of renewal and rebirth. The earth is itself also frequently associated with reptiles (serpents and crocodiles; Baudez 1994:260).

Postclassic Dragon, therefore, most likely refers to the beast's ability to move between the different realms of the Maya universe.

At Lamanai, Dragon representations refer to the beast's capacity to move between the natural and supernatural worlds. Lamanai Dragon 'serpents' display wide open maws (Catalogue Figs. 3.1.1, 3.3.12, 16 and 3.4.1), symbolic of an otherworld portal or direct link between the natural and supernatural worlds (Heyden 1981:12-28; Masson 2000:234; Miller and Taube 1993:149-115; Scarlin 1999; Stone 1989:327; Schele 1989:146; see above). This is demonstrated by the serpent-aspect of the Dragon in its role as supernatural medium consuming the breath souls of elites (see above; Scroll_a section). The symbolic expression of serpent as otherworld portal or supernatural medium is emphasised by the reptile's frequent marking with the cross-hatch motif at Lamanai and throughout Maya area. The Lamanai cross-hatch motif is interpreted as symbolic of the surface of the earth, thought to contain the otherworld (see Cross-hatch section). Furthermore, Early Postclassic ceramics displaying serpentine traits (serpents with or without wide open maws) frequently display T-shaped band flanges. T-shaped bands are read as indicative of the interface between the natural and supernatural worlds (see T-shaped band section). Serpent maws may also be marked with T-shaped motifs on Classic Period ceramics (see Taube 2003a:297, 296, Fig. 11.13b; Quenon and le Fort 1997:888, Fig. 5), emphasising the serpents interpretation as symbolic of otherworld portals or supernatural media also in Classic times.

Further evidence for Lamanai Early Postclassic serpents (embodied within the Dragon) referring to transference between worlds as supernatural media is characterised by the serpents occasionally lacking their lower jaw (Catalogue Fig. 3.1.1). Serpent heads with no lower jaw denote the otherworld (Coggins and Shane 1984:55). Two such jawless serpents frame the mouth of a gold mask recovered from the *cenote* at Chichen Itza (see Coggins and Shane 1984:55, Fig. 32). Masks are worn to transport their wearer between identities or worlds (see Anthropomorphic section). Consequently, serpents act as media to the supernatural, symbolised on Early Postclassic Lamanai ceramics by the wide open maws of reptiles and embodied within the Dragon to indicate this beast's ability to transcend worlds.

Reptile summary

In its funerary context at Lamanai, the Dragon is interpreted to have consumed and transported souls to the otherworld. The Dragon was thought to have acted as a medium to the otherworld and its supernatural forces via burials placed in the earth, considered the locus of the otherworld, renewal and rebirth. Laying the deceased in burials thus helped their spirit's transference to the supernatural afterlife. Ceremonies usually included the smashing of vessels before inhumation, with the sherds scattered over and around the bodies. Furthermore, ceremonies seeking supernatural access via the Dragon medium were likely aided through the production of smoke and steam (scrolla) produced in incineration rites. Some Lamanai vessels show evidence of burning, while the forms of others indicate use as censers. Frying-pan censers display appliqué-modelled serpent or crocodile 'handles' (Catalogue Figs. 3.12.1-4) and reptiles occur on both burial and midden chalices, shallow dishes raised on high pedestal bases (Catalogue Figs. 3.2.5-4). Wear on the interior of the chalice dishes indicates incineration. Scented oils might have been added to any contents to create powerful aromas. The smashing and specific distribution of burial vessels and burning was required to fulfil the intended function of the vessels and their symbolism. The ritual actions thus marked the end of funerary ceremonies signalling transference of the deceased's spirit into the otherworld and afterlife through the spirit's consumption by the Dragon.

The capacity of the Dragon acting as supernatural medium occurs elsewhere in the Maya Lowlands during the Postclassic Period (e.g., Tulum, Tancah, Maya Codices) set in the context of ritual life (temple structures and codices). Consequently, the Dragon theme is not bound to a funerary context. At Lamanai, Dragons occasionally occur on ceramics discarded in a large midden that accumulated around Structure N10-27. The midden is linked to elite ritual activity (Graham 2004:230-231; Howie 2006; see Appendix 1).

The Lamanai reading of the Early Postclassic Dragon reaffirms its interpretation as the embodiment of all things including gods (Carlson and Landis 1985:115; de la Garza 1998a:236-237; Thompson 1970:209-233). The Dragon was perceived as the essence, or the totality, of life and represented the 'interbeing' binding the universe and its aspects, such as life, death, space, time, governance and even the myriad pantheon of Maya deities. The totality of this concept's expression was impossible to achieve, resulting in manifestations

of the Dragon emphasising different or specific aspects addressed. The inhabitants of Lamanai invariably came up with their own representation of the Dragon. However, consciously or not, Lamaneros were influenced by previous experiences of Dragon representations and its aspects.

Throughout the history of the people and cultures of Mesoamerica, the Dragon is subjected to change in form, with various aspects emphasised that allows distinction between variants. The great variation in Lamanai Dragon representations, no two examples being the same, reflects a number of things. One possibility involves artistic expression of the beast's ability to metamorphose, necessary for travel between the different realms of the Maya universe. Additionally, the beast is represented in all ways because it is the embodiment of all things (see also Chapter 8: Zoomorphic section). The Dragon's shape-shifting reflects Early Postclassic Lamanai symbolism's search for a new or more succinct way of expressing the universal concept of the beast. A refinement in vessel firing and slipping techniques and reduced motif repertoire – with a concentration on scroll_c, interpreted as abbreviated bicephalic Dragon bodies – indicate the achievement of a more standardised expression of the cosmic theme at Lamanai in the Late Postclassic Period (Chapter 7: see Scroll_c and b).

Early Postclassic Lamanai Dragon manifestations embodied and artistically expressed the world view or philosophy of the site's inhabitants at the time (Panofsky 1939; see Chapter 3). The Dragon formed the core of an ideology attempting to express the totality of life, adopted by the elite to perpetuate life and a successful reign. Emphasis within the Lamanai Dragon has permitted its relation to the essence, or 'interbeing', inherent to life. Maya thought is more akin to monistic Buddhist than Western philosophy (Coe 1987; Hellmuth 1987; Houston and Taube 2000:289-290). 'Monism claims substance and creative energy for things, states, conditions or forces that might be regarded by current, scientific thinking as invisible, non-material, non-causative, and devoid of essence' (Houston and Taube 2000:290). However, in order to understand the truth or totality of the Dragon, we must try to think as the Maya did. Buddhist teachings suggest looking beyond the thing to see that it is made up of other elements. Applied to the Dragon, this suggests that if we think that the Dragon is only the Dragon and that it cannot be the crocodile, the serpent, the earth, the sun, the flower, then we cannot see the truth of it. Instead, to see

the Dragon *as it is*, as space, time, the crocodile, the serpent, the earth, the sun, the flower, as the essence of *all* things, then the truth of the Dragon and the truth of all things is revealed (Cai et al. 2006; Conze 1958; Easwaran 1987; Hanh 1998:149). In this light, it is suggested that the Dragon represented a deity *and* philosophy thus explaining its myriad forms.

Flower

Three flower groups were detected in Lamanai's Early Postclassic symbolic repertoire, flower_a, b and c, discussed below.

Flower_a (Catalogue Figs. 3.1.1, 7, 3.3.3, 10, 12, 20 and 21)

Of the varying types of flower motif that were isolated on Early Postclassic Lamanai ceramics, specific meaning could be attributed to four-petaled flowers (flower_a; Figs. 6.33-34 and 42): representations of the *kin* sign, read as 'sun' or 'day' and its 'lordly' attributes (Carlson and Landis 1985:120-123 and p. 136, Appendix II, Fig. 1; Taube 1992a:50-56).

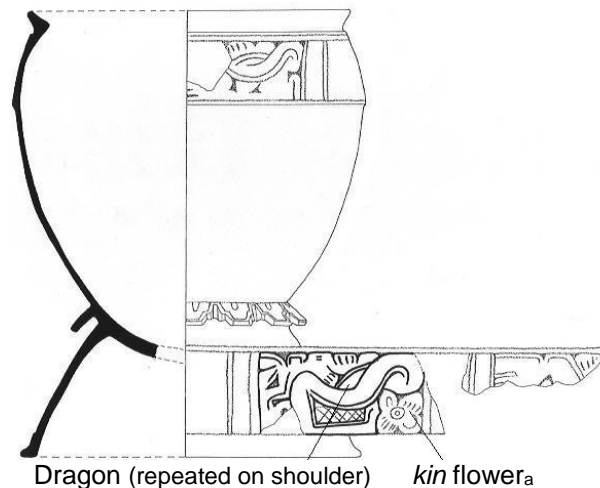


Fig. 6.42. Buk phase chalice, LA 13/1.

The *kin* symbol is sometimes represented within an abbreviated version of the Dragon's body or is placed in its mouth (Carlson and Landis 1985:122). Early Postclassic Lamanai reptiles are occasionally depicted with four-petaled kin flowers_a placed within or close to their mouths (Fig. 6.42).

The standard Lamanai *kin* symbol (flower_a) occurs associated with the Dragon (serpentine and bicephalic) in principal burials. In these instances the *kin* 'sun' or 'day' sign is appropriately placed within depictions of the Lamanai conception of the cosmos (Figs. 6.33-34; see Reptile section). The motif's placement in principal burials indicates a specific rank or office of the deceased. The flower motif is a widespread Mesoamerican symbol of elites (Kurbjuhn 1985b:225-227). Early Postclassic Lamanai and many Maya vessels recovered from elite contexts display four-petaled flowers. Consequently, Lamanai flower_a and four-petaled flowers throughout the Maya area are indicative of the elite association of the vessels, their contents and the status of their owner(s) (Scarlin 2000b:101-106).

Four-petaled flowers, along with 'long-nosed' anthropomorphs, T-shaped bands, triangle bands, intertwined bands, scroll and cross-hatch motifs, decorate the façades of Maya Puuc-style architecture (e.g., Kabah [Fig. 6.43], Labna [Fig. 6.44]). This motif combination is also frequent on Early Postclassic Lamanai ceramics, where it forms cosmic bands. Some Early Postclassic Lamanai vessels also incorporate crosses within cosmic bands, symbolic of the sky (see Cross section). Similar 'long-nosed' rain deities occur on Early Postclassic Lamanai ceramics and Puuc-style architecture marked with ovals, emphasising the deity's water association (see Oval section). An Early Postclassic Lamanai censer displays the 'long-nosed' deity framed by T-shaped bands (Fig. 6.16), similar to Labna architectural examples (Fig. 6.44), possibly indicative of cultural contact between the two sites.

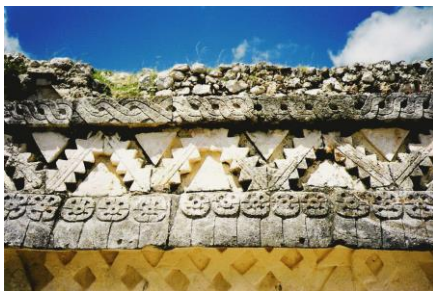


Fig. 6.43. Kabah structure displaying flower_a, triangle band, intertwined band and cross-hatch motifs.



Fig. 6.44. Labna structure displaying 'long-nosed' deities marked with ovals and framed by T-shaped bands and scrolls.

Flower_b (e.g., Catalogue Figs. 3.1.6, 8, 14, 3.2.1, 3-4, 6, 8, 3.3.1, 5-6, 12, 16, 3.8.4, 3.11.1 and 2)

Originally, the flower motif most likely symbolised ‘beauty’, ‘pleasure’ and ‘preciousness’, which is probably why it was closely associated with the arts and poetry (Léon-Portilla 1963:75; Markman and Markman 1989:149). Aztec deities linked with artistic themes are associated with flowers: *Xochipilli* (‘Flower Prince’), a sun-related patron god of love, games, dance, song, poetry and crafts (Coe 1989:168); *Xochiquetzal* (‘Flower Quetzal’), a goddess of flowers, grains and patroness of weavers (Townsend 1998:111); and *Macuilxochitl* (‘Five Flower’), a deity of flowers, plants, song, dance and games (Townsend 1998:111). All three deities are also closely associated with corn and vegetation (Taube 1992a:44; Townsend 1998:111). The Maya Maize God may be depicted ‘born’ from the otherworld via flowers (Martin 2003). The otherworld was considered a supernatural and verdant place where all life (including the sun) was created and perpetuated (Florescano 1999:192-194). This realm was a ‘flowery’ and plentiful paradise to which the deceased travelled in death (Carlson and Landis 1985:120; Graulich 1997:248-263; Sahagún 1956, 1:293-298 and 1950-1982, 6:222; Thompson 1960:115). Consequently, flowers are associated with abundance and fertility in Mesoamerican thought.

Lamanai flower_b is frequent and widespread in distribution in the Early Postclassic Period. The motif consists of flower petals forming the edges of other motifs (Chapter 4: see Flower_b section). Flower_b never stands alone and is predominantly combined with scroll_a and reptiles. Flower_b, scroll_a and feathers metamorphose from the edges of other motifs (e.g., reptile, bird), characterising the distinctive style of Lamanai Early Postclassic ceramic art. The motifs’ metamorphosis lends its imagery a ‘fluid’ or ‘smoky’ scroll-appearance that refers to the departing breath soul of elite (on funerary ceramics) and essence of life that was the Dragon (on ritual-activity midden and cache ceramics); this was given physical expression through smoke or steam generated in offertory incineration rites (see Scroll_a section; Fig. 6.45).

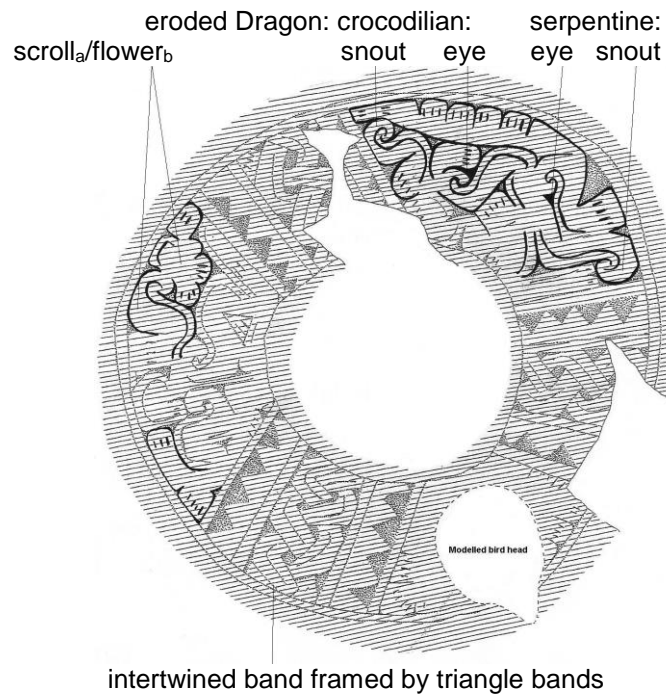


Fig. 6.45. Buk phase bird jar with incised scroll_a/flower_b, intertwined band and possible eroded Dragon panels framed by triangle bands, LA 128/1, Teen burial N10-2/21.

Landa (in Tozzer 1941:148) describes flowers forming part of burnt offerings. Houston and Taube (2000:270) suggest that flowers were offered in royal burial rites in the Classic Period to ensure the vitality of the deceased king. Consequently, at Lamanai in the Early Postclassic, flowers might have formed offerings that were burned as indicated by flower_b metamorphosing into scroll_a motifs. Flowers_b metamorphosing into trailing smoke scroll_b motifs thus might represent burning flowers in addition to referring to the departing breath soul of the deceased.

Flowers may also refer specifically to sacrificial offerings, in particular human flesh and blood. *Quetzalcoatl*, the feathered serpent deity/ruler known amongst *Nahuatl*-speaking people, advocated that flowers should be offered in place of human flesh, in line with a more benevolent rule (Miller and Taube

1993:88). The flower also signifies blood amongst the Zinacantan Maya (Laughlin 1962; Miller 1974a:185). Consequently, flower_b may simultaneously be indicative of a specific elite duty in life, such as bloodletting. Bloodletting formed an important elite duty in the Classic and Postclassic Periods (Chase 1991:89, 1992:96), possibly considered a symbolic death. The offering of the deceased's body to the earth and supernatural forces in burials thus represented elites' ultimate sacrifice (see T-shaped band section). Flowers are therefore indicative of fertility via, or even replacing, sacrifice. At Lamanai, the flower aspect of the breath soul might thus refer to precious offerings, possibly blood, equated with, or even substituting sacrificial offerings.

Flower_c (Catalogue Figs. 3.1.8, 12, 3.2.7, 14, 16, 24-25 and 3.3.2)

Within flower_a (see above), a few flowers (flower_c), sometimes marked with the cross-hatch motif, are superimposed onto two diagonally-crossing lines. At times the crosses dominate the flower motif, covering its stamen (Catalogue Fig. 3.2.14), at other times the cross remains recessive within flower_c (Catalogue Fig. 3.3.2). Both Lamanai flower_a and _c represent *kin* or 'sun' symbols (see Flower_a section). When cross-hatched, flower_c is may also be interpreted as a *katun* completion sign (see Coggins 1983:37, Fig. 33d; Catalogue Figs. 3.1.12 and 3.2.14). Both examples occur on chalices retrieved from a midden abutting Structure N10-9's stair base. The midden revealed a large number of reconstructible vessels, suggestive of specific ceremonial deposition, possibly linked to completion rites.

GEOMETRIC MOTIFS:

Cross

Two types of cross were identified on Early Postclassic Lamanai ceramics, cross_b and _c, considered below.

Cross_b (Catalogue Figs. 3.1.8 and 3.3.29)

Lamanai cross_b only occurs on three Early Postclassic Lamanai vessels: two pedestal-based jars (Catalogue Fig. 3.1.8) and a bowl (Catalogue Fig. 3.3.29).

Comparative data suggest several interpretations for cross_b. The cross is one of the most abundant decorative elements found on Preclassic and Classic Period Maya royal regalia and accoutrements and also marks supernatural creatures. Consequently, crosses have been associated with royalty, the elite, deities and supernaturals (Carlson and Landis 1985:127; Miller and Taube 1993:106; Thompson 1960:87-88, 119-120). Cross_b's occurrence on Lamanai elite ceramics reinforces an elite association with the motif and vessels.

The cross(ed-bands) motif is an ancient symbol that occurs in different forms. It is related to the sky (Carlson and Landis 1985:127) – specifically the path of the Milky Way as it crosses the ecliptic (Freidel et al. 1993) – and, by extension, rain (Joyce et al. 1991:146). As such the motif occurs on representations of the sky serpent (Joyce et al. 1991:146, Fig. 5a). Joralemon (1976:47) notes the ancient, widespread and polysemic nature of the motif. When it occurs marking the eyes of Olmec figures it identifies them as the Dragon (Joralemon 1976:47). The crossed band motif's association with the Dragon is strengthened by Carlson and Landis' (1985:127) position that the motif may occur in a 'bearded' form in sky bands. It is also represented as a 'single-twist woven' form, linking it to the 'mat' symbol symbolic of authority or rulership (Robicsek 1975).

Lamanai cross_b bears resemblance to the widespread Mesoamerican cross motif in that it is formed by two diagonally-crossing bands. At Lamanai, a sky and rain reading of the motif is supported by the occurrence of cross_b beneath the head of the rain deity *Chac* on the pedestal base of an Early Postclassic effigy censer (Fig. 6.16). The censer was placed in a burial alongside a pedestal-based jar displaying cross_b in close association with the avian aspect of the Dragon, also intimately tied to rain (see Reptile section).

Crosses as symbols have great time-depth in the lowlands, and their early occurrences may help us to understand how the symbol evolved. Headrick (2004:367-378) interprets crosses painted on the interior of K'axob bowls as the quadripartite motif used for the display of power (McAnany and López Varela 1999; McAnany et al. 1999). Headrick interprets the crosses as an amalgamation of the *Kan*-cross (Chapter 5: see Cross_a section) and crossed-band symbol (see above) with the signs' fusion referring simultaneously 'to the idea of the centre of the earth, the heart of the sky, the arch of the sun and the Milky Way, preciousness and even the blue-green bowl of water, which was the

metaphor for the empty ocean at the beginning of time' (Headrick 2004:371). The World Tree – associated by Headrick (2004:373-374, Fig. 16.6) with bowls – is often represented in a cruciform shape (see *Paka's* sarcophagus lid; Robertson 1998:Fig. on p. 301) and may substitute for the king's body (Headrick 2004:373-374, Fig. 16.6; Chapter 5: see Cross_a section). Consequently, Headrick interprets crosses painted on the interior of K'axob bowls as representative of the four world directions, simultaneously emerging up and outwards from the bowls as a World Tree, a widespread symbol with which rulers proclaimed themselves as the centre of the universe (Headrick 2004:374, 376). This might be replicated on an Early Postclassic Lamanai bowl. Bowl LA 789/3 (Burial N10-69/2) depicts a cosmogram with multiple cross_b motifs alternating with the *Cauac* Earth Monster (Catalogue Fig. 3.3.29; see Anthropomorphic section) and thus combines the sky with the earth and its four(five) world direction, rising as symbolic World Tree from the bowl.

Cross_c [grater bowls] (Catalogue Figs. 3.13.1-6)

Early Postclassic Lamanai cross_c always occurs on the interior base of burial grater bowls. The motif held a functional and symbolic meaning. The design's functional purpose was to provide a rough surface to grind food stuffs, such as chillies, herbs or maize. The markings provide a rough surface that is usually divided into four tightly striated segments arranged in an anti-clockwise direction (Catalogue Figs. 3.13.1, 3-6). The anti-clockwise arrangement of the design facilitates the circular motion of food grinding for a right-handed individual. Some grater bowls display slightly more complex striated segments, consisting of small triangular components made up of horizontal bands that diminish in size towards the triangles' apexes (Catalogue Figs. 3.13.2 and 5). Early Postclassic Lamanai ceramic imagery is usually placed on vessel exteriors. The contrasting difficult visualisation of grater bowls' incision on their interior bases supports further a functional rather than purely symbolic reading of the motif.

Variation in cross_c is indicative of the symbolic reading of the motif, as complexity in design is not strictly necessary for the grinding of foodstuffs. An interpretation linked to the earth, otherworld and afterlife is likely. The burial context of Lamanai cross_c could connect the imagery to death and possibly to an afterlife for the deceased. On the other hand, cross_c is strongly associated with grater bowls, which are food preparation vessels. A substance could have

been prepared specifically for the deceased. In this case the motif is only indirectly related to an otherworld theme, unless the substance prepared was a drug, providing otherworld access through altered states. It is likely that grater bowls are indicative of the deceased's provision with nourishment in the afterlife or were used to prepare foodstuffs or other substances in specific funerary rites. The distribution of Lamanai grater bowls suggests use in ceremonies surrounding Structure N10-2, particularly associated with children and important adults (see Appendix 4, Table A4.13).

The vessel's grinding action activated the symbol, be it in a profane or sacred context. *Cross_c* thus forms another good example of Lamanai art actively affecting, rather than passively reflecting, its environment (Gell 1998; see Chapter 3) as *cross_c* bears a direct physical effect (grinding) on its surroundings (substances placed within bowls in ceremonies or everyday grinding by individuals).

Comparative literature reveals Lamanai *cross_c* to be identical in form to the Teotihuacan-style 'tilled-earth' sign (Taube 2000a:41-43), as found, for example, on Los Horcones Stelae 2 and 3 (Taube 2000a:42, Figs. 33a, e and f) and Fraccion Mujular Stelae 2 and 3 (Taube 2000a:42, Figs. 33b and c). I will refer to this sign when found on Lamanai grater bowls as the 'cultivated-earth' sign. Taube (2000a:45) noticed that representations similar to this sign at Teotihuacan and Xochicalco form cultivated and irrigated fields (see Taube 2000a:7, Fig. 4e and p. 9, Fig. 6c, respectively, also p. 7, Fig. 4e; Hernández Sánchez 2005:79). In the Tepantitla Portico 2 Murals at Teotihuacan, fields of maize, squash and other plants grow from blue and green fields framed by water streams containing *Tlaloc* figures and aquatic animals (Taube 2000a:7, Fig. 4e; see also Pasztory 1976:Figs. 36, 39, 44 and 45). Similar blue and green fields are depicted epigraphically in a Monte Alban mural, Tomb 112 (Taube 2000a:45, Fig. 35b). The Monte Alban example includes the representation of a hand sowing seeds, symbolic of cultivation, and a pouch with rattlesnake tail (Taube 2000a:45). Taube links bags with pendant rattlesnake tails to the public office held by the individuals with bags (Taube 2000a:45). A common Classic Maya phrase for overseeing is based on a term for cultivation (Harris and Stearns 1997; Taube 2000a:47). Consequently, the cultivated-earth sign carries political and cosmological meaning, 'as it represents a cultivated world, agricultural cultivation being a basic Teotihuacan

metaphor for governance' (Taube 2000a:47). Unsurprisingly, the rain deity *Tlaloc* is closely tied to the cultivated-earth sign, cultivation and irrigation (e.g., on Los Horcones Stela 3, in the Tepantitla Portico 2 Murals; Taube 2000a:47; see Miller 1973:Fig. 161).

At Lamanai, the consistent placement of cross_c on burial grater bowls establishes a close association of the motif with ritual food preparation, both functionally and symbolically. Cross_c's reading as the cultivated-earth sign and general association with agriculture is supported by the following Lamanai data. The majority of grater bowls in this Early Postclassic sample were recovered from Structure N10-2. The structure contained the important 'completion' Cache N10-2/2, which contained, amongst other things, burnt corn and a *metate*, linked to an agricultural offering (Pendergast 1974, 1985a:89; see Turtle section). The corn offering and grinding tool (*metate*) suggest maize grinding in a ritual context. Structure N10-2 revealed turtle symbolism linked to the Maize God, harvesting, sustenance and the concept of perennial agricultural renewal and prosperity via the uninterrupted cycle of the cosmos that was embodied by the Dragon (see Turtle, Reptile sections). A ceremonial function of Structure N10-2 (Pendergast 1981a:48, 1982b:24-25) related to agriculture is supported by a small square altar associated with the cache that contained burnt agricultural material (see Appendix 4, Table A4.13).

Structure N10-2 revealed the largest number of Early Postclassic Period child burials at the site, some with grater bowls. Two grater bowls were placed next to the principal male interred in Str. N10-2 (Burial /10; see below), whereas the remaining three were interred alongside children (Burials /1, /28, and /39). However, six child burials from Structure N10-2 did not contain grater bowls. Two of these children were buried alongside an adult female, possibly their mother and considered responsible for sustenance, and two are infants, also dependent on their mothers. Corn is common in child burials and at La Ventilla, Teotihuacan, unborn fetuses were placed with corn (Baquedano, personal communication 2006). La Ventilla fetus or neonate burials are associated with T-shaped altars (Manzanilla 2002:61; Sempowski 1994:248-249), a motif that marks vessels in Lamanai adult burials (see T-shaped band section). Consequently, a close association exists between child burials and corn, with vessels possibly used in agriculture-related ceremonies at La Ventilla and Lamanai.

The only Early Postclassic adult burial from Structure N10-2 with grater bowls is that of its principal male (Burial N10-2/10), whose high status is indicated by the number and richness of associated artefacts (see Appendix 4, Table A4.13). Two grater bowls were placed lip-to-lip within a large pedestal-based jar with appliqué-modelled *Chac* effigy (LA 61/1; Catalogue Fig. 3.1.3). The burial contained a further two pedestal-based jars with appliqué-modelled deity figures (Catalogue Figs. 3.1.4-5), unfortunately, too eroded to permit identification. In Mesoamerican representation, the rain deity is closely associated with the cultivated-earth sign, rain being necessary for successful agricultural yield (see above). *Tlaloc* is frequently depicted irrigating cultivated fields and Teotihuacan neonate burials are often associated with *Tlaloc* iconography (Manzanilla 2002:58, 60). *Chac* also is closely associated with human sacrifice (Taube 1992a:27), which suggests that blood was most likely considered an essential offering to ensure future crops and may explain why bloodletting formed an important part of cache deposits dedicated to this purpose. The placement of the two Lamanai grater bowls within a rain deity vessel is thus wholly appropriate and establishes a close association between cross_c, the rain deity and grater bowls at Lamanai in the Early Postclassic Period. The motif's combination with *Chac* supports its interpretation as the cultivated-earth sign. Some crops were certainly processed in grater bowls, which explains the choice of vessel to display the motif, further reflecting its function as a food-grinding vessel. Consequently, Lamanai cross_c as the cultivated-earth sign underscores the agricultural significance of Structure N10-2.

The high status of the male in Lamanai Burial N10-2/10, his association with grater bowls (cross_c) and interment within a structure linked to agricultural themes support Taube's reading of the tilled-earth glyph as related to agriculture, cultivation of the world and governance (Taube 2000a:47). Structure N10-2 was a colonnaded edifice (Pendergast 1981a:44; 1986:235). Certain social groups used colonnaded structures for community rituals (Carmack 1981:287-290; Pugh 2001:253; Rice et al. 1998:229). Consequently, the data suggest a political or administrative role for the individual buried and/or Structure N10-2 tied to agriculture. In the Early Postclassic Period at Lamanai, therefore, governance's role and power probably stemmed from the elites' ability to protect and nurture through agricultural cultivation. This is

unsurprising, considering maize formed the staple diet of the Lamanai Maya in the Early Postclassic Period. Pendergast (1981a:34) discovered a raised-field system at Lamanai. Although the fields have not been dated, they reflect a focus on a broad range of agricultural techniques. White (1997:179-180) suggests that the increased maize consumption during the Postclassic Period may have resulted in the construction of the raised fields, or their expansion.

Nearby, similar grater bowls with incised decoration on the interiors occur at Seibal in the Bayal complex in Trapiche Incised: Decorated Interior Variety (Sabloff 1975:194-195, 197, Fig. 381) and in Poite Incised: Poite Variety (Sabloff 1975: 211-218, Figs. 412-423) but the form that the incision takes is different. The incised interior of Figure 381 displays a fish amongst its striated lines, supporting the association of the lines, water and possibly drained fields. Adams et al. (1981:1460-1461) posit that such agricultural fields may have existed opposite Seibal.

Inspection of formal characteristics of Lamanai cross_c reveal two diagonally-crossing bands, classified as cross_b, forming the basis of the Early Postclassic Lamanai and Teotihuacan cultivated-earth sign (Lamanai cross_c). Headrick (2004:377) suggests crosses painted on the interior of K'axob burial bowls (Headrick 2004:245, Vessel 034) refer to the status of the individuals interred. As the quadripartite motif, crosses represent the four cardinal directions 'to position the vessel's owner as the centre of the horizontal axis and human realm' (Headrick 2004:377; see Cross_b section). Applied to Lamanai cross_c, this implies a quadripartite form – or five-part structuring, if the centre point of the motif's crossing lines is considered – of governance based on agricultural cultivation, with the principal male in Str. N10-2 placed at its political centre. Taube (1988c:154-161) writes that the ordered universe of the Maya was imagined as being bound by the four sides of a field, four posts of a house or entrances to a village (Coe 1965b:107-109; Jones 1998b:69-101). Consequently, agricultural cultivation, expressed by the cultivated-earth sign (cross_c), and political governance based on the Mesoamerican perception of the quadripartite (or five-part) structured world (cross_b motif), are intimately fused, as indeed they are within the cultivated-earth motif at Lamanai and elsewhere.

In summary, Lamanai cross_c could be symbolic of the cultivated earth and is closely associated with the rain deity *Chac*, responsible for irrigation. The

motif carries political and cosmological meaning, 'as it represents a cultivated world, agricultural cultivation being a basic Teotihuacan metaphor for governance' (Taube 2000a:47). The motif is therefore a symbol derived from Teotihuacan and from Central Mexico, but makes its first appearance at Lamanai in the Maya Lowlands in the Early Postclassic Period. Teotihuacan glyphs can be traced through the Epiclassic and Postclassic Periods to early colonial Aztec texts (Taube 2000a:48). It is therefore possible that ceremonial themes (particularly related to corn and harvest) and administration, as reflected in the dual-function of Structure N10-2, formed an ancient association that were perceived as inseparable.

Cross-hatch (Catalogue Figs. 3.1.1-2, 6-8, 12, 3.2.1, 3, 6, 11, 14, 17, 22, 3.3.2, 7, 10, 16, 29, 3.4.14, 3.8.1 and 2)

Traditionally, the cross-hatch has been considered a convention for representing black in sculpture (Thompson 1970:223), or has been read as a net (Stone 1985:39; see Chapter 4). However, this study classifies cross-hatch as a motif that is attributed with symbolical value.

Formal differences in the treatment of the Early Postclassic cross-hatch motif at Lamanai entail its framing and combination with other motifs. The cross-hatch motif is contained in shapes ranging from ovals to rectangles with all the shapes in between. Contained in ovals, the motif marks crocodilian bodies (Fig. 6.27; Catalogue Fig. 3.3.7) and in rectangles, anthropomorphic figures (Fig. 6.47). The cross-hatch motif is frequently also depicted in proximity to Dragon heads (Fig. 6.30).

The Lamanai cross-hatch motif is widely distributed in structure and vessel form, but occurs predominantly on pedestal-based jars (Catalogue Figs 3.1.1-2, 6-8 and 12) and chalices (Catalogue Figs. 3.2.1, 3, 6, 11, 14, 17 and 22) recovered from principal burials. The motifs' widespread use and burial context suggest a general meaning linked to high status and funerary themes. Comparative literature reveals the cross-hatch motif associated with earth themes, specifically marking the surface of the earth, and objects, creatures and deities related to the earth and its surface or forming otherworld portals. Readings are presented according to general themes, although these overlap considerably: Cross-hatch marking the surface of the earth and creatures

forming the surface of the earth; Cross-hatch marking deities associated with the earth and its access; and Cross-hatch marking objects associated with the earth.

Cross-hatch marking the surface of the earth and creatures forming the surface of the earth

Throughout Mesoamerica the cross-hatch motif is added to representations of the surface of the earth and creatures forming the surface of the earth (e.g., crocodiles, serpents [see Madrid Codex pages 12, 14 and 15; de la Garza 1984:Figs. 48, 54 and 55; Foster and Wren 1993:260, 262, Figs. 2-5 and 7; Schele 1985:143, Fig. 10c; see Reptile section] and turtles [see Hellmuth 1987:208, Fig. 438; see Turtle section]). The cross-hatch motif may mark *caban* scrolls that refer to the earth (see Landis and Carlson 1985:138, Appendix II:Fig. 14, and p. 121, Fig. 7b; Taube 1988a:Fig. 4b). Water lilies are frequently cross-hatched in Maya art (see Reents-Budet 1994:126, Fig. 4.18), thought to float on the surface of the otherworld waters. The otherworld was thought to be contained within the earth that was accessed via caves or sink holes (*cenotes*; Grove 1970:11; Stone 1989:327; see T-shaped band section). In this vein, the cross-hatch motif marks portals into the earth and its otherworld regions.

An Early Classic Maya tripod vessel displays a crocodile swimming on the otherworld waters with the cross-hatch motif contained in an oval on its upturned snout, indicative of the creature's scales (see Quenon and le Fort 1997:887, Fig. 7). The cross-hatch motif placed in ovals also marks the crocodilian bodies of Early Postclassic Lamanai Dragon representations (Fig. 6.27:View 1).

The Late Postclassic Santa Rita Structure 1 Murals depict a deity sitting on a 'scaffold'-structure resting on small mats marked with the cross-hatch motif (Fig. 6.53). The mats are placed between the scaffold's supports and the surface of the earth. Even though eroded in this portion of the mural, the earth band runs throughout the Structure 1 Murals to form the body of *Itzam Cab Ain* (Taube 1992a:37), the crocodilian-earth aspect of the Dragon, whose two heads meet to frame the door of Structure 1 (Fig. 6.46). The Dragon's head is covered or stretched with the cross-hatch motif and its body is shown sprouting vegetation, containing flints (see below) and also aqueous creatures (see Masson 2000:242-244, Figs. 6.16-18). Consequently, as a representation of the

earth, the Dragon contains the otherworld waters, accessed through its surface or skin. The Santa Rita manifestation explicitly shows the Dragon forming the earth to act as supernatural medium linking the terrestrial (earth) realm and otherworld (waters) to deities and/or deity impersonators conducting ceremonies on its body (see Gann 1900:663-677).

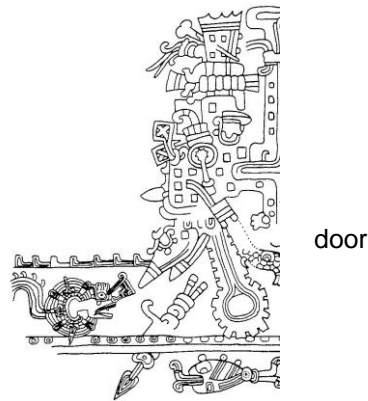


Fig. 6.46. *Itzam Cab Ain* framing the door of Santa Rita Structure 1, west half of north wall mural. Taube 1992a:38, Fig. 15d (after Gann 1900:Plate XXIX).

Cross-hatch studded with circles within the diamond shapes formed by its crossing lines represents the earth's surface. Such cross-hatch designs figure on the Maize God *Hun Nal Ye's* dress when he is reborn on earth as young corn (Quenon and le Fort 1997:884-899). The Maize God is frequently shown rising from cross-hatched turtle shells in scenes of his resurrection (see Hellmuth 1987:208-209, Figs. 438-439; see Turtle section). Cross-hatched lines containing dots usually cover turtle carapaces (Taube 1988a:192, 196, Figs. 6b and 8b; see also Quenon and le Fort 1997:Fig. 28), symbolic of the earth's surface. The Lamanai bowl mentioned above (Fig. 6.27:View 1) depicts a crocodilian-earth manifestations of the Dragon whose body is marked with the cross-hatch motif contained within ovals. Another Early Postclassic Lamanai bowl depicts the Dragon placed above pyramidal shapes containing the cross-hatch motif (Fig. 6.33), symbolic of the mountainous earth (see Triangle band section). Consequently, in the Early Postclassic at Lamanai, Dragon manifestations marked with the cross-hatch motif are particularly equated with the Dragon's crocodilian aspects, amongst other things, symbolic of the earth's surface (see Reptile section).

Cross-hatch marking deities associated with the earth and its access

Cross-hatch also marks the head, body and/or dress of deities associated with the earth and/or its access (e.g., Maya *Cauac* Earth Monster [see below], Dragon [see Taube 1992a:38, Fig. 15d], serpents and Vision Serpents [see Carlson and Landis 1985:125, Fig. 14; de la Garza 1984:Fig. 77; Scarlin 1999; Schele 1986; Schele and Miller 1986:175-185; Stuart 1988:185-186, Figs. 5.10-11; Reptile section], Maize God [Quenon and le Fort 1997:884-899; see above]; Mexica Earth Goddess *Coatlicue* [Townsend 1998; Westheim 1980:Fig. 134]). This use of the motif is reflected at Lamanai on Early Postclassic ceramics. Numerous examples occur of the cross-hatch motif placed near serpentine Dragon mouths (symbolic cave mouths; Catalogue Fig. 3.1.1) or within proximity to their bodies (Catalogue Figs. 3.1.6 and 3.2.17) to emphasise the Dragon's role as supernatural medium (see Reptile section). A bowl displays a frontal view of the *Cauac* Earth Monster with cross-hatch motif placed in its forehead cleft (Catalogue Fig. 3.3.29; see Anthropomorphic, Cross_b sections). The cross-hatch motif also marks 'long-nosed' deity representations on three burial chalices (Catalogue Figs. 3.2.1, 3 and 8; see Anthropomorphic section). The anthropomorphs display cross-hatched eyes and body markings (Fig. 6.47), possibly in reference to the eye of the supernatural forming a surface, interface, mirror and/or portal between the natural and supernatural worlds, whereas the anthropomorphs' cross-hatched body markings may refer to the idea of the earth's surface equated with the creature's skin. The eyes and body of Classic Period *Cauac* Earth Monster representations are frequently marked with the cross-hatch motif; this deity occasionally also displays a long and bulbous nose (see Hellmuth 1987:279, Fig. 615), akin to the Lamanai examples. Consequently, the cross-hatch motif also refers to the interface between the natural world and otherworld through the surface of the eye and perhaps 'seeing'.

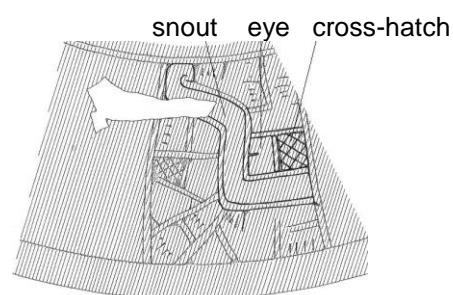


Fig. 6.47. Buk phase chalice and pedestal base detail, LA 69/13.

Cross-hatch marking objects associated with the earth

Elsewhere in Mesoamerica, the cross-hatch motif decorates mirrors used in divination rituals (Taube 1992a:31-33, Fig. 13e). The motif's frequent occurrence on mirrors supports its role as an identifier of something that acts as a surface or portal between two worlds. A Classic Period Maya wooden sculpture represents a kneeling figure holding a hematite mirror (see Reents-Budet 1994:92, Fig. 3.17). The mirror resembles a turtle shell, as does a pyrite mirror recovered from an important Bonampak burial (see Reents-Budet 1994:91, Fig. 3.16; Schmidt et al. 1998:567, Fig. 203). Turtles are frequently linked to the earth and its access and are usually represented with cross-hatched carapace, symbolic of the earth's surface (see above; Turtle section). The cross-hatched *akbal* sign also marks the centres of mirrors (Taube 1992a:31-33, Fig. 13e). Cross-hatching indicates 'dark', 'black stone' and 'obsidian' (Fash and Fash 1994:65; Stuart 1988:197, Fig. 5.27) and the *imix* glyph with cross-hatched centre stands either for *nab*, 'lake', or *ha*, 'water' (Grube and Nahm 1994:690). Fash and Fash (1994:65) note cross-hatching on a stone representation of a knapped flint. Consequently, the shiny and reflective surface of water was associated with mirrors (and flints), resulting in the use of mirrors in rituals of divination. Flint and obsidian concentrations form part of the earth's surface and they both originate from the ground. This reinforces their earth and otherworld connotations as interfaces between the real world and otherworld. The brightly-reflective surface of the moon is frequently marked with the cross-hatch motif (see Taube 1992a:66-67, Figs. 30b, 31a-b, d-e) and the moon occurs as large eccentric flints in the Terminal Classic Period at Lamanai (Chapter 5: see Jaguar section).

Cross-hatch summary

In summary, the cross-hatch motif on Early Postclassic Lamanai ceramics marks creatures (crocodiles, serpents, anthropomorphs) related to the earth and its access, or creatures identified with the earth's surface or features of the earth's surface (obsidian, flint, pools of water, *cenotes*, cave mouths). Cross-hatch contained in ovals placed on Dragon bodies symbolise scaly mirrors, likened to precious stones (e.g., obsidian, flint). In Maya thought, the body of the crocodile represents the earth floating on water (Taube 1989a:1; Thompson 1970:11). Consequently, cross-hatched Dragon 'mirror' scales formed

divination aids. The only other reflective surface that occurs in nature is that of water, which in Maya belief was thought to form the surface of the otherworld (Hellmuth 1987:310).

Oval (e.g., Catalogue Figs. 3.1.3, 5, 11, 3.2.5-8, 13, 19-20, 3.3.5, 7, 8, 28, 3.4.3, 14, 3.7.2, 3.8.5, 3.9.3, 3.11.1 and 3.14.2)

The oval motif is widespread in Early Postclassic Lamanai ceramic and Mesoamerican art, suggestive of a general meaning. This is supported by the oval's small size, rare isolation, non-dominance and longevity at the site. Ovals occur on Lamanai ceramics from the Terminal Classic to Early Historic Periods.

In Mesoamerican art, ovals are related to precious liquids, such as rain, water and blood, and as such denote general 'preciousness' (Coggins and Shane 1984:52, 105; Schele 1985:137, 147, Fig. 15; Schele and Miller 1986:48; Stuart 1988:175-182). The motif frequently adorns the regalia of deities, the elite and other ritual paraphernalia (see Schele 1985:136, Fig. 1). Lamanai ovals adorn elite ceramics and embellish the clothing of anthropomorphic and deity figures (e.g., Catalogue Figs. 2.1.4-7 [Terminal Classic]; 3.1.3, 5 and 11 [Early Postclassic]; 4.3.3 [Late Postclassic]; and 6.2.11 [Terminal Postclassic/Early Historic]).

Water and blood were symbolically equated, both forming fluids necessary for life. In Mesoamerican art, ovals also mark the surface of the otherworld waters (Coggins 1983:26-27), considered very fertile. Ovals are thus indicative of nourishing precious liquids. Lamanai is situated on the shore of the New River lagoon, providing the site with sustenance and flourishing trade links during the Postclassic Period (see Chapter 2). Consequently, Lamanai's inhabitants attributed great importance to the lagoon and its water. However, representations of bodies of water are rare in Mesoamerican art most likely due to their difficult visualisation. Instead, isolated ovoid drops of water symbolise water. The Maya thus made the observation that water and blood form droplets when isolated in small volumes. Nowadays, this property is explained by the principle of surface tension, also symbolically represented by isolated drops of water.

Lamanai ovals predominantly occur on Early Postclassic midden bowls mostly recovered from an elite activity midden that accumulated around

Structure N10-27 in the Early Postclassic Period (see Appendix 1; Summary of archaeological readings section). Iconographical analysis reinforces the midden being the result of elite ritual activity, specifically involving or focusing on precious fluids, possibly related to the otherworld waters.

Scroll

Four sub-groups of the scroll motif category were detected on Early Postclassic Lamanai ceramics, scroll_a, b, c and d, considered below.

Scroll_a (Catalogue Figs. 3.1.3, 6-7, 14, 3.2.4-5, 17, 21, 3.3.1, 4, 6, 8, 12, 14-16, 3.4.14, 3.8.4, 3.11.1 and 2)

Scroll_a is predominant on Early Postclassic Lamanai ceramics, occurring in multiple motif combinations within complex imagery scenes. The motif metamorphoses from and into others, particularly reptiles and flower_b (see Definition of style section). Consequently, scroll_a dominates the style of Early Postclassic Lamanai ceramics and is critical in placing vessels and imagery in their ritual context.

On funerary vessels, convoluted scroll scenes metamorphosing into flower_b petals are suggested to represent the breath soul of deceased elite, possibly visualised through smoke or steam generated in offertory incineration rites. Scrolls topped with bead or flower-like elements – similar to the Lamanai examples – and placed before the mouths of Classic Period ruler representations have been suggested to visualise the ‘breath soul’ of elites (Houston and Taube 2000:265-273, Figs. 3-8). Beads strung through the noses of Classic Maya rulers that allude to breath also occur on Lamanai’s Middle Classic Period stelae (Figs. 6.35a-b) and often take a floral form. Sixteenth century chronicles record that the northern Pokom Maya captured the breath soul of dead rulers in stone jewels, likely jade (Houston and Taube 2000:267; Miles 1957:749). Jade beads were thus frequently placed in burials, sometimes in the mouth of the deceased to capture or store the ‘breath soul’ of deceased rulers (Houston and Taube 2000:267-270). At Lamanai, jade occurs in both burials and cache offerings. It is therefore suggested that, in addition to jade harnessing the breath soul of elites when placed in burials, in cache deposits the precious stones were included to offer this (life) essence to the concept(s)

addressed. In the light of this study's reading of the Dragon, the essence specifically refers to the *itz* or *ch'u* (essence or invisible sacred quality that inhabited all things and deities [Sharer 2006:720; Taube 1992a:8]) that formed the Dragon and which was embodied in the Dragon's anthropomorphic aspect *Itzamna*. Offerings were thus addressed to *Itzamna* and the Dragon, who was thought to consume the breath souls of elites into its body that was the otherworld and afterlife (see Anthropomorphic: *Itzamna*, Reptile sections). This interpretation is supported at Early Postclassic Lamanai through the material's combined iconographical- and archaeological-contextual readings (see Appendix 4, Table A4.13). For example, a jade bead was placed between the deceased's skull and a plain bowl (LA 48/1) in Burial N10-2/8, with a further bowl depicting the Dragon as microcosm of the universe placed to the east of the skull (Fig. 6.33; see Reptile section). The proximity of the jade bead and 'cosmic-Dragon bowl' to the mouth of the deceased thus facilitated the departing breath soul's entry into the body of the Dragon that was the otherworld and afterlife. The reading of the departing breath soul as stored in, or released through, jade is also made explicit by a jade pendant found resting at the point of the mandible of a mature male interred in Burial N10-9/10. The jade displays a Dragon manifestation metamorphosing into scroll_a and flower_b motifs (Fig. 6.48). The pendant's placement close to the mouth of the deceased indicates his breath soul's absorption into the body of the Dragon.



Fig. 6.48. Buk phase replica jade pendant, LA 245/4, Burial N10-9/10.

Throughout Mesoamerica, the living soul is associated with breath, both thought to expire at death (Furst 1995:160-172; Houston and Taube 2000:267; Thompson 1960:73). Classic Period texts also provide strong support for the association of breath soul with flowers (Houston and Taube 2000:267; see T-shaped band section). Proskouriakoff (1963:163) linked the reading of the *IK* sign ('wind', 'breath', 'spirit' and, by extension, 'life' [Proskouriakoff 1974:159; Thompson 1970:257]) – as frequently combined with a floral sign in a death expression – to a meaning associated with the termination of breath and therefore death (Houston and Taube 2000:267). The symbolic concept of transference of life to death and into the Dragon's body (expressed by the Dragon/flower_b/scroll_a/T-shaped band (*IK*) motif combination) is frequently represented on Early Postclassic Lamanai funerary ceramics (Catalogue Figs. 3.1.1-3, 7 and 14; see T-shaped band section).

Simultaneous to scroll_a/flower_b referring to the departed breath soul of elite, the motif combination may also refer to the incineration of flowers in lieu of sacrificial offerings (see Flower_b section). Smoke generated in funerary ceremonies may have been perceived to give physical shape to the evanescent notion of the departing breath soul, particularly during the offering of flowers. A smoke-related interpretation of this motif combination is supported by its stylistic execution in convoluted scenes, where scroll_a is likened to smoke travelling across a room (see Definition of style section). Archaeological context further associates Lamanai vessels displaying scroll_a with ceremonies involving incineration, specifically of a funerary nature. Scroll_a occurs on a large number of burial chalices (79%), the most frequent burial vessel form to display the motif and occurs in burials throughout the site. Wear on some of the chalices is indicative of burning.

In the Postclassic codices, scrolls frequently form smoke or steam scrolls rising from censers clearly used in burning rites (Figs. 6.49a-b). Ceremonies depicted involve vessels also found in Lamanai's Early Postclassic repertoire (e.g., frying-pan censers, tripod vessels, pedestal-based bowls; see Appendix 2). Consequently, numerous and varied vessels forms were used in 'burning' rites, their large number reflected in Early Postclassic Period Lamanai burials.

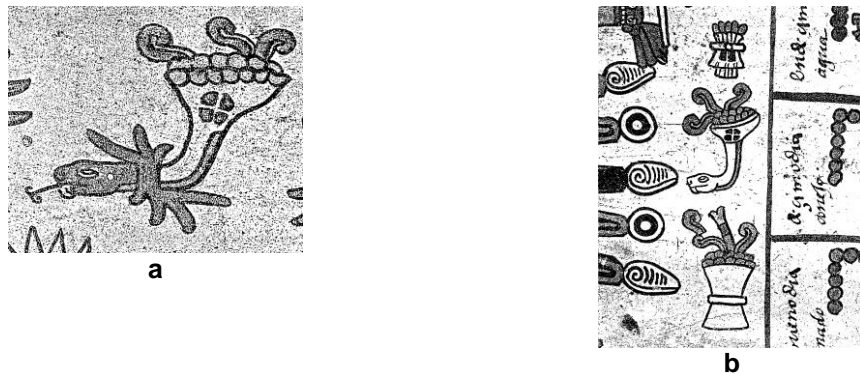


Fig. 6.49a-b. Censors issuing smoke scrolls, Codex Borbonicus, details: (a) Plate 4, (b) Plate 5. Codices Selecti 1974.

The Postclassic codices frequently depict smoke scrolls rising from frying-pan censors with appliqué-modelled reptile 'handles' (Fig. 6.49; see Reptile section). Smoke or steam scrolls are attached to the serpents via the censors' 'pans'. Although the scrolls and reptiles merge in a less convoluted manner than on Early Postclassic Lamanai ceramics (see Reptile section), they nevertheless form a physical bond. Classic Period Yaxchilan Vision Serpents metamorphose out of smoke or steam scrolls generated in vision rites that involved burning (e.g., Lintel 15; de la Garza 1984:Fig. 77). Yaxchilan Stela 25 (see Schmidt et al. 1998:Fig. on p. 305) depicts an offering bowl holding bark paper soaked in elite auto-sacrificial blood, burned to conjure up the reptile and establish communication with the supernatural. Consequently, Early Postclassic Lamanai offerings possibly consisted of burnt blood-soaked bark paper and flowers.

Spanish chronicles record that amongst the Aztecs, sacred stone *cuauhxicalli* 'eagle vessels' were used to burn the blood and hearts of sacrificial victims (Baquedano 1984:84, Plate 55; Locke 2002:206; McEwan 1994:77; Pasztory 1983:236-248, Plate 243). One such *cuauhxicalli* displays a row of skulls emitting scrolls from their mouths (see Matos and Solís Olguín 2002:232, Fig. 151); another displays a row of tightly curled scrolls (see Matos and Solís Olguín 2002:236, Fig. 164). The scrolls (as Lamanai scroll_a) thus might refer to the incineration and generated smoke and steam of burnt blood-offerings contained within the vessels; and in the first example, where the scrolls issue from the mouths of skulls, refer to the departing breath soul of the sacrificial victims, thought to generate new life or life essence in general (see Reptile, T-shaped band sections). The symbolic convention of scrolls referring to

deceased breath souls in a sacrificial context is also evident at Late Postclassic Santa Rita (Fig. 6.50). The Maya mural depicts God M facing another deity grasping the severed heads of God M and God G across a large drum (Taube 1992a:90-92). The drum is marked with a skull 'breathing' scrolls from its mouth. The Santa Rita mural makes explicit the connection between the departing deities' breath souls and music, possibly thought to aid the ceremonies outcome (see T-shaped band section). Drums were recovered from Early Postclassic Lamanai burial and midden contexts, supportive of their widespread ceremonial use.

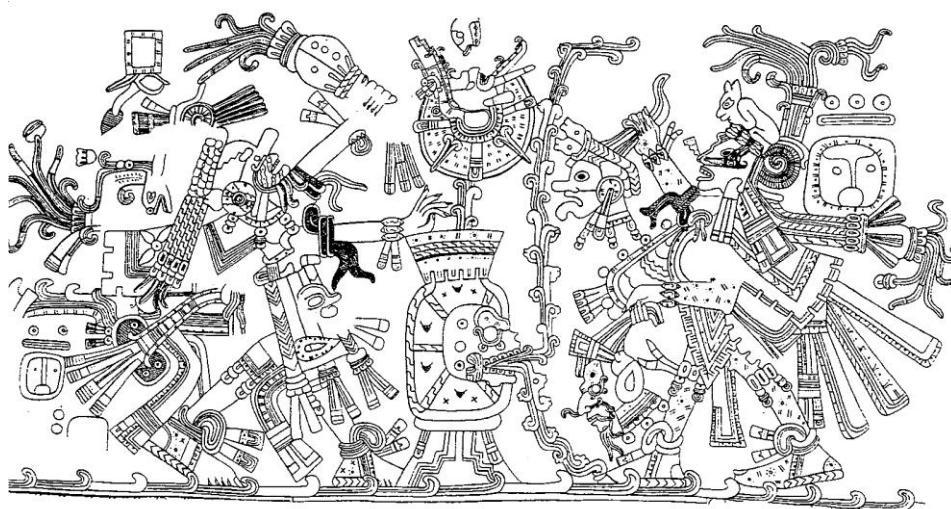


Fig. 6.50. Drum with feet modelled to form T-shaped motif, west side of north wall mural, Santa Rita, Structure 1. Taube 1992a:91, Fig. 45b (after Gann 1900:Plate XXXI).

In summary, Early Postclassic Lamanai funerary ceramics combining scroll_a with flower_b motifs refer to the departing breath soul of elite. Death was explained by life's spirit consumed by the Dragon from an earthly to otherworldly state. The evanescent notion or explanation of death, as the departure of an individual's soul, was thus given artistic expression. Jade was thought to be able to capture or store the breath soul of elite with the capacity to harness this essence (Dragon), explaining jade objects' inclusion in burials *and* caches. Ceremonies that generated smoke (possibly through incineration of flowers) represented the transformation of matter from one state to another, equated with transmission from this world to the otherworld.

Scroll_b (Catalogue Figs. 3.2.13 and 3.8.8)

Lamanai scroll_b is an infrequent Early Postclassic ceramic motif. Unlike scroll_a (see above), scroll_b does not accessorise other motifs but stands in its own right as an isolated motif. Lamanai scroll_b resembles the so-called lazy-s motif found in Classic Period Mesoamerican art (see Carlson and Landis 1985:138, Appendix II, Fig. 10): a scroll also depicted lying horizontally on its side. The lazy-s scroll is interpreted as functioning as a cosmological sky locator (Stone 1996:414; Taube 1996:85), related to both clouds and bloodletting (Reilly 1996:413). In this vein, lazy-s motifs are sometimes placed in cosmic bands or beneath celestial serpents (Carlson and Landis 1985:138, Appendix II, Fig. 10; Joyce et al. 1991:146, Fig. 5a). A cosmos-related interpretation of Lamanai scroll_b is supported by its occurrence in *bands* – a standard form for sky-as-cosmos in Mesoamerican representation – and in combination with other cosmic motifs (e.g., reptile, triangle band, T-shaped band). One Early Postclassic chalice (Catalogue Fig. 3.2.13) displays scroll_b placed above a triangle band, interpreted as cosmological locator motif related to the earth (see Triangle band section), embellished with T-shaped signs, indicative of the interface between the natural and supernatural worlds (see T-shaped band section).

Lamanai scroll_b is related to scroll_c, the abbreviated form of the bicephalic reptile that *is* the Dragon, also found within cosmic bands (see Scroll_c section). The up and down curled hook-ends of scroll_b represent an abbreviated version of the upturned crocodilian and down-turned serpentine snouts that form the two heads of the Lamanai Dragon (see Reptile section; Chapter 7: Scroll_b and c sections).

Scroll_c (Catalogue Fig. 3.2.18)

Lamanai scroll_c is interpreted as the abbreviated body of the Dragon. Please refer to the Scroll section in Chapter 7 for a detailed discussion of this motif.

Scroll_d (Fig. 4.18f)

Scroll_d is very infrequent. No meaning could be attributed to this motif, apart from possible symbolic overlap with the other scroll motif sub-groups occurring Lamanai Early to Late Postclassic ceramics.

MOTIF BANDS:

Intertwined band (Catalogue Figs. 3.1.8, 10, 3.2.2, 14, 3.3.2, 6, 23, 31-37, 3.4.3, 10, 12, 17, 19, 3.5.1, 3.8.4, 6 and 7)

The intertwined band motif is a widespread Mesoamerican symbol that adorns elite ceramics, regalia, accoutrements and architecture. The symbolic meaning of the intertwined band remains consistent within the Maya area from Classic to Postclassic times. Comparative data establish a reading of the intertwined band motif acting as cosmic conduit that channelled life between the earth and otherworld. This explains the motif's adoption by Classic Period royalty and the Postclassic elite to show their symbiotic connection with the supernatural powers. In this vein, intertwined bands were likened to umbilical cords channelling the life-blood of the gods to earth in return for earthly offerings and are thus closely linked to themes of birth, death and rebirth.

Discussion of the intertwined band motif is divided into two parts: the first part examines the intertwined band acting as conduit between the natural world and otherworld. Part one, in turn, is divided into two sections: the first section examines the motif's relation to the transference of life associated with birth and the second section discusses the motif's relation to the transference of life associated with death, rebirth, sacrifice and offerings. Part two examines the mat symbol as conduit of the ruler's power and its association with the intertwined band motif. The discussion ends with a summary of the iconographical reading of the intertwined band motif at Lamanai.

Part 1: Intertwined band as conduit between the natural world and otherworld

Intertwined bands are depicted linking the cosmos in Classic Period Maya representations (see Reents-Budet 1994:24-25, 63, 182-183, 185, 295-297, Figs. 1.23, 2.31, 5.18, 5.23, 7.3 and 7.4). A series of Classic Period vases show multiple representations of the Young Maize God (Taube 1985:171-181) wearing elaborate back racks (Fig. 6.51). Each rack contains a mythical co-essence creature sitting in a miniature temple forming a microcosm of the Maya cosmos (Reents-Budet 1991:218; Scarlin 2000b:76; Stone 1983): a sky band is connected to a *cauac* 'earth' monster head via vertically-supporting intertwined bands, symbolic of communication and the connection between the different realms of the Maya universe. The Middle Classic Period Lamanai Stelae 1, 2

and 9 depict rulers holding bicephalic ceremonial bars marked with intertwined bands (Figs. 6.35a-b; Reents-Budet 1988:18-21, Figs. 1-2). On Stela 9, a large intertwined band forms the body that joins the bar's two Dragon heads thus uniting the cosmos. Elsewhere in the Maya Lowlands in the Classic Period, the motif is prevalent on elite regalia and accoutrements (see below).

Principal Bird Deity cosmic sky band



Cauac Earth Monster head intertwined band

Fig. 6.51. Naranjo Classic Period polychrome vase, detail. Reents-Budet 1994:297, Fig. 7.4.

The Late Postclassic Tulum Mural 1 depicts a manifestation of the Dragon that joins in an intertwined band linking all aspects of the cosmic scene: the earth to the sky, deities to deities/deity impersonators (possibly rulers or officials; see Anthropomorphic section), and offerings to the otherworld (Fig. 6.52). All aspects of the Dragon are connected by the artistic expression of (fertile) breath scrolls, interpreted as the essence of life that was the Dragon. The Tulum Dragon manifestation makes its mediatory role explicit (see Reptile, Scroll_a, Flower_b sections). Both Lamanai and Tulum Dragon manifestations display different (serpentine and crocodilian) heads metamorphosing into flower and scroll elements.

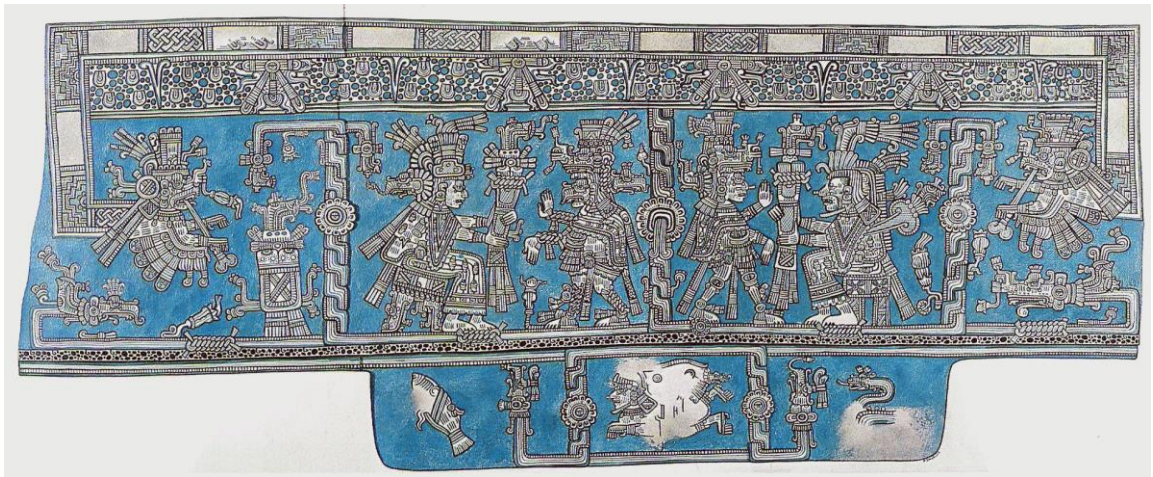


Fig. 6.52. Dragon with avian traits and intertwined reptiles descending from its body, interior east wall, Mural 1, Tulum Structure 5. Miller 1982:Plate 28.

For the sake of description, the Tulum mural may be broadly divided into three sections: a celestial section at the top of the mural, formed by a large bicephalic creature with avian attributes; a terrestrial section, constituting the world of figures (deities or deity impersonators); and a subterranean aqueous section.

The celestial level encompasses a large and winged bicephalic beast with star-studded body. The beast likely forms the Dragon's avian manifestation, possibly a Postclassic form of the Principal Bird Deity. In the Classic Period, one of the Dragon's main roles is argued to have been incorporated within *Itzamna* and his zoological alter ego the Principal Bird Deity (de la Garza 1998a:235-236; Hellmuth 1987:364-367, Figs. 555-557; Milbrath 1999:285; Taube 1989a:9; Thompson 1960:11, 1970:209-233). In the Postclassic Period, the Maya codices also depict *Itzamna* displaying the serpent wings of the Principle Bird Deity (e.g., Paris Codex, Page 11; Taube 1992a:36)

An intertwined reptilian band descends from the centre of the celestial Dragon's body and runs along the earth to connect celestial and terrestrial realms. Intertwined bands may therefore represent the bodies of interwoven reptiles (Coggins 1983:50; Laughlin 1962; Miller 1974a:185), as depicted in the Tulum murals. Reptile bodies may also form intertwined bands on Early Postclassic Lamanai ceramics (Catalogue Fig. 3.4.19). The intertwined Tulum reptiles display different heads to refer to the crocodilian and serpentine traits that in combination form the body of the Dragon linking the natural world to the supernatural (see Reptile section). The head to the viewer's right displays the upturned snout characteristic of the Dragon's crocodilian aspect; whereas the

head to the viewer's left displays a down-turned snout characteristic of the Dragon's serpentine aspect. The two reptiles' intertwining bodies thus form antithetical, yet complementary, elements embodied by the Dragon, weaving together in a 'bond' that contained all life and death. In Aztec art, Pasztory (1983:88, Plate 43) interprets 'intertwining' as the merging of two opposing elements that 'mingle, but remain separate and equal'.

The intertwined bands' central descent from the celestial Dragon's body suggests the bands' symbolic substitution with the Maya World Tree, placed at the centre of the Maya cosmos. Two intertwining reptile-'offshoots' 'grow' from the primary intertwined band running along the earth and frame the scene's actors; while two further 'offshoots' extend into the earth and its watery otherworld and frame a turtle-based deity. The intertwining reptile bands are marked with large flowers and sprout vegetation, indicative of their forming nourishing umbilical cords between the natural and supernatural worlds (see below). The intertwining reptiles thus visualise the mediatory role of the Dragon, from whose celestial body they descend, further linking human and supernatural/deity realms. Consequently, the scene shows intertwined reptilian bands acting as cosmic conduits between the earth and supernatural which *are* the Dragon's body. See also intertwining reptiles that interlink the *Cauac* Earth Monster, with aqueous otherworld in maw, with deities and/or deity impersonators engaged in ritual activity in Tulum Murals 1, 2 and 5, Structure 16 (Miller 1982:Plate 37).

Transference of life associated with birth

Twisted bands forming intertwined bands are also symbolic of umbilical cords (Miller 1974a:181-183, 1982:93, Fig. 124 [Codex Paris, Plate 19]; Roys 1965:42, MS 123; Taube 1994a:660, Figs. 4d and e), thus related to fertility (Robicsek 1975:286), especially corn, and sacrifice (Miller 1974a:174-175). The cords are often shown linking people to supernatural locations, for example on Plate 18 of the Maya Postclassic Paris Codex (Fig. 6.40). The umbilical cord's function of channelling blood and life from mother to baby ideally suited symbolic adoption to refer to the nourishing act of sacrificial offerings in exchange for life granted by the gods (Miller 1974a:174-175). One version of the Maya creation myth (Tozzer 1982:179) reports that during the beginning of creation a road called *kuxa'an suum*, or 'living rope', was suspended in the sky

that poured blood from its centre. Somehow this rope was broken to spill its blood, causing the flood that parted the first from the second cosmic age (García 2006:8). Consequently, umbilical cords were considered precious offerings that effectively symbolised the symbiotic relationship between humans and the supernatural (see Reptile section).

The fertility-association of intertwining reptile bodies is demonstrated in the Maya Madrid Codex (Fig. 6.41, top left). Reptiles with snouts metamorphosing into scrolls (Lamanai scroll_a) interlock to form intertwined bands that turn into flowering vegetation (see Lee 1985:99, Plate 29). A relief carving from Terminal Classic Chichen Itza's Inner Castillo depicts two intertwined serpents marked with flowers that run along the earth – indicated by a triangle band (see Triangle band section) – and up a column flanked by two jaguars (see Tozzer 1957:Fig. 86). The intertwined column forms the World Tree, thought to channel life between the supernatural and earthly realms (see Reptile section). On Early Postclassic Lamanai ceramics, intertwined bands and reptiles are frequently framed by triangle bands in reference to the link between the earth and supernatural via the intertwined band conduit and reptile medium (see Reptile section).

The fertile (blood) aspect of intertwined band conduits is supported in the comparative literature by flowers and other vegetation frequently depicted growing from intertwined bands and reptile bodies. Early Postclassic Lamanai ceramics depict intertwined bands placed alongside flowers (Fig. 6.33; Catalogue Figs. 3.2.14) and reptile bodies metamorphosing into flower petals (Figs. 6.27-32 and 34). The Tulum intertwined reptile bodies are marked with large flowers (Fig. 6.52). Among the Chiapas Maya of Zinacantan, flowers are a symbol for blood (Laughlin 1962; Miller 1974a:185, footnote 4). Flowers were offered in place of blood sacrifices (see Flower_b section). Furthermore, Classic Period Maya *kin*, or 'sun', signs form four-petalled flowers (see Flower_{Fa and c} sections) in reference to the germinating abilities of the sun. The flowers thus visualise the nourishing aspect of intertwined reptilian cords, cosmic conduits that contained the life-blood of the deities and connected the earth and supernatural forces, or blood of the ancestors and deities. The flowers simultaneously indicated earthly (blood) offerings channelled back through the intertwined (reptilian) cords in reciprocation for life granted by the supernatural.

Transference of life associated with death, rebirth, sacrifice and offerings

The burial context of Early Postclassic Lamanai ceramics displaying intertwined bands suggests an association of the motif with interment. Death was considered a form of symbolic rebirth into the supernatural afterlife (see Scroll_a, T-shaped band sections). However, on Lamanai burial vessels, the intertwined band is not just associated with the supernatural reptile medium, thought to aid the deceased's passage to the otherworld (see Reptile section). On two occasions intertwined bands are also linked to the passing of bird-warrior spirits (see Bird section; Fig. 6.45 [Burial N10-2/21]; Catalogue Fig. 3.5.1 [Burial N10-4/45]). Consequently, the motif expresses the general concept of linking the earthly and supernatural realms as supernatural conduit.

A death-association of the intertwined band is supported at Lamanai and in the comparative literature. Lamanai burial vessels, notably tripod bowls and bowls displaying the intertwined band motif were placed in graves to hold otherworld offerings or nourishment for the deceased on his afterlife journey. Comparative data reveal a Classic Period polychrome cylinder vase from the Peten Lowlands depicting large intertwined bands placed behind the heads of two skeletal zoomorphs (see Reents-Budet 1994:270-271, Fig. 6.43). The zoomorphs are particularly associated with sacrifice (Reents-Budet 1994:354). The stucco decoration of Classic Period Copan Structure 10L-21 displays intertwined bands studded with eyes (Fash and Fash 1994:63, Fig. 4d), linked to death and sacrifice throughout Mesoamerica (Taube 1992a:11-17). At Terminal Classic Chichen Itza, intertwining serpents frame the circumference of the rings of the Great Ball Court (see Longhena 1998:Fig. at bottom of p. 196). Ball games culminated in the sacrifice of players, offered to the supernatural in replication of the death and rebirth of the Maize God (Florescano 1999; Quenon and le Fort 1997:894-897; see T-shaped band section). Consequently, intertwined serpent bodies and bands may also been related to the concept of rebirth. Intertwined serpent bodies have been interpreted as blood-filled cosmic umbilical cords linking the earth and supernatural on numerous occasions (e.g., in Postclassic Tulum murals [Fig. 6.52], Paris Codex, Plates 19, 21 and 22, and ethnohistorical accounts [Miller 1972, 1974a:181-183, 1974b:47, 1977:108, 1982:84-98; Roys 1965:42, MS 123, pp. 58-69, MS 174-180; Tozzer 1907:153]).

An offertory-association of the intertwined band motif is supported by the contextual placement of Early Postclassic Lamanai ceramics: either placed in burials, where the vessels' contents were transported to the otherworld alongside the deceased or, more frequently, occurring on large numbers of bowls that were ritually smashed and then deposited in the midden abutting Structure N10-27. The midden is associated with ritual activity linked to the elite compound N10[3] (Graham 2004:320-321; see Appendix 1). The motif suggests that the midden bowls most likely contained offerings intended for otherworld consumption via the intertwined band conduit. Comparative data support an association of the motif with offerings (see above). For example, the handle of a large sacrificial blade retrieved from Chichen Itza's *cenote* depicts intertwined rattlesnakes referring to sacrifice as nourishment for the gods (see Coggins 1992:262, Fig. 8.37).

Part 2: Mat symbol as conduit of rulers' power and association with intertwined band motif

The woven shape of the intertwined band motif lends itself well to reproduction in media other than ceramics, such as rope or leather, to be worn as belts, bracelets, headbands or rings by the elite as depicted in Classic Period Maya art (see below). Such application of the concept of the motif represents clever use as symbolic metaphor, with the elite physically covering themselves with the motif's symbolism. Rulers' mats are woven. The mat motif symbolised chiefly rule and the throne or seat of the power of the king in Classic and Postclassic times (Robicsek 1975:46-47, 61-75, 292; Roys 1933:66, note 11; Thompson 1960:326, 1970:107). The Maya called their ruler *ah pop*, or 'he of the mat', which was synonymous with *ahau* or 'lord' (Miller and Taube 1993:111).

The sophistication in the reading of the intertwined band mat motif has changed since the writings of Robicsek (1975:280), who negates any similarity in symbolic representation and content between the serpent and what he terms the mat symbol. What is often called the mat motif ('single twist' or 'interwoven'; Robicsek 1975:186-190, Figs. 179-184) is described as the intertwined band motif in this study. Confusion stems from Mayanists' use of different terms to describe the same motif or, when the same term is used to describe different motifs. Mats are woven from bands. It is difficult to define at which point

intertwined band complexes (composed of double, triple, etc., intertwined bands; Chapter 4: see Intertwined band section) become large enough to form woven mats. Proskouriakoff (1950:97) posits that the mat symbol evolved from the design of a convoluted rope, possibly a form of the cosmic umbilical cord. I think it is unlikely that the mat symbol developed from the design of a convoluted rope, although physically and conceptually a complexity of associations between intertwined bands and mats exists, in that the 'single-twist' may be synecdochic for the entire mat symbol (see below).

The confusion between mats and intertwined bands is possibly reflective of superimposing Western scientific classification systems onto Maya art and thought (see Reptile, Conclusions sections). Current scientific methods may be regarded as focused on the definition and classification of things; this is difficult to apply to the expression of Maya art, where 'interbeing' of concepts and their motifs is ever-present. Such complexity was further considered a desirable artistic trait expressed through the polysemy of Maya symbols and their combinations (Coe 1987:X-XI). Robicsek (1975:46-47, 61-75, 279, 292) reads the mat motif as symbolic of royal power and rulership and the serpent motif as referring to divinity in general, due to its widespread use. Robicsek (1975:279) states that there is little overlap between the mat and serpent symbol. He does, however, note their association on Classic Period ceremonial bars, in Maya hieroglyphic writing and on certain artefacts (Robicsek 1975:279-288, Figs. 286-288). However, more examples exist: the Florentine Codex, Book 11 ('Earthly Things'), shows a mat woven of serpents (see Dibble and Anderson 1950-1975:Fig. 261), in this instance likening rule and earthly power to otherworld contact and fertility (intertwined band) achieved through the reptilian conduit (see Tulum mural discussion above and Reptile section); and in the Late Postclassic Santa Rita murals, *Itzamna* (Taube 1992a:34-35) stands on a 'throne' woven of two intertwining reptiles (Fig. 6.53).

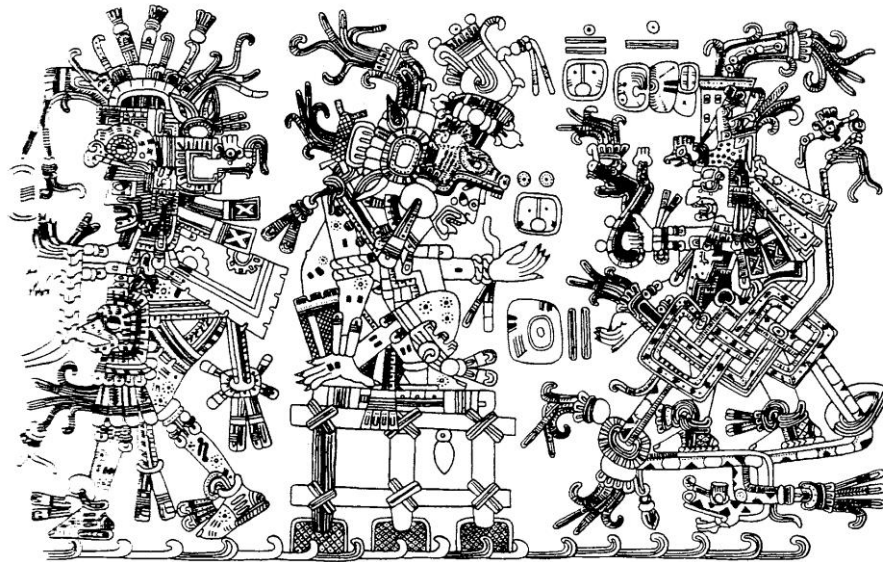


Fig. 6.53. West side of north wall mural, Santa Rita Structure 1. Masson 2000:244, Fig. 6.18 (after Gann 1900:Plate XXX).

However, Robicsek states that the mat motif either forms a power symbol or mat *or* is related to divinity and the serpent, when in reality both meanings apply to the motif, as Maya symbols express meaning on multiple levels. Consequently, current understanding realises that serpents also act as supernatural conduits through which the elite sourced their power, revealing a complex layering of the motif's reading. Just because 'mats' are not associated with serpents in every instance of occurrence does not necessarily imply that the motif did not work as a mnemonic device, reminding the viewer of its multifaceted layering of symbolic meaning that was dependent for its reading on the knowledge of the viewer (Morgan 1985:7, 1988a:13-14; see Chapter 3; see Reptile section).

Intertwined band summary

In summary, comparative data support a reading of the intertwined band motif as cosmic conduit or umbilical cord linking the earth to the supernatural and life-line of the gods, like a mother to her unborn child, and vice versa. The umbilical cord and serpent form an ancient association, possibly rooted in their shared basic appearance: long and thin. The reptile came to be associated with creation and the creation of life. This interpretation is supported by the motif forming the bodies of reptiles, symbolic conduits that acted as umbilical cords channelling blood and life between the earth and supernatural in both Classic

and Postclassic times; combining with flowers, indicative of fertility and substituting sacrificial blood offerings at Lamanai (see Flower_b section); and frequent framing by triangle bands, interpreted as indicative of the earth and access to the otherworld contained within (see Triangle band section).

At Lamanai, Early Postclassic ceramic vessel forms displaying the motif encourage an interpretation linked to ‘containerage’ of a specific substance used in elite funerary and midden-related rituals: possibly fluids in bowls. Consequently, the Lamanai intertwined band motif marks vessels that contained a particular substance consumed in ‘feasting’ rites possibly also seeking supernatural contact via the reptile medium (see Reptile section). In this light, ceremonies might have been linked to creation tied to the nourishing cosmic (umbilical) cord and, when placed in burials, aided the deceased’s passing to the otherworld, with death considered a form of ‘birth’ into the afterlife.

Triangle band (Catalogue Figs. 3.2.11, 13-16, 21, 3.3.2-3, 6, 11, 13, 21, 23, 33-35, 37, 3.8.1, 4, 7, 3.9.1-3, 7, 3.11.1 and 2)

Triangle bands predominantly occur on Early Postclassic Lamanai midden vessels, bowls (63%) and chalices (24%), retrieved from the midden abutting Structure N10-27. The motif is only represented on a few burial vessels, indicative of its ritual, yet non-funerary, meaning. The function of the middens is uncertain, apart from being the result of elite activity linked to the elite compound N10[3] (Graham 2004:230-231). Consequently, contextual findings do not aid with certainty in the interpretation of the triangle band motif. The fragmentary nature of the midden sherds also hindered interpretation of the symbolism (see Sample section).

Triangle bands function as framing devices structuring Lamanai Early Postclassic ceramic imagery (see Definition of style section). The motif frames intertwined bands (Catalogue Figs. 3.4.3, 10 and 12) and complex imagery scenes (Catalogue Figs. 3.2.13 and 3.3.2). Numerous chalices retrieved from the midden at the base of Structure N10-9’s stair display triangle bands placed along their pedestal bases (Catalogue Figs. 3.2.11 and 13-16). The motif’s framing function forms the root of its meaning, framing or forming ‘pedestals’ for

supernatural scenes. Consequently, triangle bands set the scene of the vessels' remaining imagery.

Occasionally, triangle bands display additional incision or motifs placed within the triangular segments making up their bands: dashes (Catalogue Fig. 3.4.3), horizontal bands that diminish in size toward the apex of the triangle (Catalogue Fig. 3.2.15), T-shaped symbol (Catalogue Fig. 3.2.13), cross-hatch motif (Catalogue Fig. 3.8.1) and flowers (Catalogue Fig. 3.2.14). An infrequent motif initially classed as 'arc band' (see Chapter 4) possibly constitutes triangle bands with rounded tops (Catalogue Figs. 3.3.23 and 24). Triangle bands' and arc bands' close association is supported by overlap in motif combinations and spatial placement on ceramics. Arc bands usually frame intertwined bands, sometimes alongside triangle bands.

Comparative data and context (iconographical and archaeological) of Early Postclassic Lamanai ceramics links triangle bands to the liminal interface and interface symbol T-shaped band (see T-shaped band section). Triangle bands refer to the earth in a general way. The motif's pyramidal segments may be argued to emulate the shape of mountains, thought to contain the otherworld (Grove 1970:11; Stone 1989:327). Pyramidal temple structures were considered emulations of sacred mountains that contained the earth and otherworld waters (Carrasco 1990:21-23; Coggins 1980; Hellmuth 1987:310; Houston and Taube 2000:284; Reilly 1999:15). Triangle bands (rhomboid-shaped dorsal blotches) occur on Belizean pit vipers and rattlesnakes (see Stafford and Meyer 2000:269-283, Plates 170-174, 177-181). Serpents are closely associated with the earth and its access (Heyden 1981:12-28; Masson 2000:234; Miller and Taube 1993:149-150; Scarlin 1999; Schele 1989:146; Stone 1989:327; see Reptile section). An earth association of the triangle band motif is supported on Early Postclassic ceramics (Catalogue Figs. 3.8.1) by it occasional containing the cross-hatch motif, interpreted as representing the surface of the earth and marking portals into its supernatural realms (see Cross-hatch section). Other cross-hatched symbols include *imix*, a sign for 'darkness', closely associated with the otherworld and its waters (see Baudez 1994:261, Fig. 114c).

On Early Postclassic Lamanai chalices (Catalogue Figs. 3.2.11 and 3.2.13-16) and pedestal-based vases (Catalogue Figs. 3.11.1-2) triangle bands always run along the bottom edges of the vessel pedestal bases. The chalices

were all recovered from a midden abutting the central stair of Structure N10-9. The motif's proximity to the surface on which the vessel rested reinforces an earth- or surface-related reading of the motif. The triangle band thus forms a pedestal or base for other imagery displayed on the ceramics, just as the surface of the earth acts as a base for worldly scenes or objects. Consequently, the motif functions as a spatial design tool establishing a strict visual organisation related to cosmic themes, possibly reflected in the site's social and political order. Alternatively, the motif might have represented visual parameters that dictated or reflected that order.

T-shaped band (Catalogue Figs. 3.1.1-5, 7-8, 10, 12, 14, 3.4.1-5, 7-10, 12-13, 15, 17, 3.5.2 and 3.7.1)

At Lamanai, Early Postclassic T-shaped bands are made up of individual appliqué-modelled T-shaped motifs, joined at their horizontal segments to form vessel flanges. The T-shaped bands' individual segments resemble the common Mayan air symbol *IK*, or T, or *Tau*, also widespread in Central and Southern Mexico (Harris and Stearns 1997:187, Appendix B; Thompson 1970:257). For the Southern Classic Maya and in Northern Yucatan, the *IK* symbol is the identifying element of the day-sign *IK*, read as 'wind', 'breath', 'spirit' and, by extension, 'life' (Proskouriakoff 1974:159; Thompson 1970:257). In Mesoamerican thought, jade beads are identified with breath. Jade beads were frequently placed in burials, sometimes in the mouth of the deceased to capture and store the 'breath soul' of deceased rulers (Houston and Taube 2000:267-270; see Scroll_a section). Death masks are frequently made of jade, sometimes adorned with T-shapes (Tiesler 2006:41). The living soul is identified with breath, both of which were thought to expire at death (Furst 1995:160-172; Houston and Taube 2000:267; Thompson 1960:73). The 'breath soul' is suggested to have been represented by the Classic Period Maya as scrolls topped by flower jewels (jade) emanating from the mouths of rulers (Houston and Taube 2000:265-273, Figs. 3-8; see Scroll_a, Flower_b sections). Proskouriakoff (1963:163) linked the reading of the *IK* sign ('wind') – as frequently combined with a floral sign in a death expression – to a meaning linked to the termination of breath and, by extension, death (Houston and Taube 2000:267). This symbolic meaning (expressed by the T-shaped band

(*IK*/flower_b/scroll_a motif combination) is represented on Lamanai Early Postclassic ceramics (Catalogue Figs. 3.1.1-3, 7 and 14).

A survey of Classic Period Maya comparative data has revealed examples of the occurrence of the T-shaped band motif or its individual T-segments being too numerous to list. However, a trend detected involves the motif marking royal and elite accoutrements, demonstrating the symbol's elite preserve in Classic times. Examples include T-shaped symbols decorating thrones (see Reents-Budet 1994:254-255, 261, Figs. 3.20, 5.12, 6.23, 6.33; Schmidt et al. 1998:Fig. on pp. 278-279); torch staffs (see Benson 1980:94, Fig. 5); cloth (see Reents-Budet 1994:257, 346-347, Figs. 6.25 and 7.3) and clothing such as dresses (see Schele 1997:Plates 1, 2 and 7; Schmidt et al. 1998:Fig. on p. 52), ear spools and ornaments (see Proskouriakoff 1974:121, Fig. 50a); and headdresses (see Benson 1988:161, Figs. 4.11a-c). T-shapes are mimicked in elite hair-styles, scarring or tattooing (see Schele 1997:Plates 7 and 15); and, very frequently, decorate elite ceramics (see Hellmuth 1987:197, Figs. 412-415; below) and architecture (López-Jiménez 1994; Sharp 1981:Fig. 33; Taube 1994a:671, Fig. 10; Tiesler 2001, 2006:41; see below).

Symbolically, the T-shaped band forms a motif whose physical representation is imbued with the power to define or to create points of interface between the natural and supernatural worlds (see below). As such, the T-shaped band is widely associated with otherworld symbolism, specifically defining or existing at the liminal threshold between different realms of the Maya cosmos. Consequently, the T-shaped band motif represented a portal that enabled access to the otherworld, both the celestial and watery aspects of this realm. This implies that the Maya distinguished between this world and the otherworld as opposed to vertically delimited levels, such as sky, earth and otherworld. Support for the Maya using a this-world/other-world dichotomy to view their universe is provided by the fact that Early Postclassic Lamanai vessels reveal no strict patterns of vertical division in motif placement relative to vessel body or to the T-shaped flange (see Definition of style section). Consequently, no patterns occur that predict celestial motifs occurring above T-shaped band flanges and earthly or watery symbolism below, or vice versa. Instead, the T-shaped band delimits or contains the entire vessel, along with the vessel's imagery, within the space defined by its circular flange. It may thus be argued that the T-shaped band symbolically defined, or set up a dichotomy

between this-world and the other-world, where the world of humans lay outside the vessel and the supernatural within; this involved the vessel and its symbolism and contents forming a homunculus of the otherworld.

T-shaped band marking otherworld portals

Comparative Classic Period data also reveal T-shaped bands or motifs marking otherworld portals – to its watery and earthly realms (see below) – that were used by the elites, or some of them, to indicate their ability to bridge the gap between this world and the supernatural. Consequently, the motif acts as an interface symbol between this world and the otherworld. This may explain the motif's widespread occurrence on elite ceramics at Lamanai in funerary contexts. The following discussion is divided into two parts: the first part examines T-shaped bands marking the interface to the otherworld waters and the second part discusses T-shaped bands marking otherworld portals that are associated with earth themes.

Part 1: T-shaped band marking interface to otherworld waters

The T-shaped band motif's interpretation as representative of the interface to the otherworld, a watery place (Hellmuth 1987:310; Houston and Taube 2000:284), is confirmed by its combination with other motifs linked to water symbolism on Classic Period ceramics. The ceramics display supernatural scenes framed by panels containing T-shaped motifs. The T-shaped symbols form an abbreviation of the 'stacking' symbol, symbolic of the otherworld waters (Coggin 1975:66). 'Stacking symbols' occur attached to the end of God N shells (Hellmuth 1987:310, Fig. 714, see also pp. 305-308, Figs. 687-688, 691-692, 694-699 and 706-712; Kurbjuhn 1985a:162-165, Figs. 1a, 2b, 3c, 5 and 6; Reents-Budet 1994:278-279, Fig. 6.50; Taube 1989b:Fig. 24.6e); other aqueous otherworld inhabitants (e.g., turtles; see Coe 1989:177, Fig. 25); and supernaturals (see Reents-Budet 1994:126, Fig. 4.18); and mark the surface of the otherworld waters (Hellmuth 1987:86, 105-106, 111, 113-114, 116 and 119-120, Figs. 114, 162, 164, 168-170, 176-183, 189-190, 194-196, 209, 214-215 and 222; see also Florescano 1999:Plate 5; Quenon and le Fort 1997:896, Fig. 30; Reents-Budet 1994:246, Fig. 6.13; Robicsek and Hales 1988:261, Fig. 8.1).

This study demonstrates persistence of this concept – the use of the T-shaped band or motif marking portals into the otherworld waters – into the Early

Postclassic Period. At Lamanai, the T-shaped band is combined with turtles (see Turtle section; Catalogue Figs. 3.4.8, 3.5.2 and 3.7.3), water birds (see Bird section; Catalogue Figs. 3.4.1 and 4) and ovals on numerous occasions (see Oval section). T-shaped bands are also displayed alongside supernaturals, deities and/or deity impersonators (see Anthropomorphic section). Water birds and turtles are water-dwelling creatures, ovals denote water in general, whereas some deities resided in *Xibalba*, considered an aqueous place with many stagnant waters, rivers and lakes (Florescano 1999:67-68, Figs. 3.1-2 and 3.3).

Part 2: T-shaped band marking otherworld portals associated with earth themes

Classic and Postclassic Period comparative literature from throughout Mesoamerica reveals multiple examples linking T-shaped motifs to earth themes, specifically otherworld access via the earth. T-shaped signs frequently mark earth entrances: *Cauac* Earth Monster heads (see Baudez 1994:261, Fig. 114e; Florescano 1999:22, 136, Figs. 1.13a and 4.17; Hellmuth 1987:278, Fig. 612), mountains and cave entrances (see Coe 1982:61, Fig. 28; Codices Selecti, 1974:Vol. XLIV [Codex Borbonicus, Plate 24]; Nuttall 1975:Plate 75 [Codex Nuttall, page 75]) and architecture (see Nuttall 1975:Plate 53 [Codex Nuttall, Plate 53]; Peterson 1985:22, Fig. 7; Sharp 1981:Fig. 33; Taube 1994a:671, Fig. 10), considered symbolic emulations of mountains (Carrasco 1990:21-23; Coggins 1980; Reilly 1999:15). Figures frequently emerge out of, or are closely associated with, these T-shaped openings, particularly the Maize God (Florescano 1999:22, Fig. 1.13; see also Spero 1986:Fig. 8; Quenon and le Fort 1997:895, Fig. 28) – who descends into the otherworld via death to rise again as new corn (Coe 1978:83; Quenon and le Fort 1997:884-885; see Turtle section) – but also rulers (Florescano 1999:105, Fig. 3.34).

T-shaped band in funerary context

A funerary-related interpretation of the T-shaped band and motif is supported by Classic Period Maya examples. The principal figure interred in Late Classic Calakmul Tomb 1 was laid to rest with a large T-shaped jade pendant with incised T-symbol (see Schmidt et al. 1998:555, Fig. 144). *Pakal's* sarcophagus is T-shaped (Tiesler and Cucina 2006b:8, Fig. 1.3). Its lid depicts the deceased Palenque king balanced atop sacrificial offerings in a bowl (see Stuart

1988:200, Fig. 5.29). The offerings, including the ruler, are intended for otherworld consumption. This is indicated by the vessel's placement on the head and within the large skeletal jaw of a *Cauac* Earth Monster head (see Schmidt et al. 1998:Fig. on p. 301). *Pakal's* death ensured continued life as a deified ancestor in the otherworld. Elites therefore were assumed to have entered the world of ancestors and gods via the earth (burial). The sarcophagus lid's sides depict the king's ancestors wearing T-shaped pectorals (see Schmidt et al. 1998:Fig. top left on p. 300), indicative of their position at the interface to the supernatural in readiness to receive the dead king. The king's two central upper frontal incisors and the left lateral incisor were filed to form a T-shape, replicated on *Pakal's* jade-mosaic death mask (Tiesler 2006:41, 44, Fig. 2.13). The T-shaped motif's oral positioning is pivotal to its function as defining the interface portal through which the royal soul breath could pass to the otherworld (see above; Scroll_a section).

Early Postclassic Lamanai T-shaped band in context

At Lamanai, the funerary context of vessels displaying the T-shaped band suggests a meaning related to interment, thus supporting the motif's interpretation as interface symbol. Burials form intrusions into the earth placed within symbolic mountain structures that harboured access to the otherworld (Carrasco 1990:21-23; Coggins 1980; Grove 1970:11; Reilly 1999:15; Stone 1989:327). The majority of Lamanai vessels were recovered from elite burials. T-shaped bands are very rare in midden contexts (3 examples). T-shaped bands only occur on funerary vessels from mature adult burials. The motif is never displayed on vessels placed in child burials, suggesting concepts of what happened to children after death differed to those of adults.

T-shaped bands define the circumference of the vessel with all motifs or imagery contained within, and affected by, its symbolism (see above; Catalogue Figs. 3.1.1-5). T-shaped bands occur on Early Postclassic pedestal-based jars (Catalogue Figs. 3.1.1-5, 7, 8, 10, 12 and 14), tripod (Catalogue Figs. 3.4.1-5, 7-10, 12, 13, 17 and 3.5.2) and tetrapod vessels (Figs. 6.17 and 26; Catalogue Fig. 3.7.1), where they form appliqué-modelled flanges circumventing the vessel at mid-height. The tripod vessels display symbolic focus on the departure of elite bird-warrior spirits passing through the T-shaped band interface portal to the otherworld (see Bird section). Pedestal-based jars

and burial tetrapod vessels display the departure of the deceased's breath soul to the otherworld and afterlife (see Scroll_a, Flower_b sections), via consumption by the Dragon medium into its body (see Reptile section) through the T-shaped band interface portal.

Consequently, the T-shaped band motif is associated with interment, the deceased, his afterlife passage and the otherworld at Lamanai. The deceased's transition or passing of 'spirit' and 'life' to the otherworld was thus thought to be transported by the supernatural media *IK*, 'wind' or 'breath'. Lamanai supernatural transportation in death was aided with sound or music, when bells, tripod vessels with rattle feet and drums accompanied burials (see Appendix 4, Table A4.13). Houston and Taube (2000:273) suggest music 'evoked the breath soul', which is why *IK* signs frequently decorate musical instruments (Fig. 6.50). Ceremonies might have culminated in the vessels' smashing, with the succeeding silence marking the rite's termination that was symbolically equated with the deceased soul's departure. At Early Postclassic Lamanai, vessels were ritually smashed before interment, thus 'killing' the vessels and specifically the T-shaped band interface portal (flange) that circumscribed or 'bound' the vessel's interior (contents and symbolism equated with the supernatural; see above). Smashing thus activated the function of the funerary vessel, which involved the release of the Dragon medium to 'consume' the spirit of the deceased's soul into the otherworld that was its body. Consistently, a small piece of each vessel was found missing at excavation. This practice has been suggested to reflect retention by the living for ceremonial use (Pendergast 1981a:44), possibly to facilitate the deceased spirit's return to earth as deified ancestor. Alternatively, the vessel fragments might have been treasured by relatives for sentimental reasons, as viewed as a piece of the departed soul.

T-shaped band marking elite offerings to the gods

The *IK* or T-shaped motif thus refers to the passing of elite life to the otherworld when found in funerary contexts at Early Postclassic Lamanai. A high status burial is exceptional and lends itself to specific iconographic interpretation (Burial N10-1/1; see Appendix 4, Table A4.13). A giant, un-smashed pedestal-based jar with T-shaped band flange contained the tightly-flexed body of a male (LA 13/3, Burial N10-1/1; Catalogue Fig. 3.1.2). In this instance, the body of the deceased had to literally pass through the T-shaped band flange to reach the

otherworld equated with the interior of the vessel. Offerings intended for otherworld consumption are frequently marked with T-shaped bands or motifs on Classic Period Maya vessels recovered from elite lowland contexts: recorded on a Classic Period polychrome vase from Central Campeche in its imagery and hieroglyphic text (Reents-Budet 1994:356 and pp. 13-15, Fig. 1.10) and symbolically displayed on the Princeton Plate (see Florescano 1999:85, Fig. 3.19).

The Central Campeche vase depicts a large jar marked with a central T-shaped sign (Fig. 6.54). The jar is placed in front of the deity *Itzamna*, in the process of receiving the Hero Twins *Xbalanque* and *Hunahpu* (Reents-Budet 1994:278). *Itzamna* is considered the supreme deity of the Maya pantheon (Taube 1992a:31; see Anthropomorphic, Reptile sections; Chapter 7), emphasised on this vessel by *Itzamna* shown sitting on an elaborate cosmic-band throne. The two short hieroglyphic texts separating *Itzamna* and the Hero Twins record the unveiling of the maize and 'pure, *royal skull*' offerings placed in front of *Itzamna* (Reents-Budet 1994:356, emphasis added). The T-shaped sign marking the offering vessel placed in front of *Itzamna* thus connects both the T-shaped sign and offerings to rulers. Further T-shapes form a band that protrudes from the jar. The last glyph in the vessel's vertical text reads *tsak ahaw*, in reference to a royal offering (Reents-Budet 1994:356). The vessel placed in front of *Itzamna* was presented in or at the interface to the otherworld, indicated by the T-shaped motif and the scene's supernatural actors. The iconography also suggests that offerings made by rulers were considered the highest and most precious, epitomised by the offering of their body in death, especially their head.

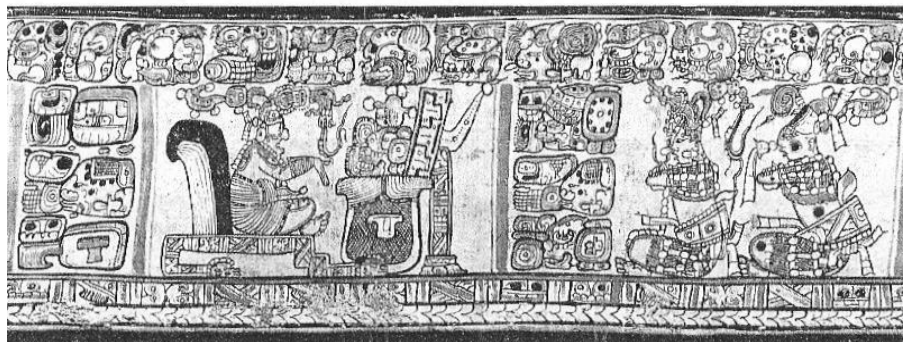


Fig. 6.54. Classic polychrome vase, Central Campeche. Coe 1989:176, Fig. 20.

The Early Classic Princeton Plate depicts the decapitated head of the Maya Maize God placed within a shallow T-shaped dish (see Florescano 1999:85, Fig. 3.19). The Plate was recovered from a cache, indicative of its offertory function. The Maize God is also presented lying in a T-shaped dish on a Classic Period polychrome vessel (see Taube 1994a:673, Fig. 11.b). The Classic Period Deletaille tripod vessel displays a dish containing offerings; the dish is marked on its underside with a T-shaped symbol (see Hellmuth 1988:154-155, Figs. 4.2 and 20). Consequently, offering vessels are frequently marked with the T-shaped motif. The vessels' contents were symbolically equated with the head of the Maize God, designated for cosmic consumption through the T-shaped interface portal. Lamanai burial vessels displaying T-shaped bands often also contain or are deposited within proximity to the deceased's skulls (see Scroll_a section; Appendix 4, Table A4.13). Heads thus formed particularly precious offerings, likened to the head of the Maize God (e.g., on the Princeton Plate). Consequently, the ruler's penitence and auto-sacrifice (i.e., auto-sacrificial bloodletting and death) ensured the perpetual cycle of maize and the cosmos.

The offering of the body of elite individuals to the otherworld was thus seen to continue the cycle of life, comparable to the perennial resurrection of the Maize God as new corn (Quenon and le Fort 1997:884-885). The deceased's passage to the otherworld via burial was therefore thought to generate new life. In order to justify their position, the elite, and in this case likely rulers, reinforced through iconography their ability to protect the populace by privileged access to the supernatural, which, in turn, permitted the harnessing of the earth's resources. The elite displayed this critical role they played through the T-shaped (band) motif. At Lamanai, T-shaped bands mark vessels that held elite offerings intended to pass through the T-shaped band interface portal to the otherworld for supernatural consumption by the Dragon (see Reptile section). This interpretation is supported by the above-mentioned giant pedestal-based jar functioning as a burial urn and containing and thus physically offering the deceased to the otherworld (through the vessel's containerage function and otherworld symbolism). The individual in Burial N10-1/1 is interpreted as a high status warrior, indicated by associated bird symbolism (see Bird section) and the large amount of accompanying burial vessels, including nine imagery-rich vessels and a grater bowl (see Cross_c

section; Appendix 4, Table A4.13). A burnt offering formed part of the funerary rite, possibly maize prepared in the grater bowl, thus linking the maize offering and deceased's body to the cyclical renewal of corn and life. The intended recipient of the offering, both maize and deceased's soul, is the Dragon, in this instance represented as an elaborately appliqué-modelled tetrapod vessel recovered from the same burial (Fig. 6.17; see Anthropomorphic section). A motif on the shoulder of the urn is interpreted as a symbol for *Itzamna* – the paramount lord-deity of the Maya pantheon – specifically in his capacity as the World Tree (see Anthropomorphic: *Itzamna*, Reptile sections). The size and form of the pedestal-based jar further encourage a symbolic link to the World Tree. The deceased contained within the urn may thus have been a ruler, likened to *Itzamna* as the World Tree, which provided him with supernatural access while simultaneously placing him within the centre of the cosmos and Dragon's body. The individual's funerary treatment is reminiscent of that of Classic Period rulers, discussed above, in that their bodies were offered to the otherworld as ultimate sacrifice to generate new life. Notably, *Pakal* is also likened to the World Tree. However, a crucial difference remains in that the ruler is no longer depicted in control of the cosmos (expressed by Classic Period ceremonial bars) but is subsumed within the cosmos which was the Dragon (see Reptile section).

CONCLUSIONS: the Lamanai Early Postclassic context of the Maya Dragon

Key iconographic themes expressed in Lamanai's Early Postclassic ceramic art include the Dragon, an entity or being encompassing all elements, or essence, of life (see Reptile section), bird-warrior symbolism (see Bird section) and agricultural themes associated with Structure N10-2. An argument is made for a combined ceremonial (Pendergast 1981a:48, 1982b:24) and political or administrative function of Structure N10-2 in the Early Postclassic Period. A ceremonial function is supported by a small square altar located at the rear west wall of a room where two caches, one with burnt agricultural material, were deposited (Pendergast 1981a:48, 1982b:24). Iconographical evidence suggests that Structure N10-2 was related to ceremonies surrounding agricultural themes that were tied to the political structuring of the site in the

Early Postclassic Period (i.e., *Chac* [rain, high status], Turtle [maize, perennial renewal, harvest], *Cross_c* [cultivated earth, four(or five)-part political organisation, maize grinding in a ritual context], Toad/frog [rain]; see relevant sections). Maize formed the staple diet at Lamanai, evident by a raised-field system (Pendergast 1981a:34) and, according to skeletal analysis, maize production doubling in the Postclassic Period (White 1997:179-180). Certainly corn played an important role in the continued prosperity of the site, which sustained a large population in the Early Postclassic Period (see Chapter 2). Lamanai Structure N10-2 may thus have served both an administrative and ceremonial function, based on agricultural cultivation and the quadripartite division of the Maya world. The ceremonial and administrative fusion reflected in the function of Structure N10-2 demonstrates the importance of agricultural cultivation for governance at Lamanai in the Early Postclassic Period.

A Postclassic Maya Lowland occupation with agricultural ceremonies is also evident at Terminal Classic/Early Postclassic Tancah (Mural 1, Structure 12; Fig. 6.55) and Postclassic Tulum (see Miller 1982:Plate 37). The Tulum murals, painted on the western wall (of the northwest corner) of the inner building of the Temple of the Frescoes, depict a cyclical rainmaking ritual performed for agricultural success (Paxton 1999:326-329, 336-337). In the Tancah mural a ceremony surrounding the Maize God and four *Chacs* is shown including the use of spiked censers and burning incense balls (Coe in Miller 1977:139). The mural depicts a further anthropomorph, more humanoid in appearance and thus possibly representing a deity impersonator (see Anthropomorphic section). The figure wears a headdress metamorphosing into scrolls (Lamanai scroll_b) and clutches a Dragon manifestation entering and exiting his chest and stomach. As is the case at Lamanai, the Tancah Dragon's head metamorphoses into scroll and flower elements, in reference to its role as supernatural medium and the essence of its being which *was* life. Consequently, the Tancah maize ceremony alludes to many important elements or aspects within the Maya concept of the cosmos which *was* the Dragon (Dragon as [soul] essence of life, crocodilian censers, Maize God, *Chacs*). An Early Postclassic Lamanai chalice displays the Dragon entwined in maize or bean foliage in reference to its fertility aspect that ensured agricultural cycles and life (LA 245/6, Burial N10-9/10; Catalogue Fig. 3.2.19; see also Turtle section).

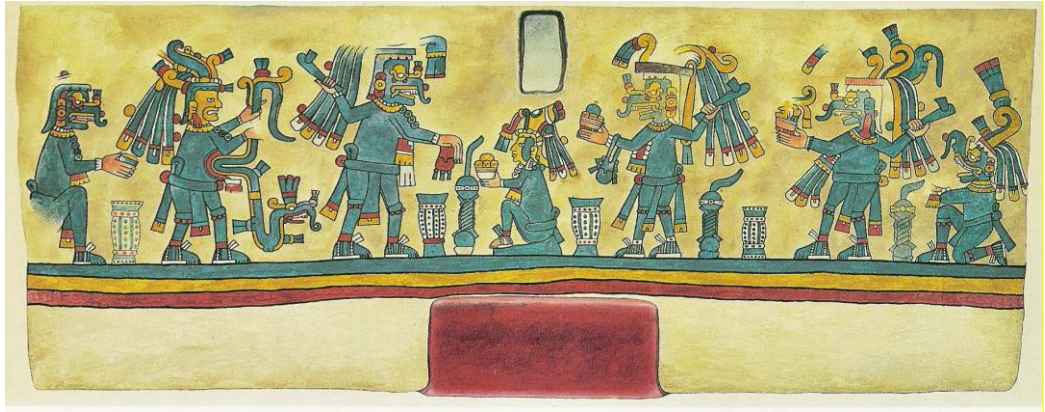


Fig. 6.55. Tancah Str. 12, rendering of Mural 1. Miller 1982:Plate 6.

In the Early Postclassic Period at Lamanai, ceramic art exhibits a change in focus in iconographical content away from royal themes (Chapter 5: see Conclusions section; Chapter 9) centred on the expression of the elite person in imagery and hieroglyphic texts and symbols (jaguar, *kin sun*) that pertain to his power (Dunning and Kowalski 1994, 1999:293; Landis and Carlson 1985:129; Rice et al. 2004:9; Thompson 1970:232). Symbolic shifts also occur elsewhere in the Maya Lowlands around this time (e.g., Peten Lake sites, Chichen Itza; see Inter-site relationships section) and are clearly evident in Lamanai's cultural material.

Terminal Classic (see Chapter 5) and Early Postclassic imagery are strikingly different in appearance, with the dominant Terminal Classic polychrome dishes displaying *painted* imagery on their *interiors*, in contrast to *incised* Early Postclassic imagery placed on the *exterior* of vessels. Iconographical content also changes from Classic to Postclassic times, specifically the loss of royal themes displaying the ruler as all-powerful and central to the working of the cosmos. This includes the loss of certain symbols, particularly associated with the power of the Classic ruling elite (e.g., jaguar, feathered serpent). The disappearance of jaguar imagery at Lamanai after the Terminal Classic Period coincides with the disappearance of the JGIII (Jaguar God of the Underworld) incense burners and pedestals forming a common part of Late Classic royal funerary ritual, replaced by simpler ladles or hourglass vases in the Terminal Classic Period (Ball 1977a; Rice 1999; Rice and Forsyth 2004:54).

The art style replacing Terminal Classic imagery at Lamanai is Maya, evidenced by its sinuous or organic character and the choice of motifs and their

combinations. Early Postclassic Lamanai imagery focuses on the Maya concept of the Dragon. This concept's Maya provenance is established on Early Classic pottery (e.g., from Peten; see Inter-site relationships section). Furthermore, depiction alongside symbols referring to the breath soul of elite or essence of life (scroll_a/flower_b) and other subsidiary symbols, demonstrates the Dragon concept's continuity with Classic Period ceramic representation and that of Terminal Classic sites (e.g., Peten, Puuc sites). Specific deities represented in Early Postclassic Lamanai art are also Maya (e.g., *Chac*, *Itzamna*). The Maya roots of Early Postclassic Lamanai ceramic art are further evident through the latter's comparison to the Postclassic Maya codices, especially the Dresden Codex, established by Boone (2003:220) as essentially Maya.

The imagery of Early Postclassic Lamanai ceramics is reminiscent of Early Classic Maya Lowland art in its convoluted 'organic' style and choice of motifs and iconographic themes or concepts portrayed. Early Classic Peten ceramics represent abstract scroll-enveloped reptiles displaying serpentine and/or crocodilian characteristics (see Coe 1982:74-75, Fig. 35; Hellmuth 1985:Fig. of p. 7, 1987:18, Figs. 22 and 31; Schmidt et al. 1998: 575, Fig. 227 and Fig. on p. 370). The reptiles metamorphose into scrolls (Lamanai soul breath scrolls_a) and are intimately tied to the same motifs combined with Early Postclassic Lamanai Dragons (e.g., flower, oval, feather, cross-hatch, T-shaped symbol [rather than band], intertwined band).

Early Classic Period imagery's link in style and motif choice is also evident on a Terminal Formative/Early Classic polychrome bowl (ca. A.D. 300 - 600; Sabloff 1975:9, Fig. 4) from nearby Nohmul (see Hammond 1985a:109, 501-505 and p. 101, Fig. 24). The vessel displays a reptile metamorphosing into scrolls framed at the bottom with an intertwined band. The scene also includes a prominent depiction of the T-shaped symbol. Furthermore, Early Classic Period (ca. second to fourth centuries A.D.) stucco masks of the Sun God at Kohunlich, Quintana Roo, depict abbreviated bicephalic Dragon scrolls (Lamanai scroll_b) framing the deity's head (Freidel and Schele 1988:76-77, Fig. 2.13b). The reptile scrolls (Lamanai scroll_b) predict the stylistic abbreviation reached at Lamanai in the Late Postclassic Cib phase (Chapter 7: see Scroll_b and _c sections) and provide a strong argument for the Maya origin of the symbolic convention centred on the Dragon, linked back to Early Classic Period art.

Early Classic lowland ceramic traditions and Early Postclassic Lamanai ceramics represent abstract bicephalic Dragons metamorphosing into scrolls and not centred on royal individuals. Serpent and reptilian themes show great longevity in the Maya world. Reptiles played an important part in Classic and Postclassic Periods (e.g., depicted on architecture, murals, stelae, pottery), and also amongst the contemporary Maya of both the Highlands and Lowlands (Rice 1989:307). The motif's longevity demonstrates reptilian imagery's importance in Maya cosmology and myth and its continuity of meaning in ritual and symbolic systems of the Classic and Postclassic Periods (Rice 1985:115). Late Preclassic serpent borders called 'serpent-sky frames' by Freidel and Schele (1988:73, 85) became part of Classic Period symbolism. However, their function was changed to one that expressed the royal symbol of the bicephalic reptilian ceremonial bar, which placed the ruler at the centre of the cosmos and thus in control of its forces. In the Preclassic Period, the historical identities of rulers were not recorded in public spaces, unlike in the Classic Period, when this became the prime motivation in the erection of public art (Freidel and Schele 1988:86).

Even though stylistically distinct – figurative scenes centred on individuals and presented in a sequential manner in registers – in terms of iconographical content, Lamanai Early Postclassic ceramics show strong ties to the Maya Postclassic codices. The stylistic discrepancy is attributable to different media (codices and ceramics) and function (e.g., almanacs and burial vessels). Iconographic similarities include bicephalic Dragons, frequently with cosmic-band bodies, associated with the rain deity *Chac*; Dragons marked with scrolls (Lamanai scroll_a), ovals, cross-hatch, flowers, and metamorphosing into scroll and flower motifs; serpent maw otherworld portals; upended figures; and a bird warrior theme in the Grolier Codex (Love 1994). Iconographic overlap with the Maya Postclassic codices provides further proof for the Maya origin of Lamanai Early Postclassic ceramic art. The ideology identified in Early Postclassic Lamanai symbolism forms a new or revived foundation for Maya art developed in the Postclassic Period (e.g., Tulum murals, Postclassic Maya codices). Similarities include Dragon heads metamorphosing into scroll and flower elements, with bodies not covered in plumage and combination with the same motifs (e.g., cross-hatch, intertwined band, T-shaped band) anticipated at Lamanai in the Early Postclassic Period.

Lamanai Early Postclassic style is most akin to that of the Dresden Codex. Boone (2003:217-220) summarises Mexican features apparent in the codices. She (Boone 2003:217) states that even though the Maya codices are in general very different from the Mexican ones, they show correspondences demonstrating that 'the Maya were attuned to Mexican divinatory and religious traditions' (Thompson 1972:68-69). The variation in amount and elements of Mexican influence in the Dresden (Taube and Bade 1991; Thompson 1972:68-69), Madrid (Boone 2003:219) and Grolier codices (Coe 1973:151), Boone (2003:220) attributes to their intention for three different audiences, with each adjusting or adopting Mexican ideology to differing extents. Boone (2003:220) suggests that the audience of the Dresden Codex was Maya; that of the Madrid also Maya, although with first-hand knowledge of the Mexican divinatory codices; whereas that of the Grolier was from a mixed culture of both Maya and Mexican speakers, possibly on a frontier zone removed from both traditions. Consequently, as we know that the codices are predominantly Maya, it follows that the art at Lamanai is Maya, probably wholly Maya because most similar in its ceramic art to the Dresden Codex, which shows few Mexican inclusions. This might support an argument for the origin of the Dresden Codex in the south (Maya zone) and not Chichen Itza (Thompson 1972:15-16), which we know experienced much Mexican influence (see Inter-site relationships section).

The Lamanai vessels' function may be illustrated in the Postclassic codices. Comparative data provide insight into the use of Lamanai ceremonial vessels and the belief systems and motivation of the Lamanai elite. Postclassic codices depict ceremonial rites using vessels like the ones found at Lamanai. It is highly likely, therefore, that the Lamanai vessels were involved in similar rites. At the very least, it suggests the vessels formed an important component in Postclassic Period ceremonies. Vessels depicted in the codices that also occur at Lamanai include the following vessel forms: *Chac* appliqué-modelled effigy vessels used in rain related ceremonies (see Nuttall 1975:Plate 19 and 17 [Codex Nuttall]); frying-pan censers, plain and with reptile handles, used in rites that involve incineration (see Chapters 7 and 8; Codices Selecti 1974 [Codex Borbonicus]; Furst and Smith 1978:100, Plate II and page 306:Fig. 100 [Codex Vindobonensis Mexicanus I]; Nowotny 1968:Plate 44a [Codex Cospi, Plate 3]; Nuttall 1975:Plate 17 [Codex Nuttall]); pedestal-based jars that burn substances (Lee 1985:102, Plate 36 [Madrid Codex]); tripod bowls and dishes,

plain and with appliqué-modelled bird feet (see Díaz and Rodgers 1993:8, 11, 66, 70, 72, and 74-75, Plates 70, 67, 12, 8, 6, 4 and 3 [Codex Borgia]); tripod jars (see Díaz and Rodgers 1993:17, Plate 61 [Codex Borgia]); and bowls (see Nuttall 1975:Plate 22 [Codex Nuttall]). Effigy vessels and frying-pan vessels are shown smoking, indicative of the fact that incineration played an important role in Postclassic Period ceremonies. The vessels' use at Early Postclassic Lamanai is supported by evidence of burn marks (e.g., appliqué-modelled *Chac* effigy vessels) and by their form, designed to optimise production of smoke and scent dispersal (e.g., frying-pan censers, chalices).

Early Postclassic art expresses evanescent ideas – the complexity of life and death, or essence of life – in ideographically-dense imagery. Early Postclassic Lamanai ceramic art is structured by delimiting ideas or concepts seeking to impose an order or 'explain' life's complexity in geometric bands; with the geometric bands binding or containing the concepts expressed. Humans have always been aware of their limited knowledge of the workings, or essence, of life and have expressed such evanescent contemplation in their cultural material (e.g., art, poetry): Aztec poets wrote: 'Now do I hear the very words of the *coyolli* birds as he makes answers to the Giver of life. He goes his way singing, offering flowers. Is that what pleases the Giver of Life? Is that the only truth on earth' (León-Portilla 1963:73; Markman and Markman 1989:149). In Maya imagery, meanings overlap, merge and metamorphose, although in totality they always refer to the Dragon at Postclassic Lamanai (see also Chapters 7-8), symbolic of, and forming, *all* aspects, or the essence, of life. Consequently, the Dragon embodied the life and philosophy of the Lamanai Maya.

In contrast to the ideographically-dense Dragon manifestations on Early Postclassic ceramics, its motif bands reflect how the Lamanai Maya structured and came to terms with the inexplicable in their world. The motifs' function is reflected in their controlled form: bands are rigidly structured and do not merge with other motifs, a characteristic trait of visually-complex Dragon representations. Motif bands' symbolic function was to mark points of access to the otherworld (e.g., intertwined band, triangle band, T-shaped band), with supernatural contact being of paramount importance to the Maya's cosmic survival.

INTER-SITE RELATIONSHIPS

Broadly speaking, two main iconographic-interaction spheres could be defined in the Early Postclassic Period related to Lamanai: a Lamanai and a Peten Lakes iconographic sphere closely linked stylistically and ideologically (Fig. 6.56). Even though Chichen Itza has recently been established as a last Terminal Classic Period site that collapsed in the eleventh century (Andrews et al. 2003:151; see Chapter 2), its cultural material is nevertheless considered due to an abundance of reptile imagery and close contemporaneity with Lamanai's Early Postclassic Period (A.D. 1050 - 1250; Table 1.1). Chichen Itza's art further is examined in detail due to current theories regarding the spread of a cult centred on the feathered serpent entity known as *Quetzalcoatl-Kukulcan* during the Terminal Classic to Early Postclassic Periods, with Chichen Itza forming a major node in its cult-axis (Ringle 2004:167; Ringle et al. 1998:183; see Chapter 2). Notably, the rise of a new or revived ideology at Lamanai coincides with the collapse of Chichen Itza and its Central Mexican-influenced art focused on *Quetzalcoatl-Kukulcan* (Kowalski 2007; Milbrath and Peraza 2003:34, n.d.:20; Ringle et al. 1998:191, 225-226). Nevertheless, both Early Postclassic spheres and Chichen Itza art evolve from Classic Maya traditions, thus displaying a range of widespread motifs (e.g., scroll, flower, cross-hatch, cross, intertwined band, triangle band, T-shaped band) common to Maya religions. Widespread throughout Mesoamerica, it is these symbols' style and elements upon which they focus (syntagmatic chains and paradigmatic sets; see Chapter 3) that permit study of iconographic interaction spheres.

The Southern Lamanai and Peten Lakes spheres (green and blue zones, respectively; Fig. 6.56) reveal ceramic art displaying an ideology focused on the Dragon, established as wholly Maya through its sourcing in Early Classic lowland art (see Conclusions section). The Peten sphere possibly has an extensive southerly reach. A Postclassic (A.D. 1200 - 1600; Norweb 1964:557) polychrome dish from Nacascolo, Guanacaste Province, in Costa Rica displays a reptilian head with scrolls metamorphosing from the rear of its head (Vallejo Polychrome; Stone 1982a:61, Fig. 31). Another Costa Rica piece (dated to ca. A.D. 1000 - 1550) also depicts a reptile metamorphosing into scrolls (see Snarskis et al. 2000:65, Fig. 26).

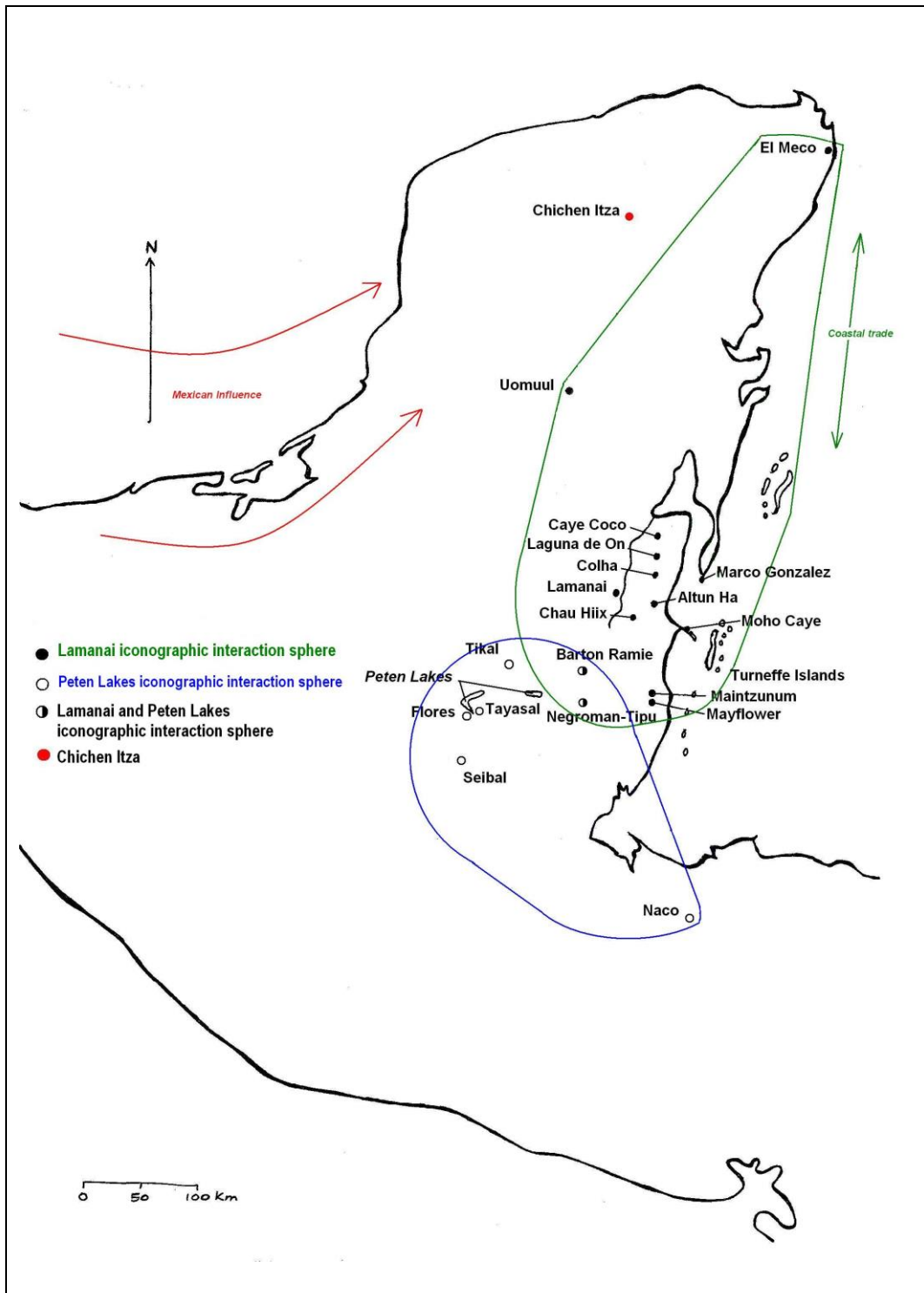


Fig. 6.56. Early Postclassic iconographic-interaction sphere.

Symbolic division between southern (e.g., from Laguna de On and Caye Coco) and northern (i.e. Chichen Itza; see below) lowland sites at the time is supported by a break in ceramic traditions, a short period from A.D. 950 - 1100, when pottery specific to Northern Belize dominates in the Belizean area (Masson 2003b:269-270). The northern tradition is focused around Chichen

Itza and experienced extensive Mexican influence (see Chapter 2). Mayapan and Santa Rita ceramics, both coinciding with the later occurrence of redware ceramics and effigy censers, are not considered here (see Chapters 7 and 8). Graham and Pendergast (1989:11) draw attention to the absence of Early Postclassic Lamanai-related Buk phase ceramics at Postclassic sites along the New River: Santa Rita (Chase 1982:493-543), Cerros (Scarborough 1980:295-297, Tables IV-V) and El Pozito, situated 30 km north of Lamanai on a tributary stream of the New River.

Diane and Arlen Chase (1986:12) write that while the Early Classic Period ceramics from Santa Rita show close ties to Central Peten, by the Late Classic Period, these ties were reduced to represent 'an independent development'. After the Late Classic Period, Santa Rita's ceramic tradition became more tied to those found in the northern Lowlands (A. Chase 1985; Chase and Chase 1987:61). This is supported by no Buk-phase related ceramics occurring at Santa Rita. Nevertheless, a break in ceramic traditions during the transition from the Classic to Postclassic Periods, characterised by new pottery forms, occurs at Santa Rita (Chase and Chase 1987:68) and Lamanai.

Southern iconographic-interaction spheres

Lamanai iconographic-interaction sphere (green zone; Fig. 6.56)

Vessels very similar to those found at Early Postclassic Lamanai in terms of stylistic treatment and iconographical content occur at other sites in the Maya Lowlands: large numbers were recovered from Chau Hiix (Andres, personal communication 2003; Andres and Pyburn 2004:415-421, Figs. 18.4-18.6 and map on p. 404, Fig. 18.1), Colha (Mock 1994a:233) and Marco Gonzalez (Graham and Pendergast 1989:1-16, Figs. 7-8); small numbers from Altun Ha (Graham and Pendergast 1989:8; Pendergast 1982d:42, 140, Figs. 12g and 81d), Mayflower (Graham 1983:243, 245, Fig. 163a, b; Graham and Pendergast 1989:8; Pendergast 1986:240), Negroman-Tipu (Graham 1987a:86; Graham and Pendergast 1989:8), Barton Ramie (Gifford 1976:311, Fig. 207; Graham and Pendergast 1989:8; Willey et al. 1965:389, Fig. 254h), Maintzunun (Graham 1983, 1985), possibly Moho Cay (Graham and Pendergast 1989:8; McKillop 1980:Fig. 62), Turneffe Island (Graham and Pendergast 1989:8; MacKie 1963:Fig. 651s), Laguna de On (Masson

2003b:269-270; Mock 1998b:193-194) and possibly Caye Coco in Belize (Progreso Lagoon; Masson 2003b:269-270), and Uomuul (Thin Slate ware: Tabi Gouged-incised: Tabi Variety; Fry 1987:118, Fig. 5) and El Meco in Quintana Roo (Cumpich incision: Cumpich Variety, Silho Fine Orange X group, Sotuta ceramic sphere, established by Smith 1971:21; Andrews and Robles 1986:113-114, Fig. 41).

Some sites produced and exported (e.g., produced at Lamanai and exported to Chau Hiix and Marco Gonzalez) and others (e.g., Marco Gonzalez) produced in imitation large amounts of these Early Postclassic Lamanai-related ceramics, although the extent of exportation from the latter sites is not known. Occurrence in small numbers at other sites is not yet known to be the result of export from Lamanai or the result of local production (e.g., Belize Valley, Stann Creek). Large amounts of Lamanai-related ceramics produced at Lamanai were exported to neighbouring Chau Hiix (Andres and Pyburn 2004:419, 421) and Colha (Augustine ceramic group from Yalam Complex [A.D. 850 - 950]; Valdez and Adams 1982:29). Marco Gonzalez produced large quantities in imitation; however, all imagery is executed with less delicacy (Graham 1987a:81-88; Graham and Pendergast 1989:1-16, Figs. 7-8; Pendergast 1981a:48-49). Consequently, rather than reflecting direct trade, the Marco Gonzalez pieces suggest a bond between the two sites that 'shared cultural norms in pottery manufacture and use' (Graham and Pendergast 1989:8-11). Marco Gonzalez thus exhibits independence in the execution of their pottery in comparison to that found at Lamanai. However, the ceramic populations' close ties also demonstrate the extent of influence held by Lamanai in northern Belize in the Early Postclassic Period (Graham and Pendergast 1989:15). Numerous sites reveal small amounts of Early Postclassic Lamanai-related ceramics that most likely travelled to these sites from Lamanai (e.g., Altun Ha, Mayflower, Negroman-Tipu, Barton Ramie, Maintzunun, Turneffe Island, Laguna de On, Uomuul, El Meco).

Whether the vessels were produced locally or imported – there is variation in style and execution (see Chapter 3) at the type:variety level of analyses, attributable to varied clay properties and execution of themes by different potters – all vessels found in large numbers (at Chau Hiix, Colha and Marco Gonzalez) exhibit the same iconographical style and content as those produced at Lamanai and thus share in symbolism and its stylistic execution.

Where disseminated (in smaller numbers) to other sites via trade or exchange, the suggestion is that these sites – possibly as far as El Mecó in the north and Mayflower in the south – shared aspects of ideology.

Cultural contact between Lamanai and sites revealing large amounts of Lamanai-related ceramics (i.e. Chau Hiix, Marco Gonzalez, Colha) is further supported by overlap in other ceramic types and cultural traditions (see Chapter 7). Colha also includes a distinct change from Terminal Classic to Early Postclassic pottery forms and ceramic decorative treatment, moving from painting to incision (Mock 1994a:233), identical to ceramic change evident at Lamanai at the time. A cultural break is also signalled at Colha by a contemporaneous marked change in settlement patterns, subsistence and lithic traditions (Mock 1994a:233). Mock (1994a:234) links the patterning of Colha (Augustine) ceramics to X Fine Orange wares (see Brainerd 1958:Figs. 77f-g and m) and medium redware vessels from Chichen Itza, Tohil Plumbate and Late Postclassic Coarse Redware. However, she states (Mock 1994a:242) that there is an apparent rarity of imported ceramics of obvious Yucatec origin at Colha during the Postclassic Period, which she resolves with the suggestion that Colha traded through Lamanai.

Peten Lakes iconographic-interaction sphere (blue zone; Fig. 6.56)

The Peten Lakes iconographic sphere shows some stylistic and strong symbolic affinity to Early Postclassic Lamanai Buk phase ceramics. P. Rice (1983, 1984a, 1985, 1986, 1987b) defines the Peten Lakes sphere. She argues that Peten ceramics (Ixpop and Chompoxté polychromes) and their Early Postclassic styles influenced the small quantities of Yucatan polychromes (such as Pele and Tecoh; Rice 1986:287). This has also been suggested for monochrome redware (Cib phase-related ceramics) in Late Postclassic Yucatan (Pendergast 1981a:49; Chapter 7: see Inter-site relationships). The Early Postclassic dating of the Ixpop ceramics fits with the overlap in stylistic and iconographical content to that of Early Postclassic Lamanai ceramics.

Rice (1984a, 1985:117) found similar ceramics to the Peten Ixpop Polychrome (Ixpop Variety) in areas surrounding Peten: Negroman-Tipu (Rice 1984a), Barton Ramie (Gifford 1976:Fig. 196a; Willey et al. 1965:388, Fig. 252), Tikal (Adams and Trik 1961:Fig. 41), Lake Peten vicinity (Cowgill 1963:Fig. 4t), Flores (Rice 1987b:129), Tayasal (Chase 1979), Seibal (Rice 1987b:130) and

Salcaja in the Guatemalan Highlands (Rice 1987b:130; Wauchop 1970:110-114). Rice (1986:288, 295) sees similarities with the Chompoxté Variety in ceramics from Naco, Honduras (Wonderly 1981), possibly a local variant of Ixpop-like painted decoration common in Central Peten and in Red-on-white and White-on-red vessels from the western Highlands of Guatemala (Wauchope 1970).

This study has identified representations of the Dragon occurring on ceramics in the Peten Lakes sphere in the Early Postclassic Period (Fig. 6.57). The Peten reptiles represent new motifs added to central Peten pottery in the Early Postclassic Period (P. Rice 1986:287), sometimes combined with intertwined bands called braid or mat motifs by Rice (1985:116). Rice (1979, 1985:115-118, 1986:287-288, 1989:308-310, 315) identifies four different reptilian forms on Postclassic Peten ceramics that she groups into two styles (three forms in the first style and one in the second). The first reptile style originates from the central area around Lakes Macanche and Salpeten and westward towards Lake Peten-Itza, characterised by incised and polychrome painted vessels of a tan to pinkish red slip, with scenes placed in panels on the interior of dishes, or exterior jar shoulders (Paxcaman and Trapeche groups, primarily in the incised types Picu and Xuluc [Rice 1989:312, Figs. 21.5a-b], but also Ixpop Polychrome [P. Rice 1986:289, Fig. 8.9b]; see P. Rice 1986:258, Fig. 8.3, for a map of the central Peten Lakes district). Rice's second reptile style – which she places temporally earlier than the first – originates in the northeast, at the Topoxte Islands, in Lake Yaxha, differentiated from the former stylistic ceramic group by a distinctive decorative program executed in a dark red paint on a cream coloured (unslipped) ground, with polychrome and incision being rare, and sinuous designs covering entire dish interiors (Chompoxté Variety; Rice 1989:312, Fig. 21.5c).



Fig. 6.57. Peten Early Postclassic ceramics (Xuluc incised: Ain Variety [Trapeche Ceramic group]). Rice 1989:312, Fig. 21.5a-b.

Rice encounters difficulty in identifying any specific deity in the Early Postclassic Peten ceramic reptile representations due to their 'polymorphic character' (Rice 1985:118, 1986:287, 1989:311). Rice (1985:118) states that 'reptiles...may be seen to convey ophidian traits, crocodilian features and/or attributes of both, as well as those of other animals. This combination of traits, as well as the particular characteristics emphasised (eye, snout or feathers), are likely critical as identifiers of the individual creatures or deity being portrayed, and its specific role'. She continues by stating that 'overall...the reptilian creatures on central Peten Postclassic pottery suggest terrestrial rather than celestial associations...indicating fertility rather than underworldly or funerary concerns' (Rice 1985:118). However, in light of this study, the reptiles may be read as manifestations of the Dragon, characterised by its polymorphism and basis on the combination of crocodilian and serpentine aspects (see Reptile section). The stylistic variation between Lamanai and central Peten Dragon manifestations is most likely attributable to regional variation in the expression of the theme. As Lamanai Early Postclassic symbolism is established as Maya in its origin (see Conclusions section), this suggests a Maya, rather than Mexican (Rice 1989:310-311) origin for the Peten reptiles. Overlap in Early Postclassic ceramic treatment further supports cultural ties and shared ideological concepts between Lamanai and the Peten Lakes region, such as reptiles occurring on several different vessel forms (Rice 1985:119).

Despite some dissimilarity in style – possibly partly attributable to difference in production methods and clay types – Peten Early Postclassic ceramics reveal strong overlap in motif choice and combinations to Lamanai Early Postclassic ceramic art and thus overlap in iconographical content. Iconographic similarities between Lamanai Dragons and central Peten reptiles (however not bicephalic) involve the reptiles' association with the same symbols (intertwined band, triangle band, flower, oval, scroll, feather). Both areas exhibit reptiles displaying both crocodilian (spotted body and limbs) and serpentine characteristics, occasionally with feathered eyebrows, that metamorphose into breath soul elements (Lamanai scroll_a/flower_b), are marked with ovals, feathers, and may occur in panels placed alongside the intertwined band motif (see P. Rice 1985:116-117, Fig. 2a-c, 1986:287-289, Fig. 8.9b, 1987b:125, Fig. 43). The central Peten reptiles are thus suggested to be manifestations of the Dragon, stylistically similar in their representation to those found on Early Postclassic Lamanai ceramics.

Northern Chichen Itza ceramics

Even though similarities in what this study terms widespread symbols are evident at Lamanai and Chichen Itza, emphasis on the iconographical content expressed differs. Difference in symbolic content is clearly evident in Chichen Itza's monumental art; in non-ceramic art's figurative style, which displays emotive scenes (e.g., sacrifice, battle); and a predominance of symbols tied to the ruling elite (specifically feathered serpents and jaguars), not used at Lamanai in the Early Postclassic Period in their association with royalty.

Ceramic comparison of both sites revealed differences aside from universal use of widespread symbols. These symbols occur with great frequency throughout Mesoamerica, indeed representing a pan-Mesoamerican phenomenon (e.g., triangle band, intertwined band, scroll, oval, cross). When these motifs are not combined with others that define their emphasis and symbolic concept – usually due to the fragmentary nature of ceramics (see Sample section) – they are of little use in isolation in defining stylistic and iconographic evolution, as their geometric nature does not allow the figurative expression and thus the reading of concepts' details. However, it is in these details and their complexity where ideologies are expressed that permit the establishment of cultural interaction spheres. Consequently, it makes sense to

study cultural continuity and change through motif combinations. This is not to say that change may not be studied through widespread symbols (e.g., scroll, cross), merely that it is more difficult because their isolation does not permit detailed study of their iconographical framework (Chapter 7: see Conclusions section). Consequently, even though certain basic symbols occur both at Lamanai and Chichen Itza, the symbolic themes expressed in murals (see Miller 1982:66, 69, Fig. 105 and p. 67, Figs. 106-107; Robertson 1970:79, Fig. 2) and relief architectural carvings and embellishments (see Tozzer 1957), what might be argued as the contextual framework, differ. This is evident in different emphases placed on basic Mesoamerican symbols that are expressed in a more clearly figurative and often very expressional manner in Chichen Itza art.

Dragons are not predominant in Chichen Itza's iconographic repertoire. When Dragons do occur these have been argued to form a fusion of the Maya and Nahua Dragon (de la Garza 1998a:237; Tozzer 1957:Figs. 314-324). As such their form is distinct to that of the Maya Dragon. Chichen Itza ceramics display motifs widespread within Mesoamerica, explaining their occurrence also on Early Postclassic Lamanai ceramics (e.g., intertwined band, triangle band, T-shaped band, flower, scroll, reptile, bird, cross-hatch, cross; see Brainerd 1958; Smith 1971). The widespread use of these motifs is evident in their occurrence at most Mesoamerican sites. Use shows certain symbols' widespread distribution; however, this is not necessarily indicative of stylistic or ideological overlap; rather it is motif combinations (paradigmatic sets and syntagmatic chains) and their context (see Chapter 3) which demonstrate symbolic and thus cultural ties. When studying pottery from Mayapan, Uxmal, Kabah and Chichen Itza, Smith (1971:48-67) categorises types of design he lists along with their frequency as they occur in ceramic complexes. He notes (Smith 1971:48-67) an abundance of intertwined bands, triangle bands, cross-hatching (cross-hatch motif), scrolls (of various types), serpents, 'reptile' eyes, a moderate occurrence of T-shapes, step-frets (which he calls 'terrace' motifs), flowers ('flowers' bud-like floral representations' and *kin* flowers), and a small number of glyphs. The motifs' widespread use is also demonstrated by their occurrence in the northern Maya Highlands of Guatemala (e.g., intertwined bands, triangle bands and scrolls occur on Late Postclassic ceramics from El Jocote [Rio Chixoy Valley; see Ichon and Grignon 1981:95-99, Fig. 120]). Intertwined bands and scrolls

also occur on Late Postclassic ceramics from Naco, Honduras (see Wonderly 1981:388-400, Figs. 31-37).

Chichen Itza Medium redware vessels (Early Mexican subphase; see Brainerd 1958:284-289, Figs. 85-87) display intertwined bands (at times alternating with panels containing *kin* flowers), *kin* flowers (alternating with panels containing scrolls, Lamanai scroll_{b and c} and/or flowers, Lamanai flower_c), smoke scrolls (Lamanai scroll_a), triangle bands, and sky bands with *kin* flowers, cross-hatch and scrolls (Lamanai scroll_{b and c}). However, Chichen Itza cosmic bands also contain motifs not found in Lamanai's Early Postclassic symbolic repertoire (see Brainerd 1958:288-289, Figs. 87f, g and u). Complex iconographic scenes are more frequent in Chichen Itza's architecture than in its ceramic imagery. Nevertheless, some cultural contact between Chichen Itza and Lamanai is demonstrated by two incised jars retrieved from Chichen Itza's Sacred Cenote (see Coggins 1992:213, Fig. 7.17; Brainerd 1958:284-285, Fig. 85a). The jars, one with appliqué-modelled bird head, appear to be Buk or Buk phase-related vessels. However, the jars' context suggests that they form part of pilgrimage offerings, possibly made by Lamaneros visiting Chichen Itza's cenote, which retained its focus of ritual activity also after the site's abandonment (Coggins 1992).

In northern Belize, Chichen Itza interaction is seen in the copying of slateware technologies, incised decoration and ceramic forms (see papers in Hammond 1973, 1974c, 1975b; Masson 2003b:269; Masson and Mock 2004; Mock 1994). Masson notices a break with the northern traditions during the Early Postclassic Period (placed at ca. A.D. 950 - 1100) when studying ceramics from Laguna de On and Caye Coco, 'when pottery specific to northern Belize is prevalent' (Masson 2003b:269; Masson and Mock 2004). This pottery, Masson (2003b:270) notes, resembles that of Lamanai Early Postclassic ceramics. She states that direct contact with Chichen Itza is not often reported, except for Nohmul (Chase and Chase 1982), Colha (Michaels and Shaffer 1994; Nash 1980) and at Becan (Ball 1977a). 'Many artefact assemblages from northern Belize reflect a similar trend that appears to reflect exchange at a distance – a comfortable distance – from Chichen Itza's hegemonic northern regime' (Masson 2003b:270). However, some Chichen-related wares do occur at Caye Coco, which suggests more direct contact with the north (Masson 2003b:270).

A further argument for difference in ceramic traditions at Chichen Itza and Lamanai is evident in the abundance of Fine Orange vessels at Chichen Itza (Early Mexican Fine Orange vessels; see Brainerd 1958:264-283, Figs. 76-84), in contrast to the single vessel recovered from Lamanai in the Early Postclassic Period. Chichen Itza examples (see Brainerd 1958:264-283, Figs. 76-84) display abstract reptiles, intertwined bands, *kin* flowers (Lamanai flower_a), scrolls (Lamanai scroll_b and _c), smoke scrolls (Lamanai scroll_a), T-shaped bands with scroll hooks and long-nosed deities (see Brainerd 1958:268-269, Fig. 78h). The Lamanai example, a Silho (Chichen) Fine Orange pedestal-based vase (Pendergast 1986:236) – in fact a Silho ('X') Fine Orange incised vessel (A. Andrews, personal communication 2006; Rands et al. 1982:331-332) – demonstrates some cultural ties between Lamanai and the Northern Lowlands in the Early Postclassic (Pendergast 1986:236), due to its form and decoration (Pendergast, personal communication 2006). The Silho piece resembles Late Postclassic Period Lamanai imagery in that fewer motifs are represented in a more standardised and repetitive manner (Chapter 7: see Definition of style section). Silho Fine Orange vessels belong to the Fine Orange Ware of Maya Fine Paste Ceramics (Rands et al. 1982:326, Fig. 31 and pp. 332-333, Figs. 47-51), a widespread marker for the Early Postclassic (Bullard 1970a:297). Chemical analysis of Silho group ceramics indicates their involvement in widespread dissemination from an unidentified centre of manufacture (Rands et al. 1982:332). Opinions expressed on their introduction to the Maya Lowlands include the position that Mexicans arrived and superimposed their style onto local techniques derived from an earlier Maya Fine Orange tradition (Brainerd 1958:276-277), whereas Smith (1957:143, 1971:21, 237) draws attention to stylistic differences between the Silho Ceramic Group and Veracruz Fine Orange Ware, pointing out similarities of the Silho Group to Classic Maya ceramic traditions. Other hypotheses of fine paste bearing peoples have been posited (Adams 1973a; Sabloff 1973). Ball (1977a, 1977b, 1978) suggests that Putun groups of the Tabasco-Campeche area, in the past linked to the production and distribution of fine paste pottery following Thompson (1970), may be placed in coastal Campeche from as early as the fifth century A.D., with the Putun attracted to this region by coastal salt resources (Rands et al. 1982:337). Ball (1978:137) states that various Putun groups and other inland people subsequently vied for control of the salt beds, reflected in the

complicated patterns of fine paste ceramic production and dispersion. Plumbate ware, which occurs at Lamanai as three surface sherds (Graham and Pendergast 1989:7), also represents a key commodity of Early Postclassic trade (Smith and Berdan 2003b:22). Stylistically, Silho Fine Orange ceramics have been linked to Tohil Plumbate ceramics (Brainerd 1941, 1953). The occurrence of both vessel trade types at Lamanai suggests some involvement in a wider pan-Mesoamerican exchange system that employed motifs that travelled well due to their ease of execution (basic form) and adaptable meaning (see also widespread nature of Cib-phase related [redware] ceramics; Chapter 7: Inter-site relationships section). However, the small number of these trade wares recovered at Lamanai suggests marginal, or at least reduced, involvement in this system than experienced by Chichen Itza.

Non-ceramic sources of imagery are clearer in reflecting different symbolic emphasis expressed at Lamanai and Chichen Itza. The Fresco of the Upper Temple of the Jaguars (east wall, Structure 2D1) depicts a human sacrificial scene that captures the horror and emotional pain of its victims (see Tozzer 1957:Fig. 394). The Chichen murals are argued to be akin to Classic Period Maya art through their lively fluidity, diversity and careful delineation of shape to create a plastic form existing in its own three-dimensional space (e.g., Bonampak murals, Postclassic Maya codices; Robertson 1970:82-83). However, Chichen Itza imagery is stylistically distinct from that of Early Postclassic Lamanai ceramics which, even though retaining Maya sinuous lines, appears more convoluted or 'organic' and does not represent figurative scenes. Furthermore, Chichen Itza imagery places a predominance on feathered serpents, frequently rattlesnakes, associated with individuals (e.g., rulers, priests, ball players, warriors; see Tozzer 1957:Figs. 395, 105-113, 119-120 and 474); depicts scenes of every-day life (see Tozzer 1957:Fig. 62); and cultural events, such as human sacrifice (see Tozzer 1957:Figs. 392-398) and battle scenes (see Tozzer 1957:Fig. 60). Jaguars also occur in Chichen Itza's symbolic repertoire (see Tozzer 1957:Fig. 85), dropped from Lamanai Early Postclassic art in relation to royal or elite themes. The absence of jaguars on Early Postclassic Lamanai ceramics might suggest that the iconography associated with the people who held the right or desire to display jaguar imagery in the Terminal Classic Period were no longer 'royal' in the Early

Postclassic Period. Alternatively, the nature of rulership, which still retained aspects associated with jaguars at Chichen Itza, changed at Lamanai.

Feathered serpent imagery is interpreted as representing *Quetzalcoatl-Kukulcan* and a cult surrounding this deity that first developed outside the Maya area (Milbrath and Peraza n.d.:20). The *Quetzalcoatl-Kukulcan* cult originated in the Tlaxcala region of Central Mexico (Ringle et al. 1998:191, 225-226). Its use and spread along trade routes was first established by Teotihuacan, introduced by the Itza 'as part of a war-like incursion, after first establishing contact with luxury trade goods' (Milbrath and Peraza 2003:34). Lamanai reptile representations are reminiscent of Classic Period Teotihuacan. Similarities include the reptiles' bicephalic characteristic displaying different heads. The heads form the front and tail ends of undulating bicephalic feathered reptiles on the facades of the Temple of Quetzalcoatl (see Coggins 1983:43, Fig. 36). Coggins argues that the head to the east displays more serpentine characteristics, while the tail to the west displays more crocodilian and skeletal traits (Coggins 1980:729). López Austin et al. (1991) argue that the serpentine head represents *Quetzalcoatl* and the crocodilian head *Cipactli*, lending the structure a calendrical reading. As the primordial earth crocodile, *Cipactli* symbolises the 260- and 365-day calendars (Ringle et al. 1998:193; see Reptile: Crocodilian traits section). The reptile's body refers to the rising and setting sun on its diurnal path across the sky and is equivalent to one day (Coggins 1980:729) and further may be argued to represent a microcosm of the universe in the same manner that Classic Period bicephalic reptile ceremonial bars do when held by rulers (Carlson and Landis 1985:129). Consequently cosmic bands focusing on reptiles are depicted throughout Mesoamerican art and also occur on Early Postclassic ceramics from Lamanai. However, notable differences between Lamanai and Teotihuacan reptile representations include the latter's bodies' usual complete coverage in feathers, rattles and immersion in shell-filled waters. Similarities include some Teotihuacan pottery displaying reptiles 'breathing', or metamorphosing into, soul breath scrolls marked with (jade) jewels that are combined with T-shaped bands and are not placed alongside figures (see Taube 2003a:303-313, Figs. 11.17-20). Taube (2003a:308-309, Fig. 11.20) noticed Teotihuacan serpent heads on a Xolalpan vessel as displaying scroll elements similar to depictions of 'serpent breath' in Early Classic Maya art. Even though, in some instances, Teotihuacan reptiles

are depicted alongside personages, these either represent deities or human figures lacking 'personality'. Consequently, ruler portraits are absent at Teotihuacan and Early Postclassic Lamanai.

Feathered serpents only appear with frequency in the Maya areas in the Terminal Classic Period (Kowalski 2007). The reptiles are most abundant at Chichen Itza, but are also found at some Puuc sites (Milbrath and Peraza n.d.:20). At Uxmal, feathered serpents occur on the Main Ballcourt and the west building of the Nunnery (dated to the early tenth century; Kowalski 1987:72; Milbrath and Peraza n.d.:20; Schele and Mathews 1998:287). Feathered serpent imagery at Uxmal is interpreted as an 'intrusive' later element, possibly connected to the Itza and a period of time when the site was allied with Chichen Itza (Kowalski and Dunning 1999:287, 293; Milbrath and Peraza 2003:21, n.d.:20). Kowalski (2007) believes that feathered serpent representations generally establish a link to ancient Teotihuacan traditions, but can also indicate a site's alliance with the Itza ruler of Chichen Itza (Milbrath and Peraza n.d.:20).

Lamanai and its cultural iconographic sphere of influence (Lamanai and Peten Lakes spheres) did not form part of, nor were greatly influenced by, a 'cult' centred on the Feathered Serpent Deity or entity *Quetzalcoatl-Kukulcan*. This is evident in the marked difference between Lamanai and Peten Lakes spheres' symbolism and the symbolism displayed at identified 'feathered serpent cult sites' (e.g., Chichen Itza; Ringle 2004; Ringle et al. 1998). Cult sites display a predominance of feathered serpent symbolism, reflective of an ideology centred on *Quetzalcoatl-Kukulcan*. At Lamanai and identified Peten Lakes sites, ideological focus is centred on that of the Dragon and all its manifestations. This is not to say that feathered serpents do not occur. They do, but represent the vital principle of the sky, an *aspect* of the Dragon more akin to Early Classic Period art. Consequently, Lamanai and Peten Lakes iconographic-sphere sites do not represent a 'cult' focus on the feathered serpent, but instead display their symbolism as part of an ideology based on the Dragon that does not portray individual rulers in control of the supernatural or Dragon as was customary in the Classic Period (e.g., Dragon ceremonial bars).

Most Lamanai reptiles are bicephalic displaying one serpentine and one crocodilian head and are associated within the Dragon's anthropomorphic aspect *Itzamna* and other deities (see Reptile section). At Chichen Itza,

sculpted serpents, usually rattlesnakes, whose bodies and heads (often horned) are covered in feathers, decorate much of the site's architecture. Feathered serpents also rear up from behind warriors and priests on elaborate wall carvings. The feathered-serpent warriors fight bird warriors. Chichen Itza reptile representations thus differ markedly from those found on ceramics from Lamanai and the Peten Lakes, where no narrative scenes incorporate humans, reptile bodies are not completely covered in plumage and do not display rattles or horns, and bicephalic reptiles with one serpentine and one crocodilian head may occur. Consequently, even though Lamanai and Peten Lakes iconographic-sphere ceramics and Chichen Itza art display reptiles, their iconographic detail (motif combinations) and context differ. This is why it is of utmost importance to read imagery contextually (Hellmuth 1987), iconographically, archaeologically, socially and culturally, especially when considering widespread motifs of a descriptive rather than emblematic nature (see Chapters 7 and 9).

Chapter 7: Late Postclassic ceramics (Cib phase [and Gatah]; ca. A.D. 1250 - 1450) (Catalogue Figs. 4.1-4.6 [Cib] and 5.1-5.4 [Gatah])

Sample

Late Postclassic ceramics at Lamanai are designated Cib Phase. The Late Postclassic also includes a group of ceramics provisionally termed 'Gatah'. The Gatah ceramics probably form part of the Cib phase, but because they have been found in contexts that do not include the better known Late Postclassic slipped redwares (e.g., New River red), the Gatah ceramics are described separately (see Gatah ceramics section).

Cib phase ceramics

Sample

The Cib phase data sample, based provisionally on the redware slipped ceramics from primary contexts, contained 27 examples. The sample size remains relatively small even when those ceramics lacking imagery are considered. However, the vessels were reconstructible and rich in iconographical content. Jaccard deleted from the calculations all vessels that displayed no motif combinations or motifs with fewer than two occurrences (see Chapter 3). Consequently, 19 Cib phase examples were scored on 6 isolated motifs to reveal significant motif combinations. See Appendix 5, Tables A5.1.1-4, for tabulated data. The standardised nature (vessel forms, stylistic execution and content of iconography; see below) of the Cib phase ceramic data suggests that results of the iconographical analysis, arguably provisional as based on a small data sample, will probably hold true and thus provide a basis for future study. This assertion is further supported by the relation of this sample to comparative Maya Lowland data (see Inter-site relationships section), establishing a consistent style and iconographical content as reflected at Lamanai.

Individual motifs

Scrollc (17), T-shaped band (9), oval (8), anthropomorphic (7), bird (5), Scrollc

(3), flower_a (2), scroll_b (1), cross-hatch (1), cross_c (1), intertwined band (1), other motifs (1).

Motif combinations/substitutions (key paradigmatic sets)

Anthropomorphic/oval/scroll_c/bird/T-shaped band/scroll_e (0.32 S_J)

Scroll_c is dominant and associated with all motifs.

Motifs and motif combinations related to the vessels on which they occur

Scroll_c occurs in bands on all vessel forms. Bird and anthropomorphic heads form the appliqué-modelled feet of tripod vessels (see Appendix 5, Table A5.1.5).

DEFINITION OF STYLE

The style of Late Postclassic Lamanai ceramics is characterised by ceramic patterns regarding expression of motifs (frequency of painted, incised and modelled motifs) and their placement relative to vessel body (location of motifs on vessels and motif arrangements; see Chapter 3). The treatment of Late Postclassic imagery is similar to that of the Early Postclassic Buk phase (Chapter 6: see Definition of style) in that motifs either form appliqué-modelled effigy figures (anthropomorphs or birds; Fig. 7.1.1) or are incised onto vessel exteriors in panels or bands (Fig. 7.1.1; Catalogue Fig. 4.3.2). Over half the vessels in this sample exhibit modelling: all tripod dishes (Fig. 7.1.1; Catalogue Figs. 4.3.1-9 and 11) – apart from one with plain feet (Catalogue Fig. 4.3.10) – the tripod plate (Catalogue Fig. 4.5.1) and two pedestal-based jars (Catalogue Figs. 4.1.1-2), which both have open-worked pedestal bases. The vessels are post-slip, post-drying incised, apart from the one censer in this phase which is stuccoed then painted (Fig. 7.1.2). Paint is only used to embellish imagery; it is applied to the incision lines and modelling of some vessels. This use of paint on ceramics parallels practices of Early Postclassic times.



Fig. 7.1.1. Cib phase tripod dish, LA 83/2.



Fig. 7.1.2. Cib phase censer, LA 247/1.

Fewer vessel forms occur in the Late Postclassic than occur in the Early Postclassic Period: eight rather than sixteen, perhaps reflective of the smaller sample size. However, all Late Postclassic vessel forms have precedents in the Early Postclassic Period, apart from tripod plates (Catalogue Fig. 4.5.1), a new Late Postclassic Period vessel form. Tripod bowls, quite frequent in the Early Postclassic Period, no longer occur in the Late Postclassic ceramic sample. The tripod vessels become shallower and are now classed as dishes (Fig. 7.1.1). Furthermore, chalices and drums no longer occur in this sample, whereas bowls (Catalogue Figs. 4.2.1-3), the most frequent Early Postclassic Period vessel form, only occur three times incised in the Late Postclassic Period.

In comparison to the Early Postclassic ceramic sample, even though incised Late Postclassic Period imagery scenes still display busy bands or panels with motifs pushing against their framing borders, the bands or panels display only a few repeated motifs, predominantly scroll_c (Fig. 7.1.4). Motifs are repeated in an overlapping fashion. The imagery retains its 'smoky' or 'watery' appearance as scenes are dominated by scroll_c that resemble clouds of trailing smoke or steam or water currents (Chapter 6: see Scroll_c section). However, the imagery is more geometric and standardised in its appearance in comparison to Early Postclassic ceramic imagery. In the Late Postclassic Period only three significant motif combinations occur (scroll_c/oval, anthropomorphic/scroll_c and oval/anthropomorphic). Scroll_c is the dominant motif in this ceramic phase and all other symbols are combined with it in high numbers. Subsequently, every

Late Postclassic symbol is invariably combined with the scroll_c motif, except scroll_e (Catalogue Figs. 4.3.7 and 4.5.1), which suggests a similar or associated meaning for the two scroll motifs. However, this means there is no specific pairing and therefore similarity coefficients remain lower than might have been expected. Combinations with the scroll_c motif form a stylistic trait of Late Postclassic Lamanai ceramics. The motif's widespread use suggests a general meaning important to this phase, or reflects focus on particular priorities. In comparison to Early Postclassic ceramics, the reduced set of motif and their combinations represents a stylistic simplification and standardisation.

A standardised placement of imagery occurs according to vessel form, which mirrors that of Early Postclassic Lamanai ceramics. All tripod vessels displaying imagery do so on their exterior rims, feet (when appliqué-modelled) and basal flanges. Jars display imagery on their shoulders, bowls on their exterior rims and grater bowls on their interior bases (Appendix 5, Table A5.1.5). Imagery panels occur on pedestal-based jars (Catalogue Figs. 4.1.1-2), bowls (Catalogue Figs. 4.2.2-3) and a tripod dish (Fig. 7.1.1); imagery bands occur on bowls (Fig. 7.1.4) and tripod dishes (Catalogue Figs. 4.3.2, 5-6 and 8).

Treatment of motifs and their restriction to certain vessel forms also conforms to a standard in the Late Postclassic Period. Bird heads occur as the appliqué-modelled feet of tripod dishes (Catalogue Figs. 4.3.4-8 and 11) on just over half of all Late Postclassic slipped tripod vessels. Late Postclassic treatment of the bird motif mirrors that of Early Postclassic ceramics, where bird heads also occur as the appliqué-modelled feet of three tripod vessels (Catalogue Figs. 3.4.1, 4 and 3.5.1). The Late Postclassic anthropomorphic motif also always forms the appliqué-modelled feet of tripod dishes (Fig. 7.1.1; Catalogue Figs. 4.3.1-3 and 9). The anthropomorphs look human and form an homogenous group in the manner of their portrayal: pierced hollow eyes, thick eyebrows, pronounced naso-labial folds, fat checks, ear spools and headbands with oval beads on two occasions. As on Early Postclassic ceramics, both anthropomorphs and birds wear ear spools. The ear spools lend the birds an anthropomorphic or humanoid appearance. T-shaped bands only occur as appliqué-modelled basal flanges in the Late (on pedestal-based jars, tripod dishes and plates) and Early Postclassic Periods. Tripod dishes may have appliqué-modelled anthropomorphic- and/or bird-head feet and display either incised imagery bands *or* flanges, never both. Most Late Postclassic iconic

motifs are represented on tripod vessels, apart from flowers^a and ^b, which also occur on a jar, pedestal-based jar, a bowl and the one censer.

In summary, the style characteristics of Late Postclassic Period slipped (redware) ceramics, in size, form, manufacture, colour, placement of imagery on vessels and choice of motifs, were regularised to conform to a standard. Late Postclassic slipped vessels are usually of similar dimensions, with each example measuring approximately the same size in height, rim diameter and pedestal-base diameter according to vessel form. For example, all bowls are of the same height and rim diameter, as are all tripod dishes, which distinguishes the Late Postclassic slipped sample from the Early Postclassic slipped repertoire. There are a few exceptions, such as one Late Postclassic tripod dish not displaying modelled feet. Uniformity in dimensions seems to have been the result of quality control in manufacture. Such control was not exercised in the Early Postclassic Period. All Late Postclassic slipped ceramics are an even, dark-red colour, which reflects a degree of control over techniques of slip refining and vessel firing. On Early Postclassic ceramics, the orange slip varies quite considerably in shade, intensity and consistency and, even though individual vessels conform to similar overall dimensions, each may be uneven in execution. For example, some Early Postclassic bowls are unstable because they do not have flat undersides, and some pedestal-based jars are asymmetrical and lean to one side. This is not the case with Late Postclassic slipped ceramics.

Late Postclassic ceramics also display standardised placement of imagery according to vessel form. For example, all bowls display imagery incised in bands on their exterior rims. The standardised appearance is also due to the presence of scroll^c in all incised imagery scenes. The Late Postclassic Period, in comparison to the Early Postclassic, is characterised by a reduced motif set. The reduced motif set in the Late Postclassic Period, in comparison to the Early Postclassic symbolic repertoire, thus signals a filtered symbolic message being expressed on Late Postclassic ceramics.

MATERIAL AND SOCIO-CULTURAL CONTEXT (ICONOGRAPHICAL CONTENT)

Archaeological-contextual analysis

All Late Postclassic slipped ceramics in this Lamanai sample are from the site's Central Precinct. Apart from the single occurrence of a vessel in the 'Camp area', all ceramics originate from deposits with architectural associations. The single largest concentration of Late Postclassic ceramics occurred in Structure N10-4 (Fig. 7.1.3).

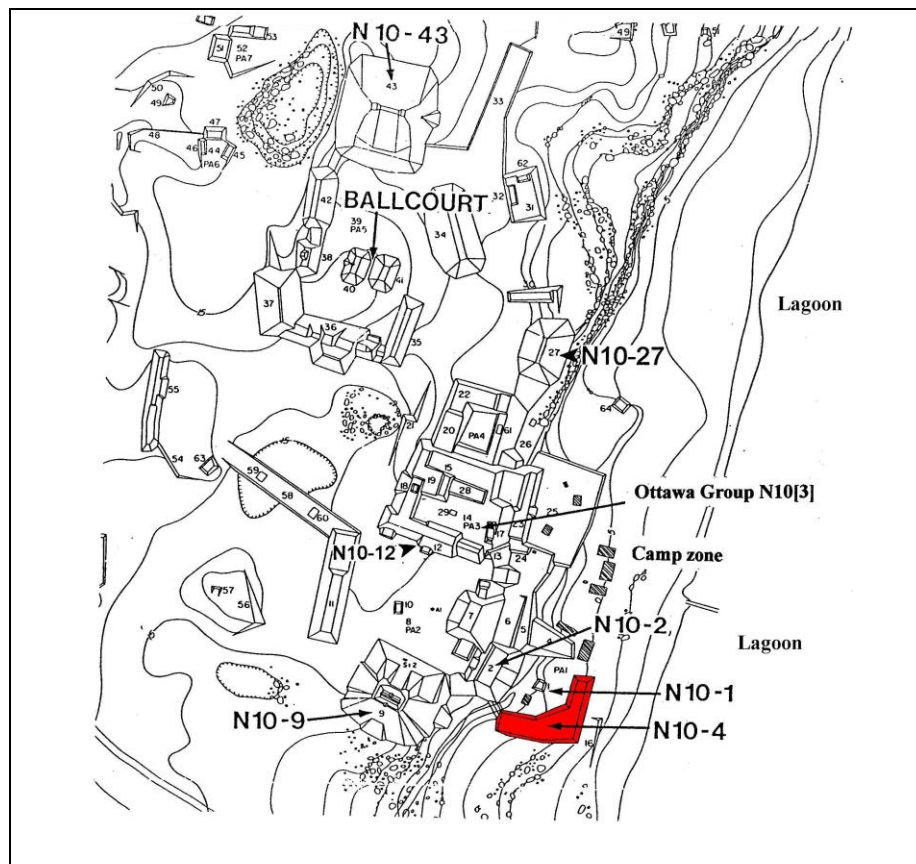


Fig. 7.1.3. Map of Lamanai N10 precinct, Str. N10-4 highlighted red; enlarged detail of Figure 3.2.3.

No Late Postclassic Lamanai slipped vessels were retrieved from caches. The Late Postclassic slipped ceramics in this sample are predominantly from burials. There is some evidence of pre-inhumation breakage, with ceramic fragments placed in relation to the skeleton, e.g., portions of vessels are placed beneath, or surrounding, skulls. The Late Postclassic burials revealed some similarity in grave paraphernalia and treatment of these to the Early Postclassic Period

(e.g., imagery-rich ceramics, pottery beads, shell, carved animal bones, shark teeth, pyrite mirrors [only fragments in the Late Postclassic], copper objects [bells and pins], jade beads, gold sheet objects, marcasite objects, chert blades and evidence of burning [burnt or decayed organic matter, burn marks on ceramics and ceramic forms]). For tabulated data see Appendix 4, Table A4.13 and Appendix 5, Table A5.1.6. The occurrence of Late Postclassic slipped imagery vessels in burials indicates that the vessels and their imagery were functionally and symbolically compatible with burial themes and practices. Burial rites seem to have included the incineration of offerings, suggested by evidence of burn marks on tripod dishes. One pedestal-based jar also revealed extensive burn marks (LA 247/14) and the form of another very large and open-worked pedestal-based jar suggests their use as censers (Pendergast 1981d:7; Fig. 7.1.2).

Tripod dishes represent the dominant vessel form in this Late Postclassic Lamanai slipped-ceramic sample. Structure N10-4 is the major source of these and *all* other Late Postclassic burial vessels. No jars, the second most frequent Late Postclassic vessel form, occurred in this structure. Instead, jars are distributed throughout Lamanai's Central Precinct: two were placed beneath a floor in Structure N10-43 (LA 362), one was recovered in floor mortar and ballast of a floor in Structure N10-15 (LA 638), and one example occurred in the midden associated with Structure N10-27 (LA 1436; see Appendix 5, Table A5.1.6). Consequently, because no Late Postclassic jars were recovered from burials, provisional results based on this small sample suggest that jars did not form favoured burial accompaniments.

Motifs related to archaeological context

Bird: Five of the six tripod dishes displaying bird-head supports were recovered from Burial N10-4/46 that contained a mature male and male teen placed alongside three(+) individuals. This burial also contained a finely-carved bone tube (Catalogue Fig. 4.6.1). The sixth tripod dish with bird-head supports was placed in Burial N10-14/1 containing a mature male. This vessel displays a different bird type to that depicted on Burial N10-4/46 tripod vessels. Burial

N10-14/1 also contained a Chen Mul Modeled-style figure of a warrior (Fig. 4.4c).

T-shaped band: Always in burials (7).

Iconographical-contextual analysis

ICONIC MOTIFS:

Anthropomorphic (Catalogue Figs. 4.3.1-3, 5-6 and 8-9)

In the Late Postclassic Period, anthropomorphic heads always occur as the appliqué-modelled supports of tripod dishes. Apart from one tripod dish found in core/collapse material (Catalogue Fig. 4.3.1), all were recovered from Structure N10-4 burials: two from Burial N10-4/21 (Catalogue Figs. 4.3.2-3), a high status burial inferred by the wealth of associated funerary goods; and one from the principal burial of this structure, N10-4/46 (Catalogue Fig. 4.3.9). Some of the vessels exhibit evidence of pre-inhumation breakage and specific placements of vessels relative to skeletons (see Appendix 5, Table 5.1.6). The anthropomorphs' lack of individuating characteristics suggests that they do not portray individuals but instead reflect a standardised symbol. The anthropomorphs portrayed on the two dishes from Burial N10-4/21 are practically identical, and notably different from the example retrieved from Burial N10-4/46, which suggests further sub-division of the anthropomorphic set, possibly related to the individuals interred. This reflects a similar trend evident in differentiation of bird types relative to burials in the Early and Late Postclassic Lamanai ceramic samples (see above; Bird section). The anthropomorphs most likely represent the spirits of deceased warriors before their transformation into birds (see Bird motif discussion below). In Mesoamerican belief, the souls of dead warriors were thought to turn into birds (Bierhorst 1985:19; Burkhardt 1992:89; Furst 1995:23-32, 160-72; Markman and Markman 1989:148; Mendieta 1971:97; Pohl 2003:201; Sahagún 1950-1982, 3:47-48, 6:162-163 and 1956, 1:297-298; Chapter 6: see Bird section). The figures' absorption in a supernatural process is indicated by their hollow and expressionless eyes and is archaeologically supported by the vessels' function as funerary vessels.

Bird (Catalogue Figs. 4.3.4-8, 11 and 4.6.1)

Birds occur only as appliqué-modelled heads supporting tripod dishes (Catalogue Figs. 4.3.4-8) that were recovered from the principal burial in Structure N10-4, Burial N10-4/46, and Burial N10-14/1 in Structure N10-14 (forming part of the elite compound N10[3]). All tripod dishes in Burial N10-4/46 display the same bird type, whereas the tripod dish in Burial N10-14/1 represents a different bird type. It is thus conceivable that the association of specific bird types to individual burials is reflective of the personal or group emblem of the deceased and forms a cultural practice carried over from the Early Postclassic Period (Chapter 6: see Bird section).

Burial N10-4/46 contained the remains of two primary individuals – a teenager, laid prone in extended position, and a seated adult – and three(+) secondary interments, buried with their skulls detached from their bodies in a pile of skeletal material (Pendergast 1981a:46-49, 1981d:7-11). The vessels' deposition in Burial N10-4/46 is indicative of a strong association between the vessels, their symbolism and the five(+) interred individuals. The secondary and primary individuals might all have belonged to the group that shared the bird symbolism. Warriors frequently wear bird costumes (Taube 1994a:665-667; see Tozzer 1957:Figs. 434, 436, 437, 529a-h and n) and the souls of deceased warriors were thought to turn into birds (Chapter 6: see Bird section). Both Late Postclassic burials revealing bird symbolism were also accompanied by other objects arguably related to war-themes. Burial N10-4/46 contained a very large chert-blade dagger, either ceremonial or real in its function as a weapon and Burial N10-14/1 contained a Chen Mul Modeled-style censer of a warrior-clad figure (Fig. 4.4c; see Gatah ceramics section). The metamorphosis from human to bird is iconographically represented on three similar tripod vessels contained in Burial N10-4/46. The feet alternate between displaying the heads of birds and anthropomorphic beasts in various states of transformation (Catalogue Figs. 4.3.5-6 and 4.3.8). The burial also produced a copper bell. Bells are associated with war, their sound thought to protect their wearer in battle (Hosler 1994:233, 2003:162). Consequently, in the Late Postclassic Period the bird motif is most likely emblematic of a particular elite warrior group carried over from the Early Postclassic Period (Chapter 6: see Bird section).

The burial also contained a bone tube (Pendergast 1981a:48, Fig. 23, 1981d:9; Catalogue Fig. 4.6.1) carved in the sinuous-organic style of Maya art

(Chapter 6: see Conclusions section). The bone depicts a figure with bird headdress who stands on a bird-head pedestal, suggestive of the motif's use as emblem and possibly identification with the principal male contained in Burial N10-4/46. The 'bird throne' and bird headdress are indicative of the individual's high status. Birds are often placed in the headgear of royals in Classic Period imagery (Freidel and Schele 1988:62). Simultaneously, the motif creates an association between the individual interred and the bird's association with supernatural access – the ability to traverse different realms of the Maya cosmos (water, sky and earth; Chapter 6: see Bird section).

In the Late Postclassic Period, bird vessels either also display scroll_c bands (Catalogue Figs. 4.3.5-6 and 4.3.8) or T-shaped band flanges (Catalogue Figs. 4.3.4 and 7). Scroll_c is interpreted as the Dragon, the essences of life, including death, rebirth and the supernatural at Lamanai (see Scroll_c section; Chapter 6: Reptile section). T-shaped bands are interpreted as indicative of the interface between the natural and supernatural worlds (Chapter 6: see T-shaped band section). The birds' association with the scroll_c bands thus indicates the bird-warrior spirit's transference (flight) into the Dragon's body that was the otherworld and afterlife. The T-shaped band interface motif draws attention to the bird and warrior spirits' supernatural power through an ability to enter the otherworld.

Flower

Both Late Postclassic Period flower sub-groups (a and b) are carried over from Early Postclassic Lamanai ceramics (Chapter 6: see Flower_a and b sections). Flower_a is interpreted as the *kin* sun symbol (Catalogue Fig. 4.2.2) and flower_b as symbolic of flower offerings and the precious nature of elite soul breath and essence of life (Catalogue Figs. 4.1.2).

GEOMETRIC MOTIFS:

Cross c [grater bowls] (Catalogue Fig. 4.4.1)

Two Late Postclassic grater bowls display isolated cross_c motifs on their interior bases (e.g., Catalogue Fig. 4.4.1). The grater bowls tally in motif choice,

treatment and motif placement on vessels with Early Postclassic grater bowls (Catalogue Figs. 3.13.1-6). At Lamanai, the consistent placement of cross_c on the interior of burial grater bowls establishes a close association of the motif and vessel form with ritual food preparation, both functionally and symbolically. The vessels were used to prepare substances (most likely corn based), then broken and deposited according to prescribed patterns: in Burial N10-4/29 pieces of a grater bowl were placed over the male's left elbow, shoulder and mid-back; in Burial N10-4/28 grater bowl fragments were placed over the left neck side and skeleton of the female. The pre-inhumation breakage and specific interment of grater bowls may be indicative of a particular funerary rite related to the afterlife of the deceased that endured over time from the Early to Late Postclassic Periods at Lamanai (see Appendix 4, Table A4.13 and Appendix 5, Table A5.1.6, respectively).

Comparative literature reveals Lamanai cross_c to be identical in form to the Teotihuacan-style 'tilled-earth' sign (Taube 2000a:41-43), which I have termed the 'cultivated-earth' sign when discussed in relation to Lamanai grater bowls (Chapter 6: see Cross_c section). This motif carries political and cosmological meaning and is symbolic of a cultivated world, with agricultural cultivation representing a basic metaphor for governance (Taube 2000a:47). Cross_c's general association with agricultural, and possibly political, organisation is suggested for the Early Postclassic Period at Lamanai (Chapter 6: see Cross_c section). The possible political importance is supported in the Late Postclassic Period by both examples of grater bowls originating from high status burials (Burials N10-4/28 and N10-4/29, possibly linked as a couple). The burials' high status is indicated by the amount and nature of associated grave paraphernalia and interment in the site's Central Precinct. Burial N10-4/28 contained, amongst other things, a pyrite mirror and copper artefacts and Burial N10-4/29 a copper bell-headed pin.

Cross-hatch (Catalogue Fig. 4.1.1)

Only one vessel displays the cross-hatch motif in this Late Postclassic ceramic sample. Nevertheless, its occurrence demonstrates cultural continuity with the Early Postclassic Period, where the motif is interpreted as marking creatures

(crocodiles and serpents) and objects forming the earth's surface and related to its access (Chapter 6: see Cross-hatch section).

Oval (Fig. 7.1.2; Catalogue Figs. 4.1.1-2, 4.2.2, 4.3.2-3 and 4.5.1)

Ovals show no specific patterning, but are widespread in structure and vessel form, indicative of a general meaning. On Early Postclassic ceramics, ovals are interpreted as indicative of precious fluids, possibly related to the otherworld waters (Chapter 6: see Oval section).

Scroll_b and c (Catalogue Figs. 4.1.1-2, 4.2.1-3, 4.3.2-3, 5-6 and 8)

Scroll_c is the highest-occurring Late Postclassic ceramic motif at Lamanai (scroll_e only occurs three times [Catalogue Figs. 4.3.4, 7 and 4.5.1] and scroll_b once [Catalogue Fig. 4.2.2]). Scroll_c occurs on both pedestal-based jars retrieved from Burial N10-4/46 (Catalogue Figs. 4.1.1-2) and is particularly associated with burial tripod dishes. These vessels might have contained a critical substance. Scrolls are also associated with non-funerary jars. The dominance of scroll_b and c, relative to Early Postclassic Lamanai ceramics, suggests a focus, or emphasis, on the Dragon's composition of the soul breath of elites and life's essence (Chapter 6: see Reptile section).

As discussed in Chapter 6, these scrolls are a Maya phenomenon with antecedents that stretch back to Olmec times (Carlson and Landis 1985:116, 127-128). The Lamanai scrolls resemble the scroll-shaped body of the bicephalic Dragon. Carlson and Landis (1985:127-128) draw attention to similar bands of symbols depicted in Aztec art of Late Postclassic Central Mexico. They state that the Aztec symbolic convention certainly derives from the Classic Maya tradition and relates to the concept of the Maya Zip Monster/Bearded Dragon complex. In Aztec bands Nicholson (1955) detected four-petalled-flower sun symbols, woven crossed band signs and, most frequently, the *ilhuitl* sign, which carries the general meaning of 'day', 'festival' or 'sun's orb' and is very similar in design to the 'scroll over scroll' variant of the Dragon symbol occurring in Maya cosmic bands (see Carlson and Landis 1985:138, Appendix II:10-13).

Lamanai scroll_b (Fig. 7.1.6) and the individual elements that make up scroll_c (Fig. 7.1.4) in the Late Postclassic ceramic sample resemble the scroll-shaped body of the bicephalic Dragon which occurs in Classic Period cosmic

bands (Fig. 7.1.5). The precedence for representing the Dragon as isolated scroll elements is evident in the following examples. Similar double-hooked scrolls have been interpreted as the Zip Monster (Thompson 1960:104-119), an important element in sky bands which represent the body of the Dragon in Classic Period Mesoamerican art (Carlson and Landis 1985:115, 122, 128-129; Thompson 1960, 1970). Carlson and Landis (1985:127-128) arrived at the reading of cosmic bands as the body of the Dragon based on previous work by Thompson (1960, 1970) and their detection of four elements depicted in sky bands directly associated with the beast ('Zip Monster', Crossed bands, 'Bearded Sky'/'Bearded Sky Cross' and 'Beard and Scrolls'; Carlson and Landis 1985:138, Appendix II:10-13).



Fig. 7.1.4. Cib phase bowl displaying scroll, LA 247/12.

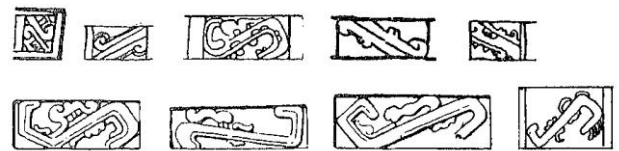


Fig. 7.1.5. Zip Monster (Dragon) scrolls in cosmic bands. Carlson and Landis 1985:138, Fig. 10, Appendix II:10.

Specifically, Carlson and Landis (1985:128, 136-137, Appendix II) noticed scroll motifs occurring as isolated elements in bands alongside celestial and terrestrial signs, such as *kin* or 'sun' signs, lunar symbols, Venus/Lamat symbols, crossed bands and *kan* crosses that refer to the sky, *caban* earth curls, *imix* water and earth crocodile signs, and *cauac* water and earth monster symbols. Carlson and Landis (1985:118, 128-129) concluded that cosmic-band elements form the celestial *and* terrestrial attributes of the Dragon and its companion the serpent bird (also know as the Principal Bird Deity) and span space as well as time, as also representing the sun, moon and Venus – the patrons of the month of the solar calendar that follow their diurnal path along the body of the Dragon (Thompson 1973:59).

While Carlson and Landis (1985:127) interpret the 'Zip Monster' sign, as they term this symbolic device within sky bands, as 'the head of the bearded

dragon, with its diagnostic upturned and curled snout, bared fangs, scroll eye, occasional fish barbells, and 'beard' tuft attached to the lower jaw', I would like to add to this interpretation that the upturned hook-end of the scroll form refers to the crocodilian snout of the Dragon and the down-turned scroll hook to its serpentine snout, as is evident in Early Postclassic Dragon representations at Lamanai (Chapter 6: see Reptile section). This symbolic convention makes explicit how the crocodilian and serpentine aspects of the Dragon *are* each other, with each element representing a reflection of the other. The expression of this concept reveals a thought pattern difficult to grasp by the scientific mind-set of the Western world; in that a thing or thought can only be one thing or thought, unlike the multiple and fused meanings ('interbeing') the Maya attributed to their concepts and symbols (Coe 1987:X-XI). Carlson and Landis (1985:127) state that in its most abstract form the Zip Monster element in cosmic bands may become a recurved S-shaped fret-motif (see Carlson and Landis 1985:138, Appendix II:10-13; Lamanai scroll_b in Fig. 7.1.6). They believe this S-shape is closely related to the recursive S-forms decorating the body of a large Dragon arching over the entrance to Copan's Late Classic Structure 22 (see Milbrath 1999:278-279, Fig. 7.5d₁). The Dragon's body is made up of a series of double-hooked scrolls similar to the Zip scrolls described above. Consequently, the S-shaped scrolls may be interpreted as forming a pun to the 'totality' of the beast whose body they form.

A Lamanai bowl (Fig. 7.1.6) supports the evidence related above, that is, a cosmos-related interpretation for the Dragon (Carlson and Landis 1985; Thompson 1970:209-233) represented as scroll elements on Late Postclassic Lamanai ceramics. The bowl depicts scroll_b placed in panels alongside cosmos-related *kin* or 'sun' symbols (flower_a). The bowl also depicts pairs of two single-hooked scrolls placed back-to-back, possibly bifurcated serpent tongues. Two such 'serpent tongues' occur in panels that alternate with scroll_b and *kin* flower panels; this is most likely in reference to the serpentine aspect of the Dragon formed by the sum of the cosmic motif band (Chapter 6: see Reptile section). The vessel mirrors an Early Postclassic Lamanai bowl depicting panels that contain bicephalic Dragon manifestations alternating with *kin*-symbol panels (Fig. 6.33). However, on the Late Postclassic bowl, abbreviated bicephalic Dragon scrolls_b have replaced the bicephalic Dragons depicted on the Early Postclassic example. The two motifs' (Dragon and scroll_b) substitutability

suggests overlap in use and symbolic meaning and represents variation, paradigmatic sets (see Chapter 3), of the Lamanai concept used to represent the cosmos that was the Dragon. Consequently, the Late Postclassic bowl presents a microcosm of the Maya universe as perceived at Lamanai in the Late Postclassic Period.

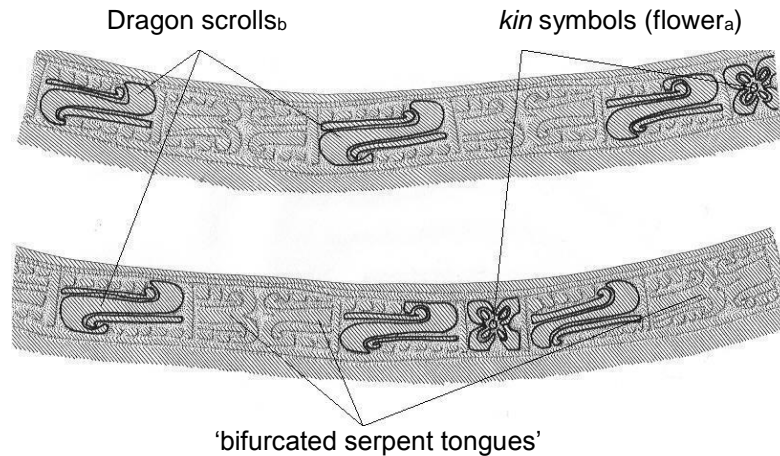


Fig. 7.1.6. Cib phase bowl, rim, LA 247/22.

MOTIF BANDS:

Intertwined band (Catalogue Figs. 4.1.1)

Only one Late Postclassic pedestal-based jar displays the intertwined band motif. Nevertheless, its occurrence demonstrates cultural continuity with Early Postclassic ceramics, where the motif is interpreted as forming a cosmic (reptilian) conduit or umbilical cord linking the earth to the supernatural and humans to the life-line of the gods and ancestors. Reading of the intertwined band motif as cosmic conduit in the Late Postclassic Period is supported by contemporaneous symbolism displayed in the Tulum murals (Chapter 6: see Intertwined band section; Fig. 6.52).

T-shaped band (Catalogue Figs. 4.1.1-2, 4.3.1, 4, 7, 9 and 4.5.1)

T-shaped bands support an otherworld-funerary association carried over from Early Postclassic ceramics, where they are interpreted as indicative of the interface between the natural and supernatural worlds that could be bridged by

the elite (Chapter 6: see T-shaped band section). In both ceramic phases, T-shaped bands occur as the appliqué-modelled basal flanges of burial vessels.

Gatah ceramics

Sample

As noted above, the Gatah ceramic sample comprises a provisionally separate category. The ceramics have been separated because the contexts in which they were found did not include any of the slipped wares described above. However, owing to insufficient data it is not yet certain whether Gatah ceramics constitute part of a sub-complex (Ball 1977a:3; Gifford 1976:11-12). In the meantime, they are considered as potentially part of a sub-complex and as forming a component of the late facet (Gifford 1976:46, Fig. 8) of the Cib phase (Table 1.1). This temporal placement is supported by ongoing lagoon-side excavations (Wiewall 2004).

The Gatah ceramics were recovered from Late Postclassic activity on the platform supporting Structure N9-56, the Mask Temple (Pendergast 1981a:52), and associated structures. Vessels were recovered from the core of a low platform, Structure N9-59, which stood west of the ruins of Structure N9-56. A cache (N9-59/1) that revealed a cup, a seated effigy vase (Catalogue Fig. 5.2.2) containing jade and shell beads was associated with the Gatah deposit in the core of Platform N9-59 (Pendergast 1981a:51, 1982b:29-30). Effigy censers were recovered fragmented and scattered over the surface of the ruined Structure N9-56.

The vessels (16 examples) form a distinctive group that displays only one motif combination. See Appendix 5, Table A5.2.1-3, for tabulated data. Of the effigy censers, one is from a burial (Burial N10-14/1; Fig. 4.4c), which contained no other grave goods besides the censer. The remainder of the sample comprises the remains of just under 100 effigy censers that had been broken and the fragments scattered over the ruins of Structure N9-56. Only the burial censer was available for analysis in addition to fragments from only three or four of the Structure N9-56 censers. A full discussion of the motifs, therefore, cannot be included here. However, the ongoing lagoon-side excavations are increasing

the effigy censer sample, and a comprehensive study of the site's entire yield is planned.

Individual motifs

Anthropomorphic (14), T-shaped band (4), other motifs (indecipherable creatures[2], maize husk [1]), oval (2).

Motif combinations/substitutions (key paradigmatic sets)

Anthropomorphic/T-shaped band (4 occurrences).

Motifs and motif combinations related to the vessels on which they occur

Tripod vessels with appliqué-modelled anthropomorph-head feet and T-shaped band flanges occur.

DEFINITION OF STYLE

The style of Gatah ceramics is characterised by ceramic patterns regarding expression of motifs and their placement relative to vessel body. Most vessels represented are red-washed tripod vessels with appliqué-modelled anthropomorphic-head supports and notably no incision (Fig. 7.2.1; Catalogue Figs. 5.1.1-11). Five vessels also display an appliqué-modelled T-shaped band basal flange. T-shaped band flanges most likely occurred on all tripod vessels before breakage, and combined with the anthropomorphic motif form the only possible motif combination in this sample. The modelled treatment of the motif tallies with that of T-shaped bands occurring on earlier Lamanai Postclassic ceramics; however, the individual segments making up the T-shapes are wider, less defined and never incised. Two Gatah anthropomorphic vessel 'attachments' were also recovered (Catalogue Figs. 5.4.1-2), along with two miniature pedestal-based jars, one appliqué-modelled as a maize husk (Catalogue Fig. 5.2.1), the other as a seated anthropomorph with volutes issuing from its open mouth (Catalogue Fig. 5.2.2). Consequently, Gatah

ceramics only display three motifs, all appliqué-modelled: anthropomorphic, T-shaped band and one example of a maize husk.

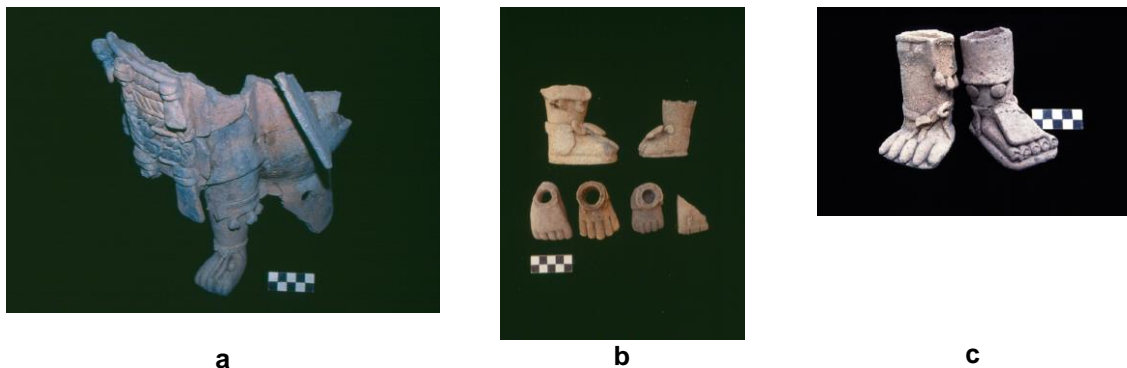


Fig. 7.2.1. Gatah tripod vessels, LA 390.

Individually, the anthropomorphic-head vessel supports vary in appearance, from humanoid, albeit with very long, straight noses and frequently pointed mouths (Catalogue Figs. 5.1.1, 3, 4 and 6-10) to having ‘beaked’ faces (Catalogue Figs. 5.1.2, 4, 6 and 8-9). The figures strike varying poses, at times quite comical: one figure looks intoxicated, whereas others squint. Many anthropomorphs wear headgear with distinctive ear flaps (Catalogue Figs. 5.1.1, 3-4, 6, 8-9, 5.2.2 and 5.4.2). The variation in detail suggests that the Gatah anthropomorphs do not portray specific deities, but instead represent individuals, supernaturals or supernatural impersonators, similar in symbolic concept to the anthropomorphic feet of tripod vessels that occur on earlier Lamanai Postclassic ceramics. Notable is the stylistic step evident in the two Gatah motifs (anthropomorphic and T-shaped band) that may be temporally placed between the earlier Late Postclassic and later Terminal Postclassic/Early Historic Yglesias phase stylistic treatment of the motifs. Even though both motifs occur on earlier Cib phase ceramics – although stylistically distinct – the predominant Cib phase scroll_c motif no longer occurs on Gatah pieces and anthropomorphic facial features are more akin to those found in the Yglesias phase. The physiognomy of the Cib phase anthropomorphs is rounded or smoothed, akin to the Maya Early Postclassic, whereas that of the Gatah anthropomorphs is more angular, akin to the Yglesias phase. The different stylistic treatment of the same motifs in temporally distinct ceramic groups (Cib, Gatah and Yglesias) demonstrates how the evolution of style may be studied as a chronological marker when temporally surrounding data are considered.

The Gatah vessels' uniform form (tripod vessels), motif choice (anthropomorphs and T-shaped band flanges), treatment (appliqué-modelled and red-washed), motif placement on vessels (appliqué-modelled anthropomorph-head supports and T-shaped band vessel flanges), together with the small number recovered (16 examples), suggest manufacture for a particular purpose or occasion.

Appliqué-modelled iconic motifs forming Late Postclassic effigy censers at Lamanai are what is called Chen Mul Modeled-style (Figs. 4.4c, 7.2.2a-c). As with the Gatah anthropomorphic-head supports described above, the motif (anthropomorph) *is* the vessel. This imbues a certain 'life' or visual immediacy to the vessel (Chapter 6: see Definition of style section). The censers represent male figures garbed as warriors as indicated by their quilted cotton armour and bells on their legs (Figs. 4.4.c, 7.2.2a-c). Bells were thought to protect their wearer in battle and their sound was likened to that of singing birds and the voices of deities (Hosler 1994:233, 2003:162; Chapter 6: see Bird section).



Figs. 7.2.2a-c. Lamanai Chen Mul Modeled-style effigy fragments.

The Chen Mul Modeled-style figures display pronounced naso-labial folds interpreted as masks (Chapter 6: see Anthropomorphic Group 2 section). The masks are symbolic of metamorphosis that enabled otherworld access. The figures also wear ear spools, regalia reserved for the elite and supernatural beings, and some display mouth-corner stubs or volutes issuing from their mouths (Figs. 4.4c, 7.2.3). Consequently, the figures might represent elite warriors dressed in ritual garb or possibly deity impersonators (Chapter 6: see Anthropomorphic (Group 2) section). The latter interpretation cannot be corroborated for certain, based on the few vessels that were available for study. Lamanai Chen Mul Modeled-style censers express a distinctive local style that

is unlike Mayapan examples (see below) and are therefore probably of local manufacture.



Fig. 7.2.3. Lamanai Chen Mul Modeled-style effigy heads.

MATERIAL AND SOCIO-CULTURAL CONTEXT (ICONOGRAPHICAL CONTENT)

Archaeological-contextual analysis

The Gatah examples were shattered and then deposited in the core of a low ritual platform, Str. N9-59, associated with Str. N9-56 (Appendix 1, Fig. A1.1). Gatah vessels could not be reconstructed because pieces were missing, suggestive of their being smashed prior to placement within the core of Structure N9-59 platform (Pendergast 1981a, 1982b, 1986, 1998). Platform Str. N9-59 was built in Late Postclassic times in the approximate southeast corner of a large platform supporting Structure N9-56 and other structures of the 'Mask Temple' group (Pendergast 1980; Figs. 7.2.4).

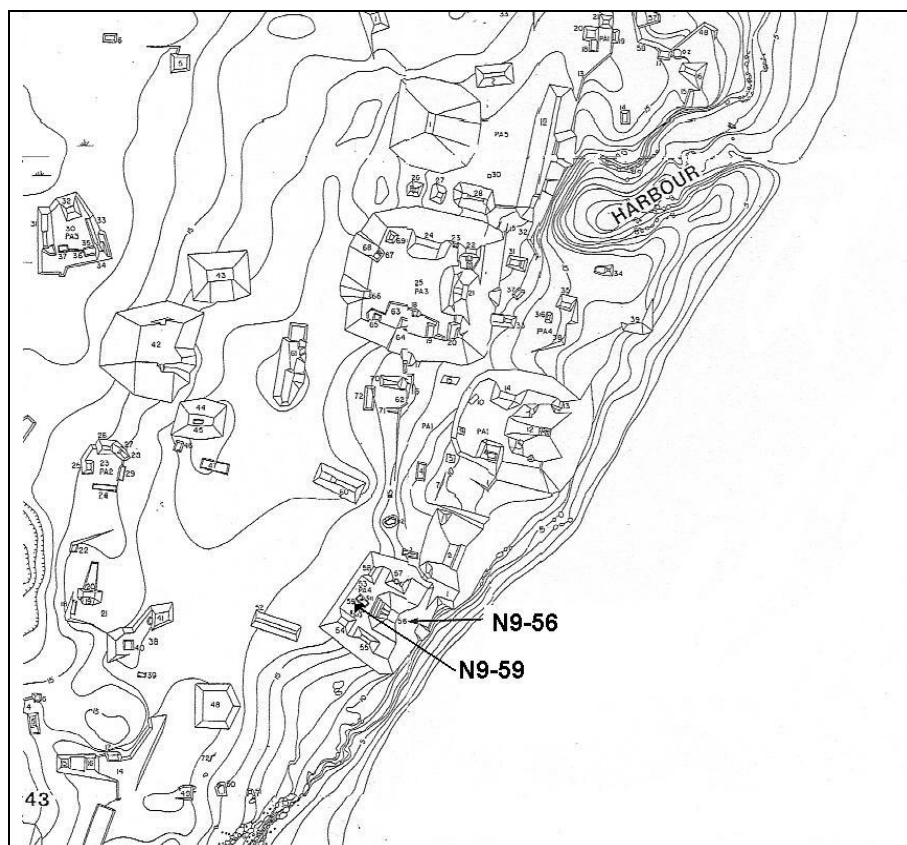


Fig. 7.2.4. Map of north portion of Lamanai showing Structure N9-56 and Platform N9-59; enlarged detail of Figure 3.2.3.

The Classic Period Stela 1 (Fig. 6.35b) may have been re-erected coterminous with the Gatah platform construction, as may the deposition of a large number of Chen Mul Modeled-style effigy censers over the surface of the ruined 'Mask Temple'. However, we cannot say with certainty because no Chen Mul Modeled-style effigy censer fragments were recovered from the Gatah Platform N9-59.

A small pedestal-based jar was appliqué-modelled in the form of a maize husk (Catalogue Fig. 5.2.1). The vessel's iconographical contents suggest the Gatah deposit accompanied a ritual related to agriculture. Consequently, the deposit marked a significant date related to maize planting or harvest, stela re-erection and/or the burning of incense over the abandoned 'Mask Temple' Str. N9-56, evidenced by the smashed Chen Mul Modeled-style effigy censers scattered over the surface of this temple.

Burial N10-14/1, which revealed a Chen Mul Modeled-style censer of a warrior (Fig. 4.4c), is from the elite compound N10[3]. The burial had been placed in the core of a low platform constructed in Late Postclassic times, just west of Structure N10-17, on what remained of the plaza floor that sealed the

Terminal Classic boulder fill of the courtyard (Graham 2004). The Chen Mul Modeled-style effigy censer was in fragments and incomplete, with the missing fragments likely having filtered down through the loose boulder fill. The remaining Chen Mul Modeled censers (Figs. 7.2.2a-c) were found, as noted above, fragmented and scattered atop Structure N9-56.

Socio-cultural contextual analysis

MOTIFS:

Anthropomorphic [and T-shaped band] (Catalogue Figs. 5.1.1-4, 6-11, 5.2.2 and 5.4.1-2 [anthropomorphic]; 5.1.1-5, 7 and 9 [T-shaped band])

The T-shaped band motif on the Gatah vessels suggests an interpretation surrounding a specific offering or occasion associated with transference through metamorphosis, expressed by the anthropomorphic faces and T-shaped band motif. The T-shaped band is interpreted as being indicative of the interface between the natural and supernatural worlds (Chapter 6: see T-shaped band section). Supernatural transformation and otherworld access is also indicated by the 'beaked' mouths of some of the Gatah anthropomorphs, read as masks. Masks were worn in ceremonies throughout Mesoamerica and allowed their wearer to don the identity and power of supernatural beings (Jung 1964:236; Markman and Markman 1989). Birds are interpreted as the spirits of deceased warriors on earlier Cib and Early Postclassic Buk phase ceramics. The transformation from human warrior into supernatural bird spirit could be what is symbolically represented in the Gatah anthropomorphs. Transformation is also suggested by the Gatah vessels' ritual smashing before deposition within the core of Platform Structure N9-59, perhaps to release the 'spirit' of the vessel.

The Gatah anthropomorphs may be contemporaneous with the activity represented by the Chen Mul Modeled-style figurines smashed atop Structure N9-56. The Chen Mul Modeled-style figures' dress identifies them as warriors. The figures were smashed and then scattered over Str. N9-56, probably when the small platforms were built during the fourteenth century (Pendergast 1981a, 1982b, 1986, 1998). Human bone was scattered throughout the platform N9-56 from which the Gatah vessel sherds were recovered, indicative of a possible

association with a secondary interment. However, a complete individual was not represented, so there is little that may be posited about the reasons for the occurrence of human bone.

The Chen Mul Modeled-style censers may have been smashed in a ritual related to warriors, perhaps to mark a specific date or occasion that commemorated or sanctioned a battle. Full-figure effigy incense burners are largely a Postclassic northern Maya Lowland phenomenon (Milbrath and Peraza 2003:7, 24). The censers are frequently depicted holding offerings, sometimes shown burning (Fig. 7.2.5; see Mayapan examples in Smith 1971:102-103, Fig. 67). Chen Mul Modeled-style warrior censers display the same distinctive mouth-corner stubs and exaggerated naso-labial flaps as the Gatah figures (Catalogue Figs. 5.1.3, 6 and 8-9), interpreted as representative of masks and supernatural transformation (Chapter 6: see Anthropomorphic section). However, Chen Mul Modeled-style figures at Lamanai and elsewhere (e.g., Mayapan; see Smith 1971:102-105, Figs. 67-68) may also have volutes issuing from their mouths (Fig. 7.2.3). A Postclassic effigy head from San Estevan displays distinctive scroll-volutes 'breathed' from the corners of the figure's mouth (Fig. 7.2.6). Houston and Taube (2000:265-270, Figs. 5c, d) interpret similar volutes issuing from the mouths of deities and royalty in Classic Period Maya art as symbolising 'fragrant breath' that alluded to the refined quality of godly and royal breath and were reflective of status. Read in combination with the Lamanai custom of smashing ceremonial vessels – interpreted as releasing or activating the soul breath or essence of concepts and beings addressed (see Chapter 6) – the volutes might also refer to the soul breath of the Chen Mul Modeled-style figures, or life essence and power embodied by their concept (Chapter 6: see Scroll_a section). Notably, the Gatah pedestal-based jar that is appliqué-modelled as a seated anthropomorph also displays volutes issuing from its mouth (Catalogue Fig. 5.2.2). The mouth-corner stubs may refer to a similar concept, further prising open the figures' mouths to aid the release of their life or supernatural essence.



Fig. 7.2.5. Chen Mul Modeled-style effigy arm, Santa Rita. Liverpool Museum.



Fig. 7.2.6. Stone head, San Estevan. Liverpool Museum, No. 20.11.1913.570.

However, the Chen Mul Modeled-style effigy censers and Gatah vessels are not from the same archaeological deposit, although from a possibly contemporaneous event. Nevertheless, the smashing of such vessels as completion rites in ceremonies was a common ritual practice throughout the Maya Lowlands during the Postclassic Period (D. Chase 1985b:116; Chase and Chase 1988:72) and supports their association with the Gatah deposit. Mayapan is suggested as having influenced the religious practices associated with the manufacture of effigy censers (D. Chase 1986, 1988; Chase and Chase 1988; Masson 2000, 2003b:271; Sidrys 1983), frequent during the fourteenth and fifteenth centuries throughout Yucatan, the east coast and southern Quintana Roo (Fry 1972:491, 1987:119; Gann and Gann 1939:57; Lothrop 1924; Sidrys 1983:262), Belize and Lamanai (Gann 1918; Graham 1987a; Sidrys 1983:240-242, 244) and Peten Lakes region (Bullard 1970a, 1970b; Masson 2003b:271; Rice 1987b). The archaeological context of the Gatah deposit suggests a possible association between the iconographical elements of the Gatah anthropomorphs and the Chen Mul Modeled-style warrior-clad figurines smashed atop the surface of Structure N9-56.

CONCLUSIONS: the Lamanai Late Postclassic context of the Dragon continued from the Early Postclassic

The style of Lamanai Late Postclassic ceramics, in comparison to that of the Early Postclassic, becomes more standardised and regimented, coinciding with what has been described in the Maya Lowlands as a period of Mexicanisation (Chapter 2: see Phases of Maya chronology, Postclassic art in the Maya area sections). Early explanations for the spread of what were called 'Mexican'

symbols and traits in the Late Postclassic Period were all attributed to their origins' stem from Central Mexico, from where they were transmitted to all areas of Mesoamerica (Gann 1900; Lothrop 1924; A. Miller 1974b:47, 1982:64, 74-75, 1986:202-211, 219; Proskouriakoff 1950:157; Robertson 1970:85-88; Sidrys 1983:135; Spinden 1913; Thompson 1970:46; see Inter-site relationships section). Recent suggestions include that of Smith (2003:183) who states that 'many of these symbols, styles, and traits originated in other parts of Mesoamerica and then became incorporated into active networks of commercial trade and information exchange that made up the Postclassic world system'. All symbols and concepts displayed on Late Postclassic Lamanai ceramics are traceable to Maya Early Postclassic, Classic, and even Preclassic, Period art. Furthermore, stylistic execution of a finely-carved bone tube placed in this phase's principal burial is wholly Maya in its sinuous and organic form (Catalogue Fig. 4.6.1; Chapter 6: see Conclusions section). Style and iconographic content (motifs) of Lamanai Late Postclassic ceramics thus represent a continuation of the site's Early Postclassic imagery, established as Maya and linked back in time to at least the Early Classic Period. Consequently, to call Lamanai Late Postclassic imagery 'Mexican' is incorrect. Lamanai Late Postclassic ceramic art still forms scenes with motifs pressing against their framing borders in a sinuous and organic manner typical of Maya art; however, its style is more repetitive in the depiction of very few motifs (predominantly scroll_c) and its standardisation may reflect a certain degree of commercialisation (see below). It seems that the northern area undergoes some Mexicanisation (e.g., Mayapan; Masson 2003a:195; Milbrath and Peraza 2003:25-26; Pollock 1962:14; Proskouriakoff 1962a:137, Figs. 10e-f and 11b) in the Late Postclassic Period, but the southern Lowlands preserve Maya style and iconographical content, reflected in ceramic and other art forms (e.g., Tulum, Santa Rita), evolving mostly independently (see Inter-site relationships section).

This study reveals that the definition of style and iconographical content (Panofsky 1939) is difficult if syntagmatic chains and paradigmatic sets (motif combinations and sets) are ignored (see Chapter 3). Certain symbols are widespread throughout Mesoamerica (Chapter 2: see The background to the Postclassic Period, Manifestations of Postclassic styles in the Maya area sections). However, the motifs (which in form are the same) may have a different symbolic meaning in each cultural area of reception (e.g., scroll_b and c,

cross, triangle band; Chapter 6: see Inter-site relationships section). Misleadingly, certain widespread Postclassic symbols have been grouped under a 'Postclassic International Symbol Set' (Boone and Smith 2003; Chapter 2: see Manifestations of Postclassic styles in the Maya area section). Chapter 3, however, emphasises that to arrive at the meaning of imagery and representations through a definition of its style and symbolic content, the imagery must be considered as part of its cultural framework of production. To refer to a 'Postclassic International Style' (Boone and Smith 2003; Nicholson 1960, 1982; Robertson 1959:16-24, 1970:80; Smith 2003) and 'Postclassic International Symbol Set' (Boone and Smith 2003) is simplistic and suggests political or cultural equivalence between different cultures. In fact, the perception of each audience varies according to differences in total symbol systems. Equally, it is possible to compile a list of variables, important in the differentiation of each culture. Consequently, it is in the details of the iconographical analysis (revealing motif combinations) where readings of differences in cultural symbolism are possible. Differences in ideologies (as reflected in total symbol systems) were important to people at the time. The importance attributed to imagery and its symbolic details is demonstrated at Mayapan in the Late Postclassic Period, when repeated civil revolts, warfare and subsequent obliteration of opposing factions' art express 'Maya' Xiu and 'Mexican' Cocom revival styles and ideologies (Milbrath and Peraza 2003:20, 29, 31; Chapter 2: see Manifestations of Postclassic styles in the Maya area section).

Notable on Lamanai Late Postclassic ceramics is the reduction of the Early Postclassic symbolic complex of the Dragon into easily-repeated scrolls. The scrolls are composed of two opposing elements, symbolic of reflection, opposites and duality, yet, simultaneously, fused into one inseparable 'organic' unit. Read in a Maya context, this symbol expresses a duality of thought centred on the Dragon, whereas read in a Mexican context, this symbol refers to a light-dark dichotomy (see below). The discrepancy in symbolic content is supported by the theory of disjunction (Geertz 1983) that argues that even though symbols may adopt the same form throughout time and space, they may carry different meanings. Consequently, the scroll represents a widespread and ancient motif, adaptable and adoptable by different cultures, yet symbolising varied ideological concepts throughout Mesoamerica. The scroll motif's universality explains its

use in the extended cosmopolitan trade network that characterised Postclassic Mesoamerica (A. Andrews 1983, 1990b; Boone and Smith 2003:189; MacKinnon 1989; Masson 2000; McKillop 2004; see Chapters 2 and 6) and is evident in its occurrence on widely-traded ceramic wares, such as the Fine Orange and temporally later redware ceramics (see Inter-site relationships section). Both ceramic groups display a restricted number of easily-recognisable and executable motifs discernible by all in their style. The motif's cosmopolitan or universal nature is reflected in its general symbolic theme (e.g., duality) that was not tied in its ideology to a specific polity and could, therefore, be interpreted by many cultures, able to impose their own specific symbolic meaning and ideologies upon it.

The scroll motif occurs on Fine Orange paste ceramics, specifically the Silho Group (see Rands et al. 1982:326, Fig. 31, pp. 332-333, Figs. 47-51), frequent along the coasts of Campeche and northwest Yucatan, Chichen Itza, Mayapan, Dzibilchaltun (Ball 1978:103; Rands et al. 1982:332) and once at Lamanai in the Early Postclassic (Catalogue Fig. 3.11.3). The scroll motif also occurs on Late Postclassic redware ceramics found at a number of sites within the Maya Lowlands (e.g., Lamanai, Tulum, Mayapan, Colha, Cerros, Laguna de On; see Inter-site relationships section), linked to the earlier Fine Orange trade ware of Maya Fine Paste Ceramics (see Rands et al. 1982:326, Fig. 31, pp. 332-333, Figs. 47-51) in style and iconographical content. Fine Orange vessels might have influenced the stylistic change of Late Postclassic Lamanai ceramics, although this remains Maya in its execution. Smith (1957:143, 1971:21, 237) draws attention to stylistic differences between the Silho Ceramic Group and Mexican Veracruz Fine Orange Ware, while pointing out similarities of the Silho Group to Classic Maya ceramic traditions. The scroll motif would have travelled well, with different cultures able to impose their own symbolic meaning upon it. Its widespread, cosmopolitan nature and consequent adaptability is perhaps why the sourcing of Fine Paste ceramics is so difficult (Ball 1977a, 1977b, 1978:103, 137; Brainerd 1941, 1953, 1958:57, 276-277; Rands et al. 1982:332, 335, 337; Smith 1957:143, 1958:154, 1971:21, 184, 237; Thompson 1970). Lamanai's peripheral involvement in the 'Silho interaction sphere' is indicated by only one Silho (Chichen) Fine Orange pedestal-based vase (Pendergast 1981a:47, 1986:236) – in fact a Silho ('X') Fine Orange incised vessel (A. Andrews, personal communication 2006; Rands et al.

1982:331-332) – recovered from the site in the Early Postclassic Period, contrasting with large quantities found at other sites, such as Chichen Itza (see Brainerd 1958:266-283, Figs. 77-84), argued to have experienced strong Mexican influence (Ringle 2004:167-169; Ringle et al. 1998:183; Chapter 2: see Phases of Maya chronology section; Chapter 6: see Inter-site relationships section). However, in the Late Postclassic Period, Lamanai forms part of the redware ceramic sphere in the Maya Lowlands (see Inter-site relationships section). The universal theme expressed by both Silho and redware ceramics explains their occurrence at sites regardless of amount of Mexican influence, for example, redware ceramics also occurring at Mayapan, which experienced Mexican influence, expressed in murals and architectural decoration (Chapter 2: see Manifestations of Postclassic styles in the Maya area section).

Evidence for cultures placing regional concepts onto symbols widespread in Mesoamerica that parallel Late Postclassic imagery on Lamanai ceramics occurs on Mixteca-Puebla ceramics. Mixteca-Puebla ceramics from the Valley of Puebla-Tlaxcala, Oaxaca, Central Veracruz and Mexico date to the fourteenth and fifteenth, and beginning of the sixteenth, centuries (Hernández Sánchez 2005:221). Stylistically very different to Late (and Early) Postclassic Lamanai ceramics, these Mexican ceramics nevertheless show some overlap in motif choice and iconographical content to Lamanai symbolism that is attributable to these motifs forming basic widespread (cosmopolitan) symbols and concepts inherent in Mesoamerican religions. Hernández Sánchez (2005) devised a classification of Mixteca-Puebla motifs from ceramics and codices. In comparison, motifs found in both cultures include birds (Hernández Sánchez 2005:48-49, 51), crocodiles (Hernández Sánchez 2005:49), serpents (Hernández Sánchez 2005:51-52), smoke scrolls and recurved-S motifs (Lamanai scroll_a and b; Hernández Sánchez 2005:57-58, 65); flowers (Lamanai flower_f_a and b; Hernández Sánchez 2005:58, 77), crosses (Lamanai cross_S_a and c; Hernández Sánchez 2005:67, 79), cross-hatch (Hernández Sánchez 2005:80), ovals (Hernández Sánchez 2005:69-70), intertwined bands (Hernández Sánchez 2005:56) and triangle bands (Hernández Sánchez 2005:59). Mixteca-Puebla motif combinations expressing similar concepts to those found at Lamanai include reptiles metamorphosing into smoke scrolls ('volutas de humo-serpient'; Hernández Sánchez 2005:65). Hernández Sánchez (2005:190-210) links this motif combination to a 'complex of light and darkness', associated with

smoke offerings as media to contact the gods in an obscured and dark context. The specific symbol, in this case the reptile motif, relates to the theme or destination of offerings, which is into a trance or vision. A 'solar band complex' (Hernández Sánchez 2005:95-109) also occurs, akin to the Maya use of cosmic bands linked to the Dragon. Hernández Sánchez (2005:109) comments that the Mixteca-Puebla solar band complex is a widespread and well-known Postclassic symbolic concept. Overall, Hernández Sánchez (2005:223, 224, Table 8.1) interprets the symbolism of Mixteca-Puebla ceramics according to a 'duality of light-darkness, fundamental to cosmic vision of Mesoamerica'. This symbolism is not restricted to codex-type ceramics, as it also occurs in Aztec art (Hernández Sánchez 2005:230-231). Hernández Sánchez (2005:231-233) noticed geographic variation in complexes (motifs) within Central Mexico, suggesting, for example, that the solar band is a visually-known and used symbolic complex in Central Mesoamerica, although with regional variation. She states that Mixteca-Puebla ceramics use the canons of the ceremonial language of Mesoamerica, with its standardisation suggesting interest in showing participation in a large community rite that transcends frontiers of language and politics of the time (Hernández Sánchez 2005:239).

A shared symbolic system of basic and defining Late Postclassic concepts of Mesoamerican religions is also evident in the Postclassic Maya codices (Chapter 6: see Conclusions section), where similar themes are recorded, such as cosmic bands and burning rites related to the Dragon. Consequently, the example of the scroll motif represents duality in its broadest sense. The scroll motif's physical shape lends itself well to a concept surrounding binary opposition because its two scroll hooks visually balance the motif. However, critical is that the motif's detailed interpretation differs depending on whether read in a Maya or Mixteca-Puebla context. Read in a Maya context, this symbol expresses a duality of thought centred on the Dragon, whereas read in a Mexican context, this symbol refers to a light-dark dichotomy. The scroll motif represents a good example of the care that should be taken to read art in its own cultural framework, specifically when dealing with widespread Mesoamerican symbols (e.g., intertwined band, triangle band, scroll, flower, cross). The cross in a Christian Church (symbolic of the death of Christ and atonement of sin) carries a different meaning to the cross represented on the sarcophagus lid of the deceased Classic Period Maya ruler

Pakal (symbolic of the World Tree, centre of the five-part structuring of the Maya cosmos, with the ruler placed at its centre as an offering to the otherworld; see Stuart 1988:200, Fig. 5.29; Chapter 6: see T-shaped band section). Furthermore, symbols, much like language, are dynamic (Bal and Bryson 1991:177, 180; Derrida 1972, 1973, 1987; Tilley 1989:190-191) and may change meaning over space and time and according to who is viewing them. The identification of symbol sets is helpful then in establishing individual motifs. However, when analysis subsumes too broad a cultural area, it is unhelpful in the reading of the symbols as the symbols are placed within an artificial framework (Derrida 1987); instead context is all important. Consequently, this study of Postclassic Lamanai symbolism will have to acknowledge the artificiality of the (infinite) choice and definitions of the boundaries with which the material is framed, involving, for example, the most basic of decisions as to what to include in the analysis. Signs, and consequently also the artefacts which contain them, cannot be attributed with a single meaning or be contained within a limited context, because signs can hold many meanings and are expressed within a plurality of contexts (Derrida 1972, 1973, 1987; see Chapter 3). Art works change according to different conditions of reception and must therefore be considered within the context of their production and in the context of later archaeological and art historical commentary. Nevertheless, a concept of duality (Lamanai scroll_b and c) and burning of offerings to establish supernatural contact (Lamanai scroll_a) for the scroll motif may be established as widespread in Mesoamerican thought, although with possible varied meanings in each region. Perhaps the main difficulty in interpreting art lies in the eye of the modern beholder, affected by their 'period eye' (Baxandall 1988).

INTER-SITE RELATIONSHIPS

Relationships between Lamanai and elsewhere may be traced through both murals and ceramics. At Lamanai, only a few Late Postclassic mural fragments (Fig. 7.3.1) have survived the destruction of a Tulum-type temple (N12-11, 1st), razed in the construction of the first Spanish church built at the site (Str. N12-11; Pendergast 1985a:101, personal communication 2007; see Chapters 2 and 8; Appendix 1). The structure's demolition and concealment with a Spanish

church suggests that the temple, its location and murals were of considerable cultural importance to the Maya before Spanish domination in the Terminal Postclassic/Early Historic Period. The mural fragments do not permit the reading of iconographical themes – achieved through the detection of paradigmatic sets (see Chapter 3) – as too small. However, stylistic similarities between the Lamanai fragments and Tulum murals (Fig. 6.52) suggest cultural ties between the two sites in the Late Postclassic Period. Stylistic similarities include bold motifs outlined in thick black lines, similar to the Postclassic Maya codices, and then filled with flat areas of colour (blue tones or black) and motifs placed on a blue background. Iconographical similarity involves the depiction of what I call the supernatural eye (Chapter 5: see Organic section) that is visible on a deity figure. The use of blue pigment indicates that Lamanai maintained links to northern Yucatan during the Late Postclassic Period, thought to have been the source of Maya blue at the time (Milbrath and Peraza 2003:29-30). Lamanai mural segments suggest that visually more detailed scenes than occurring on ceramics were expressed at Lamanai in the Late Postclassic Period, in line with other contemporaneous Maya Lowland sites (e.g., Mayapan, Santa Rita, Tulum).



Fig. 7.3.1. Lamanai mural fragments from Tulum-type Str. 1, inside the first Lamanai Church, Str. N12-11. Photo taken by Pendergast.

Ceramics identical to Lamanai in their production, doubling style and iconographical content (motif choice and combinations), occur at a number of sites in the Maya Lowlands. Lamanai Late Postclassic ceramics are revealed as a refinement of Early Postclassic Lamanai ceramics and thus a continuation of Early Postclassic Maya ideology. The reading arrived at for Lamanai Late

Postclassic symbolism and its cultural significance may thus be applicable to the ceramics and sites where manufactured. Inter-site comparison suggests that the stylistic and iconographical content of Lamanai Late Postclassic ceramics – although based on a small sample – is representative of the larger Maya Lowland sample.

Tulum Red ware and Chen Mul Modeled type sherds are described as diagnostic of the major ceramic break typical of the Late Postclassic Period of the east coast of Yucatan, starting sometime in the thirteenth century (ca. 1250), with cultural ties indicated between the Late Postclassic Maya Lowland sites that produced or used these ceramic types.

Full-figure effigy incense burners are largely a Postclassic northern Maya Lowland phenomenon (Milbrath and Peraza 2003:7, 24). Chen Mul Modeled type figurine censers have been linked to Late Postclassic coastal trade (Sidrys 1983:262) and are found at Mayapan (Milbrath and Peraza 2003:25; Sidrys 1983:241; Thompson 1954b:623), Santa Rita (Chase and Chase 1988:25, 72; Gann 1918:114; Thompson 1954b:623), Tulum (Masson 2000:220), Lamanai and throughout northern Belize (e.g., Cuello, Saltillo, Consejo, Benque Viejo, Nohmul, Chowacol, Colha, Hipolito; Gann 1918:115; Graham 1987a; Hammond 1973:6-19, 1974c, 1975b; Hammond et al. 1991:71-74; Sidrys 1983:240-242, 244), the east coast and southern Quintana Roo (Fry 1972:491, 1987:119; Gann and Gann 1939:57; Lothrop 1924; Sidrys 1983:262), the Stann Creek District (Graham 1994) and Peten Lakes region (Bullard 1970a, 1970b; Masson 2003b:271; P. Rice 1979:50-56, 1986:284-285, 1987b:195-197, Plate XV, Fig. 66). At Lamanai, a large number of the censers were found smashed atop a disused Classic Period structure (Str. N9-56; see above) and one was placed in Burial N10-14/1. Lamanai Chen Mul-style effigy censers (Graham 1987a; Sidrys 1983) are contemporary with Mayapan (from ca. A.D. 1250 to 1450/1500; Milbrath and Peraza 2003:25; Pendergast 1981a:51; Sidrys 1983:241). The Lamanai examples were numerous but too fragmentary to reassemble. Because, as noted above, I did not have access to the full sample, and because ongoing excavations have turned up further examples, their symbolism was not treated extensively in this thesis. However, the Chen Mul Modeled-style Lamanai censers seem distinctive of a local style and were therefore most likely manufactured locally. Some stylistic similarities occur between Belizean censers and those of Mayapan (Sidrys 1983:242).

Identical ceramics (based on visual attributes and imagery and not paste or fabric) to those produced at Lamanai in the Late Postclassic Period occur at a number of sites in the Maya Lowlands (Fig. 7.3.2). This suggests that these sites share a high degree of cultural interaction. Most sites are suggested as having manufactured the ceramics, others as having received them from Lamanai (e.g., Colha [Valdez and Adams 1982:29]). The redware ceramics are called Payil Red (Smith 1971) or Tulum Red (Sanders 1960) and Navula (or Tulum) Unslipped and are dated from the twelfth through fifteenth centuries (Masson 2003b:270-271; Masson and Mock 2004; Mock 1997:62). Their spread and development has been attributed to a coastal focus in trade that resulted in an east coast variant of slipped and unslipped Late Postclassic ceramic wares (Masson 2003b:270-271).

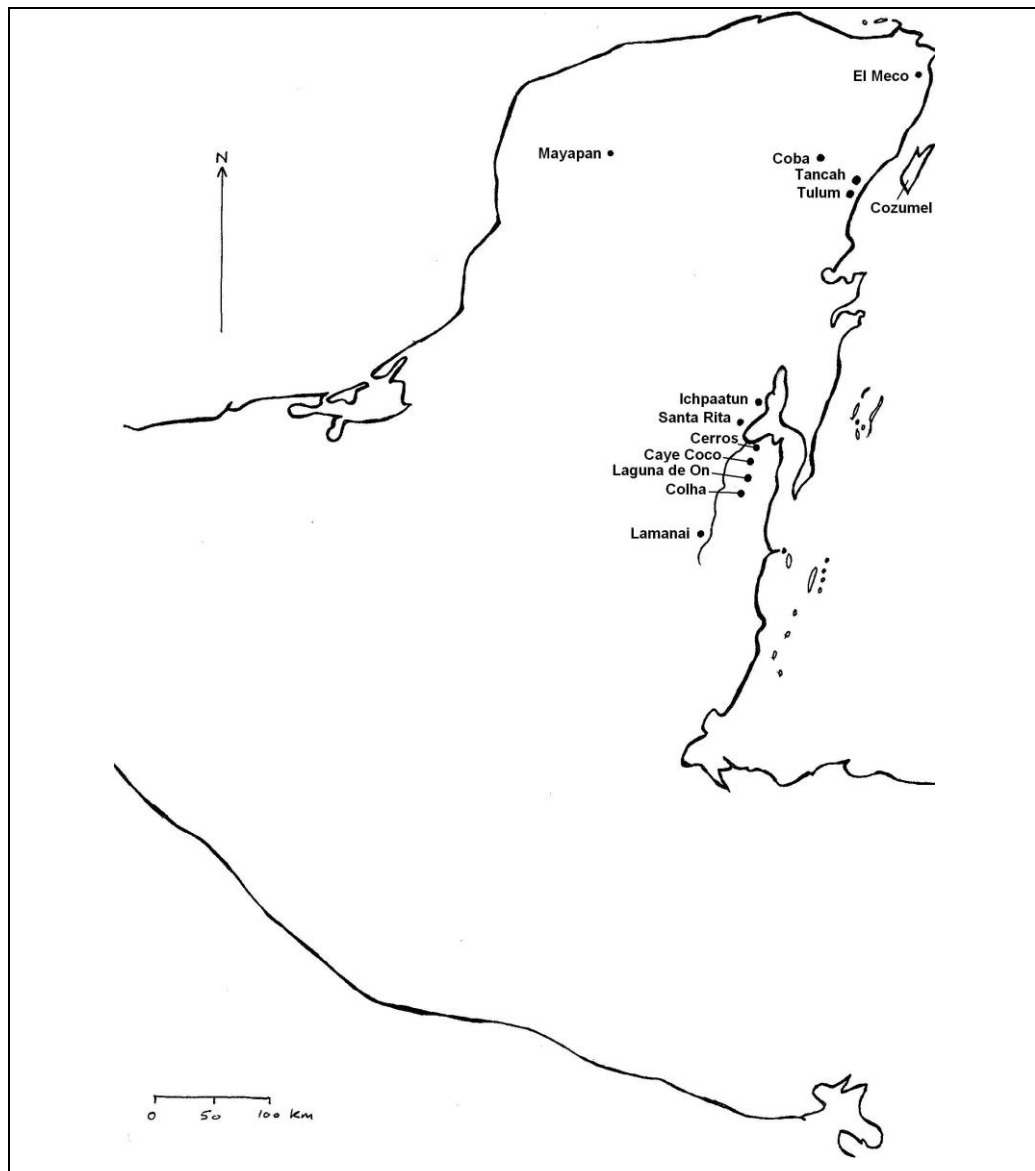


Fig. 7.3.2. Late Postclassic iconographic-interaction sphere.

Redware ceramics are found at sites in Yucatan, Quintana Roo and northeast Belize: Mayapan (Smith 1971:22-23), Ichpaatun (Sanders 1960; Smith 1971), Tulum (Sanders 1960; Smith 1971; Fig. 7.3.3), Cozumel (Connor 1983; Peraza Lope 1993), Colha (Paxcaman ceramic group from Canos complex; Mock 1994:233-243, Figs. 1-4), Lamanai (Graham 1987a), Cerros (Ball 1978; Walker 1990:86), Laguna de On (Payil Red: Palmul Incised; Mock 1997:61-63, Figs. 8 [centre] and 27 [top right, bottom left and centre]), El Meco (Palmul Incised: Palmul Variety, Payil Group, established by Smith 1971:30; Andrews and Robles 1986:117, 120, Fig. 45; Robles 1986) and Coba (Palmul Incised: Palmul Variety, Tases phase; Robles 1990:237, Figs. 55c and i).

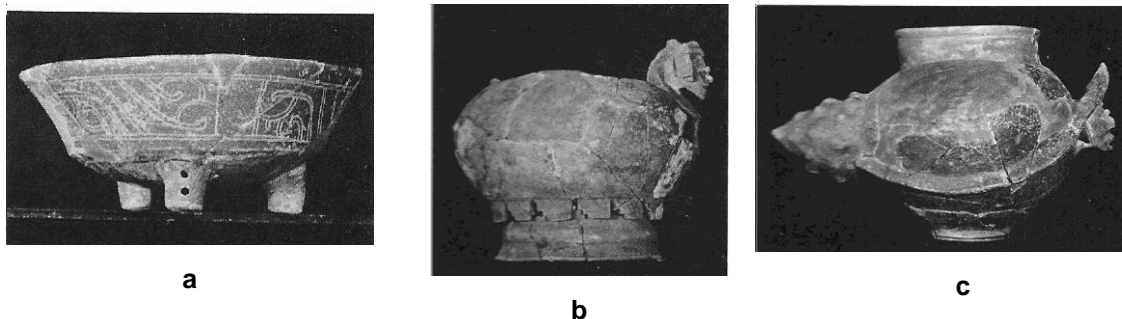


Fig. 7.3.3. Tulum redware ceramics: (a) tripod dish; (b) pedestal-based jar, probably from Tulum; (c) effigy jar, probably from Tulum. Sanders 1960:Figs. 15c, d and f.

Redware ceramics have been used to identify trade associations and support accounts of economic alliances. In the Terminal Classic and Early Postclassic Periods, northern Belize developed into a vibrant region of trade, rich in resources and located in an optimal position for trade via the coast (north-south facilitated by waterways Rio Hondo, New River and Freshwater Creek; east-west by Belize River; Masson 2003b:270; see Chapter 2: Lamanai's interaction sphere section). During the Late Postclassic Period, sites in northern Belize interacted intensively with Mayapan (Masson 2000, 2003b:271). Established political and economic alliances between Mayapan, eastern Quintana Roo sites, and sites in northern Belize or the Chetumal Bay vicinity are also indicated in Colonial accounts (Masson 2003b:271; Pollock 1962; Roys 1962).

Opinions on the origin of redware ceramics vary (Ball and Taschek 1989:195; Masson 2000:53-56, 2003b:271). However, Diane and Arlen Chase (1986:14) argue that the late facet ceramics of Santa Rita, which are similar to Mayapan ceramics, 'post-date the initial appearance of Tulum Red style

ceramics which characterize the East Coast of Yucatan'. They draw attention to the fact that Pendergast (1981a:48-51) – based on his work at Lamanai (45km south of Santa Rita) – suggests that the redware tradition of the northern Lowlands ultimately originated in northern Belize with certain traits (e.g., carved decoration, serpent motifs, segmented basal flanges) developed independently at Lamanai and then later transmitted north to Mayapan. Diane and Arlen Chase (1986:14) agree, based on the diversity of pottery traditions in northern Belize, the earlier dating for certain redware traditions in northern Belize, and their examination of the Santa Rita material. This study's revelation of Late Postclassic Lamanai (redware) ceramics forming a stylistic and iconographical continuation of the site's Early Postclassic ceramic material provides strong evidence for the redware ceramics' development in the south, with Lamanai likely acting as the progenitor in the expression and distribution of the ideology first expressed in the Early Postclassic Period.

In relation to Lamanai's interaction sphere, the reading of Lamanai style and symbolism as Maya agrees with that expressed by Chase and Chase relative to Santa Rita ceramics (A. Chase and D. Chase 1986:13), who negate the theory that direct influence of people from Central Mexico during the Postclassic Period accounts for the 'Mixteca-Puebla' style of the murals found by Gann in Santa Rita Structure 1. Rather, they see this style as the result of 'an indigenous tradition with extensive exterior trade and communication networks' (A. Chase and D. Chase 1986:13). This is supported, they write, by their findings of continuity at Santa Rita in cache and burial patterning from the Classic to Postclassic Periods, indicative of continuity in religious belief that would have been impossible if the site had suffered foreign domination or intrusion.

In the Late Postclassic interaction sphere identified, it is unlikely that the continuity that occurred in religious beliefs from the Early Postclassic Period would have been possible if the area had undergone Mexicanisation. The identified ideological zone in the Late Postclassic Period corresponds roughly with that identified in the Early Postclassic Period, representing continuity in the spatial extent of shared Maya ideology, possibly corresponding with trade networks at the time (Chapter 2: see Lamanai's interaction sphere). Sites bordering the north of this zone (e.g., Mayapan) seem to reflect ideological turbulence in their art (see above). Mayapan history suggests that

Mexicanisation was not wholly accepted by the indigenous population, shown in the power struggle reflected in the styles and iconographical contents of its art.

At Mayapan, Mexican influence is evident in some deity representations (e.g., Taube 1992a:125-130, Fig. 67d) and a strong 'Mexican' flavour is present near the final part of Mayapan's occupation, around A.D. 1440 (Milbrath and Peraza 2003:31), reflected in stylistic and iconographical changes in the site's art and architecture (Chapter 2: see Theories of Mexicanisation section). Earlier (A.D. 1300), Mayapan's external relations were intra-regional with a concentration on serpent-columned temples inspired by Chichen Itza (Structures Q58, Q143, Q159, Q162, Q218; Aveni et al. 2004; Milbrath and Peraza 2003, n.d.:20; Chapter 6: see Inter-site relationships section), coinciding with what has been suggested to be a revitalisation of the *Quetzalcoatl-Kukulcan* cult and its feathered serpent imagery, linked to the Cocom (Masson 2000:261; Milbrath and Peraza 2003:23, 33, n.d.; Pollock 1962:8; Ringle and Bey 2001:284-286; Ringle et al. 1998; Tozzer 1941:25, note 134; see Chapter 2). Peak dates for the Mayapan Cocom-Itza revival style lie between A.D. 1300 and 1350 (Milbrath and Peraza 2003, n.d.:20).

The Aztec empire, which rose in the early fifteenth century, is thought by some to have influenced Highland-Lowland interaction (Blanton and Feinman 1984; Carmack 1996; Kepecs et al. 1994:142, 153-154). (See Robertson [1970:88] and A. Miller [1977:132, 1982:75, 1986:207, 211] for such interaction interpreted in Maya art.) However, Masson (2000:252-253) states that this is probably too simplistic a view, since the Maya had enjoyed a successful existence prior to the rise of the Aztec Empire. Nevertheless, Aztec influence might have been felt very late, as has been suggested for Mayapan's reign (Masson 2000:252-253).

Chapter 8: Terminal Postclassic/Early Historic ceramics (Yglesias phase; ca. A.D. 1500 - 1700) (Catalogue Figs. 6.1.-6.2)

Sample

Twenty-eight Yglesias phase ceramics were manually scored to reveal significant motif combinations. Even though this sample represents a small number of vessels, the sample comprises all vessels from primary contexts that display imagery. Furthermore, the sample's inclusion permitted examination of continuity and change in Lamanai Terminal Classic to Early Historic ceramic symbolism. No similarity coefficients are available for Yglesias phase motif combinations as these were assessed qualitatively and occur rarely in combination (see Appendix 6, Tables A6.1-2).

Individual motifs

Anthropomorphic (13), zoomorphic (5), animal miscellaneous (4), feline (4), oval (3), other motif (2), shell (1), glyph (1), rectangle (1), triangle (1).

Motif combinations/substitutions (key paradigmatic sets)

Anthropomorphic/zoomorphic (3).

Motifs and motif combinations related to the vessels on which they occur

Appliqué-modelled anthropomorphic and/or zoomorphic effigy containers occur.

DEFINITION OF STYLE

Appliqué-modelled effigy vessels of anthropomorphs, animals (monkey [Catalogue Fig. 6.2.8] and felines [Catalogue Figs. 6.2.1-3 and possibly 12]), and fantastic zoomorphic creatures [Catalogue Figs. 6.1.1-6] occur in the Terminal Postclassic/Early Historic Yglesias phase at Lamanai. Paint is used in this phase to embellish modelling (Fig. 8.1). Six vessels are stuccoed, which involves a thin lime wash applied to the vessels' surface before painting. Some

lime-washed vessels that are now eroded thus may once have been brightly painted.

The style of the two main Yglesias phase ceramic motif groups (anthropomorphic and zoomorphic) are considered below, characterised by their motifs and expression and placement of motifs relative to vessel body. For tabulated data of counts of isolated motifs and relation to the vessels on which they occur, see Appendix 6, Tables A6.1-2.

Anthropomorphic motifs (Catalogue Figs. 6.1.1-2, 5-6, 6.2.3-5, 9, 11 and 13-14)

Anthropomorphic motifs are represented in the Terminal Postclassic/Early Historic Period at Lamanai by thirteen examples. The figures either form vases (Fig. 8.1) or are attached to vessel exterior rims, such as jars (Catalogue Fig. 6.2.7) and, in one instance, a pedestal-based bowl (Catalogue Fig. 6.2.13; see Appendix 6, Table A6.2). Anthropomorphic figures emerge from zoomorphic effigy containers on three occasions (Catalogue Figs. 6.1.1, 2 and 5) and once from a shell (Catalogue Fig. 6.1.6).

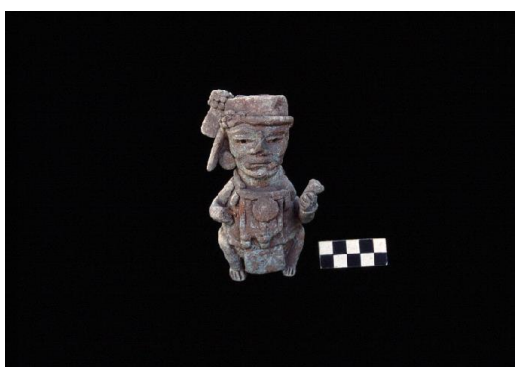


Fig. 8.1. Yglesias phase effigy vessel once covered in stucco then paint, LA 397/1.

A set of mouth-corner stubs prise open the mouths of the anthropomorphs (Catalogue Figs. 6.1.1, 6, 6.2.9 and 11; Fig. 8.1; Chapter 7: see Gatah ceramics section). The anthropomorphs also display pronounced naso-labial flaps, interpreted as the edges of masks, and wear ear spools, headbands and/or headdresses. The ear spools and headdresses are part of regalia reserved for the elite or help to identify supernaturals, and wearing a mask suggests deity impersonation (Chapter 6: see Anthropomorphic section). The figures,

therefore, may represent a process of transformation, perhaps reflecting a specific ritual.

One Yglesias phase anthropomorphic figure seems to represent an actual individual (Catalogue Fig. 6.2.7). The figure, a male, is seated on a throne or bench and exhibits the pathology of kyphoscoliosis (a hunched back). He displays distinctive facial features. The configuration of his facial features more closely resembles the style characteristic of the Gulf Coast than it does the style of the Maya area. The figure's individuating facial and body characteristics and throne-bench on which he sits possibly identify the male as a ruler or official. The vessel is possibly reflective of a certain degree of foreign influence experienced by Lamanai at the time.

Two further anthropomorphs may also represent actual individuals, although the features are more akin to what might be represented in a modern-day cartoon. One individual has large and protruding ears and a pronounced square chin (Catalogue Fig. 6.2.14); the other is bearded and has an upturned, flat nose (Catalogue Fig. 6.2.13). Both individuals display features clustered in the centre of their faces, with their eyes particularly close-set. These representations have been suggested as displaying European facial features, evidence of Spanish presence at the site (Coggins 1985:230; Pendergast 1993:134-135).

Zoomorphic motifs (Fig. 4.8f; Catalogue Figs. 6.1.1-6)

The most striking Yglesias phase ceramics form appliqué-modelled zoomorphic effigy vessels, with the motif forming the vessel (Figs. 8.2-3). The zoomorphs occur at Lamanai as seven non-utilitarian vessels that were originally brightly painted, as remnants of pigment remain on some of the pieces. The creatures consist of different animal parts forming fantastic beasts with a supernatural appearance. The beasts are made up of shark, fish, manatee, crocodile, reptile, feline and/or deer characteristics. Anthropomorphs are sometimes contained within the supernatural beasts' open maws (Catalogue Figs. 6.1.1-2 and 5-6). The zoomorphic vessels usually form lidded containers. Although similar, in that each creature combines traits from multiple animals, no two zoomorphic vessels are identical in that they combine different animal traits and parts thereof (see discussion of motifs below).

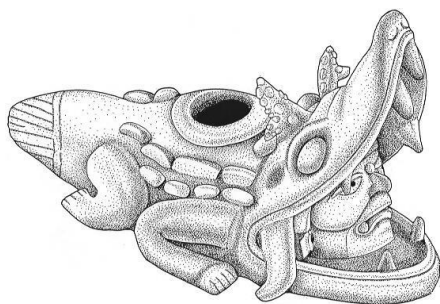


Fig. 8.2. Yglesias phase zoomorphic effigy vessel, LA 833/1.

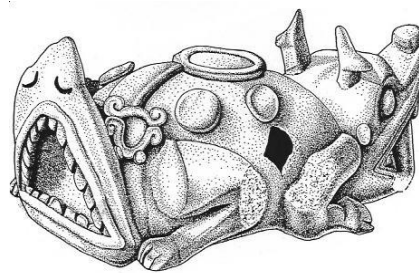


Fig. 8.3. Yglesias phase zoomorphic effigy vessel, LA 767/1.

Even though many of the zoomorphs' animal attributes also occur in other Lamanai ceramic phases studied (notably, reptiles occurring on Early Postclassic ceramics and felines on Terminal Classic ceramics), such representations are not part of composite beasts, or at least, not part of composite beasts including features from such a wide range of animals. Furthermore, the emphasis in the Yglesias phase is on modelling, whereas representation in earlier times found expression in a variety of ways: painting, incision, applied motifs and modelling.

MATERIAL AND SOCIO-CULTURAL CONTEXT (ICONOGRAPHICAL CONTENT)

Archaeological-contextual analysis

Examination of the archaeological context of Yglesias phase ceramic art reveals that the placement of the effigy vessels in caches had directional implications. At least one example formed a clandestine offering put in place during the construction of the first Spanish church built at the site (Pendergast 1993:121; see tabulated data in Appendix 6, Table A6.3).

Terminal Postclassic/Early Historic Yglesias phase ceramics occur as sherds throughout the site. This sample focuses on vessels from primary deposits, most of which are caches from the church precinct (Fig. 8.4). The church precinct includes the first Spanish church, YDL I or Str. N12-11, the second or later church, YDL II or Str. N12-13, and the Rectory, Str. N12-12. The Rectory abuts the sanctuary and what was once the nave of YDL II on its north side. Vessels that are probably Terminal Postclassic were also recovered from

burials, a tomb ('The Hunchback Tomb'), midden contexts and surface deposits. The 'Hunchback Tomb', N12-26/1, contained the hunchbacked portrait of what may have been a ruler (Catalogue Fig. 6.2.7; see above) and a bat or feline (Catalogue Fig. 6.2.12) and monkey effigy vessels (Catalogue Fig. 6.2.8).

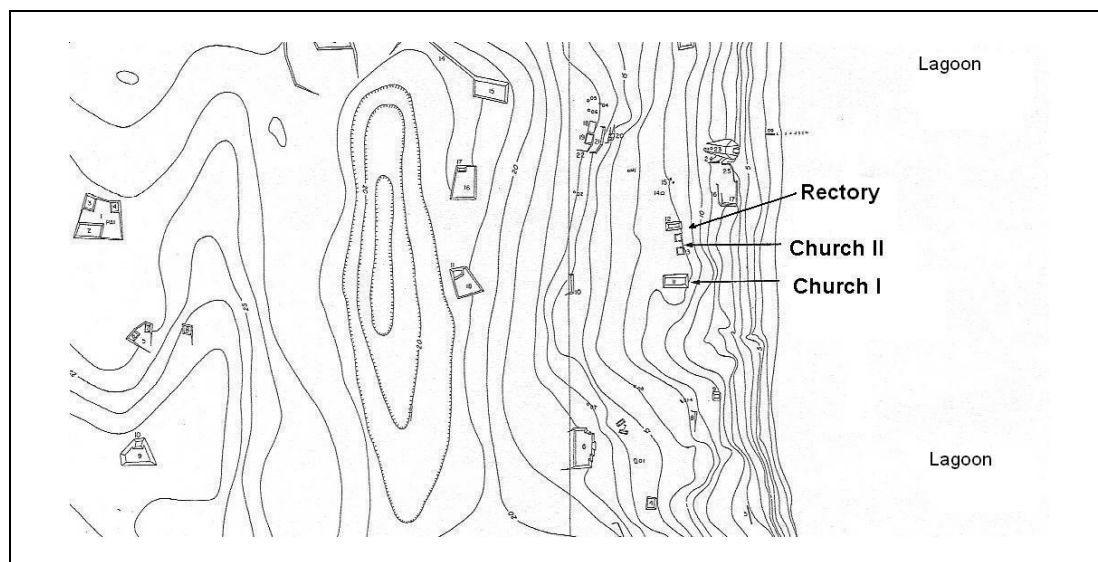


Fig. 8.4. Map of south portion of Lamanai showing the location of the two Spanish Churches (Str. N12-11, Str. N12-13) and Rectory (Str. N12-12); enlarged detail of Figure 3.2.3.

Socio-cultural contextual analysis

ICONIC MOTIFS:

Animals miscellaneous (Catalogue Figs. 6.2.6, 8 and 12)

A tetrapod effigy jar displays a modelled monkey's head on one side and the monkey's tail on the jar's obverse (Catalogue Fig. 6.2.8). The monkey's arms and legs form the vessel's four supports. The monkey has humanoid facial features, ear ornaments, and wears a helmet. The helmet may link the monkey to the ball game or to war. Monkeys and humans or anthropomorphic figures frequently merge in Maya iconography, making their distinction difficult at times. In the literature, the simian is closely tied to transformation, which is why it frequently occurs in creation myths (e.g., *Popol Vuh*; Benson 1994:137-143; Edmonson 1971; Miller and Taube 1993:118; Reents-Budet 1994:241; Tedlock 1996). The creative aspect of monkeys explains why the animal is also closely tied to the arts (Benson 1994:138-140; Coe 1977:327-330) and music at

Lamanai (Chapter 6: see Animals miscellaneous section). The monkey tetrapod jar was retrieved from the only Terminal Postclassic tomb excavated at the site, N12-26/1, which also contained the hunchbacked individual (Catalogue Fig. 6.2.7) and a pedestal-based bowl with elaborately-modelled bat or feline flange (Catalogue Fig. 6.2.12). The tomb is that of a high-status individual, possibly the last elite tomb at Lamanai, established by the amount and nature of associated grave goods (Pendergast 1984a; see Appendix 6, Table A6.3). The individual's high status is further supported by the tomb's large number of imagery-rich vessels. Foreign elements detected in the hunchbacked individual's facial characteristics (see above and below) might also be reflected in the stylistic execution and iconographical content on the monkey jar (monkey with helmet and complex line-and-dot design painted in red on a stuccoed base applied to the jar's shoulder) foreign to Lamanai ceramic art. Pendergast (1984a:6-10) describes the hunchback individual and monkey jar as previously unknown in the site's ceramic repertoire and elsewhere in the Maya area.

Anthropomorphic (Catalogue Figs. 6.1.1-2, 5-6, 6.2.3-5, 7, 9-11, 13-14 and 18)

The anthropomorphic motif is the most frequent motif in the Terminal Postclassic/Early Historic Period, found on thirteen imagery vessels in my sample of twenty-eight vessels; most (nine) are from caches. The caches are associated with Structures N9-59, N11-3, N11-4, N12-13 (2nd Spanish Church, YDL II), P8-26 and P8-29 (see Appendix 6, Table A6.3). They therefore likely constitute offerings associated with the buildings.

The anthropomorphs wear ear spools, headbands and/or headdresses and have mouth-corner stubs (Catalogue Figs. 6.1.1, 6, 6.2.9 and 11; Fig. 8.1; Chapter 7: see Gatah ceramics section). The figures display pronounced nasolabial folds, interpreted as the edges of masks and linked to supernatural transformation (Chapter 6: see Anthropomorphic section). The anthropomorphs are grouped into three distinct classes: anthropomorphs portraying specific deities (Group 1), unidentifiable supernaturals, deities and/or deity impersonators (Group 2) and humanoid anthropomorphs (Group 3). Each group is discussed in turn.

Group 1: Specific deities

Deities allowing specific identification include anthropomorphs emerging from the mouths of zoomorphic composite creatures on three occasions read as *Itzamna*, the anthropomorphised aspect of the Dragon (Catalogue Figs. 6.1.1-2 and 5), and once from a shell interpreted as God N (Catalogue Fig. 6.1.6). The pronounced naso-labial folds identify the figures as aged. Simultaneously, the facial folds double as the edges of masks, supporting an association with metamorphosis (Chapter 6: see Anthropomorphic section; Chapter 7: see Gatah ceramics section). The supernaturals are clearly associated with their effigy containers, which *are* the zoomorphic beasts (Dragon and *Itzamna*) and shell (God N). The figures' emergence from the zoomorphic containers suggests 'birth', with parthenogenesis, or inherent oneness, forming an important part of the deities. The creatures may thus be argued to be giving birth to themselves, from the protective shell or housing that *is* their body. One instance of an 'upended' figure (possibly the Maize God) also occurs in this phase. *Itzamna*, God N and the 'upended' figure representations are discussed in turn.

Itzamna (Catalogue Figs. 6.1.1-2 and 5)

Itzamna representations with pronounced naso-labial folds and mouth-corner stubs emerge from the mouths of zoomorphic creatures (Dragon manifestations) on three occasions (see below). Consequently, the zoomorphic effigy vessels are interpreted as forming the body of the Dragon with this deity's or entity's anthropomorphised aspect *Itzamna* in maw. See Zoomorphic section for a discussion of the Dragon and its anthropomorphised aspect *Itzamna*.

God N [*Pauhtun* or 'Skybearer'] (Catalogue Fig. 6.1.6)

God N is described as an aged deity, frequently depicted emerging from a conch shell (Coggins 1983:61; Miller and Taube 1993:148; Fig. 8.5). The deity occurs as an appliqué-modelled Yglesias phase effigy vessel, emerging from a conch shell (identified by the shell's spikes; Fig. 8.6). Shell openings act as portals to the otherworld waters in Mesoamerican art (Coggins 1983:61). The association of shells with otherworld access might stem from their natural occurrence in water and because gastropods emerge from shells. The spiral of the conch shell in the Yglesias phase example forms a tightly-curved scroll

when viewed from behind (highlighted in top-left drawing of Fig. 8.6). Such spirals and concentric ovals are a widespread Mesoamerican symbol for water (Coggins and Shane 1984:52; Robicsek et al. 1981:119). The Lamanai cache vessel was placed in Structure P8-26, located near the lagoon's shore. The vessel was deposited facing north and contained a small amount of indurated soil, residue of an organic offering (Pendergast 1981c:2, Fig. 11b). As a multiple of four, God N, or the four *Pauhtuns* ('Skybearers'), was believed to support the world at its four quarters and thus corresponds to the world directions in a single or quadripartite form (Thompson 1960:10). The orientation of the offering is representative of cache deposits marking location (probably related to the associated structure) and cardinal direction. Consequently, the directional association of the cache's shell effigy vessel combined with its iconographical content – an aged deity emerging from a conch shell – provide a secure reading for this vessel as God N. Furthermore, the north-facing deposition of God N within a structure close to the site's lagoon shore symbolically parallels the south to north flow of the New River. It is therefore conceivable that caches revealing directional association at Lamanai were deposited in relation to a real world phenomenon such as river travel or trade.

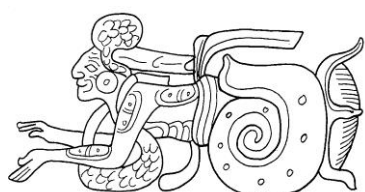


Fig. 8.5. God N emerging from a conch shell. Taube 1992a:95, Fig. 47d.

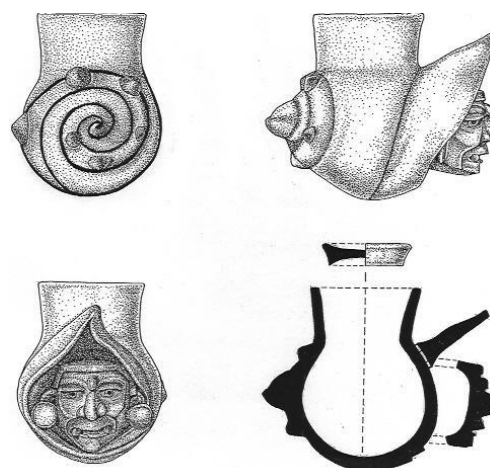


Fig. 8.6. Yglesias phase God N effigy vessel, LA 411/1.

'Upended' figure

A pedestal-based jar with attached appliqué-modelled 'upended' figure was found in the New River downstream from Lamanai (Fig. 8.7). It was discovered, with a few net weights surrounding it, by a diver recovering a boat prop from the river bed. It is therefore not strictly speaking from the site, but its distinctive

context makes it worth reporting and may be indirectly associated with Lamanai via the New River. The figure displays pronounced naso-labial flaps and wears ear spools and a conical-style headdress decorated with a row of ovals.



Fig. 8.7. Yglesias phase pedestal-based jar of 'upended' figure, pedestal base missing.

The metamorphosis of humans into gods was no problem in Maya belief. It is expressed by the phrase *walk' esahba ti'Dios* or *walk' esah lakum* and means to 'turn over', to put the feet in the air and the head down on the ground (Hellmuth 1988:173). Many 'upended' figures appear in the Maya Lowlands in the Postclassic Period (Masson 2000:229-234; Figs. 6.21-22 and 27). 'Diving Gods' or upended figures occur in all three Postclassic Maya codices (Madrid Codex [see Lee 1985:85-140, Plates 35-37]; Dresden Codex [see Thompson 1972:15]; Paris Codex [see Love 1994:Plates 4 and 17]).

The 'upended' figures may represent Diving Gods, many of which form representations of the Maize God (God E) in the Late Postclassic Maya area (Bricker 1986:147; Taube 1992a:41), closely associated with agricultural cycles, transformation, death and rebirth (Bricker 1986:147; Taube 1992a:41-43, 50, Figs. 17-18). The 'upended' figures usually display prominent maize foliation on the tops of their heads and feather-like elements projecting from their arms (Taube 1992a:41). 'Upended' or 'diving' figures demonstrate great longevity in Mesoamerican art: an 'upended man' dressed in a bird costume occurs at Early Classic Teotihuacan (see Baird 1989:115, Fig. 30). The Teotihuacan figure is very similar in appearance to the Postclassic Period 'upended' figure that wears a bird headdress and feathered wings said to be from Tulum, a site within closer proximity to Lamanai (see www.research.famsi.org/kerrmaya.html:1504b, accessed 2006). The Tulum example displays a prominent jagged line passing

over his face, explicitly identifying him as the Maize God (Taube 1992a:41, 43, Fig. 18d).

Group 2: Unidentifiable supernaturals, deities and/or deity impersonators

(Catalogue Figs. 6.2.3-5 and 9-11)

Anthropomorphic representations lacking specific identifying characteristics also wear ear spools, headbands and/or headdresses and display mouth-corner stubs, possibly visualising their breath soul or supernatural essence (Chapter 7: see Gatah ceramics section). The anthropomorphs further display pronounced naso-labial folds, interpreted as the edges of masks and thus indicative of transformation (Chapter 6: see Anthropomorphic section). The ear spools lend the anthropomorphs a humanoid appearance. The figures could represent individuals dressed in supernatural costume. Alternatively, the figures might have already undergone supernatural transformation to take on the guise of a deity or the general supernatural status of deities; this is indicated by the mask they wear and is possibly given artistic expression by the mouth-corner stubs.

Group 3: Humanoid anthropomorphs (Catalogue Figs 6.2.7 and 13-14)

Humanoid anthropomorphs usually wear ear spools, indicative of their elite status. All also display features suggestive of individuation (see Definition of style: Anthropomorphic section). A hunchbacked figure, possibly foreign as indicated by his facial characteristics, might represent a ruler or official suggested by his individuation and the throne-bench upon which he sits (Catalogue Fig. 6.2.7). The foreign figure was recovered from Tomb N12-26/1, which also contained a monkey effigy jar stylistically and iconographically distinct to Lamanai's ceramic art (Pendergast 1981d:6-9; see Animals miscellaneous section). The tomb's vessels are thus possibly reflective of a certain degree of foreign influence experienced by Lamanai at the time.

Feline (Catalogue Figs. 6.2.1-2 and possibly 12)

Two felines occur as effigy vases and possibly one feline (or a bat) as a pedestal-based bowl. The vases come from caches in Structures N11-3 and N12-11 and the pedestal-based bowl from Tomb N12-26/1. The feline vase from Cache N12-11/2 was recovered from a plinth situated west of the north

stair of the first church, Str. N12-11. A flint (chert) blade was placed to point in a north-easterly direction. The feline's characteristics suggest that the effigy represents a puma and not a jaguar or other spotted cat. The vessel contained charcoal and bone pin or needle tips and likely formed a clandestine offering, deposited during the construction of the first Spanish church at the site (Pendergast 1993:121).

Zoomorphic (Fig. 4.8f; Catalogue Figs. 6.1.1-5)

Yglesias phase zoomorphic vessels form a distinctive group. Each vessel represents a single creature or beast displaying the characteristics of more than one animal. Each characteristic usually represents the animal's most distinctive or salient body part that refers to the animal's strength or power (see below) thus forming especially fearsome or powerful creatures. Each zoomorphic vessel is unique in its specific combination of animal traits. Consequently, various combinations of crocodile, shark, deer, fish, manatee, jaguar and/or reptilian traits can occur. It thus seems that many elements of life are represented.

I propose that many, perhaps all, Lamanai composite creatures – especially those displaying reptilian traits – represent manifestations of the different aspects of the Dragon, sometimes alongside the Dragon's anthropomorphised aspect *Itzamna* (see below). The Dragon was considered the essence of life and was thus composed of all elements of life reflected in its multiple and varied (zoomorphic) forms (Chapter 6: see Reptile section). Some aspects emphasise strength, some power and some metamorphosis, linked to supernatural communication and access (see below) – in particular through the supernatural sight imparted to the beasts by its supernatural eyes (Chapter 5: see Organic section) – in general associated with themes of regeneration and rebirth and the quadripartite structuring of the Maya cosmos (Chapter 6: see Reptile section). The orientation of zoomorphic effigies in caches reflects the importance of the cardinal directions. The quadripartite structuring of the Maya cosmos, therefore, is also a feature of the Lamanai Dragon. These characteristics are embodied in the being and concept of the Dragon and are reinforced by the material objects' (ceramics) archaeological placement at Lamanai (see below).

In Classic Period art, the Dragon is often enriched with other sacred animal characteristics (de la Garza 1998a:237; Stone 1985:39; Chapter 6: see Reptile section). The Postclassic Maya codices also show the Dragon composed of many different animal traits (Fig. 6.40). On Plate 39 of the Madrid Codex, *Itzamna* sits in front of a spiked censer dressed as the Dragon, in this instance with jaguar head and deer legs and deer body (Fig. 8.8). In Lamanai Yglesias phase Dragon manifestations, the deer is represented by its antlers (Catalogue Figs. 6.1.1, 2 and 4; Chapter 5: see Feline section); the jaguar by its spots and powerful jaw, head and claws (Catalogue Figs. 6.1.2 -3; Chapter 5: see Feline section); the crocodile by its long snout and protruding dorsal scales (Catalogue Fig. 6.1.1; Chapter 4: see Reptile section); reptiles in general by their 'all-seeing' eyes or supernatural sight (Fig. 4.8f; Catalogue Figs. 6.1.2-3 and 5; Chapter 5: see Organic section); fish by their barbed mouths or tail fin (see below; Catalogue Figs. 6.1.1 and 4); the manatee by its large rotund body, smooth skin and large forked tail (Fig. 4.8f); and the shark, possibly a particular species, by its large triangular snout lined with sharp teeth and conical shaped body (see below; Catalogue Figs. 6.1.2 and 5). A review of comparative data revealed the animals – generally not forming parts of composite creatures – as associated with power (deer [Freidel and Schele 1988:71; Hammond 1985b:171; Robicsek and Hales 1988:273; Taube 1992a:61; see Aztec ceremonial staff carved as a deer in Matos and Solís Olguín 2002:312, Fig. 276], jaguar [Chapter 5: see Feline section], crocodile and reptiles in general [Chapter 6: see Reptile section]) and transformation (crocodiles and reptiles in general [Chapter 6: see Reptile section], fish [Tedlock 1996:132] and shark [Jones 1985:217-218; Reilly 1985:130]). Most of these animals, apart from fish, were regarded by the Maya as strong or fearsome creatures.

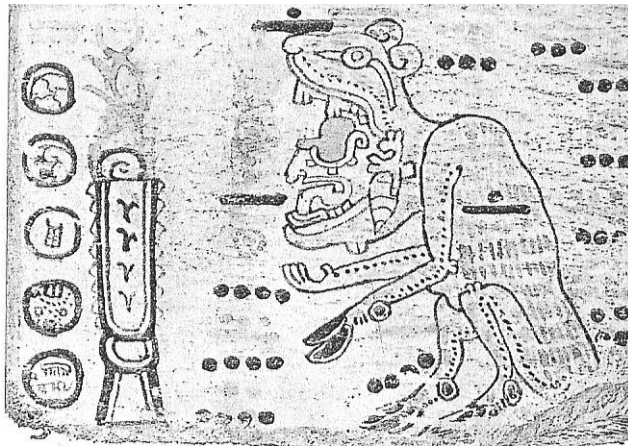


Fig. 8.8. Dragon with jaguar head, deer body and *Itzamna* in maw, Madrid Codex, Plate 39. Lee 1985:104, Plate 39.

The deity *Itzamna*, the anthropomorphised aspect of the Dragon (see below; Chapter 6: Anthropomorphic, Reptile sections), is represented by the anthropomorphs frequently emerging from the creatures' mouths. The anthropomorphic figures in the maws of the beasts are symbolic of metamorphosis or transference from one world into another and draw attention to the pathogenesis of the Dragon (see above). When the anthropomorphs are not present, the beasts may be interpreted as combining many elements of life forms, characteristic of the Dragon (Chapter 6: see Reptile section). The interpretation of zoomorphic ceramic creatures forming the Dragon fits with Thompson's (1970:220-221, Fig. 5c) reading of an isolated example from Santa Rita as *Itzam Na*, and de la Garza's (1998b:108, Figs. 46-47) identification of a zoomorphic creature from Santa Rita and one from Chacchoben (dated to between A.D. 1200 and 1400), as the Dragon, with his anthropomorphised aspect God D (*Itzamna*) in maw. De la Garza (1998b:115) also interprets the essentially crocodilian Lamanai zoomorph depicted in figure 8.2 as the earth Dragon.

The symbolic significance of fish and shark aspects emphasised in Yglesias phase Dragon manifestations at Lamanai reflect how local environment influences representation. This influence may also be suggested for serpentine and crocodilian characteristics present in Dragon representations. Serpents are frequent in Belize and at Lamanai. And the cultural significance of crocodiles at Lamanai is reflected in the site's name, which translates as 'submerged crocodile' (Pendergast 1981a:32 [personal

communication with MacLeod, 1978]). Crocodiles are further abundant in the site's large lagoon. Fish often feature in transformation myths (Tedlock 1996:132) and might thus have been considered able to cross boundaries between this world and the otherworld. The shark (*xoc*) is a voracious, cartilaginous fish occurring in both marine and fresh water (Jones 1985:217-218). The bull or cub shark sometimes leaves the sea and travels into fresh water (Jones 1985:217-218). This, along with Lamanai's connection to waterborne travel and transport by both land and sea, suggests that sharks were well-known to the inhabitants of Lamanai. Shark teeth were recovered from high status Lamanai burials in the Early and Late Postclassic Periods (Burials N10-4/9 and /46, respectively; see Appendices 4 and 5), further indicative of the animal's cultural importance at the site. The Maya shark (*xoc*) was mythologised into *Ah Xoc*, *Ah Kan Xoc*, or *Chac Uayab Xoc*, an ominous 'were-shark' demon (Jones 1985:217-218; see Hellmuth 1987:138-143, Figs. 269-282, 290-309). In the literature, the shark is primarily linked to bloodletting and sacrifice (Reilly 1985:130). Consequently, the shark lent the Lamanai zoomorphs strength, and both fish and shark aspects emphasise the beast's ability of transformation.

In summary, Lamanai Yglesias phase zoomorphic composite creatures form manifestations of the Dragon that emphasise the Dragon's varied forms composed of all elements or aspects of life. The Dragon was a being or entity which incorporated as its anthropomorphised aspect the deity *Itzamna* – represented by the anthropomorphic figures emerging on occasions from the composite creatures' mouths.

Zoomorphic composites as *Itzamna*

Itzamna as the anthropomorphic aspect of the Dragon has been discussed in detail earlier (Chapter 6: see Anthropomorphic, Reptile sections). Other aspects of this deity are important to an understanding of *Itzamna* in Terminal Postclassic/Early Historic times.

Itzamna as a bicephalic reptile divided into four parts

Thompson (1960:11, 1970:212-214) describes the Dragon *Itzamna* as a bicephalic reptilian creature depicted by the Maya as a section drawing of the monster, its four sides made up of the four *Itzamn*s. He states (Thompson

1960:10) that most Maya gods existed in groups of four, each linked to a world direction and world colour; however, simultaneously, these four were seen as one deity. In the *Ritual of the Bacabs*, *Itzamna* is described as a creature of four bodies or aspects assigned to world colours and directions (Roys 1965:Chant 8 and 38; Thompson 1970:212).

Thompson (1970:212-215) translates *Itzam Na* as 'Iguana House' or 'Dragon House', although in the term 'iguana' he includes anything from lizard to crocodile. Expressed in the *na* or 'house' part of *Itzamna's* name, Thompson suggests a model by which the Maya conceptually organised their world: as set within a house, with four giant iguanas forming the walls and roof, each relating to the four world directions and their associated colours. Thompson (1970:215) attributes this concept to a Postclassic cache excavated by Gann (1900:680-681) at Santa Rita. The cache contained pairs of figures – a seated jaguar and lizard-like monster with head in maw – placed at cardinal points around the cache's urn; on top of the urn was a fifth lizard-like creature and another, albeit a more saurian and bicephalic beast, with a figure in the maw of one of its two heads. Thompson (1970:215) postulated that the arrangement symbolises the four *Itzamnas* placed at the urn's four sides 'to represent the walls of *Itzam Na*, with those above as its roof and perhaps its floor.' Thompson considers the *Itzam* in the celestial location of the roof of *Itzam Na* to be the senders of rain to earth; whereas the *Itzam* in the terrestrial space of the floor of the *Itzam Na* represent the fertile soil (Thompson 1970:216). Thompson writes: 'In the monumental art of the Classic Period, there is a constant blending of sky and earth aspects of *Itzam Na*, and that is surely done to call attention to the fact that the two are not separable...*Itzam Cab* is merely the floor of a far greater entity, *Itzam Na*, "Iguana House", in effect, the Maya Universe' (Thompson 1970:218). Consequently, Thompson (1970:220-224) draws attention to the fact that the characteristics that define *Itzam Na* combine celestial with terrestrial elements precisely because they form part of one undivided body.

The Dragon and its relationship with Itzamna

The Dragon is also thought to be composed of different animal aspects, especially serpentine and crocodilian traits, and symbolised the sacred energy penetrating the entire cosmos (de la Garza 1998a:235; Thompson 1960:11, 1970; Chapter 6: see Reptile section). The Dragon's anthropomorphic aspect

Itzamna is closely associated with crocodiles and priests (Taube 1992a:31-41), who were possibly thought able to make available or accessible the Dragon's or cosmos's sacred energy (Chapter 6: see Anthropomorphic, Reptile sections). *Itzamna* is depicted sitting in front of a crocodile tree on a Late Classic codex-style vessel (Taube 1992a:32, Fig. 12h) and above such a crocodile tree in the Dresden Codex, Plate 69 (Thompson 1972:69). The deity sometimes also emerges from crocodilian mouths (Taube 2003a:292, Fig. 11.11i). For example, *Itzamna* emerges from the mouth of a bicephalic crocodilian Dragon manifestation on Plates 4 and 5 of the Postclassic Maya Dresden Codex (Thompson 1970:228-229, Fig. 4b, 1972:4-5; Fig. 6.39). In the Postclassic murals of Santa Rita, *Itzam Cab Ain* or '*Itzam* Earth Crocodile', identified in this study as the Dragon with emphasis placed on its crocodilian-earth aspects (Chapter 6: see Cross-hatch section), wears the priestly accoutrements of *Itzamna* (Taube 1982:Fig. 2c, 1989a:4, 1992a:38, Fig. 15d; Fig. 6.47). Consequently, there existed a close association in the Postclassic Period between the anthropomorphic aspect of the Dragon *Itzamna*, crocodiles linked to the earth and priests, likely instrumental in the harnessing of the universe's sacred energy, or life's essence, embodied by the Dragon (Chapter 6: see Reptile section).

CONCLUSIONS: the Lamanai Terminal Postclassic/Early Historic context of *Itzamna*, the Dragon and the Four Directions

All Yglesias phase zoomorphic vessels formed caches at Lamanai. The cache deposition of the vessels indicates their relation to a life rather than a funerary event, and to the structures where found: Str. N11-4(/1), the 'Rectory', Str. N12-12(/1) and the second Spanish Church, Str. N12-13(/4); and in some cases the cardinal directions. The caches and occasions surrounding their deposition were of considerable cultural importance, since gold and jade objects were sometimes included (see Appendix 6, Table A6.3). Caches may have been linked to ceremonies marking particular calendar dates or period endings (D. Chase 1985a, 1985b, 1991; D. Chase and A. Chase 1986b:89; Taube 1988a:184). Examples of crocodilian reptiles from Postclassic sites in the Maya Lowlands are marked with calendrical dates (e.g., Mayapan; Taube 1989a:5, Fig. 3; Chapter 6: see Reptile section). The Lamanai zoomorphic motif is read

as the Dragon, with its aspects surrounding supernatural transformation, the cardinal directions and otherworld access emphasised. Caches represent offerings to the otherworld. At Lamanai they formed the link between this world and the supernatural, embodied by the Dragon and, specifically, its quadripartite structuring of the cosmos. The caches' transference to the supernatural was aided by the metamorphosing ability and 'supernatural (in)sight or vision' – imparted through the Dragon's supernatural eyes (Chapter 5: see Organic section) – with transformation or parthenogenesis represented by the anthropomorphs emerging from some of the creatures' mouths.

Itzamna in his anthropomorphised form is represented contained within the mouths of the zoomorphic Dragon manifestations. One Dragon is essentially crocodilian, albeit with fish tail and spotted deer antlers (Catalogue Fig. 6.1.1). An anthropomorph peers out of the mouth of this Lamanai crocodilian creature. The figure's pronounced facial folds, possibly indicative of old age, identify the anthropomorph with the old age attributed to *Itzamna* (Chapter 6: see Anthropomorphic section). The anthropomorphic figure also displays mouth-corner stubs and pronounced naso-labial folds, interpreted as the edges of a mask and indicative of the figure's supernatural essence, status and/or abilities (Chapter 6: see Anthropomorphic section; Chapter 7: Gatah ceramics section). A single bead is placed on the figure's nose ridge and large perforated beads line his headband. Such headbands and beads are reserved for deities and the elite in Mesoamerican art as a mark of their high status. However, significant for the figure's identification as *Itzamna* is its emergence from the jaws of an essentially crocodilian Dragon manifestation. The vessel was placed facing south in Cache N11-4/1, intruded into the upper core of Str. N11-4. Structure N11-4 was a platform that supported at least four buildings. It stood west of Structure N11-18, the major residence during the early Spanish Historic Period (Pendergast 1991) and was itself part of the historic community. Strs. N11-18 and N11-4 are located about 450 m due north of the church precinct (Fig. 8.4). Four polished stones, probably chalcedony or quartzite (Pendergast, personal communication 2007), were placed around the vessel to the southwest, southeast, northwest and northeast. The zoomorphic vessel contained a gold bead and a tubular jade bead; the beads within the vessel seem to represent the centre of the world or the cosmos (along with the vessel itself). Jade offerings (in particular beads), when placed in caches, are interpreted as

capturing the life essence or supernatural power of the being or concept addressed (Chapter 6: see Scroll_a section); therefore, in this instance the jade bead also refers to the essence of life which was the Dragon (Chapter 6: see Reptile section). Jade and *Spondylus* irregular discs were also placed in the cache.

The centre is usually marked along with the four world directions in Mesoamerican representations of the cosmos (see Maya 'cosmogram' in Postclassic Madrid Codex, Plates 75-76 [Boone 2003:218, Fig. 27.23]; and Aztec 'cosmogram' in Codex Fejérváry-Mayer, Plate 1 [Matos and Solís Olguín 2002:66, Fig. 54]). The Maya perceived the universe as a quincunx with four parts and a centre (Roys 1933:100; Thompson 1970:194-196). The 'cosmogram' painted in the Madrid Codex arranges the 260 days of the *tzolkin/tonalpohualli* in a cross representing the four directions, with each arm of the cross displaying a 13-day *trecena* (Boone 2003:219). The arms of the cross are arranged around a central rectangle. Consequently, the four directions (and centre) are linked to the calendar in Maya thought; the importance of the four directions is also reflected in the organisation of some Postclassic Maya polities (e.g., Mayapan; Roys 1933:125; see Pugh [2001] for a discussion of Mayapan's political organisation). The Lamanai zoomorph's south-facing direction and association with worked stones placed at cardinal directions around its essentially crocodilian body link the beast and anthropomorphic figure held within its mouth to the Dragon (and *Itzamna*) in its aspect tied to world directions and the calendar (Coggins 1980:731; Roys 1965:Chant 8 and 38; Thompson 1970:212; Chapter 6: see Reptile section) and, therefore, possibly also to a four(or five)-part political organisation for the site at the time (Chapter 6: see Cross_c section). The importance the crocodile held for the people of Lamanai is reflected in the site's name, which translates as 'submerged crocodile' (Pendergast 1981a:32 [personal communication with MacLeod, 1978]).

The placement of Yglesias phase caches within the church precinct (in the nave and in the opening to the sanctuary of Str. N12-13, 2nd Spanish Church, in the core of Str. N12-12, the 'Rectory', and in a plinth associated with the north entry to N12-11, 1st Spanish Church) has been suggested as representing the appropriation of Christian sacred space (Graham 1991, 1998). If Thompson (1970:212-215) is correct in his reading of *Itzam Na* as 'Dragon

House' (see above), a Maya concept that placed the world within a symbolic 'house', then the Lamanai vessels' placement within the Spanish Churches appropriate Christian space both physically *and* symbolically by turning the 'House of God' back into the 'House of *Itzamna*' through what could be termed a form of 'symbolic resistance' through art (see Gell 1998; Chapter 3).

Consequently, Yglesias phase zoomorphs represent Dragon manifestations, sometimes including the Dragon's anthropomorphised aspect *Itzamna* (de la Garza 1998a:235; Thompson 1960:11, 1970:209-233) in maw, and God N in shell, possibly a further aspect of the Dragon (see Inter-site relationships section). The iconographical content and deposition of Lamanai cache offerings carry cosmological associations, in particular focused on the four(or five)-part structuring of the universe. The Dragon and his aspects *Itzamna* and God N thus form symbolic microcosms of the Maya universe at Lamanai in the Terminal Postclassic/Early Historic Period.

INTER-SITE RELATIONSHIPS

Zoomorphic effigy vessels are essentially a Late Postclassic Period and Maya Lowland phenomenon. Many sites, notably Lamanai, Santa Rita (D. Chase 1981, 1985b:123, 1988, 1991; D. Chase and A. Chase 1986, 1988; Gann 1900:678-685, Plate 33:1, 1918:63-67, Fig. 18, 1934:53, 65, footnote 2) and Mayapan (Smith 1971), but also Laguna de On (D. Chase 1985b:123), Cerros (D. Chase 1985b:123), Douglas (D. Chase 1985b:123), around Lake Bacalar (D. Chase 1985b:123), Caye Coco (Barrett 2000; Masson 2003b:271), Benque Viejo and the Rio Hondo coastal area (Gann 1911:84-85, 1934:65, footnote 2) produced these fantastic composite creatures (Fig. 8.9). The implication is the sharing of a common ideology. However, each site chose to combine different animals and parts thereof to form unique zoomorphs, no two examples being the same. Despite the zoomorphs' variation in appearance, similarities include open mouths and hollow bodies forming containers, usually with the orifice of the vessel located on the creature's back.

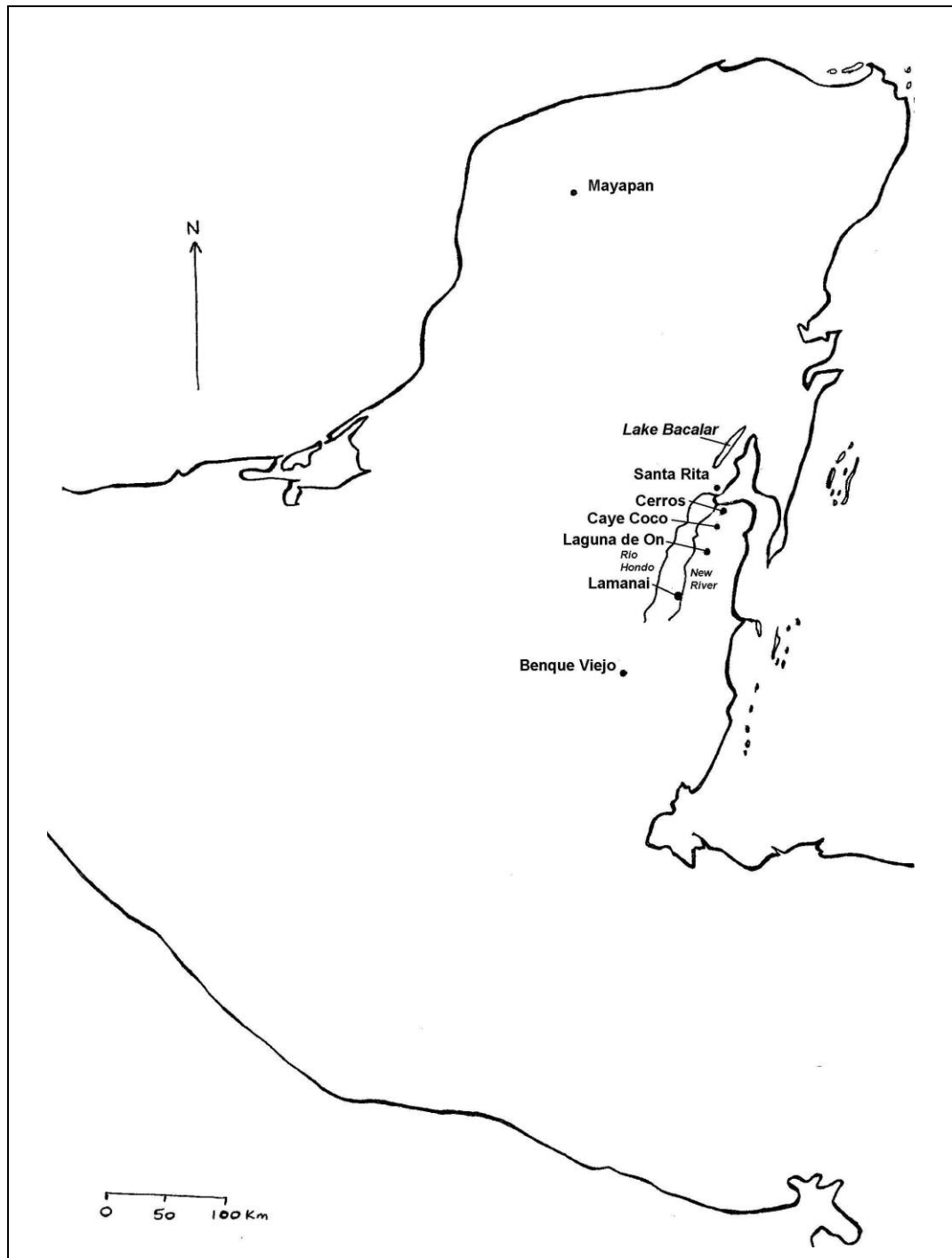


Fig. 8.9. Terminal Postclassic/Early Historic iconographic-interaction sphere.

Numerous zoomorphic effigy vessels represent the Dragon, sometimes with anthropomorphic aspect *Itzamna* in maw, others manifestations of his being, whereas some have remained unidentifiable. Examples have been identified – or at least been linked to *Itzamna* – by Diane Chase (1985a, 1985b, 1991) and Thompson (1970) at Santa Rita. Diane Chase (1985a:228, 230, 1985b:110) links Santa Rita crocodilian earth beasts contained in caches in Structures 25 (Gann 1918:63; Fig. 8.10) and 36 to *Itzamna*, who she believes was the

intended recipient of the cache offerings. She associates the caches that contained the crocodilian earth beasts with the *Ix* Years in the *Uayeb* rites, when a statue of *Itzamna* was brought to the temple for veneration (D. Chase 1985a:230; Landa [in Tozzer] 1941:145-147). Consequently, Diane Chase (1985a, 1985b, 1991) links these Late Postclassic figures (and turtle figures; see below) to the four world directions, with blood ritual playing an important role in the context of cycles of time and ceremonies linked to fertility. Thompson (1970:215-216) also describes Santa Rita composite creatures – either through the anthropomorphic head or alligator earth-monster characteristics and archaeological deposition – as being indicative of *Itzamna* (see Gann 1900:680-681) and reinforces the relationship between *Itzamna* and the *bacabs*. The archaeology of the Santa Rita pieces supports their identification as manifestations of the Dragon. At Santa Rita, composite creatures were recovered from caches that usually contained multiple other effigy vessels (D. Chase 1985a:228-233). Patterns that stand out in iconographical content and deposition of cache vessels include a frequent repetition of imagery in multiples of four, reptilian creatures (composite beasts, lizards, alligators, snakes, turtles) and deposition within caches to mark the four directions and centre of the world.

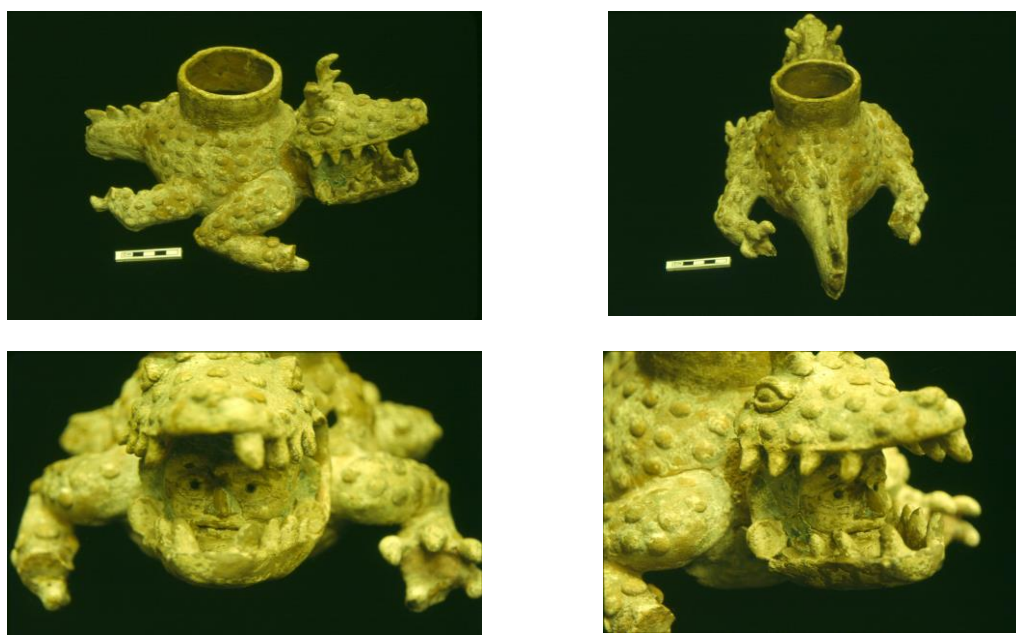


Fig. 8.10. Santa Rita zoomorph with spotted crocodilian body, deer antlers and *Itzamna* in maw, Structure 25 Cache. Liverpool Museum, Lot 20.11.13.45.

Composite creatures thus also occur outside Lamanai at other Late Postclassic Maya Lowland sites. The vessels symbolism (style and iconographical content)

and archaeological contexts permit their identification as further Dragon manifestations – often bicephalic and predominantly expressing reptilian characteristics. At these other sites, as well as at Lamanai, the zoomorphs often contain the anthropomorphised aspect of the Dragon, *Itzamna*, in their maws. Examples of Dragon effigy censers occur at a number of sites. One possible Dragon vessel, a bicephalic reptile, was recovered from a cache in Santa Rita Structure 5 (D. Chase 1985a:232; Gann 1900:682-683; Fig. 8.11). The reptile was deposited with a total of four jaguars and five of what Gann terms ‘turtles’ (Gann 1900:682-683; Figs. 8.12-13; see below), distributed at cardinal points with the bicephalic reptile placed at the cache’s centre (see D. Chase 1985a:231-232, Fig. 4e; Gann 1900:678-682, Plates XXXIII:1, 6 and XXXV:1-36). A vessel from Benque Viejo (Gann 1911:84-85) represents yet another manifestation of the Dragon with *Itzamna* in maw (Fig. 8.14). The Dragon is a bicephalic reptile with spots on one head, anthropomorph in one maw and the other head bearing a row of large teeth. The Benque Viejo example is specifically linked to the thirteen realms, or gods, of the Maya sky (Thompson 1960:10, 12) as it contained thirteen small red and green beads that were perforated and polished (Gann 1911:84-85). Farther afield, a Monte Alban zoomorph represents the Dragon with *Itzamna* in maw, in this instance supporting a large bowl on its back (Markman and Markman 1989:71-72, Pl. 35). The Dragon displays a spiked crocodilian body and tail, beaked head with personage in maw, supernatural eye (Chapter 5: see Organic section) and human hands with bracelets. The anthropomorph in the Dragon’s maw wears a headband and displays similar mouth-corner stubs and pronounced naso-labial folds as the Maya examples.

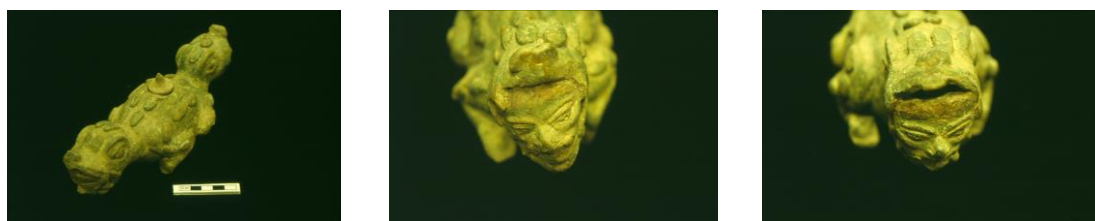


Fig. 8.11. Santa Rita zoomorph with spotted crocodilian body and personages in maws (*Itzamnas*). Structure 5 Cache. Liverpool Museum, Lot 20.11.13.31.



Fig. 8.12. Santa Rita zoomorph with turtle body, jaguar head, supernatural eye and personage in maw. Liverpool Museum, Lot 20.11.1913.36.



Fig. 8.13. Santa Rita zoomorph with turtle body, jaguar head, supernatural eye and personage in maw. Liverpool Museum, Lot. 20.11.1913.35.



Fig. 8.14. Benque Viejo Dragon with spotted reptilian body, two heads and *Itzamna* in maw. Liverpool Museum, Lot 1948.20.589.

The Dragon and its anthropomorphic aspect *Itzamna* may also be represented at Mayapan, identified through symbolism. One Mayapan piece displays a turtle body – indicated as swimming by its outstretched humanoid legs – with crocodilian head and aged or masked anthropomorph in maw (Fig. 8.15). The crocodile's snout metamorphoses into large bifurcated scrolls and it has large scroll eyebrows (supernatural eyes), and a bead placed on the anthropomorph's forehead above an aquiline or 'beaked' nose. The Mayapan example differentiates itself from the Lamanai, Santa Rita, Benque Viejo and Monte Alban vessels through its emphasis on turtle symbolism. However, the Mayapan piece still shows stylistic and iconographical similarities to other Dragon manifestations discussed through its composite-zoomorphic nature and display

of crocodilian features, supernatural eye and aged or masked anthropomorph held in its crocodilian maw.



Fig. 8.15. Mayapan Late Postclassic ceramic effigy vessel. Mérida Museum.

Many other composite beasts occur in the Maya Lowlands in the Terminal Postclassic Period. It is conceivable that these also represent manifestations of the Dragon – sometimes with anthropomorphised aspect *Itzamna* (see *Itzamna* section; Chapter 6: Reptile section). Examples that do not display figures emerging from the beasts' mouths may not be securely identified as the Dragon and *Itzamna*. However, it is possible that these represent different dynamic or fluid manifestations of the sacred energy (*Ku* or *ch'u*; Taube 1992a:8; Chapter 6: see Anthropomorphic section) which is the Dragon, merely lacking its anthropomorphic aspect. These effigy vessels possibly attempt to capture the essence of the Dragon which formed the embodiment of all things. The impossibility of this task is reflected in the many and varied representations of the Dragon as zoomorphic composite creatures at Lamanai and throughout the Maya Lowlands during the Late Postclassic/Early Historic Period.

At Mayapan, turtle-based beasts, which might represent God N, an aspect of the Dragon (Fig. 8.16), occur. The God N aspect of *Itzamna* is of particular importance for Mayapan (Proskouriakoff 1962b). God N and *Itzamna* also seem strongly linked as the Dragon at Lamanai and Santa Rita.



Fig. 8.16. Mayapan Late Postclassic ceramic effigy vessel. Mérida Museum.

God N, or the four *bacabs*, is an aspect of the Dragon, specifically pertaining to the structuring of space-time (see God N section). Proskouriakoff identifies features of *Itzamna* with Mayapan turtle figures' anthropomorphised heads (Proskouriakoff 1962b:Figs. 1-2). God N is represented as emerging from both snail and turtle shells (Kurbjuhn 1983a:159) and at Mayapan and Santa Rita might be represented emerging from turtle shells. This identification is supported by turtles and essentially turtle-based composite creatures revealing anthropomorphs in their maws, symbolic association with the four *bacabs*, frequent occurrence in multiples of four (or five when the centre of the world is included), and association with cardinal directions (and centre) in the figures' cache deposition. God N forms an aspect of the Dragon to stress the five-part structuring of the Maya universe with the four *bacabs* placed at the corners and *Itzamnas* at the cardinal directions and centre of the universe. At Lamanai, a deity that emerges from a conch shell is identified as God N (see above). Multiple Dragon representations also occur at the site. Consequently, there is a strong link between *Itzamna* and God N, tied to the structuring of the Maya universe that was the Dragon at Santa Rita, Mayapan and Lamanai.

An occupation with the spatial, temporal, and political division in Late Postclassic thought is also reflected in the archaeology and art of Mayapan in architectural (Pugh 2001:247), sculptural (Masson 2000a:198-216, 2003a:199-201) and mural themes (Pugh 2001:247, 253, 247). Pugh (2001:253) identifies the serpents in the murals – which differ in their appearance, some combining crocodilian characteristics (forelimbs) with serpentine characteristics (rattlesnake-tails) – with *Itzam Kab' Ayin*, the primordial flood crocodile (Taube 1988c:143). The variation in reptilian images, Pugh (2001:253) suggests, depicts scenes from myths, especially those pertaining to the destruction of the

world through a catastrophic flooding. However, it is also likely that they represent different aspects emphasised in the Dragon theme, as is evident at Lamanai. This view supports Pugh's likening of the serpent columns to World Trees that hold up the roof of the temple and the sky (Pugh 2001:253). Pugh (2001:247) also links each temple to a specific elite official and possibly the social group of that official.

Similar contemporaneous ideological concepts are also evident in *bacab* figures identified and associated with *Itzamna* at Santa Rita (D. Chase 1985a:233), Mayapan (Proskouriakoff 1962b:Figs. 1-2) and Lamanai (see God N section above). Several composite creatures represent bearded figures emerging from a horned jaguar maw with shell body, found in Strs. 58, 81 and 218 (D. Chase 1985a:230, 1985b:110 [Str. 36 figure]; 1985a:228, 231, Fig. 4a, 1985b:107-108, Fig. 3 [Str. 58 figure] and 1985b:112, Fig. 7 [Str. 81 figure]; D. Chase and A. Chase 1986:13, top left figure [Str. 218 figure]). These vessels are iconographically similar to the identified God N figure at Lamanai. One of the Santa Rita pieces was contained in the mouth of a larger reptilian vessel (Str. 36 Cache), identified as *Itzamna* (D. Chase 1985a:228, 230, 1985b:110) and the Dragon. The shell figure's placement within the body of the Dragon establishes a close association between the two figures. Diane Chase (1985a:233) suggests that Santa Rita shell, turtle and alligator figures point towards a representation of *bacabs*, or what she describes as 'angels', in each cache. She (D. Chase 1985a:228) links these *bacabs* to *Itzamna*, who she believes was the intended recipient of the cache offerings. Sometimes shell or turtle carapaces alone may identify the figures with the *bacabs*, as turtles represent the central, vertical axis of the world (D. Chase 1985a:233, 1991:95-96; Kurbjuhn 1985a). Turtle-based zoomorphs have also been recovered at Santa Rita (Figs. 8.12-13). They form composite creatures made up of a swimming turtle body with jaguar head with supernatural eye (Chapter 5: see Organic section) and personage in maw. The vessels are similar in iconographical content – yet dissimilar in style (possibly attributable to different media) – to Mayapan stone turtle sculptures representing turtles with personages in their beaked mouths and linked to *Itzamna* by Proskouriakoff (1962b:Figs. 1-2).

Chapter 9: Iconographical analysis: conclusions

This chapter presents conclusions arrived at through studying the character and role played by iconography at Lamanai in the Terminal Classic to Early Historic Periods (Table 1.1). Change and continuity in Lamanai ceramic art both reflect and affected (Gell 1998) Lamanai world view (Panofsky 1939), therefore iconographic change can be studied as an indicator of cultural change.

Firstly, the extent of continuity and change in symbolic expression is examined. I explain the form taken by Lamanai ceramic art and its implications, and I consider Panofsky's (1939) third level of analysis in an attempt to reveal the world view experienced by its producers (see Chapter 3). The chapter concludes with an examination of the role of Lamanai ceramic art.

Extent of iconographic continuity and change from Classic to Early Postclassic Periods

Lamanai ceramic art in the Terminal Classic Period

Patterns of continuity and change in elite symbolism shed light on the nature of the transition period between the Classic and Postclassic Periods. The iconographical content of Lamanai Classic Period art is the same as that expressed at other Classic Period Maya sites in that symbolism reflects earlier Classic themes such as the expression of the elite person in imagery and hieroglyphic texts and symbols (jaguar, *kin* sun) that pertain to power (Carlson and Landis 1985:129; Rice et al. 2004:9; Thompson 1970:232). However, the Lamanai *Terminal* Classic vessels are stylistically distinct and no longer focus on the representation of the person of the king.

Lamanai Terminal Classic ceramic art focuses on celestial themes (jaguars, Jaguar Sun, moon, sun symbols [*kin* flowers, sun representations]), possibly reflective of rulership and royalty at the site owing to the archaeological context of the ceramic art in an elite compound, N10[3]. My analysis supports the contention that there is a change in the concept of rulership or kingship from Classic to Terminal Classic times because imagery no longer concentrates on the person of the king. Lamanai ceramics display elite figures and hieroglyphic writing only on a few imported vessels and pseudoglyphs on a small number of

black cylinder vases in the Terminal Classic Period, with no hieroglyphic writing or glyphs occurring in the Postclassic Period.

Change reflected in Terminal Classic to Early Postclassic Lamanai art

Change reflected in ceramic art

From the Terminal Classic to Early Postclassic Periods at Lamanai there is a marked change in the style and iconographical content expressed in its ceramic (and some architectural) art. Bold motifs (jaguar, *kin* flower) pertaining to the sun, painted on the interior of large offertory dishes, are replaced by sinuous Dragon manifestations, incised on the exterior of many different vessel forms. Notable is the loss of elite themes that displayed power symbols closely inked to royalty in the Classic Period (e.g., jaguar). However, the change in style and iconographical content does not reflect Mexican influence but remains wholly Maya. For example, ceremonies surrounding celestial themes, specifically in relation to the sun and moon, seem to have ceased, possibly because such rites ended. If so, this differentiates Lamanai's symbolism from that of Postclassic Central Mexican imagery, which retains a focus on sun-focused symbolism into the Late Postclassic Period (Hernández Sánchez 2005:95-109, 190, 210).

Change reflected in other forms of representation

Cultural change from the Terminal Classic to Early Postclassic Periods – coinciding with the marked change in ceramic art – is also reflected in symbolism recorded in Lamanai's architectural programmes. The Classic Period stucco façade of Structure N10-28, for example, depicting a ruler surrounded by symbols pertaining to his royal status and power (Graham 2004:224; Shelby 2000a, 2000b, 2000c), was deliberately destroyed and became part of the fill for a new floor built in the elite compound N10[3] in the Terminal Classic Period (Graham 2004:232). Cultural change is also indicated at Lamanai with stelae no longer being erected in the Postclassic Period. This practice may have ceased as early as the Terminal Classic Period (Graham 2004). Cultural change is evident by the treatment of the Middle Classic Period Stela 9, which was destroyed when construction stopped on Structure N10-27. The assumption is that the stela had been re-erected here in the Late Classic Period (see Graham 2004). Stela 9 suffered breakage and toppling to the foot of the temple's stair,

where it became buried by midden during the Early Postclassic Period (Pendergast 1988:7-8). Classic Period stelae display glorified portraits of rulers accompanied by hieroglyphic texts recounting their genealogies. The stela's 'fate' is symbolic of the discontinuation of the 'old', with Classic Period imagery buried by the ceramic symbolism of the new regime.

Lamanai in the Maya Lowlands in the Early Postclassic Period

Lamanai symbolism reflects a vibrant Postclassic Period community which in the face of adversity and change adapted to new circumstances and adopted new ideological, and possibly political, ways to survive and grow in strength. The change at Lamanai reflected in the site's ceramic art is possibly indicative of the general climate in the Maya Lowlands in the Postclassic Period. Considering cultural interaction spheres and comparing conclusions based on Terminal Classic and Early Postclassic ceramic data, the evidence points to a change in style and iconographical content from Terminal Classic to Early Postclassic times. Importantly, however, Early Postclassic Lamanai art remains Maya in its style and iconographical content and is not influenced by Central Mexico. Instead, Early Postclassic Lamanai imagery has its roots in Early and Late Classic Maya art.

Two main iconographic spheres relating to Lamanai, based on style and content could be defined in the Early Postclassic Period: a southern Lamanai and Peten Lakes sphere and northern Chichen Itza. Both evolved from Classic Period Maya traditions and thus display a range of widespread symbols (e.g., scroll, flower, cross-hatch, cross, intertwined band, triangle band, T-shaped band).

The southern sphere (Lamanai and Peten Lakes) reveals ceramics that display an ideology focused on what I have called the Dragon in its Maya form, established as wholly Maya by its roots in Early Classic Period lowland art. The Lamanai iconographic sphere, which I have defined in terms of stylistic treatment and iconographical content, includes sites in the Southern Maya Lowlands where vessels have been produced that are similar to those found at Early Postclassic Lamanai. The Peten Lakes iconographic sphere shows stylistic and symbolic affinity to Early Postclassic Lamanai; this affinity reflects strong ideological and cultural ties between Lamanai and the Peten Lakes.

The northern tradition is focused around Chichen Itza and experienced extensive Mexican influence (Milbrath and Peraza 2003:34; Ringle et al. 1998:191, 225-226). Consequently, the decline of northern Chichen Itza, with its cult focused on *Quetzalcoatl-Kukulcan* (Ringle 2004:167, 169, 213; Ringle et al. 1998:183, 185) in the eleventh century A.D. (Andrews et al. 2003:151), coincides with renewed vibrancy experienced by southern sites expressing symbolism centred on the Dragon. Lamanai and the surrounding area thus did not participate in a 'cult' focused on the feathered serpent (Ringle 2004:167, 169, 213; Ringle et al. 1998:183, 185); instead they displayed symbolism as part of a world view centred on the Dragon.

Lamanai's Early Postclassic focus on the Dragon represents the beginnings of a new Postclassic ideology, most likely emanating from Lamanai, also evident at other southern sites (e.g., Lamanai and Peten Lakes spheres; Late Postclassic Tulum, Postclassic codices) that does not concentrate on feathered serpents. In the north, however, a feathered serpent revival style is revisited by the Mexican-influenced Cocom at Late Postclassic Mayapan (Masson 2000:261; Milbrath and Peraza 2003:33; Pollock 1962:8).

The iconography examined in this thesis, along with Lamanai ceramic art's comparison to that of other Maya Lowland sites, suggests that the visual innovation and iconographical shift present in the site's symbolic material is of Lamanai origin. This, in turn, permits the hypothesis that Lamanai may have been culturally very important in the Early Postclassic Period within its iconographic sphere of influence, and discourages the development of theories surrounding Mexicanisation at Lamanai in the Early Postclassic Period.

Lamanai Early Postclassic world view

Coinciding with the stylistic and iconographical change from the Terminal Classic to Early Postclassic Periods is a change in the function and audience of the vessels. Interpretation varied according to different conditions of reception, depending on who was viewing the symbols – commoner or elite. In the Classic and Terminal Classic Periods at Lamanai, literacy and an understanding of the intricacies of symbolic systems were most likely restricted to the elite, with only certain emblematic symbols legible to the commoner. Differences between elite and common understanding has been suggested for Classic Period Maya art and language systems (Coe 1992; Pasztory 1983:90; Taube 2000a:29).

Lamanai Terminal Classic Molded-carved vessels with their themes surrounding supernatural and royal events were thus likely to have been intended for elite viewers only. This argument corresponds to the contention that Classic Period polychrome ceramics displaying similar scenes throughout the Maya Lowlands were the preserve of the elite (Reents-Budet 1994:85-88).

Postclassic motifs seem to have been used more broadly, which suggests a not totally private elite function. Perhaps vessels were still used by the elite but were also displayed to the general populace, for example, in public elite funerary rites. Public ceremonies are described for late and colonial ceremonies in the *Ritual of the Bacabs* by Roys (1965), and Landa reports large communal Postclassic rites in great detail in his *Relacion de las Cosas de Yucatan* (Tozzer 1941). At Lamanai, Postclassic ceramics displaying imagery were retrieved from middens associated with elite ritual activity, burials and caches (Graham 2004). The vessels' contexts, shapes and symbolism suggest a ritual role that conveyed an ideological message likely to have been intended for the elite and commoner alike. Support for increased public involvement, or an agenda that includes more than just the elites, is suggested by the deliberate omission in imagery of royal figures (see below). Instead, energies are focused on the Dragon, the essence of *all* life and therefore subsuming also the breath souls' of commoners.

The move away from the depiction of rulers reflects the spread of a visual system lacking 'personality' in the Maya Lowlands during the Postclassic Period (Ringle et al. 1998:208-209). At Lamanai, starting in the Early Postclassic Period, a system seems to have been chosen in which imagery was unadulterated by an obvious personal (royal) agenda (e.g., royal portraits). Representation instead favoured the ancient and widespread concept of the Preclassic and Classic Period Maya Dragon. Consequently, themes surrounding the Dragon reflect a change in elite practices from Terminal Classic to Early Postclassic times. The different forms adopted in the representation of the Dragon at Lamanai – in comparison to its Classic Period counterparts, where royalty are shown in possession or control of the Dragon and his power – represents a reformation not of the concept of the Dragon, but, more likely, of the way its political aspects or cultural practices were conducted and displayed. The transition to this state may have involved a time of strife and unrest, specifically with regard to the elite involved in the transition period

(Classic to Early Postclassic). Cultural turbulence may be reflected in Lamanai's ceramic art, which experimented with varied forms of the Dragon and its depiction on a larger number of vessel forms.

The deliberate lack of elite portrayal may be an example of art as propaganda, with the ruling faction either reflecting actual or promised regime change, perhaps reminiscent of older, better or new times. The omission of the realistic portrayal of human figures from Lamanai symbolism reflects a less egoistic or aggressive rule, with a return to the ancient Maya ideology, in line with the Dragon themes in Preclassic and Early Classic Periods. Past ideals are frequently revisited, especially in times of change, strife or hardship. In essence, a reformation of beliefs occurred at the site from the Terminal Classic to Postclassic Periods. The relationship between elites and the Dragon thus changed. In the Postclassic Period, the ruler is more subordinate to, or more modest in the expression of his relationship with, the Dragon and its deity manifestations. It seems, therefore, that it was through the worship of the Dragon that the cycle of the cosmos was perpetuated, and not, as was the customary belief in the Classic Period, through the personal power of ruler-deities.

Consequently, a new symbolic code expresses a different emphasis in socio-cultural values, reflective of a change in the elite system at Lamanai in the Early Postclassic Period. There are two possibilities: local elites could have been adapting to new external influences (see Chichen Itza; Ringle 2004; Ringle et al. 1998), possibly including the rise of a middle class. A middle class might have consisted of merchants who gained wealth and power from trade increasing in importance in the Early Postclassic Period in the Maya Lowlands (A. Andrews 1983, 1990b; Graham 2006; MacKinnon 1989; McKillop 2004; Masson 2000, 2003b:269, 273, 276; Sabloff and Rathje 1975b; Thompson 1970), their success attributable to Lamanai's advantageous position on a major waterway within this trading system (see Chapter 2). Alternatively, a foreign elite lineage or clan might have arrived at Lamanai and introduced an altered symbol system influenced by their native culture.

Extent of iconographic continuity from Early Postclassic to Late Postclassic Periods

Early and Late Postclassic ceramics can be said to form a unit, with (early) Late Postclassic (Cib phase) ceramics representing a refined continuation in style and iconographical content of Early Postclassic (Buk phase) ceramics (see Chapter 7). However, imagery bands are more standardised on Late Postclassic ceramics. Few motifs carried over from Early Postclassic ceramics (flower_a and _b, cross-hatch, cross_c, scroll_b and _c, intertwined band, T-shaped band) are repeated. Scroll_c dominates Late Postclassic ceramic bands art, thus lending its imagery a visually-uniform appearance. Late Postclassic ceramics comprise vessels of superior quality with regard to slip refinement and standardisation of vessel forms.

The stylistic standardisation and reduced motif set of Late Postclassic ceramics reflects refinement of the Dragon theme to its visually most efficient form. Reading Late Postclassic ceramic art required familiarity on behalf of the viewer with the cultural conventions of symbolic concepts expressed.

Continuity in iconographical content between Early and Late Postclassic Lamanai ceramics includes themes surrounding the Dragon, elite bird warriors, anthropomorphic heads interpreted as supernaturals/deities or deity impersonators, and grater bowls displaying the 'cultivated-earth' sign linked to the political and cosmological structuring of the site. Change in iconographical content between the two ceramic phases is only present in the refinement or standardisation of symbolic concepts.

Lamanai in the Maya Lowlands in the Late Postclassic Period

In the Late Postclassic Period, ceramic art identical in style and iconographical content (motif choice and their combinations) to Lamanai ceramic art (carved bone tube and mural fragments) occur at a number of sites in the Maya Lowlands. Because Lamanai Late Postclassic ceramic art represents a continuation of Early Postclassic Lamanai symbolism (established as Maya by tracing its sources to the Preclassic and Classic Periods), the reading arrived at for Lamanai Late Postclassic style and symbolism (expressing an ideology focused on the Dragon) as Maya and not Mexican is applicable to other Maya sites, with northern areas (e.g., Mayapan) showing some Mexicanisation (Chapter 7: see Conclusions section). This hypothesis fits with that of

Pendergast (1981a:48-49), based on work at Lamanai, and that of Diane and Arlen Chase (1986:14), based on work at Santa Rita, that the redware tradition of the northern Lowlands ultimately originated in northern Belize (Chapter 7: see Inter-site relationships section). Lamanai may thus be argued to have played a critical role in influencing the Maya Lowland redware ceramic tradition, possibly acting as the progenitor (starting in the Early Postclassic Period) of art styles and iconographical content that became widespread in the Late Postclassic (e.g., Tulum and Santa Rita murals, Postclassic Maya codices).

Lamanai Late Postclassic world view

From Early to Late Postclassic times, Lamanai may have experienced a period of relative ideological stability as expressed in its ceramic art. This is reflected in the continuity and refinement or standardisation of ceramic style and its iconographical content and indicates a similar audience and use of vessels in both periods. The site's inhabitants thus may have lived in a time of relative ideological and, possibly, political stability in comparison to the social turbulence reflected in the changes in ceramic art from Terminal Classic to Early Postclassic times (see above). The standardisation present in Late Postclassic ceramic art at Lamanai, in comparison to that of the Early Postclassic Period, may reflect a certain degree of commercialisation reflected in the site's ceramic art that developed alongside coterminous expansion of trade activity in the Maya area (see Chapter 2). Consequently, from the Early to Late Postclassic we see refinement or standardisation of imagery but continuity in understanding of the shared symbolism. This suggests that Lamanai's Late Postclassic iconographic-interaction sphere did not undergo Mexicanisation, with the majority of evolution being of internal origin. An exception is Mayapan, a site that experienced much political turbulence reflected in its art, possibly due to its frontier position.

Extent of iconographic continuity and change from Late Postclassic to Early Historic times

A marked change in ceramic style but not iconographical content occurs from the Late Postclassic to Terminal Postclassic/Early Historic Periods at Lamanai. Terminal Postclassic ceramic style changes from previous ceramic imagery at

Lamanai to a more direct and neurologically easier-to-read form (Arnheim 1974), with a departure from incised imagery to the sole occurrence of appliqué-modelled effigy vessels. Visual representation, retaining its sinuous and organic form, is still Maya in its stylistic execution and iconographical content. Only three effigy vessels and a monkey-tetrapod jar display what might be described as foreign traits (see below).

On Terminal Postclassic Lamanai ceramics, iconographical content still focuses on the Dragon, but increased emphasis is placed on the quincunx structuring of the Maya cosmos inherent to the Dragon's being or concept. This is emphasised by the Dragon's contexts and associated artefacts. The Dragon thus stretches from the Early Postclassic to Early Historic Periods, permitting analysis of the theme's evolution at Lamanai.

Lamanai in the Maya Lowlands in the Terminal Postclassic/Early Historic Period

Zoomorphic effigy vessels are essentially a Late Postclassic Period and Maya Lowland phenomenon. Many sites (Chapter 8: see Inter-site relationship section) produced these fantastic composite creatures, thus sharing some common aspects of an ideology focused on the Dragon.

Lamanai Terminal Postclassic/Early Historic world view

The stylistic change present in Terminal Postclassic Lamanai ceramic art is likely to reflect the arrival of the Spaniards at the site, who built two churches in the hope of converting the local inhabitants to Christianity.

Iconographic infiltration of European characteristics into Lamanai ceramic art is evident in the facial characteristics of two effigy vessels displaying actual individuals. There is also a hunchbacked individual that may not be of local origin given aspects of style and facial traits. The hunchback may have been an official, indicated by the throne-bench upon which he sits. The hunchback was recovered from an elaborate tomb alongside a monkey effigy jar, similarly foreign to Lamanai's ceramic art. The effigy vessels depicting Europeans and the hunchbacked individual demonstrate how art can change rather rapidly in contact with foreigners.

However, the majority of vessels in the Terminal Postclassic/Early Historic Period form zoomorphic effigies of the Dragon. The wholly Maya appearance of the Dragon suggests a form of iconographical and ideological

resistance to Spanish culture. The generally plain style of the bulk of Yglesias phase ceramics, with elaboration seen only in the small number of zoomorphs, may be a reflection of the control over the Lamanai elite class by the Spaniards with prohibitions on elite display. In previous phases, the elite had been responsible, in part, for stimulating large scale production of ceramics displaying imagery. Consequently, the limitations placed on elite expression are most likely responsible for the Early Historic vacuum in iconographic ceramic production at Lamanai. These adjustments are reflective of a change in social structure, population reduction and local subjugation by the Spaniards as well as the consequences of the imposition of Christianity.

Role of Lamanai ceramic art

The purpose or function of elite ceramic production at Lamanai was to display imagery bearing an ideological message important for ritual use, as depicted in the Mesoamerican codices. Moreover, Lamanai ceramic art was not intended to communicate only with humans, whether commoners or elite (see above), but first and foremost with the supernatural forces of the cosmos (Paszty 1983:90; Tokovinine n.d.:7), to address 'society in its widest sense' (Tokovinine n.d.:11). Consequently, ceramic art represents the face and evolution (in the sense of change and continuity over time) of Lamanai ideology and expresses the world view (Mannheim 1993), whether conscious or not, of the people who belong to the society and culture that produced the art (Panofsky 1939).

If dealt with carefully – leaving interpretations unaffected by our 'period eye' (Baxandall 1988) – the analyst may thus approach an understanding of Maya world view expressed in Maya art and culture. For example, it is important to recognise the polysemy and concept of interbeing inherent to Mesoamerican symbolism and thought (Coe 1987:X-XI; Houston and Taube 2000:289-290; Chapter 6: see Reptile summary section), which can be confusing to the scientifically-structured mind-set of western viewers. The difficulty in pinpointing meaning (Derrida 1972, 1973, 1987; see Chapter 3), however, found natural acceptance among the Maya, who thus did not slavishly attempt to divide, categorise and define life and art, as Western scholars might. On the contrary, it was desirable to show conceptual complexity – understood as poetic expression of the 'truth of the world' – indeed, reflecting great skill on

behalf of the artist. Art works must also be viewed within their own cultural sphere as they change according to different conditions of reception (Hellmuth 1987; see Chapter 7) and must, therefore, be considered within the context of their production and in the context of later archaeological and art historical commentary (Derrida 1987). We must also accept the notion that art does not just passively reflect culture, but instead acts as a social agent within this world system (Gell 1998), exemplified by a Terminal Postclassic Lamanai effigy vessel of the Dragon, which, when placed in the sacred ground of a Christian church, physically, as well as symbolically, reclaimed the 'House of God' as the 'House of *Itzamna*' (see Chapter 8). Art is thus shown to be necessary for the 'life' of the idea (e.g., Dragon), reflecting world view (Gell 1998), with art changing concepts and art works and concepts in totality form one indivisible unit (Panofsky 1939).

References

- Ackerman, D, 1988. A Reporter at Large: Crocodilians, *The New Yorker*, October, **10**, 42-81.
- Adams, R E W, 1971. *The Ceramics of Altar de Sacrificios*. Papers of the Peabody Museum of Archaeology and Ethnology 63(1). Cambridge, Massachusetts: Harvard University.
- Adams, R E W, 1973a. The Collapse of Maya Civilization: A Review of Previous Theories, in T P Culbert (ed), *The Classic Maya Collapse*, 21-34. Albuquerque: University of New Mexico Press.
- Adams, R E W, 1973b. Maya Collapse: Transformation and Termination in the Ceramic Sequence at Altar de Sacrificios, in T P Culbert (ed), *The Classic Maya Collapse*, 133-163. Albuquerque: University of New Mexico Press.
- Adams, R E W (ed), 1977. *The Origins of Maya Civilization*. Albuquerque: University of New Mexico Press.
- Adams, R E W, 1990. Archaeological Research at the Lowland Maya Site of Río Azul, *Latin American Antiquity*, **1**(1), 23-41.
- Adams, R E W, W E Brown and T P Culbert, 1981. Radar Mapping, Archaeology and Ancient Maya Land Use, *Science*, **213**, 1457-1463.
- Adams, R E W and A Trik, 1961. *Temple 1 (Str. 5-1): Post-Constructional Activities*, *Tikal Reports No. 7*. Museum Monographs. Philadelphia: University Museum, University of Pennsylvania.
- Adelhofer, O, 1974. *Codex Vindobonensis Mexicanus I*. Reprint of 1963 edition. Graz: Akademische Druck- und Verlagsanstalt.
- Aguilera, C, 1984. *Comentario al Códice de Huamantla*. Mexico, D.F.: Instituto Tlaxcalteca de la Cultura.
- Aimers, J, 2007. The Curse of the Ware: Using Ceramic Systems in Belize, *Research Reports in Belizean Archaeology*, **4**, 101-110.
- Allan, S, 1993. Art and Meaning, in R Whitfield (ed), *The Problem of Meaning in Early Chinese Ritual Bronzes*, 9-33. London: School of Oriental and African Studies.
- Allison, D B and N Garvner (eds), 1973. *Speech and Phenomena and other Essays on Husserl's Theory of Signs*. Evanston: Northwestern University Press.
- Alvarez, C A and L Cassaola, 1985. *Las Figurillas de Jonuta, Tabasco*. México, D.F.: Universidad Nacional Autónoma de México.
- American College of Surgeons, 1997. *ATLS*. Sixth edition. Chicago: American College of Surgeons.
- Anders, F, 1967. *Codex Tro-Cortesianus (Codex Madrid)*, *Museo del América, Madrid*. Graz: Akademische Druck- und Verlagsanstalt.
- Anders, F, 1968. *Codex Peresianus (Codex Paris)*, *Bibliothèque National, Paris*. Graz: Akademische Druck- und Verlagsanstalt.
- Anders, F, 1975. *Codex Dresdensis*, *Sächsische Landesbibliothek Dresden*. Graz: Akademische Druck- und Verlagsanstalt.
- Anders, F, 1976. *Codex Madrid (Codex Tro-Cortesianus)*. Introduction and Summary by F Anders. Graz: Akademische Druck- und Verlagsanstalt.
- Anders, F and M Jansen, 1993. *Manual del Adivino. Libro Explicativo del Llamado Códice Vaticano B*. México, D.F.: Fondo de Cultura Económica.

- Anders, F, M Jansen and P van der Loo, 1993. *Calendario de Pronósticos y Ofrendas. Libro Explicativo del Llamado Códice Cospi*. México, D.F.: Fondo de Cultura Económica.
- Andres, C R and K A Pyburn, 2004. Out of Sight: The Postclassic and Early Colonial Periods at Chau Hiix, Belize, in A A Demarest, P M Rice and D S Rice (eds), *The Terminal Classic in the Maya Lowlands: Collapse, Transition and Transformation*, 402-423. Colorado: University Press of Colorado.
- Andrews, A P, 1983. *Maya Salt Production and Trade*. Tucson: University of Arizona Press.
- Andrews, A P, 1990a. The Fall of Chichen Itza: A Preliminary Hypothesis, *Latin American Antiquity*, **1**, 258-267.
- Andrews, A P, 1990b. The Role of Trading Ports in Maya Civilization, in F S Clancy and P D Harrison (eds), *Vision and Revision in Maya Studies*, 159-167. Albuquerque: University of New Mexico Press.
- Andrews, A P, 1991. The Rural Chapels and Churches of Early Colonial Yucatan and Belize: An Archaeological Perspective, in D H Thomas (ed), *Columbian Consequences, Vol. 3*, 355-374. Washington, D.C.: Smithsonian Institution Press.
- Andrews, A P, 1993. Late Postclassic Lowland Maya Archaeology, *Journal of World Prehistory*, **7**, 35-69.
- Andrews, A P and F Robles Castellanos (eds), 1986. *Excavaciones Arqueológicas en El Meco, Quintana Roo, 1977*. Colección Científica. Mérida: Instituto Nacional de Antropología e Historia.
- Andrews, A P, E W Andrews and F Robles Castellanos, 2003. The Northern Maya Collapse and its Aftermath, *Ancient Mesoamerica*, **14**, 151-156.
- Andrews, E W, IV, 1943. *The Archaeology of Southwestern Campeche*. Carnegie Institution of Washington Publication No. 546. Washington, D.C.: Carnegie Institution of Washington.
- Andrews, E W, V, 1990. Early Ceramic History of the Lowland Maya, in F S Clancy and P D Harrison (eds), *Vision and Revision in Maya Studies*, 1-19. Albuquerque: University of New Mexico Press.
- Andrews, E W, V, and N Hammond, 1990. Redefinition of the Swasey Phase at Cuello, Belize, *American Antiquity*, **55**, 570-584.
- Andrews, E W, V, and I Rovner, 1973. *Archaeological Evidence on Social Stratification and Commerce in the Northern Maya Lowlands: Two Masons' Tool Kits from Muna and Dzibilchaltun, Yucatan*. New Orleans: Middle American Research Institute, Tulane University.
- Andrews E W, V, and J A Sabloff, 1986. Classic to Postclassic: A Summary Discussion, in J A Sabloff and E W Andrews V (eds), *Late Lowland Maya Civilization: Classic to Postclassic*, 433-456. Albuquerque: University of New Mexico Press.
- Andrews, J, 2002. *English Maya Spanish Vocabulary*. Second edition. Mérida: Centro de Estudios del Mundo Maya.
- Ardren, T, 1993. The Cholola Ceramic Style of Northern Yucatan: An Iconographic and Archaeological Study, in M G Robertson, M J Macri and J McHargue (eds), *Eighth Palenque Round Table, 1993*, 237-245. San Francisco: Pre-Columbian Art Research Institute.
- Argan, G C, 1975. Ideology and Iconology, *Critical Inquiry*, **2**(2), 297-305.
- Arnheim, R, 1974. *Art and Visual Perception: A Psychology of the Creative Eye*. London: Faber.
- Ashmore, W (ed), 1981. *Lowland Maya Settlement Patterns*. Albuquerque: University of New Mexico Press.

- Ashmore, W, 1989. Construction and Cosmology: Politics and Ideology in Lowland Maya Settlement Patterns, in W F Hanks and D S Rice (eds), *Word and Image in Maya Culture: Exploration in Language, Writing and Representation*, 272-285. Salt Lake City: University of Utah Press.
- Aveni, A F, 2001. *Skywatchers: A Revised and Updated Version of Skywatchers of Ancient Mexico*. Austin: University of Texas Press.
- Aveni, A F, S Milbrath and C Peraza Lope, 2004. Chichen Itza's Legacy in the Astronomically Oriented Architecture of Mayapan, *RES*, **45**, 123-143.
- Awe, J J (ed), 1998. *The Western Belize Regional Cave Project, A Report of the 1997 Field Season*. Department of Anthropology, Occasional Paper No. 1. Durham: University of New Hampshire.
- Awe, J J and S Jones (eds), 2004. *Archaeological Investigations in the Eastern Maya Lowlands*. Research Reports in Belizean Archaeology, Vol. 1. Belmopan, Belize: Institute of Archaeology, National Institute of Culture and History.
- Badner, M, 1972. *A Possible Focus on Andean Artistic Influence in Mesoamerica*. Washington, D.C.: Dumbarton Oaks.
- Bagley, R W, 1993. Meaning and Explanation, in R Whitfield (ed), *The Problem of Meaning in Early Chinese Ritual Bronzes*, 34-55. London: School of Oriental and African Studies.
- Baird, E T, 1989. Stars and War at Cacaxtla, in R A Diehl and J C Berlo (eds), *Mesoamerica After the Decline of Teotihuacan, A.D. 700-900*, 105-122. Washington D.C.: Dumbarton Oaks.
- Bakhtin, M, 1981. *The Dialogic Imagination, Four Essays*. Austin: University of Texas Press.
- Bal, M and N Bryson, 1991. Semiotics in Art History, *Art Bulletin*, **73**, 174-208.
- Ball, J W, 1974. A Coordinate Approach to Northern Maya Prehistory: A.D. 700-1200, *American Antiquity*, **39**, 85-93.
- Ball, J W, 1977a. *Archaeological Ceramics of Becan, Campeche, Mexico*. Middle American Research Institute Publication 43. New Orleans: Tulane University.
- Ball, J W, 1977b. An Hypothetical Outline of Coastal Maya Prehistory: 300 B.C. - A.D. 1200, in N Hammond (ed), *Social Process in Maya Prehistory: Studies in Honour of Sir Eric Thompson*, 167-196. London: Academic Press.
- Ball, J W, 1978. Archaeological Pottery of the Yucatan-Campeche Coast, in J D Eaton and J W Ball (eds), *Studies in the Archaeology of Coastal Yucatan and Campeche, Mexico*, 76-146. Middle American Research Institute Publication 46. New Orleans: Tulane University.
- Ball, J W, 1982. Appendix I: The Tancah Ceramic Situation: Cultural and Historical Insights from an Alternative Material Class, in A Miller (ed), *On the Edge of the Sea: Mural Painting at Tancah-Tulum, Quintana Roo, Mexico*, 105-111. Washington, D.C.: Dumbarton Oaks.
- Ball, J W, 1986. Campeche, the Itza and the Postclassic: A Study in Ethnohistorical Archaeology, in J A Sabloff and E W Andrews V (eds), *Late Lowland Maya Civilization: Classic to Postclassic*, 379-408. Albuquerque: University of New Mexico Press.
- Ball, J W and E W Andrews V, 1975. The Polychrome Pottery of Dzibilchaltun, Yucatan, Mexico: Typology and Archaeological Context, 227-247. Middle America Research Institute Publication 31. New Orleans: Tulane University.
- Ball, J W and J T Taschek, 1989. Teotihuacan's Fall and the Rise of the Itza: Realignments and Role Changes in the Terminal Classic Maya Lowlands, in R A Diehl and J C Berlo (eds), *Mesoamerica after the Decline of Teotihuacan*, 187-200. Washington, D.C.: Dumbarton Oaks.

- Baquedano, E, 1984. *Aztec Sculpture*. London: British Museum Publications.
- Baquedano, E, 1989. *Aztec Death Sculpture*. Unpublished Ph.D. thesis, University of London.
- Baquedano, E and C Orton, 1990. Similarities Between Sculptures Using Jaccard's Coefficient in the Study of Aztec Tlaltecuhli, *Papers from the Institute of Archaeology*, 1, 16-23.
- Bardawil, L W, 1976. The Principal Bird Deity in Maya Art – An Iconographic Study of Form and Meaning, in M G Robertson (ed), *The Art, Iconography and Dynastic History of Palenque. Part III: Proceedings of the Segunda Mesa Redonda de Palenque, December 14-21, 1974, Palenque*, 195-209. Pebble Beach: Pre-Columbian Art Research Institute, Robert Louis Stevenson School.
- Bardsley, S, 1996. Benches, Brothers and Lineage Lords of Copan, in M G Robertson, M J Macri and J McHargue (eds), *Eighth Palenque Round Table, 1993*, 195-201. San Francisco: Pre-Columbian Art Research Institute.
- Barrera Vásquez, A (ed), 1980. *Diccionario Maya Cordemex: Maya-Español, Español-Maya*. Mérida: Ediciones Cordemex.
- Barrera Rubio, A and C Peraza Lope, 2001. La Pintura Mural de Mayapán, in L Staines Cicero (ed), B de la Fuente (project director), *La Pintura Mural Prehispánica en México: Area Maya*, 419-446. México, D.F.: Instituto de Investigaciones Estéticas, Universidad Nacional Autónoma de México.
- Barrett, J W, 1999. Investigating Architecture and Phases of Construction at Structure 4: Subop 5 and 15 Excavations, Caye Coco, in M A Masson and R M Rosenswig (eds), *Belize Postclassic Project 1998: Investigations at Progreso Lagoon*, 103-124. Occasional Publication Vol. 3. Albany: Institute of Mesoamerican Studies.
- Barrett, J W, 2000. Excavations at Structure 5: Postclassic Elite Architecture at Caye Coco, in M A Masson and R M Rosenswig (eds), *Belize Postclassic Project 1999: Continuing Investigations at Progreso Lagoon and Laguna Seca*, 31-58. Occasional Publication Vol. 5. Albany: Institute of Mesoamerican Studies.
- Barthes, R, 1977. The Death of the Author, in S Heath (ed), *Image, Music, Text*, 142-148. London: Fontana.
- Baudez, C-F, 1994. *Maya Sculpture of Copan: The Iconography*. Norman: University of Oklahoma Press.
- Baughman, J L, 1952. The Marine Fisheries of the Mayas as given by Diego de Landa's 'Relacion de las Cosas de Yucatan' with notes on the Probable Identification of Fishes, *Texas Journal of Science*, 4, 432-459.
- Baxandall, M, 1988. *Painting and Experience in Fifteenth-Century Italy*. Oxford: Oxford University Press.
- Baxter, M J, 1994. *Exploratory Multivariate Analysis in Archaeology*. Edinburgh: Edinburgh University Press.
- Beetz, C P and L Satterthwaite, 1981. The Monuments and Inscriptions of Caracol, Belize. University Museum Monograph 45. Philadelphia: The University Museum, University of Pennsylvania.
- Bell, B (ed), 1974. *The Archaeology of West Mexico*. Ajijic, Jalisco: Sociedad de Estudios Avanzados del Occidente de México.
- Benavides, A, 1998. Maya Architecture, in P Schmidt, M de la Garza and E Nalda (eds), *Maya*, 130-157. Venice: Bompiani.

- Benson, E P (ed), 1968. *Dumbarton Oaks Conference on the Olmec*. Washington, D.C.: Dumbarton Oaks.
- Benson, E P (ed), 1973. *Mesoamerica Writing Systems*. Washington, D.C.: Dumbarton Oaks.
- Benson, E P (ed), 1977. *The Sea in the Pre-Columbian World: A Conference at Dumbarton Oaks, October 26th and 27th, 1974*. Washington, D.C.: Dumbarton Oaks.
- Benson, E P, 1980. Observations on Certain Visual Elements in Late Classic Maya Sculpture, in M G Robertson and D C Jeffers (eds), *Tercera Mesa Redonda de Palenque, Vol. IV: Proceedings of the Tercera Mesa Redonda de Palenque, June 11-18, 1978*, 91-97. Austin: University of Texas Press.
- Benson, E P (ed), 1981. *Mesoamerican Sites and World-Views*. Washington, D.C.: Dumbarton Oaks.
- Benson, E P, 1985. The Classic Maya Use of Jaguar Accessories, in M G Robertson and E P Benson (eds), *Fourth Palenque Round Table, 1980*, 155-158. San Francisco: Pre-Columbian Art Research Institute.
- Benson, E P, 1994. The Multimedia Monkey, or, the Failed Man: The Monkey as Artist, in M G Robertson and V M Fields (eds), *Seventh Palenque Round Table*, 137-143. San Francisco: Pre-Columbian Art Research Institute.
- Benson, E P, 1996. The Vulture: The Sky and the Earth, in M G Robertson, M Macri and J McHargue (eds), *Eighth Palenque Round Table – 1993, Vol. X*, 309-319. San Francisco: Pre-Columbian Art Research Institute.
- Benson, E P, 1997. *Birds and Beasts of Ancient Latin America*. Gainesville: University Press of Florida.
- Benson, E P and E H Boone (eds), 1982. *The Art and Iconography of Late Post-Classic Central Mexico*. Washington D.C.: Dumbarton Oaks.
- Benson, E P and G G Griffin (eds), 1988. *Maya Iconography*. Princeton: Princeton University Press.
- Berdan, F F, 1982. *The Aztecs of Central Mexico: An Imperial Society*. New York: Holt, Rinehart and Winston.
- Berdan, F F, R E Blanton, E H Boone, M G Hodge, M E Smith and E Umberger (eds), 1996. *Aztec Imperial Strategies*. Washington, D.C.: Dumbarton Oaks.
- Bernal, I and E K Easby (eds), 1973. *The Iconography of Middle American Sculpture*. New York: Metropolitan Museum of Art.
- Berrin, K, 1993. Unknown Treasures: The Unexpected in Teotihuacan Art, in K Berrin and E Pasztory (eds), *Teotihuacan: Art from the City of the Gods*, 74-87. San Francisco: Thames and Hudson, The Fine Arts Museum of San Francisco.
- Berrin, K and E Pasztory (eds), 1993. *Teotihuacan: Art from the City of the Gods* San Francisco: Thames and Hudson, The Fine Arts Museum of San Francisco.
- Bey, G J, C A Hanson and W M Ringle, 1997. Classic to Postclassic at Ek Balam, Yucatan: Architecture and Ceramic Evidence from Defining the Transition, *Latin American Antiquity*, **8**(3), 237-255.
- Beyer, B F, 1988. *Mesoamerica Tolteca sus Cerámicas de Comercio Principales*. Mexico: Universidad Autónoma de Mexico.

- Beyer, H, 1921. La Ligadura de los Tunes: Nota Acerca de las Pinturas Murales de Santa Rita, British Honduras, *Memorias de la Sociedad Científica*, 519-525. Antonio Alzate, now Academia Nacional de Ciencias, Vol. 39, Nos. 9-12.
- Beyer, H, 1934. Shell Ornament Sets from the Huasteca, Mexico, in M Ries (ed), *Studies in Middle America*, Vol. 5, 153-215. New Orleans: Middle American Research Institute, Tulane University.
- Beyer, H, 1965. Herman Beyer. Obras Completas, Vol. I, *El México Antiguo*, 10.
- Bialostocki, J, 1963. Iconography and Iconology, in B Fletcher (ed), *Encyclopaedia of World Art and Architecture*, Vol. VII, 770. London: Shubhi Publications.
- Bibliothecae Apostolicae Vaticanae 1979. *Codices Selecti: Phototypice Impressi*. Graz: Akademische Druck- und Verlagsanstalt.
- Biederman, H, 1971. *Altmexicos heilige Bücher*. Graz: Akademische Druck- und Verlagsanstalt.
- Bierhorst, J, 1985. *Cantares Mexicanos: Songs of the Aztecs*. Stanford: Stanford University Press.
- Bierhorst, J, 1992. *History and Mythology of the Aztecs: The Codex Chimalpopoca*. Tucson: The University of Arizona Press.
- Binford, L R, 1972. *An Archaeological Perspective*. New York: Seminar Press.
- Blanton, R E and G M Feinman, 1984. The Mesoamerican World System, *American Anthropologist*, 86, 673-682.
- Blanton, R E, G M Feinman, S A Kowalewski and L M Nicholas, 1999. *Ancient Oaxaca: The Monte Alban State*. Cambridge: Cambridge University Press.
- Boone, E H, 1982. Towards a More Precise Definition of the Aztec Painting Style, in A Cordy-Collins (ed), *Pre-Columbian Art History: Selected Readings*, 153-168. Second edition. Palo Alto: Peek Publications.
- Boone, E H, 1990. The Painting Styles of the Manuscripts of the Borgia Group, in B Illius and M Laubscher (eds), *Circumpacifica: Festschrift für Thomas S. Barthel*, Vol. 1, 35-54. Frankfurt: Peter Lang.
- Boone, E H, 1996. Manuscript Painting in Service of Imperial Ideology, in F F Berdan, R E Blanton, E H Boone, M G Hodge, M E Smith and E Umberger (eds), *Aztec Imperial Strategies*, 181-206. Washington, D.C.: Dumbarton Oaks.
- Boone, E H, 2000. *Stories in Red and Black: Pictorial Histories of the Aztecs and Mixtecs*. Austin: University of Texas Press.
- Boone, E H, 2003. A Web of Understanding: Pictorial Codices and the Shared Intellectual Culture of Late Postclassic Mesoamerica, in M E Smith and F F Berdan (eds), *The Postclassic Mesoamerican World*, 207-221. Salt Lake City: The University of Utah Press.
- Boone, E H and M E Smith 2003. Postclassic International Styles and Symbol Sets, in M E Smith and F F Berdan (eds), *The Postclassic Mesoamerican World*, 186-193. Salt Lake City: The University of Utah Press.
- Boos, F H, 1966. *The Ceramic Sculptures of Ancient Oaxaca*. London: Thomas Yoseloff Ltd.
- Boot, E, 1999. Of Serpents and Centipedes: The Epithet of *Wuk Chapaht Chan K'Inich Ahaw*. Unpublished manuscript, *Notes on Maya Hieroglyphic Writing*, 25, Rijswijk, Netherlands.
- Borah, W W and S F Cook 1963. *The Aboriginal Population of Central Mexico on the Eve of the Spanish Conquest*. Ibero-Americana 45. Berkeley: University of California Press.

- Bourdieu, P, 1967. Postface, in Erwin Panofsky (ed), *Architecture Gothique et Pensée Scholastique*, 135-167. Paris: Éditions de Minuit.
- Bove, F J, 2003. The Archaeology of Late Postclassic Settlements on the Guatemala Pacific Coast, in M Love, M Popenoe de Hatch and H L Escobedo (eds), *Incidents of Archaeology in Central America and Yucatan; Essays in Honour of Edwin M. Shook*, 179-214. Landham: University Press of America.
- Brainerd, G W, 1941. Fine Orange Pottery in Yucatan, *Revista Mexicana de Estudios Antropológicos*, **5**, 163-184.
- Brainerd, G W, 1953. On the Design of the Fine Orange Pottery Found at Chichen Itza, *Revista Mexicana de Estudios Antropológicos*, **13** (2, 3), 463-473.
- Brainerd, G W, 1958. *The Archaeological Ceramics of Yucatan*. Anthropological Records 19. Berkeley: University of California Press.
- Braswell, G (ed), 2003. *The Maya and Teotihuacan: Reinterpreting Early Classic Interaction*. Austin: University of Texas Press.
- Bray, W (ed), 1993. *The Meetings of Two Worlds: Europe and the Americas 1492-1650, Proceedings of the British Academy 81*. New York: Oxford University Press.
- Brenner, M, D Hodell, J H Curtis, M F Rosenmeier, F S Anselmetti and D Ariztegui, 2003. Paleolimnological Approaches for Inferring Past Climate Change in the Maya Region: Recent Advances and Methodological Limitations, in A Gómez-Pompa, M F Allan, S L Fedick and J J Jiménez-Osornio Povez (eds), *The Lowland Maya Area: Three Millennia at the Human-Wildland Interface*, 45-74. New York: Haworth Press.
- Bricker, V, 1986. *A Grammar of Maya Hieroglyphs*. Middle American Research Institute Publication 56. New Orleans: Tulane University.
- Brockington, D L, 1973. *Archaeological Investigations at Miahuatlan, Oaxaca*. Vanderbilt University Publications in Anthropology No. 7. Vanderbilt: Vanderbilt University.
- Brockington, D L, 1982. Spatial and Temporal Variations of the Mixtec-style Ceramics in Southern Oaxaca, in D Stone (ed), *Aspects of the Mixteca-Puebla Style and Mixtec and Central Mexican Culture in Southern Mesoamerica*, 7-13. Middle American Research Institute Occasional Paper 4. New Orleans: Tulane University.
- Bryson, N, 1992. *Vision and Painting*. London: Macmillan.
- Bullard, W R, 1970a. Topoxte: A Postclassic Maya Site in Peten, Guatemala, in W R Bullard Jr. (ed), *Monographs and Papers in Maya Archaeology*, 245-308. Papers of the Peabody Museum of Archaeology and Ethnology 61. Cambridge, Massachusetts: Harvard University.
- Bullard, W R (ed), 1970b. *Monographs and Papers in Maya Archaeology*. Papers of the Peabody Museum of Archaeology and Ethnology 61. Cambridge, Massachusetts: Harvard University.
- Bullard, W R, 1973. Postclassic Culture in Central Peten and Adjacent British Honduras, in T P Culbert (ed), *The Classic Maya Collapse*, 221-241. School of American Research Advanced Seminar Series. Albuquerque: University of New Mexico Press.
- Burkhart, L, 1992. Flowery Heaven: The Aesthetic of Paradise in Nahuatl Devotional Literature, *Res: Anthropology and Aesthetics*, **21**, 88-109.
- Byers, D S (ed), 1967. *The Prehistory of the Teotihuacan Valley: Environment and Subsistence*. Austin: University of Texas Press.
- Cai, Z, E Ho and W L Rathje, 2006. *Heart Sutra*. Beijing Shi: Xian dai chu ban she.

- Cámara, L, 1998. Works on Exhibit, in P Schmidt, M de la Garza and E Nalda (eds), *Maya*, 509-649. Venice: Bompiani.
- Campbell, J A, 1998. *Amphibians and Reptiles of Northern Guatemala, the Yucatan and Belize*. Norman: University of Oklahoma Press.
- Cano, O, 2001. Chichen Itza, Yucatan, *Arqueología Mexicana*, **IX**(53), 80-87.
- Carlson, J B, 1983. The Grolier Codex: A Preliminary Report on the Content and Authenticity of a Thirteenth-Century Maya Venus Almanac, in A F Aveni and G Brotherston (eds), *Calendars in Mesoamerica and Peru: Native Computations of Time*, 27-57. British Archaeological Reports International Series 174. Oxford: British Archaeological Reports.
- Carlson, J B, 1988. Skyband Representations in Classic Maya Vase Painting, in E P Benson and G G Griffin (eds), *Maya Iconography*, 277-293. Princeton: Princeton University Press.
- Carlson, J B and L C Landis, 1985. Bands, Bicephalic Dragons and other Beasts: The Skyband in Maya Art and Iconography, in M G Robertson and E P Benson (eds), *Fourth Palenque Round Table, 1980*, 115-140. San Francisco: Pre-Columbian Art Research Institute.
- Carmack, R M, 1981. *The Quiche Mayas of Utatlan: The Evolution of a Highland Guatemala Kingdom*. Norman: University of Oklahoma Press.
- Carmack, R M, 1996. Mesoamerica to Spanish Contact, in R M Carmack, J Gasco and G H Gossen (eds), *The Legacy of Mesoamerica: History and Culture of a Native American Civilization*, 80-121. Englewood Cliffs: Prentice-Hall.
- Carmack, R M, J Gasco and G H Gossen, 1996. *The Legacy of Mesoamerica: History and Culture of a Native American Civilization*. Englewood Cliffs: Prentice-Hall.
- Carmack, R M and L Larmer, 1971. *Quichean Art: A Mixteca-Puebla Variant*. Miscellaneous Series, Vol. 23. Greeley: Museum of Anthropology, University of Northern Colorado.
- Carrasco, D, 1990. *Religions of Mesoamerica*. San Francisco: Harper and Row.
- Carrasco, D, L Jones and S Sessions (eds), 2000. *Mesoamerica's Classic Heritage: From Teotihuacan to the Aztecs*. Boulder: University of Colorado Press.
- Carre, E G, J U Ceruti and J L Pena, 1997. *Ayacucho: San Juan de la Frontera de Huamanga*. Lima: Banco de Crédito del Perú.
- Caso, A, 1959. *The Aztecs: People of the Sun*. Norman: University of Oklahoma Press.
- Caso, A, 1961. Nombres Calendarios de los Dioses, *El México Antiguo*, **9**, 77-100.
- Caso, A, 1962. Calendario y Escritura en Xochicalco, *Revista Mexicana de Estudios Antropológicos*, **1**(18), 49-80.
- Caso, A, 1964. *Interpretacion del Códice Selden 3135 (A.2)*. México, D.F.: Sociedad Mexicana de Antropología.
- Caso, A, 1979. *Reyes y Reinos de la Mixteca: Diccionario Biográfico de los Señores Mixtecos*. México, D.F.: Fondo de Cultura Económica.
- Cassidy, B (ed), 1993. *Iconography at the Crossroads, Index of Christian Art*. Princeton: Princeton University Press.
- Castillo, A B, 1998. Die Maya der nachklassischen Periode, in A B Castillo, L Staines Cicero, M de la Garza, E Matos M and E Nalda (eds), *Maya: Die nachklassische Periode*, 23-98. München: Hirmer.

- Castillo, A B, L Staines Cicero, M de la Garza, E Matos M and E Nalda (eds), 1998. *Maya: Die nachklassische Periode*. München: Hirmer.
- Castillo, F A, 1997. *Observations on two American Crocodile Populations in Colima State, Mexico, with Possible Management Implications*. Unpublished M.S. thesis, Auburn University.
- Chadwick, R, 1982. An Explanation of the Textual Changes in Codex Nuttall, in D Stone (ed), *Aspects of the Mixteca-Puebla Style and Mixtec and Central Mexican Culture in Southern Mesoamerica*, 27-31. Middle American Research Institute Occasional Paper 4. New Orleans: Tulane University.
- Chadwick, R and R S MacNeish, 1967. Codex Borgia and the Venta Salda Phase, in D S Byers (ed), *The Prehistory of the Teotihuacan Valley: Environment and Subsistence*, 114-131. Austin: University of Texas Press.
- Charnay, D, 1973. *The Ancient Cities of the New World: Voyages and Explorations in Mexico and Central America from 1857-1882, (Ancient Ville du Nouveau Monde) translated by J. Gonino and Helen S. Conant*. Cambridge, Massachusetts: AMS Press for Peabody Museum of Archaeology and Ethnology, Harvard University.
- Chase, A F, 1979. Regional Development in the Tayasal-Paxcaman Zone, El Peten, Guatemala: A Preliminary Statement, *Cerámica de Cultura Maya*, **11**, 86-119.
- Chase, A F, 1983. *A Contextual Consideration of the Tayasal-Paxcaman Zone, El Peten, Guatemala*. Ph.D. dissertation, Department of Anthropology, University of Pennsylvania. Ann Arbor: University Microfilms International.
- Chase, A F, 1985. Contextual Implications of Pictorial Vases from Tayasal, Peten, in M G Robertson and E Benson (eds), *Fourth Round Table, 1980: Vol. VI*, 193-201. San Francisco: Pre-Columbian Art Research Institute.
- Chase, A F, 1986. Time Depth or Vacuum: The 11.3.0.0.0 Correlation and the Lowland Maya Postclassic, in J A Sabloff and E W Andrews V (eds), *Late Lowland Maya Civilization: Classic to Postclassic*, 99-140. Albuquerque: University of New Mexico Press.
- Chase, A F and D Z Chase (eds), 1985. Postclassic Temporal and Spatial Frames for the Lowland Maya: A Background, in A F Chase and P M Rice (eds), *The Lowland Maya Postclassic*, 9-22. Austin: University of Texas Press.
- Chase, A F and D Z Chase, 1986. Archaeological Insights on the Contact Period Lowland Maya, in M Rivera and A Ciudad (eds), *Primera Mesa Redonda: Los Mayas en el Época Hernán Cortés*, 13-30. Madrid: Instituto de Cooperación Iberoamericana.
- Chase, A F and D Z Chase, 1987. Putting Together the Pieces: Maya Pottery of Northern Belize and Central Peten, Guatemala, in P M Rice and R J Sharer (eds), *Papers of the 1985 Maya Ceramic Conference*, 47-72. Oxford: British Archaeological Reports International Series 245(i).
- Chase, A F and D Z Chase, 2004. Terminal Classic Status-linked Ceramics and the Maya "Collapse", in A A Demarest, P M Rice and D S Rice (eds), *The Terminal Classic in the Maya Lowlands: Collapse, Transition and Transformation*, 342-366. Colorado: University Press of Colorado.
- Chase, A F and P M Rice (eds), 1985. *The Lowland Maya Postclassic*. Austin: University of Texas Press.
- Chase, D Z, 1981. The Postclassic Maya at Santa Rita Corozal, Belize, *Archaeology*, **34**(1), 25-33.
- Chase, D Z, 1982. *Spatial and Temporal Variability in Postclassic Northern Belize*. Ph.D. dissertation, Department of Anthropology, University of Pennsylvania, Philadelphia. Ann Arbor: University Microfilms International.

- Chase, D Z, 1985a. Between Earth and Sky: Idols, Images and Postclassic Cosmology, in M G Robertson and V Fields (eds), *Fifth Palenque Round Table, 1983, Vol. VII*, 223-233. San Francisco: Pre-Columbian Art Research Institute.
- Chase, D Z, 1985b. Gained but Not Forgotten: Late Postclassic Archaeology and Ritual at Santa Rita Corozal, Belize, in A F Chase and P M Rice (eds), *The Lowland Maya Postclassic*, 104-125. Austin: University of Texas Press.
- Chase, D Z, 1986. Social and Political Organization in the Land of Cacao and Honey: Correlating the Archaeology and Ethnohistory of the Postclassic Lowland Maya, in J A Sabloff and E W Andrews V (eds), *Late Lowland Maya Civilization: Classic to Postclassic*, 347-377. Albuquerque: University of New Mexico Press.
- Chase, D Z, 1988. Caches and Censerwares: Meaning from Maya Pottery, in C C Kolb and L M Lackey (eds), *A Pot for All Reasons: Ceramic Ecology Revisited*, 81-104. Philadelphia: Special Publication of Cerámica de Cultura Maya et al., Laboratory of Anthropology, Temple University.
- Chase, D Z, 1991. Lifeline to the Gods: Ritual Bloodletting at Santa Rita Corozal, in M G Robertson and V M Fields (eds), *Sixth Palenque Round Table, 1986*, 89-96. Norman: University of Oklahoma Press.
- Chase, D Z and A F Chase, 1982. Yucatec Influence in Terminal Classic Northern Belize, *American Antiquity*, **47**, 596-614.
- Chase, D Z and A F Chase, 1986. *Offerings to the Gods: Maya Archaeology at Santa Rita Corozal*. Orlando: University of Central Florida.
- Chase, D Z and A F Chase, 1988. *A Postclassic Perspective: Excavations at the Maya Site of Santa Rita Corozal, Belize*, Precolumbian Art Research Institute Monograph 4. San Francisco: Precolumbian Art Research Institute.
- Chase, D Z and A F Chase (eds), 1992. *Mesoamerican Elites: An Archaeological Assessment*. Norman: University of Oklahoma Press.
- Chase, D Z and A F Chase, 2004. Hermeneutics, Transitions and Transformations in Classic to Postclassic Maya Society, in A A Demarest, P M Rice and D S Rice (eds), *The Terminal Classic in the Maya Lowlands: Collapse, Transition and Transformation*, 12-27. Colorado: University Press of Colorado.
- Ciaramella, M A, 1994. The Lady with the Snake Headdress, in M G Robertson and V M Fields (eds), *Seventh Palenque Round Table, 1989*, 210-209. San Francisco: Pre-Columbian Art Research Institute.
- Clancy, F S and P D Harrison (eds), 1990. *Vision and Revision in Maya Studies*. Albuquerque: University of New Mexico Press.
- Clegg, J, 1978. *Mathesis Words, Mathesis Pictures*. Unpublished MA thesis, Department of Anthropology, University of Sydney.
- Closs, M P, 1988. The Hieroglyphic Text of Stela 9, Lamanai, Belize, *Research Reports on Ancient Maya Writing*, **20**, 9-16. Washington, D.C.: Centre for Maya Research.
- Codex Borbonicus, 1974. *Codices Selecti. Phototypice Impressi, Volumen XLIV*. Graz: Akademische Druck- und Verlagsanstalt.
- Codex Borgia, 1993. *Códice Borgia*. With a Commentary by F Anders, M Jansen and L Reyes. México, D.F.: Fondo de Cultura Económica.
- Codex Chimalpopoca, 1938. Die Geschichte der Königreiche von Colhuacan und Mexico, in W Lehmann (ed), *Quellenwerk zur Alten Geschichte Americas*. Stuttgart: W Kohlhammer.
- Codex Chimalpopoca, 1945. *Anales de Cuauhtitlan y Leyenda de los Soles*. Translated by Primo Feliciano Valázquez. México, D.F.: Universidad Nacional Autónoma de México.

Codex Cospi, 1994. *Códice Cospi*. With a Commentary by F Anders, M Jansen and P van der Loo. México, D.F.: Fondo de Cultura Económica.

Codex Dresden, see Thompson, J E S, 1972.

Codex Grolier, see Lee, T, 1985.

Codex Madrid, see Lee, T, 1985.

Codex Magliabechiano, 1970. *Codex Magliabechiano, CL. XIII.3 (B.R. 232)*, *Biblioteca Nazionale Centrale di Firenze*, F Anders (ed). Graz: Akademische Druck- und Verlagsanstalt.

Codex Nuttall, see Nuttall, Z, 1975.

Codex Selden, 1964. *Códice Selden 3135 (A.2)*. With a Commentary by A Caso. México, D.F.: Sociedad Mexicana de Antropología.

Codex Paris, see Love, B, 1994.

Codex Vaticanus 3738, 1979. *Codices Selecti, Phototypice Impressi, Volumen LXV. Codices e Vaticanis Selecti, Quam Simillime Expressi, Vol. XXXVI*. Graz: Akademische Druck- und Verlagsanstalt.

Colapietro, V M and T M Olshewsky (eds), 1996. *Peirce's Doctrine of Signs: Theory, Application and Connections*. Berlin: Mouton de Gruyter.

Coe, M D, 1965a. *The Jaguar's Children: Pre-classic Central Mexico*. New York: Museum of Primitive Art, New York Graphic Society.

Coe, M D, 1965b. A Model of Ancient Community Structure in the Maya Lowlands, *Southwestern Journal of Anthropology*, **21**(2), 97-114.

Coe, M D (ed), 1966. *The Olmec World: Ritual and Rulership*. Princeton: Princeton University Press.

Coe, M D 1973. *The Maya Scribe and his World*. New York: The Grolier Club.

Coe, M D, 1975. *Classic Maya Pottery at Dumbarton Oaks*. Washington, D.C.: Dumbarton Oaks.

Coe, M D, 1976. Early Steps in the Evolution of Maya Writing, in H B Nicholson (ed), *Origins of Religious Art and Iconography in Preclassic Mesoamerica*, 107-122. Los Angeles: UCLA Latin American Centre.

Coe, M D, 1977. Supernatural Patrons of Maya Scribes and Artists, in N Hammond (ed), *Social Process in Maya Prehistory: Studies in Honour of Sir Eric Thompson*, 327-346. London: Academic Press.

Coe, M D, 1978. *Lords of the Underworld: Masterpieces of Classic Maya Ceramics*. Princeton: Princeton University Press.

Coe, M D, 1982. *Old Gods and Young Heroes: The Pearlman Collection of Maya Ceramics*. The Maremont Pavilion of Ethnic Arts. Jerusalem: The Israel Museum.

Coe, M D, 1987. Vorwort, in N M Hellmuth, *Monster und Menschen in der Maya-Kunst*, IX-XI. Graz: Akademische Druck- und Verlagsanstalt.

Coe, M D, 1988. Ideology of the Maya Tomb, in E P Benson and G G Griffin (eds), *Maya Iconography*, 222-235. Princeton: Princeton University Press.

- Coe, M D, 1989. The Hero Twins: Myth and Image, in J Kerr and B Kerr (eds), *The Maya Vase Book: A Corpus of Rollout Photographs of Maya Vases, Vol. 1*, 161-182. New York: Kerr Associates.
- Coe, M D, 1992. *Breaking the Maya Code*. London: Penguin Books.
- Coe, M D and J Kerr, 1997. *The Art of the Maya Scribe*. London: Thames and Hudson.
- Coe, M D and R Koontz, 2002. *Mexico: From the Olmecs to the Aztecs*. London: Thames and Hudson.
- Coggins, C, 1975. *Painting and Drawing Styles at Tikal: An Historical and Iconographic Reconstruction*. Ph.D. dissertation, Department of Anthropology, Harvard University, Cambridge, Massachusetts. Ann Arbor: University Microfilms International.
- Coggins, C, 1980. The Shape of Time: Some Political Implications of a Four-Part Figure, *American Antiquity*, **45**, 727-739.
- Coggins, C, 1983. *The Stucco Decoration and Architectural Assemblage of Structure 1-sub, Dzibilchaltun, Yucatan, Mexico*. Middle American Research Institute Publication 49. New Orleans: Tulane University.
- Coggins, C, 1985. Maya Iconography, in C Gallenkamp and R E Johnson (eds), *Maya: Treasures of an Ancient Civilization*, 47-57. New York: Harry N Abrams in association with the Albuquerque Museum.
- Coggins, C, 1992. *Artifacts from the Cenote of Sacrifice, Chichen Itza, Yucatan: Textiles, Basketry, Stone, Bone, Shell, Ceramics, Wood, Copal, Rubber, Other Organic Materials and Mammalian Remains*. Cambridge, Massachusetts: Peabody Museum of Archaeology and Ethnology, Harvard University.
- Coggins, C, 1993. The Age of Teotihuacan and its Mission Abroad, in K Berrin and E Pasztor (eds), *Teotihuacan: Art from the City of the Gods*, 140-155. San Francisco: Thames and Hudson, The Fine Arts Museum of San Francisco.
- Coggins, C and O C Shane, 1984. *Cenote of Sacrifice: Maya Treasures from the Sacred Well at Chichen Itza*. Austin: University of Texas Press.
- Conkey, M W and C A Hastorf (eds), 1990. *The Use of Style in Archaeology*. Cambridge: Cambridge University Press.
- Connor, J G, 1983. *The Ceramics of Cozumel, Quintana Roo, Mexico*. Ph.D. dissertation, Department of Anthropology, University of Arizona. Ann Arbor: University Microfilms International.
- Contreras, M J E, 1994. Los Murales y Cerámica Policromos de la Zona Arqueologica de Ocotelulco, in H B Nicholson and Eloise Quiñones Keber (eds), *Mixteca-Puebla: Discoveries and Research in Mesoamerican Art and Archaeology*, 7-24. Culver City: Labyrinthos.
- Conze, E, 1958. *Buddhist Wisdom Books, containing The Diamond Sutra and The Heart Sutra*. London: G Allen and Unwin.
- Cordy-Collins, A (ed), 1982. *Pre-Columbian Art History: Selected Readings*. Second edition. Palo Alto: Peek Publications.
- Cordy-Collins, A and J Stern (eds), 1977. *Pre-Columbian Art History: Selected Readings*. Palo Alto: Peek Publications.
- Cowgill, G L, 1963. *Postclassic Period Culture in the Vicinity of Flores, Peten, Guatemala*. Unpublished Ph.D dissertation, Harvard University, Cambridge, Massachusetts.

- Culbert, T P, 1973a. Introduction: A Prologue to Classic Maya Culture and the Problem of its Collapse, in T P Culbert (ed), *The Classic Maya Collapse*, 3-20. School of American Research Advanced Seminar Series. Albuquerque: University of New Mexico Press.
- Culbert, T P (ed), 1973b. *The Classic Maya Collapse*. School of American Research Advanced Seminar Series. Albuquerque: University of New Mexico Press.
- Culbert, T P, 1985. Maya Ceramics, in C Gallenkamp and R E Johnson (eds), *Maya Treasures of an Ancient Civilization*, 71-83. New York: Abrams.
- Curet, L A, 1996. Ideology, Chiefly Power and Material Culture: An Example from the Greater Antilles, *Latin American Antiquity*, 7(2), 114-131.
- Danien, E and R J Sharer (eds), 1992. *New Theories on the Ancient Maya*. Philadelphia: University of Pennsylvania.
- Darcque, P and J-C Poursat (eds), 1985. *L'Iconographie Minoenne. Actes de la Table Ronde d'Athènes (21-22 Avril 1983)*. Athènes: École Française d'Athènes.
- Davies, N, 1973a. *Los Mexicas: Primeros Pasos Hacia el Imperio*. México, D.F.: Universidad Nacional Autónoma de México, Instituto de Investigaciones Históricas.
- Davies, N, 1973b. *The Aztecs: A History*. Norman: University of Oklahoma Press.
- Davies, N, 1977. *The Toltecs: Until the Fall of Tula*. Norman: University of Oklahoma Press.
- Davies, N, 1982. *The Ancient Kingdoms of Mexico*. Harmondsworth: Penguin Books.
- Davis, W, 1989. *The Canonical Tradition in Ancient Egyptian Art*. Cambridge: Cambridge University Press.
- Davis, W, 1990. Style and History in Art History, in M W Conkey and C A Hastorf (eds), *The Use of Style in Archaeology*, 18-31. Cambridge: Cambridge University Press.
- Day, M, 1989. Birds of the Hummingbird Karst, in D M Munro (ed), *Ecology and Environment in Belize: An Account of the University of Edinburgh Expedition to Belize, Central America, 1986*, 36-52. Occasional Publication No. 12. Edinburgh: Department of Geography, University of Edinburgh.
- Demarest, A A, 1997. The Vanderbilt Petexbatun Regional Archaeological Project 1989-1994: Overview, History and Major Results of a Multidisciplinary Study of the Classic Maya Collapse, *Ancient Mesoamerica*, 8, 207-228.
- Demarest, A A, P M Rice and D S Rice, 2004. The Terminal Classic in the Maya Lowlands: Assessing Collapse, Terminations and Transformations, in A A Demarest, P M Rice and D S Rice (eds), *The Terminal Classic in the Maya Lowlands: Collapse, Transition and Transformation*, 545-572. Colorado: University Press of Colorado.
- Denver, J A, 2000. *Examination of Genetic Structure in Wild Populations of Morelet's Crocodile (Crocodylus Moreletii) in Belize, Central America*. Ph.D dissertation, Texas Technical University.
- Derrida, J, 1972. *Dissemination*. London: Athlone.
- Derrida, J, 1973. Difference, in D B Allison and N Garvner (eds), *Speech and Phenomena and other Essays on Husserl's Theory of Signs*, 126-160. Evanston: Northwestern University Press.
- Derrida, J, 1976. *L'Archéologie du Frivole*. Paris: Denoël/Gonthier.
- Derrida, J, 1987. *The Truth in Painting*. Chicago: University of Chicago Press.
- Desmond, L, 1974. *Plato: The Republic*. Harmondsworth: Penguin Books.

- Devigne, F, 1993. *Perú, Tesoros Olvidados*. Lima: Diselpesa Editores.
- Díaz, G and A Rodgers, 1993. *The Codex Borgia: A Full-Color Restoration of the Ancient Mexican Manuscript*. With an Introduction and Commentary by B E Byland. New York: Dover Publications.
- Díaz del Castillo, B, 1963. *The Conquest of New Spain*. Translated by J M Cohen. Baltimore: Penguin Books.
- Dibble, C E, 1971. Writing in Central Mexico, in G Ekholm and I Bernal (eds), *Archaeology in Northern Mesoamerica, Part 1*, 322-332. Handbook of Middle American Indians, Vol. 10. R Wauchope (general ed). Austin: University of Texas Press.
- Dibble, C E and A J O Anderson (trans), 1950-1975. *Florentine Codex: General History of the Things of New Spain*. 12 vols. Salt Lake City: University of Utah Press.
- Diehl, R A, 1983. *Tula: The Toltec Capital of Ancient Mexico*. London: Thames and Hudson.
- Diehl, R A and J C Berlo (eds), 1989. *Mesoamerica After the Decline of Teotihuacan, A.D. 700-900*. Washington D.C.: Dumbarton Oaks.
- Dillon, B, 1975. Notes on Trade in Ancient Mesoamerica, *Contributions of the University of California Archaeological Research Facility*, **24**, 80-135.
- Doran, J E and F R Hodson, 1975. *Mathematics and Computers in Archaeology*. Edinburgh: Edinburgh University Press.
- Duncan R, F R Hodson, C R Orton, P A Tyres and A Vekaria, 1988. *Iastats: The Institute of Archaeology Statistics Package*. London: Institute of Archaeology.
- Dunning, N P and J K Kowalski, 1994. Lords of the Hills: Classic Maya Settlement Patterns and Political Iconography in the Puuc Region, Mexico, *Ancient Mesoamerica*, **5**, 63-95.
- Dunning, N P and J K Kowalski, 1999. The Architecture of Uxmal: The Symbolics of Statemaking at a Puuc Maya Regional Capital, in J K Kowalski (ed), *Mesoamerican Architecture as a Cultural Symbol*, 274-297. Oxford: Oxford University Press.
- Durate, L G J, 1996. *Piezas Maestras Mayas: Patrimonio del Museo Nacional de Arqueología y Etnología de Guatemala*. Guatemala: Fundación G y T.
- Easwaran, E, 1987. *Dhamapada*. London: Arkana.
- Eaton, J D, 1978. Archaeological Survey of the Yucatan, in *Studies in the Archaeology of Coastal Yucatan and Campeche, Mexico*, 1-67. Middle American Research Institute Publication 46(1). New Orleans: Tulane University.
- Eaton, J D and J W Ball, 1978. *Studies in the Archaeology of Coastal Yucatan and Campeche, Mexico*. Middle American Research Institute Publication 46. New Orleans: Tulane University.
- Edmonson, M S, 1971. *The Book of Council: The Popol Vuh of the Quiche Maya of Guatemala*. Middle American Research Institute Publication 35. New Orleans: Tulane University.
- Ekholm, G and I Bernal (eds), 1971. *Archaeology in Northern Mesoamerica, Part 1*. Handbook of Middle American Indians, Vol. 10. R Wauchope (general ed). Austin: University of Texas Press.
- Ellis, H, 1997. *Clinical Anatomy: A Revision and Applied Anatomy for Clinical Students*. Oxford: Blackwell Science.
- Enciso, J, 1953. *Design Motifs of Ancient Mexico*. New York: Dover Publications.

- Escoto, J A V, 1964. Weather and Climate of Mexico and Central America, in R Wauchope (ed), *Handbook of Middle American Indians*, Vol. 1, 187-215. Austin: University of Texas Press.
- Ewald, U, 1985. *The Mexican Salt Industry, 1560-1980: A Study in Change*. Stuttgart: Gustav Fischer.
- Fagan, B M, 1984. *The Aztecs*. New York: W H Freeman.
- Fagan, B M, 1995. *Ancient North America: The Archaeology of a Continent*. Second edition. New York: Thames and Hudson.
- Fahmel Beyer, B, 1988. *Mesoamerica Tolteca: Sus Cerámicas de Comercio Principales*. México, D.F.: Universidad Nacional Autónoma.
- Fash, B W and W L Fash, 1994. Copan Temple 20 and the House of Bats, in M G Robertson and V M Fields (eds), *Seventh Palenque Round Table, 1989*, 61-67. San Fransisco: Pre-Columbian Art Research Institute.
- Fash, W L, 1993. *Scribes, Warriors and Kings: The City of Copan and the Ancient Maya*. London: Thames and Hudson.
- Ferguson, W M and R E W Adams (eds), 2001. *Mesoamerica's Ancient Cities: Aerial Views of Pre-Columbian Ruins in Mexico, Guatemala, Belize and Honduras*. Albuquerque: University of New Mexico Press.
- Fewkes, W J, 1894. A Study of Certain Figures in a Maya Codex, *American Anthropologist*, **7**, 260-274.
- Fields, V M, 1991. The Iconographic Heritage of the Maya Jester God, in M G Robertson and V M Fields (eds), *Sixth Palenque Round Table, 1986*, 167-174. Norman: University of Oklahoma Press.
- Fisch, M H (ed), 1982a. *Writings of Charles S Peirce: A Chronological Edition*. Bloomington: Indiana University Press.
- Fisch, M H, 1982b. Introduction, in M H Fisch (ed), *Writings of Charles S Peirce: A Chronological Edition*, XV-XXXV. Bloomington: Indiana University Press.
- Flannery, K V, 1999. Process and Agency in Early State Formation, *Cambridge Archaeological Journal*, **9**(1), 3-21.
- Flannery, K V and J Marcus, 1983. *The Cloud People; Divergent Evolution of the Zapotec and Mixtec Civilizations*. New York: Academic Press.
- Florescano, E, 1999. *The Myth of Quetzalcoatl*. Baltimore: The Johns Hopkins University Press.
- Foias, A E and R L Bishop, 1997. Changing Ceramic Production and Exchange in the Petexbatun Region, Guatemala: Reconsidering the Classic Maya Collapse, *Ancient Mesoamerica*, **8**(2), 275-292.
- Folan, W J, 1969. Sacalum, Yucatan: A Pre-Hispanic and Contemporary Source of Attapulgitite, *American Antiquity*, **34**(4), 182-183.
- Foster, L and L Wren, 1996. World Creator and World Sustainer: God N at Chichen Itza, in M G Robertson, M Macri and J McHargue (eds), *Eighth Palenque Round Table, 1993, Vol. X*, 259-269. San Francisco: Pre-Columbian Art Research Institute.
- Fox, J W, 1987. *Maya Postclassic State Formation: Segmentary Lineage Migration in Advancing Frontiers*. Cambridge: Cambridge University Press.
- Freidel, D A, 1977. A Late Preclassic Monumental Maya Mask at Cerros, Northern Belize, *Journal of Field Archaeology*, **4**, 488-491.

- Freidel, D A, 1978. Maritime Adaptation and the Rise of Maya Civilization: A View from Cerros, Belize, in B L Stark and B Voorhies (eds), *Prehistoric Coastal Adaptations: The Economy and Ecology of Maritime Middle America*, 239-65. New York: Academic Press.
- Freidel, D A, 1979. Culture Areas and Interaction Spheres: Contrasting Approaches to the Emergence of Civilization in the Maya Lowlands, *American Antiquity*, **44**, 36-54.
- Freidel, D A, 1981. Continuity and Disjunction: Late Postclassic Settlement Patterns in Northern Yucatan, in W Ashmore (ed), *Lowland Maya Settlement Patterns*, 311-332. Albuquerque: University of New Mexico Press.
- Freidel, D A, 1983. Political Systems in Lowland Yucatan: Dynamics and Structure in Maya Settlement, in E Z Vogt and R M Leventhal (eds), *Prehistoric Settlement Patterns: Essays in Honor of Gordon R. Willey*, 375-386. Albuquerque: University of New Mexico Press.
- Freidel, D A, 1985. New Light in the Dark Age: A Summary of Major Themes, in A F Chase and P M Rice (eds), *The Maya Lowland Postclassic*, 285-310. Austin: University of Texas Press.
- Freidel, D A, 1986. Terminal Classic Lowland Maya: Successes, Failures and Aftermaths, in J A Sabloff and E W Andrews V (eds), *Late Lowland Maya Civilization: Classic to Postclassic*, 409-430. Albuquerque: University of New Mexico Press.
- Freidel, D A, M Masucci, S Jaeger and R A Robertson, 1991. The Bearer, the Burden and the Burnt: The Stacking Principle in the Iconography of the Late Preclassic Maya Lowlands, in M G Robertson and V M Fields (eds), *Sixth Palenque Round Table, 1986*, 175-183. Norman: University of Oklahoma Press.
- Freidel, D A and J A Sabloff, 1984. *Cozumel: Late Maya Settlement Patterns*. New York: Academic Press.
- Freidel, D A and L Schele, 1988. Symbol and Power: A History of the Lowland Maya Cosmogram, in E P Benson and G G Griffin (eds), *Maya Iconography*, 44-93. Princeton: Princeton University Press.
- Freidel, D A, L Schele and J Parker, 1993. *Maya Cosmos: Three Thousand Years on the Shaman's Path*. New York: William Morrow and Company.
- Fry, R E, 1972. The Archaeology of Southern Quintana Roo: Ceramics, *Proceedings of the 40th International Congress of Americanists, Vol. 1*, 487-493. Rome-Genova: International Congress of Americanists.
- Fry, R E, 1987. The Ceramic Sequence of South-Central Quintana Roo, Mexico, in P M Rice and R J Sharer (eds), *Maya Ceramics, Papers from the 1985 Maya Ceramic Conference, Part 1*, 111-121. British Archaeological Reports International Series 345(i). Oxford: British Archaeological Reports.
- Furley, P A, 1989. Further Observations on the Nature of the Savanna Vegetation and Soils in Belize, in D M Munro (ed), *Ecology and Environment in Belize: An Account of the University of Edinburgh Expedition to Belize, Central America, 1986*, 9-35. University of Edinburgh Occasional Publication No. 12. Edinburgh: University of Edinburgh.
- Furst, J L, 1978. *Codex Vindobonensis Mexicanus I: A Commentary*. Preface by M E Smith. Institute for Mesoamerican Studies Publication No. 4. New York: State University of New York at Albany.
- Furst, J L, 1995. *The Natural History of the Soul in Ancient Mexico*. New Haven: Yale University Press.
- Furst, J L and M E Smith, 1978. *Codex Vindobonensis Mexicanus I: A Commentary*. Institute for Mesoamerican Studies Publication No. 4. New York: State University of New York at Albany.

- Furst, P T, 1968. The Olmec Were-Jaguar Motif in the Light of Ethnographic Reality, in E Benson (ed), *Dumbarton Oaks Conference on the Olmec*, 143-174. Washington, D.C.: Dumbarton Oaks.
- Furst, P T, 1976. *Hallucinogens and Culture*. San Francisco: Chandler and Sharp.
- Furst, P T (ed), 1990. *Flesh of the Gods: The Ritual Use of Hallucinogens*. Prospect Heights: Waveland Press.
- Gallenkamp, C and R E Johnson (eds), 1985. *Maya: Treasures of an Ancient Civilization*. New York: Abrams.
- Gann, T W F, 1900. Mounds in Northern Honduras, in J W Powell (ed), *Nineteenth Annual Report of the Bureau of American Ethnology to the Secretary of the Smithsonian Institution, 1897-1898, Part 2*, 655-692. Washington, D.C.: Government Printing Office.
- Gann, T W F, 1911. Explorations carried out in British Honduras during 1908-1909, *Liverpool Annals of Archaeology and Anthropology*, **4**, 72-87.
- Gann, T W F, 1914-1916. Report on some Excavations in British Honduras, *Liverpool Annals of Archaeology and Anthropology*, **7**, 28-42.
- Gann, T W F, 1918. *The Maya Indians of Southern Yucatan and Northern British Honduras*. Bureau of American Ethnology Bulletin No. 64. Washington, D.C.: Smithsonian Institution Press.
- Gann, T W F, 1925. *Mystery Cities: Exploration and Adventure in Lubaantun*. London: Duckworth.
- Gann, T W F, 1926. *Ancient Maya Cities and Modern Tribes: Explorations at San Estevan, British Honduras*. London: Duckworth.
- Gann, T W F, 1929. *Discoveries and Adventures in Central America*. New York: Scribner.
- Gann, T W F, 1934. Notes on some Excavations in British Honduras, *Proceedings of the 24th International Congress of Americanists, 1934*. Unpublished Liverpool Museum Archive Notes. Liverpool: Liverpool Museum.
- Gann, T W F, 1935. Tzibanche, Quintana Roo, *Maya Research*, **2**(2), 155-166.
- Gann, T W F, 1936. *Mexico, from the Earliest Times to the Conquest*. London: L Dickson.
- Gann, T W F and J E S Thompson, 1931. *The History of the Maya: From the Earliest Times to the Present Day*. New York: Scribner.
- Gann, T W F and M Gann, 1939. *Archaeological Investigations in the Corozal District of British Honduras*. Bureau of American Ethnology Bulletin 123. Anthropological Paper No. 7. Washington, D.C.: Smithsonian Institution Press.
- Garber, J F (ed), 2004. *The Ancient Maya of the Belize Valley: Half a Century of Archaeological Research*. Gainesville: University of Florida Press.
- García, E V, 2006. The Maya Flood Myth and the Decapitation of the Cosmic Caiman, *The PARI Journal (Pre-Columbian Art Research Institute)*, **7**(1), 1-10.
- Garibay, A M, 1964. *Épica Náhuatl*. México, D.F.: Universidad Nacional Autónoma de México.
- Garibay, A M, 1979. *Teogonía e Historia de los Mexicanos: Tres Opúsculos del Siglo XVI*. México, D.F.: Editorial Porrúa.
- Garza, M de la, 1983. *Relaciones Histórico-Geográficas de la Gobernación de Yucatán*. 2 vols. México, D.F.: Universidad Nacional Autónoma de México.

- Garza, M de la, 1984. *El Universo Sagrado de la Serpiente entre los Mayas*. México, D.F.: Universidad Nacional Autónoma de México.
- Garza, M de la, 1998a. Maya Gods, in P Schmidt, M de la Garza and E Nalda (eds), *Maya*, 235-247. Venice: Bompiani.
- Garza, M de la, 1998b. Die heiligen Mächte des mayanischen Universums im Postklassikum, in A B Castillo, L Staines Cicero, M de la Garza, E Matos M and E Nalda (eds), *Maya: Die nachklassische Periode*, 99-140. München: Hirmer.
- Geertz, C, 1983. *Local Knowledge: Further Essays in Interpretive Anthropology*. New York: Basic Books.
- Gell, A, 1998. *Art and Agency: An Anthropological Theory*. Oxford: Clarendon Press.
- Gibson, J and J Carter, 2003. The Reefs of Belize, in J Cortés (ed), *Latin American Coral Reefs*, 171-202. Amsterdam, The Netherlands: Elsevier Science.
- Gifford, J C, 1960. The Type-Variety Method of Ceramic Classification as an Indicator of Cultural Phenomena, *American Antiquity*, **25**(3), 341-347.
- Gifford, J C, 1976. *Prehistoric Pottery Analysis and the Ceramics of Barton Ramie in the Belize Valley*. Memoirs of the Peabody Museum of Archaeology and Ethnology 18. Cambridge, Massachusetts: Harvard University.
- Goldstein, M M, 1994. Late Classic Maya-Veracruz Figurines: A Consideration of the Significance of some Traits Rejected in the Cultural Exchange, in M G Robertson and V M Fields (eds), *Seventh Palenque Round Table, 1989*, 169-175. San Francisco: Pre-Columbian Art Research Institute.
- Gombrich, E H, 1968. Style, in D L Sills (ed), *International Encyclopaedia of the Social Sciences*, 352-362. New York: Macmillan.
- Gombrich, E H, 1977. *Art and Illusion: A Study in the Psychology of Pictorial Representation*. London: Phaidon.
- Gombrich, E H, 1978a. *Symbolic Images*. Oxford: Phaidon Press.
- Gombrich, E H, 1978b. *Norm and Form*. London: Phaidon Press.
- Gombrich, E H, 1982. *The Image of the Eye: Further Studies in the Psychology of Pictorial Representation*. Oxford: Phaidon.
- Gómez-Pompa, A, 1998. Vegetation of the Maya Region, in P Schmidt, M de la Garza and E Nalda (eds), *Maya*, 39-51. Venice: Bompiani.
- Gómez-Pompa, A, M F Allan, S L Fedick and J J Jiménez-Osornio Povez (eds), 2003. *The Lowland Maya Area: Three Millennia at the Human-Wildland Interface*. New York: Haworth Press.
- González Rul, F, 1988. *La Cerámica en Tlatelolco*. Colección Científica. Mérida: Instituto Nacional de Antropología e Historia.
- González Rul, F, 2001. Las Máscaras de Quetzalcóatl, *Arqueología Mexicana*, **9**(53), 60-63.
- Graham, E, 1983. *The Highlands of the Lowlands: Environment and Archaeology in the Stann Creek District, Central America*. Ph.D. dissertation, University of Cambridge.
- Graham, E, 1985. Facets of Terminal to Postclassic Activity in the Stann Creek District, Belize, in A F Chase and P M Rice (eds), *The Lowland Maya Postclassic*, 215-230. Austin: University of Texas Press.

- Graham, E, 1987a. Terminal Classic to Early Historic Period Vessel Forms from Belize, in P M Rice and R J Sharer (eds), *Maya Ceramics, Papers from the 1985 Maya Ceramic Conference, Part 1*, 73-98. British Archaeological Reports International Series 345(i). Oxford: British Archaeological Reports.
- Graham, E, 1987b. Resource Diversity in Belize and its Implications for Models of Lowland Trade, *Latin American Antiquity*, **52**(4), 753-767.
- Graham, E, 1989. Brief Synthesis of Coastal Site Data from Colson Point, Placencia, and Marco Gonzalez, Belize, in H McKillop and P F Healy (eds), *Coastal Maya Trade*, 135-154. Occasional Papers in Anthropology No. 8. Peterborough: Trent University.
- Graham, E, 1991. Archaeological Insights into Colonial Period Maya Life at Tipu, Belize, in D H Thomas (ed), *Columbian Consequences, Vol. 3: The Spanish Borderlands in Pan-American Perspective*, 319-335. Washington, D.C.: Smithsonian Institution Press.
- Graham, E, 1994. *The Highlands of the Lowlands: Environment and Archaeology in the Stann Creek District, Belize, Central America*. Monographs in World Archaeology No. 19. Ontario: Prehistory Press, Royal Ontario Museum.
- Graham, E, 1998. Mission Archaeology, *Annual Review of Anthropology*, **27**, 25-62.
- Graham, E, 2001. Preliminary Report on the 1999-2001 Field Seasons at Lamanai, Belize. Report submitted to the Department of Archaeology, Belmopan, Belize.
- Graham, E, 2004. Lamanai Reloaded: Alive and Well in the Early Postclassic, in J Awe, J Morris and S Jones (eds), *Archaeological Investigations in the Eastern Maya Lowlands*, 223-241. Research Reports in Belizean Archaeology, Vol. 1. Belmopan: Institute of Archaeology, National Institute of Culture and History.
- Graham, E, 2006. An Ethnicity to Know, in F Sachse (ed), *Maya Ethnicity: The Construction of Ethnic Identity from Preclassic to Modern Times*, 109-124. Acta Mesoamerica, Vol. 19. Markt Schwaben: Anton Saurwein.
- Graham, E and S Bennet, 1989. The 1986-1987 Excavations at Negroman-Tipu, Belize, *Mexicon*, **11**, 114-117.
- Graham, E and D M Pendergast, 1989. Excavations at Marco Gonzalez Site, Ambergris Cay, Belize, 1986, *Journal of Field Archaeology*, **16**, 1-16.
- Graham, E, D M Pendergast and G D Jones, 1989. On the Fringes of Conquest: Maya-Spanish Contact in Early Belize, *Science*, **246**, 1254-1259.
- Graham, J A (ed), 1981. *Ancient Mesoamerica: Selected Readings*. Palo Alto: Peek Publications.
- Graulich, M, 1991. Les Grandes Statues Aztèque Dites Coatlicue et de Yollotlicue, in A Molinié (ed), *Cultures et Société Andes et Méso-Amérique: Mélanges en Hommage à Pierre Duviols*, Vol. 1, 375-419. Aix-en-Provence: Université de Provence.
- Graulich, M, 1997. *Myths of Ancient Mexico*. Translated by B R Ortiz de Montellano and T Ortiz de Montellano. Norman: University of Oklahoma Press.
- Gregory, R L (ed), 1987. *The Oxford Companion to the Mind*. Oxford: Oxford University Press.
- Grove, D C, 1970. *The Olmec Paintings of Oxtotitlan Cave*. Dumbarton Oaks Studies in Pre-Columbian Art and Archaeology No. 6. Washington, D.C.: Dumbarton Oaks.
- Grove, D C and R A Joyce (eds), 1999. *Social Patterns in Preclassic Mesoamerica*. Washington, D.C.: Dumbarton Oaks.

- Grube, N and W Nahm, 1994. A Census of Xibalba: A Complete Inventory of Way Characters on Maya Ceramics, in J Kerr and B Kerr (eds), *The Maya Vase Book: A Corpus of Rollout Photographs of Maya Vases, Vol. 4*, 686-704. New York: Kerr Associates.
- Guderjan, T H and J F Garber, 1995. *Maya Maritime Trade, Settlement and Populations on Ambergris Cay, Belize*. Lancaster, California: Labyrinthos.
- Guillemin, J F, 1965. *Iximche, Capital del Antiguo Reino Cakchiquel*. Guatemala: Instituto de Antropología e Historia.
- Hammond, N (ed), 1973. *British Museum – Cambridge University Corozal Project: 1973 Interim Report*. Cambridge: Cambridge University Press.
- Hammond, N, 1974a. Preclassic to Postclassic in Northern Belize, *Antiquity*, **58**, 177-189.
- Hammond, N (ed), 1974b. *Mesoamerican Archaeology: New Approaches*. Austin: University of Texas Press.
- Hammond, N, 1974c. *British Museum – Cambridge University Corozal Project: 1973 Interim Report*. Cambridge: Cambridge University Press.
- Hammond, N, 1975a. *Lubaantun: A Classic Maya Realm*. Cambridge, Massachusetts: Harvard University.
- Hammond, N (ed), 1975b. *Archaeology in Northern Belize. British Museum – Cambridge University Corozal Project: 1974-1975 Interim Report*. Cambridge: Cambridge University Press.
- Hammond, N, 1976a. A New Maya Ceremonial Centre in Belize, *Illustrated London News*, Archaeology Section 2919, 49-50.
- Hammond, N, 1976b. Maya Obsidian Trade in Southern Belize, in T R Hester and N Hammond (eds), *Maya Lithic Studies: Papers from the 1976 Belize Field Symposium*, 71-81. Centre for Archaeological Research Special Report No. 4. San Antonio: Centre for Archaeological Research, University of Texas at San Antonio.
- Hammond, N (ed), 1977a. *Social Process in Maya Prehistory: Studies in Honour of Sir Eric Thompson*. London: Academic Press.
- Hammond, N, 1977b. Ex Oriente Lux: A View from Belize, in R E W Adams (ed), *The Origins of Maya Civilization*, 45-76. Albuquerque: University of New Mexico Press.
- Hammond, N (ed), 1979. *National Geographic Society-British-Museum-Rutgers University Cuello Project 1978 Interim Report*. Archaeological Research Program, Rutgers University, Publication 1. New Brunswick: Rutgers University.
- Hammond, N, 1982. The Prehistory of Belize, *Journal of Field Archaeology*, **9**, 349-362.
- Hammond, N, 1985a. *Nohmul: A Prehistoric Maya Community in Belize: Excavations 1973-1983*. British Archaeological Reports International Series 250. Oxford: British Archaeological Reports.
- Hammond, N, 1985b. The Sun is Hid: Classic Depictions of a Maya Myth, in M G Robertson and E P Benson (eds), *Fourth Palenque Round Table, 1980, Vol. VI*, 167-174. San Francisco: Pre-Columbian Art Research Institute.
- Hammond, N (ed), 1991. *Cuello: An Early Maya Community in Belize*. Cambridge: Cambridge University Press.
- Hammond, N, 1992. Preclassic Maya Civilization, in E Danien and R J Sharer (eds), *New Theories on the Ancient Maya*, 137-144. Philadelphia: University of Pennsylvania.

- Hammond, N, 1999. The Genesis of Hierarchy: Mortuary and Offertory Ritual in the Preclassic at Cuello, Belize, in D C Grove and R A Joyce (eds), *Social Patterns in Preclassic Mesoamerica*, 49-66. Washington, D.C.: Dumbarton Oaks.
- Hammond, N, 2004. Out with a Whimper. La Milpa in the Terminal Classic, in A A Demarest, P M Rice and D S Rice (eds), *The Terminal Classic in the Maya Lowlands: Collapse, Transition and Transformation*, 288-301. Colorado: University Press of Colorado.
- Hammond, N, A Clarke and S Donaghey, 1995. The Long Goodbye: Middle Preclassic Maya Archaeology at Cuello, Belize, *Latin American Antiquity*, **6**, 120-128.
- Hammond, N, R A Housley and I A Law, 1991. The Postclassic at Cuello, Belize, *Ancient Mesoamerica*, **2**, 71-74.
- Hammond, N, D Pring, R Wilk, S Donaghey, F Saul, E Wing, A Miller and L Feldman, 1979. The Earliest Lowland Maya? Definition of the Swasey Phase, *American Antiquity*, **44**, 92-110.
- Hanh, T N, 1998. *The Heart of the Buddha's Teaching*. London: Rider.
- Hanks, W F and D S Rice (eds), 1989. *Word and Image in Maya Culture: Exploration in Language, Writing and Representation*. Salt Lake City: University of Utah Press.
- Harris, J F and S K Stearns, 1997. *Understanding Maya Inscriptions: A Hieroglyphic Handbook*. Second edition. Philadelphia: The University of Pennsylvania Museum of Archaeology and Anthropology.
- Harrison, P D, 1977. The Rise of the Bajos and the Fall of the Maya, in N Hammond (ed), *Social Process in Maya Prehistory: Essays in Honour of Sir J. Eric Thompson*, 470-508. New York: Academic Press.
- Harrison, P D, 1985. The Organization of Lowland Maya Culture History: Space and Diversity, in M G Robertson and E P Benson (eds), *Fourth Palenque Round Table, 1980, Vol. VI*, 285-289. San Francisco: Pre-Columbian Art Research Institute.
- Hart, J, 1993. Erwin Panofsky and Karl Mannheim: A Dialogue on Interpretation, *Critical Inquiry*, **19**, 534-566.
- Hassenmüller, C, 1978. Panofsky, Iconography and Semiotics, *Journal of Aesthetics and Art Criticism*, **36**, 289-301.
- Hay, C L, R L Linton, S Lothrop, H L Shapiro and G C Vaillant (eds), 1940. *The Maya and their Neighbours*. New York: Appleton-Century.
- Hazeldine, N F W, 1902. *The Dhamapada [sic]: or, The Path of Righteousness*. Denver: Smith-Brooks Company.
- Headrick, A, 2004. The Quadripartite Motif and Centralization of Power, in P A McAnany (ed), *K'axob: Ritual, Work and Family in an Ancient Maya Village*, 367-378. Los Angeles: Costen Institute of Archaeology at the University of California.
- Healy, P F, 1990. Excavations at Pacbitun, Belize: Preliminary Report on the 1986 and 1987 Investigations, *Journal of Field Archaeology*, **17**, 247-262.
- Heath, S (ed), 1977. *Image, Music, Text*. London: Fontana.
- Hellmuth, N M, 1977. Cholti-Lacandon (Chiapas) and Peten-Ytza Agriculture, Settlement Pattern and Population, in N Hammond (ed), *Social Process in Maya Prehistory: Studies in Honour of Sir Eric Thompson*, 421-448. London: Academic Press.
- Hellmuth, N M, 1985. *Maya Cylindrical Tripods and Related Early Classic Art: Iconography and Form, Corpus of Maya Art in Site Reports and in Museums and Private Collections, Guatemala*,

Honduras, Mexico, USA, Canada, Europe and Asia. Culver City: Foundation for Latin American Anthropological Research.

Hellmuth, N M, 1987. *Monster und Menschen in der Maya-Kunst: Eine Ikonographie der alten Religionen Mexikos und Guatemalas*. Graz: Akademische Druck- und Verlagsanstalt.

Hellmuth, N M, 1988. Early Maya Iconography on an Incised Cylindrical Tripod, in E P Benson and G G Griffin (eds), *Maya Iconography*, 152-174. Princeton: Princeton University Press.

Helmke, C G B, 2001. *The Last Supper: Competitive Feasting and the Terminal Classic Moulded-carved Ceramic Tradition in the Central Maya Lowlands*. Unpublished MA thesis, Institute of Archaeology, University College London, London.

Helmke, C G B, P R Colas and J J Awe, 1998. Comments on the Typology, Epigraphy and Iconography of the Actun Tunichil Mukal Vase and Belize Valley Modeled-Carved Vessels, in J J Awe (ed), *The Western Belize Regional Cave Project, A Report of the 1997 Field Season*, 93-140. Department of Anthropology, Occasional Paper No. 1. Durham: University of New Hampshire.

Henderson, R W and L G Hoevers, 1975. *Checklist and Key to the Amphibians and Reptiles of Belize, Central America*. Contributions in Biology and Geology No. 5. Milwaukee: Milwaukee Public Museum.

Hernández Sánchez, G, 2005. *Vasijas para Ceremonia: Iconografía de la Cerámica Tipo Códice del Estilo Mixteca-Puebla*. Research School of Asian, African and American Studies (CNWS). Leiden: Leiden University.

Hester, T R, 1982. The Maya Lithic Sequence in Northern Belize, in T R Hester, H J Shafer and J D Eaton (eds), *Archaeology at Colha, Belize: The 1981 Interim Report*, 39-59. San Antonio and Venice: Center for Archaeological Research, University of Texas at San Antonio, Centro Studi e Ricerche Ligabue.

Hester, T R, J D Eaton and H J Shafer (eds), 1980. *The Colha Project: Second Season 1980. Interim Report*. San Antonio and Venice: Center for Archaeological Research, University of Texas at San Antonio, Centro Studie Ricerche Ligabue.

Hester, T R and N Hammond (eds), *Maya Lithic Studies: Papers from the 1976 Belize Field Symposium*. Centre for Archaeological Research Special Report No. 4. San Antonio: Centre for Archaeological Research, University of Texas at San Antonio.

Hester, T R, G Ligabue, J D Eaton and H J Shafer, 1983. Archaeological Investigations at Colha, Belize, *Belizean Studies*, 11(5), 1-22.

Hester, T R, H J Shafer and J D Eaton (eds), 1982. *Archaeology at Colha, Belize: The 1981 Interim Report*. San Antonio and Venice: Center for Archaeological Research, University of Texas at San Antonio, Centro Studi e Ricerche Ligabue.

Hester, T R, H J Shafer and J D Eaton, 1994. *Continuing Archaeology at Colha, Belize*. Studies in Archaeology Vol. 16. Austin: Texas Archaeological Research Laboratory, University of Texas.

Hester, T R, H J Schafer and G Ligabue, 1980. Lithic Research at Colha, *Lithic Technology*, 9(1), 8-9.

Heyden, D, 1981. Caves, Gods and Myths: World-View and Planning at Teotihuacan, in E P Benson (ed), *Mesoamerican Sites and World-Views*, 1-39. Washington, D.C.: Dumbarton Oaks.

High, L R, Jr, 1975. Geomorphology and Sedimentology of Holocene Coastal Deposits, Belize, in K F Wantland and W C Pusey (eds), *Belize Shelf – Carbonate Sediments, Clastic Sediments and Ecology*, 53-96. Tulsa: The American Association of Petroleum Geologists.

- Hirth, K G, 1989. Militarism and Social Organization at Xochicalco, Morelos, in R A Diehl and J C Berlo (eds), *Mesoamerica After the Decline of Teotihuacan, A.D. 700-900*, 69-82. Washington D.C.: Dumbarton Oaks.
- Hirth, K G, 2000. *The Xochicalco Mapping Project, Archaeological Research at Xochicalco*. Salt Lake City: University of Utah Press.
- Hjelmslev, L, 1961. *Prolegomena to a Theory of Language*. Wisconsin: University of Wisconsin Press.
- Hodder, I, 1982. *Symbols in Action*. Cambridge: Cambridge University Press.
- Hodder, I, 1986. *Reading the Past*. Cambridge: Cambridge University Press.
- Hodder, I, 1987a. The Contextual Analysis of Symbolic Meaning, in I Hodder (ed), *The Archaeology of Contextual Meanings*, 1-10. Cambridge: Cambridge University Press.
- Hodder, I (ed), 1987b. *The Archaeology of Contextual Meanings*. Cambridge: Cambridge University Press.
- Hodder, I (ed), 1989. *The Meaning of Things: Material Culture and Symbolic Expression*. London: Unwin Hyman.
- Hodge, R and G Kress, 1988. *Social Semiotics*. Oxford: Polity Press.
- Hodson, F R and P A Tyers, 1988. Data Analysis Package for Archaeologists, in C L N Ruggles and S P Q Rahtz (eds), *Computer and Quantitative Methods in Archaeology*, 31-41. British Archaeological Reports International Series 446(i). Oxford: British Archaeological Reports.
- Holly, M A, 1984. *Panofsky and the Foundations of Art History*. London: Cornell University Press.
- Hosler, D, 1994. *The Sounds and Colors of Power: The Sacred Metallurgical Technology of Ancient West Mexico*. Cambridge, Massachusetts: MIT Press.
- Hosler, D, 2003. Metal Production, in M E Smith and F F Berdan (eds), *The Postclassic Mesoamerican World*, 159-171. Salt Lake City: The University of Utah Press.
- Houston, S D, 1989. *Maya Glyphs*. London: British Museum Publications.
- Houston, S D and K Taube, 2000. An Archaeology of the Senses: Perception and Cultural Expression in Ancient Mesoamerica, *Cambridge Archaeological Journal*, **10**(2), 261-294.
- Howie, L A, 2006. *Ceramic Production and Consumption in the Maya Lowlands during the Classic to Postclassic Transition: A Technological Study of Ceramics at Lamanai, Belize*. Unpublished Ph.D. dissertation, Department of Archaeology, University of Sheffield, Sheffield.
- Howie, L A, P Day and E Graham, 2002. *Ceramic Production and Consumption during the Terminal Classic to Early Postclassic Transition: A View from Lamanai, Belize*. Paper presented at the 67th Annual Meeting of the Society for American Archaeology, Denver, Colorado.
- Huerta Blas, C, 2001. Cúmulo de Simbolos, La Serpiente Emplumada, *Arqueología Mexicana*, **IX**(53), 28-35.
- Humberto Ruz, M, 1998. Maya Daily Labors: A History in Lower Case, in P J Schmidt, M de la Garza and E Nalda (eds), *Maya*, 159-177. Venice: Bompiani.
- Ichon, A, 1977. *Les Sculptures de La Lagunita, El Quiche, Guatemala*. Centre National de la Recherche Scientifique, R.C.P. 294, Institut d'Ethnologie Paris. Guatemala: Editorial Pedra Santa.

- Ichon, A and R Grignon, 1981. *Archéologie de Sauvetage dans la Vallée du Rio Chixoy. 3. El Jocote*. Centre National de la Recherche Scientifique, R.C.P. 500, Institut d'Ethnologie Paris. Guatemala: Editorial Pedra Santa.
- Ichon, A and M P Hatch, 1982. *Archéologie de Sauvetage dans la Vallée du Rio Chixoy. 4. Los Encuentros*. Centre National de la Recherche Scientifique, R.C.P. 500, Institut d'Ethnologie Paris. Guatemala: Editorial Pedra Santa.
- Illius, B and M Laubscher (eds), 1990. *Circumpacifica: Festschrift für Thomas S. Barthel, Vol. 1*. Frankfurt: Peter Lang.
- Innis, R (ed), 1985. *Semiotics. An Introductory Anthology*. Bloomington: Indiana University Press.
- Ivanoff, P and M A Asturias, 1973. *Monuments of Civilization: Maya*. New York: Madison Square Press, Grosset and Dunlap.
- Iverson, M, 1979. Meyer Schapiro and the Semiotics of Visual Art, *Block*, 1, 50-52.
- Iverson, M, 1986. Saussure versus Peirce: Models for a Semiotics of Visual Art, in A L Rees and F Borzello (eds), *New Art History*, 82-94. London: Camden Press.
- Jansen, M, 1994. *La Gran Familia de los Reyes Mixtecos. Libro Explicativo de los Códices Llamados Egerton y Becker II*. México, D.F.: Fondo de Cultura Económica.
- Jansen, M, 1997. La Serpiente Emplumada y el Amanecer de la Historia, in M Jansen and L Reyes (eds), *Códices, Caciques y Comunidades*, 11-63. Cuadernos de Historia Latinoamericanos No. 5. Ridderkerk: Asociación de Historiadores Latinoamericanistas Europeos.
- Jansen, M, 1998. La Fuerza de los Cuarto Vientos. Los Manuscritos 20 y 21 del Fonds Mexicain, *Journal de la Société des Américanistes*, 84(2), 125-161.
- Jansen, M and L Reyes (eds), 1997. *Códices, Caciques y Comunidades*. Cuadernos de Historia Latinoamericanos No. 5. Ridderkerk: Asociación de Historiadores Latinoamericanistas Europeos.
- Jauregui, J, 2001. La Serpiente Emplumada entre los Coras y Huicholes, *Arqueología Mexicana*, IX(53), 64-68.
- Jenkin, R N, R Rose-Jennis, J R Dunsmore, S H Walker, C J Birchall and J S Briggs, 1976. *The Agricultural Development Potential of the Belize Valley, Belize*. Ministry of Overseas Development, Land Resources Study 24. Surbiton: Land Resource Division, Ministry of Overseas Development.
- Jones, G D (ed), 1977. *Anthropology and History in Yucatan*. Austin: University of Texas Press.
- Jones, G D, 1982. Agriculture and Trade in the Colonial Period Southern Maya Lowlands, in K V Flannery (ed), *Maya Subsistence*, 275-293. New York: Academic Press.
- Jones, G D, 1989. *Maya Resistance to Spanish Rule: Time and History on a Colonial Frontier*. Albuquerque: University of New Mexico Press.
- Jones, G D, 1998a. The Conquest of the Mayas of Yucatan and Maya Resistance During the Spanish Colonial Period, in P Schmidt, M de la Garza and E Nalda (eds), *Maya*, 482-493. Venice: Bompiani.
- Jones, G D, 1998b. *The Conquest of the Last Maya Kingdom*. Stanford: Stanford University Press.

- Jones, T, 1985. The Xox, the Shark and the Sea Dogs: An Historical Encounter, in M G Robertson and V M Fields (eds), *Fifth Palenque Round Table, 1983, Vol. VII*, 211-222. San Francisco: Pre-Columbian Art Research Institute.
- Jones, T, 1996. Jaws II: Return of the Xoc, in M G Robertson, M Macri and J McHargue (eds), *Eighth Palenque Round Table, 1993, Vol. X*, 246-254. San Francisco: Pre-Columbian Art Research Institute.
- Joralemon, P D, 1971. *A Study of Olmec Iconography*. Washington, D.C.: Dumbarton Oaks.
- Joralemon, P D, 1976. The Olmec Dragon, a Study in Precolumbian Iconography, in H B Nicholson (ed), *Origins of Religious Art and Iconography in Preclassic Mesoamerica, 27-71*. Los Angeles: University of California.
- Joyce, R A, R Edging, K Lorenz and S D Gillespie, 1991. Olmec Bloodletting: An Iconographic Study, in M G Robertson and V M Fields (eds), *Sixth Palenque Round Table, 1986*, 143-150. Norman: University of Oklahoma Press.
- Jung, C G, 1964. *Man and his Symbols*. New York: Doubleday and Company.
- Justeson, J S, W M Norman and N Hammond, 1988. The Pomoná Flare: A Preclassic Maya Hieroglyphic Text, in E P Benson and G G Griffin (eds), *Maya Iconography*, 94-151. Princeton: Princeton University Press.
- Kampen, M E, 1972. *The Sculpture of El Tajin Veracruz, Mexico*. Florida: University of Florida Press.
- Kepecs, S, G M Feinman and S Boucher, 1994. Chichen Itza and Its Hinterland: A World System Perspective, *Ancient Mesoamerica*, 5, 141-158.
- Kerr, J and B Kerr (eds), 1989. *The Maya Vase Book: A Corpus of Rollout Photographs of Maya Vases, Vol. I*. New York: Kerr Associates.
- Kerr, J and B Kerr (eds), 1992. *The Maya Vase Book: A Corpus of Rollout Photographs of Maya Vases, Vol. II*. New York: Kerr Associates.
- Kerr, J and B Kerr (eds), 1994. *The Maya Vase Book: A Corpus of Rollout Photographs of Maya Vases, Vol. III*. New York: Kerr Associates.
- Kerr, J and B Kerr (eds), 1997. *The Maya Vase Book: A Corpus of Rollout Photographs of Maya Vases, Vol. IV*. New York: Kerr Associates.
- Kerr, J and B Kerr, 1988. Some Observations on Maya Vase Painters, in E P Benson and G G Griffin (eds), *Maya Iconography*, 236-259. Princeton: Princeton University Press.
- Kerr, J and B Kerr (eds), 2004. *The Maya Vase Book: A Corpus of Rollout Photographs of Maya Vases, Vol. V*. New York: Kerr Associates.
- King, J, 1995. *Inalienable Possessions: An Anthropological Analysis of Maya Caching*. Unpublished MA thesis, Department of Anthropology, York University, Toronto.
- King, R B, I C Baillie, T M B Abell, J R Dunsmore, D A Gray, J H Pratt, H R Versey, A C S Wright and S A Zisman, 1992. *Land Resource Assessment of Northern Belize*. Bulletin 43. Chatham: Natural Resources Institute.
- King, J L and N C Tejero (eds), 1972. *Religión en Mesoamérica*. México, D.F.: Sociedad Mexicana de Antropología.
- Koenig, S H and G O Williams, 1985. Modelling Lowland Maya Settlement Patterns, in M G Robertson and V M Fields (eds), *Fifth Palenque Round Table, 1983, Vol. VII*, 255-289. San Francisco: Pre-Columbian Art Research Institute.

Koeppen, W and R Geiger (eds), 1930-1939. *Handbuch der Klimatologie*. 4 vols. Berlin: Bornträger.

Kolb, C C and L M Lackey (eds), 1988. *A Pot for All Reasons: Ceramic Ecology Revisited*. Special Publication of Cerámica de Cultura Maya et al. Philadelphia: Laboratory of Anthropology, Temple University.

Kosakowsky, L J, F Estrada Belli and P Pettitt, 2000. Preclassic through Postclassic: Ceramics and Chronology of the Southeastern Pacific Coast of Guatemala, *Ancient Mesoamerica*, **11**(2), 199-215.

Kowalski, J K, 1987. *The House of the Governor: A Maya Palace at Uxmal, Yucatan, Mexico*. Norman: University of Oklahoma Press.

Kowalski, J K, 1989. Who am I among the Itza?: Links between Northern Yucatan and the Western Maya Lowlands and Highlands, in R A Diehl and J C Berlo (eds), *Mesoamerica after the Decline of Teotihuacan*, 173-185. Washington, D.C.: Dumbarton Oaks.

Kowalski, J K, 1998. Uxmal and the Puuc Zone: Monumental Architecture, Sculptured Façades and Political Power in the Terminal Classic Period, in P Schmidt, M de la Garza and E Nalda (eds), *Maya*, 400-425. Venice: Bompiani.

Kowalski, J K (ed), 1999. *Mesoamerican Architecture as a Cultural Symbol*. Oxford: Oxford University Press.

Kowalski, J K, 2007. What's 'Toltec' at Uxmal and Chichen Itza? Merging Maya and Mesoamerican Worldviews and World Systems in Terminal Classic to Early Postclassic Yucatan, in J K Kowalski and C Kristan-Graham (eds), *Twin Tollans: Chichen Itza, Tula and the Epiclassic to Early Postclassic Mesoamerican World*, 251-313. Washington, D.C.: Dumbarton Oaks.

Kowalski, J K and N P Dunning, 1999. The Architecture of Uxmal: The Symbolics of Statemaking at a Puuc Maya Regional Capital, in J K Kowalski (ed), *Mesoamerican Architecture as a Cultural Symbol*, 274-297. New York: Oxford University Press.

Kowalski, J K and C Kristan-Graham (eds), 2007. *Twin Tollans: Chichen Itza, Tula and the Epiclassic to Early Postclassic Mesoamerican World*. Washington, D.C.: Dumbarton Oaks.

Kowalski, J K, A B Rubio, H O Mas and J H Herrera, 1996. Archaeological Excavations of a Round Temple at Uxmal: Summary Discussion and Implications for Northern Maya Culture History, in M G Robertson, M Macri and J McHargue (eds), *Eighth Palenque Round Table, 1993, Vol. X*, 281-295. San Francisco: Pre-Columbian Art Research Institute.

Kroeber, A L (ed), 1959. *Anthropology Today: An Encyclopaedic Inventory*. Chicago: University of Chicago Press.

Kubler, G, 1962a. *The Art and Architecture of Ancient America*. Baltimore: Penguin Books.

Kubler, G, 1962b. *The Shape of Time: Remarks on the History of Things*. New Haven: Yale University Press.

Kubler, G, 1967. *The Iconography of the Art of Teotihuacan*. Studies in Pre-Columbian Art and Archaeology No 4. Washington, D.C.: Dumbarton Oaks.

Kubler, G, 1969. *Studies in Classic Maya Iconography*. Memoirs of the Connecticut Academy of Arts and Science 18. Hamden: Archon Books.

Kubler, G, 1984. *The Art and Architecture of Ancient America: The Mexican, Maya and Andean Peoples*. Third edition. New Haven: Yale University Press.

Kuhn, T, 1962. *The Structure of Scientific Revolutions*. Chicago: University of Chicago Press.

- Kurbjuhn, K, 1985a. Man in the Turtle, Man in the Snail: A Study of Occupants of Turtle and Snail Shells in Maya Art, in M G Robertson and V M Fields (eds), *Fifth Palenque Round Table, 1983, Vol. VII*, 159-169. San Francisco: Pre-Columbian Art Research Institute.
- Kurbjuhn, K, 1985b. Busts in Flowers: A Singular Theme in Jaina Figurines, in M G Robertson and E P Benson (eds), *Fourth Palenque Round Table, 1980, Vol. VI*, 221-234. San Francisco: Pre-Columbian Art Research Institute.
- Kurjack, E B and M G Robertson, 1994. Politics and Art at Chichen Itza, in M G Robertson and V M Fields (eds), *Seventh Palenque Round Table, 1989*, 19-23. San Francisco: Pre-Columbian Art Research Institute.
- Lange, F W, 1988. *Costa Rican Art and Archaeology*. Boulder: University of Colorado.
- Langley, J C, 1993. Symbols, Signs and Writing Systems, in K Berrin and E Pasztory (eds), *Teotihuacan: Art from the City of the Gods*, 128-139. San Francisco: Thames and Hudson, The Fine Arts Museum of San Francisco.
- Laughlin, R M, 1962. El Símbolo de la Flor en la Religión de Zinacantán, *Estudios de Cultura Maya*, **2**, 123-139. México, D.F.: Universidad Nacional Autónoma de México.
- Lauretis, T de, 1981a. Semiotics and Experience, in T de Lauretis (ed), *Alice Doesn't: Feminism, Semiotics, Cinema*, 158-196. London: Macmillan.
- Lauretis, T de (ed), 1981b. *Alice Doesn't: Feminism, Semiotics, Cinema*. London: Macmillan.
- Lavin, I, 1995. *Meaning in the Visual Arts: Views from the Outside. A Centennial Commemoration of Erwin Panofsky (1892-1968)*. Princeton: Institute for Advanced Studies, Princeton University Press.
- Layton, R, 1981. *The Anthropology of Art*. Cambridge: Cambridge University Press.
- Layton, R, 1992. *Australian Rock Art: A New Synthesis*. Cambridge: Cambridge University Press.
- LeCount, L J, 1996. *Pottery and Power: Feasting, Gifting and Displaying Wealth among the Late and Terminal Classic Maya*. Ph.D. dissertation, University of California, Los Angeles. Ann Arbor: University Microfilms International.
- Lee, J C, 2000. *A Field Guide to the Amphibians and Reptiles of the Maya World: The Lowlands of Mexico, Northern Guatemala and Belize*. London: Cornell University Press.
- Lee, T A, 1985. *Los Códices Mayas*. Edición Conmemorativa X Aniversario. Tuxtla Gutierrez: Universidad Autónoma de Chiapas.
- Lee, T A and C Navarrete (eds), 1978. *Mesoamerican Communication Routes and Culture Contacts*. Papers of the New World Archaeological Foundation 40. Provo: Brigham Young University.
- Leeuw, S E van der and A C Pritchard (eds), 1984. *The Many Dimensions of Pottery: Ceramics in Archaeology and Anthropology*. Amsterdam: University of Amsterdam.
- Lehmann, W (ed), 1938. *Quellenwerk zur Alten Geschichte Americas*. Stuttgart: W Kohlhammer.
- León-Portilla, M, 1959. *La Filosofía Náhuatl Estudiada en sus Fuentes*. Second edition. México, D.F.: Universidad Nacional Autónoma de México.
- León-Portilla, M, 1963. *Aztec Thought and Culture: A Study of the Ancient Nahuatl Mind*. Translated from the Spanish by J E Davis. Norman: University of Oklahoma Press.
- León-Portilla, M, 1968. *Quetzalcóatl*. México, D.F.: Fondo de Cultura Económica.

León-Portilla, M, 1969. *Pre-Columbian Literatures of Mexico*. Norman: University of Oklahoma Press.

León-Portilla, M, 1977. *De Teotihuacán a los Aztecas: Antología de Fuentes e Interpretaciones Históricas*. México, D.F.: Universidad Nacional Autónoma de México, Instituto de Investigaciones Históricas, Colegio de Ciencias y Humanidades.

León-Portilla, M, 2001. El retorno de Quetzalcóatl, *Arqueología Mexicana*, **IX**(53), 54-57.

Leventhal, R M, 1979. *Preliminary Report on Investigations at Pusilha, Toledo District, Belize*. Cambridge, Massachusetts: Peabody Museum, Harvard University.

Leventhal, R M, 1990. Southern Belize: An Ancient Maya Region, in F S Clancy and P D Harrison (eds), *Vision and Revision in Maya Studies*, 125-141. Albuquerque: University of New Mexico Press.

Leyenda de los Soles. See *Codex Chimalpopoca*.

Lincoln, C E, 1986. The Chronology of Chichen Itza: A Review of the Literature, in J A Sabloff and E W Andrews V (eds), *Late Lowland Maya Civilisation: Classic to Postclassic*, 141-198. Albuquerque: University of New Mexico Press.

Lind, M, 1967. *Mixtec Polychrome Pottery: a Comparison of the Late Preconquest Polychrome Pottery from Cholula, Oaxaca and the Chinantla*. Unpublished MA thesis, Universidad de las Américas.

Lind, M, 1987. *The Sociocultural Dimensions of Mixtec Ceramics*. Vanderbilt University Publications in Anthropology Vol. 33. Nashville: Vanderbilt University Press.

Lind, M, 1994. Cholula and Mixteca Polychromes: Two Mixteca-Puebla Regional Sub-Styles, in H B Nicholson and E Quiñones Keber (eds), *Mixteca-Puebla: Discoveries and Research in Mesoamerican Art and Archaeology*, 79-100. Culver City: Labyrinthos.

Locke, A, 2002. Gods of Death, in E Matos M and F Solís Olguín (eds), *Aztecs*, 205-224. London: Royal Academy of Arts.

Lombardo de Ruiz, S (ed), 1987. *La Pintura Mural Maya en Quintana Roo*. Colección Fuentes. Mérida: Instituto Nacional de Antropología e Historia.

Long, R, 1919. The Date of Maya Ruins at Santa Rita, British Honduras, *Man*, **19**, 59-61.

Longhena, M, 1998. *Mexique Ancien: Histoire et Culture des Mayas, Aztèque et autres Peuples Précolombiens*. Paris: Gründ.

López Austin, A, L Lujan and S Sugiyama, 1991. The Temple of Quetzalcoatl at Teotihuacan: Its Possible Ideological Significance, *Ancient Mesoamerica*, **2**, 93-105.

López de Cogolludo, D, 1971. *Los Tres Siglos de la Dominación Española en Yucatán, o sea Historia de esta Provincia*. Facsimile of second, Campeche-Mérida, 1842-1845 edition. Graz: Akademische Druck- und Verlagsanstalt.

López-Jiménez, F, 1994. Entierros Humanos en el Templo de la Cruz y la Cruz Foliada de Palenque, Chiapas, *Cuarto Foro de Arqueología de Chiapas: Serie Memorias, Comitán*, 83-97. Tuxtla Gutierrez: Gobierno del Estado de Chiapas.

Loten, H S, 1985. Lamanai Postclassic, in A F Chase and P M Rice (eds), *The Lowland Maya Postclassic*, 85-90. Austin: University of Texas Press.

Loten, H S and D M Pendergast, 1984. *A Lexicon for Maya Architecture*. Royal Ontario Museum of Archaeology Monograph 8. Toronto: Royal Ontario Museum.

- Lothrop, S K, 1924. *Tulum: An Archaeological Study of the East Coast of Yucatan*. Carnegie Institution of Washington Publication No. 335. Washington, D.C.: Carnegie Institution of Washington.
- Lothrop, S K, 1926. *Pottery of Costa Rica and Nicaragua*. Contributions, Vol. 8. New York: Museum of the American Indian (Heye Foundation).
- Lothrop, S K, 1936. *Zacualpa: A Study of Ancient Quiche Artifacts*. Washington, D.C.: Carnegie Institution of Washington.
- Love, B, 1994. *The Paris Codex: Handbook for a Maya Priest*. Austin: University of Texas Press.
- Love, M, M Popenoe de Hatch and H L Escobedo (eds), 2003. *Incidents of Archaeology in Central America and Yucatan; Essays in Honour of Edwin M. Shook*. Landham: University Press of America.
- Lowe, J W G, 1985. *The Dynamics of Apocalypse: A Systems Simulation of the Classic Maya Collapse*. Albuquerque: University of New Mexico Press.
- Mackie, E, 1963. Some Maya Pottery from Grand Bogue Point, Turneffe Islands, British Honduras, appendix in D R Stoddart (ed), *Effects of Hurricane Hattie on the British Honduras Reefs and Cays, October 30-31, 1961*. *Atoll Research Bulletin* 95, 131-135. Washington, D.C.: The Pacific Science Board.
- MacKinnon, J J, 1989. Coastal Maya Trade Routes in Southern Belize, in H McKillop and P F Healy (eds), *Coastal Maya Trade*, 111-122. Occasional Papers in Anthropology No. 8. Peterborough: Trent University.
- MacNeish, R S, 1992. The God N/Step Set in the Primary Standard Sequence, in J Kerr and B Kerr (eds), *The Maya Vase Book: A Corpus of Rollout Photographs of Maya Vases, Vol. 2*, 331-343. New York: Kerr Associates.
- Maldonado, R C and B R Tio, 1991. Tlalocs at Uxmal, in M G Robertson and V M Fields (eds), *Sixth Palenque Round Table, 1986*, 97-101. Norman: University Oklahoma Press.
- Mannheim, K, 1993. On the Interpretation of Weltanschauung, in K H Wolff (ed), *From Karl Mannheim*, 136-186. New Brunswick: Transaction Publishers.
- Manzanilla, L, 2002. Houses and Ancestors, Altars and Relics: Mortuary Patterns at Teotihuacan, Central Mexico, in H Silverman and D B Small (eds), *The Space and Place of Death*, 55-65. Archaeological Papers of the American Anthropological Association No. 11. Arlington: American Anthropological Association.
- Marcus, J, 1976. *Emblem and State in the Classic Maya Lowlands: An Epigraphic Approach to Territorial Organization*. Washington, D.C.: Dumbarton Oaks.
- Marcus, J, 1978. Archaeology and Religion: A Comparison of the Zapotec and Maya, *World Archaeology*, 2, 172-191.
- Marcus, J, 1983. Lowland Maya Archaeology at the Crossroads, *Latin American Antiquity*, 48(3), 454-488.
- Marcus, J, 1989. From Centralized Systems to City-States: Possible Models for the Epiclassic, in R A Diehl and J C Berlo (eds), *Mesoamerica after the Decline of Teotihuacan, A.D. 700-900*, 201-323. Washington, D.C.: Dumbarton Oaks.
- Marcus, J, 1992. *Mesoamerican Writing Systems: Propaganda, Myth and History in Four Ancient Civilizations*. Princeton: Princeton University Press.
- Markman, P T and R H Markman, 1989. *Masks of the Spirit: Image and Metaphor in Mesoamerica*. Berkley: University of California Press.

- Martin, S, 2001. Unmasking "Double Bird", Ruler of Tikal, *The PARI Journal*, **2**(1), 7-12.
- Martin, S, 2003. *Mortuary Themes in Maya Art and Writing*. Paper presented at the 7th Maya Conference, 5-10 November 2003, The British Museum, London.
- Martin, S and N Grube, 2000. *Chronicle of the Maya Kings and Queens: Deciphering the Dynasties of the Ancient Maya*. London: Thames and Hudson.
- Masson, M A, 1993. *Changes in Maya Community Organization from the Classic to Postclassic Periods: A View from Laguna de On, Belize*. Unpublished Ph.D. dissertation, Department of Anthropology, University of Texas at Austin.
- Masson, M A, 1999. Postclassic Maya Ritual at Laguna de On Island, Belize, *Ancient Mesoamerica*, **10**(1), 51-68.
- Masson, M A, 2000. *In the Realm of Nachan Kan: Postclassic Maya Archaeology at Laguna de On, Belize*. Colorado: University Press of Colorado.
- Masson, M A, 2003a. The Late Postclassic Symbol Set in the Maya Area, in M E Smith and F F Berdan (eds), *The Postclassic Mesoamerican World*, 194-200. Salt Lake City: The University of Utah Press.
- Masson, M A, 2003b. Economic Patterns in Northern Belize, in M E Smith and F F Berdan (eds), *The Postclassic Mesoamerican World*, 269-281. Salt Lake City: The University of Utah Press.
- Masson, M A and S B Mock, 2004. Ceramic and Settlement Patterns at Terminal Classic-Period Lagoon Sites in Northern Belize, in A A Demarest, P Rice and D S Rice (eds), *The Terminal Classic in the Maya Lowlands: Collapse, Transition and Transformation*, 367-401. Colorado: University Press of Colorado.
- Masson, M A and R M Rosenswig (eds), 1997. *The Belize Postclassic Project: Laguna de On Island Excavations 1996*. Report to the Department of Archaeology Belmopan, Belize. Albany: Institute of Mesoamerican Studies, University at Albany.
- Masson, M A and R M Rosenswig (eds), 1998. *The Belize Postclassic Project 1997: Laguna de On, Progreso Lagoon, Laguna Seca*. Occasional Publication No. 2. Albany: Institute of Mesoamerican Studies, University at Albany.
- Masson, M A and R M Rosenswig (eds), 1999. *Belize Postclassic Project 1998: Investigations at Progreso Lagoon*. Occasional Publication No. 3. Albany: Institute of Mesoamerican Studies, University at Albany.
- Masson, M A and R M Rosenswig (eds), 2000. *Belize Postclassic Project 1999: Continuing Investigations at Progreso Lagoon and Laguna Seca*. Occasional Publication No. 5. Albany: Institute of Mesoamerican Studies.
- Masson, M A and R M Rosenswig (eds), n.d. *The Belize Postclassic Project 2001: Expansion of Temporal Investigations at Progreso Lagoon*. Occasional Publication No. 7. Albany: Institute for Mesoamerican Studies.
- Matos M, E, 1990. *Treasures of the Great Temple*. México, D.F.: Fundación Universo Veintiuno.
- Matos M, E, 1993. *Official Guide: The Great Temple*. Mexico City: Offset.
- Matos M, E, 2001. La Arqueología y la Ilustración, *Arqueología Mexicana*, **IX**(53), 18-25.
- Matos M, E and L L Lujan, 1993. Teotihuacan and Its Mexica Legacy, in K Berrin and E Pasztor (eds), *Teotihuacan: Art from the City of the Gods*, 156-165. San Francisco: Thames and Hudson, The Fine Arts Museum of San Francisco.
- Matos M, E and F Solís Olgúin, 2002. *Aztecs*. Madrid: Turner at Artes Graficas.

- Maudslay, A P, 1889-1902. *Biologia Centrali-Americana. Appendix: Archaeology*. London: R H Porter and Dulau and Company.
- Maynard, L, 1977. Classification and Terminology in Australian Rock Art, in P J Ucko (ed), *Form in Indigenous Art: Schematisation in the Art of Aboriginal Australia and Prehistoric Europe (Prehistory and Material Culture Series)*, 387-402. London: Duckworth.
- McAnany, P A, 1995. *Living with the Ancestors: Kinship and Kingship in Ancient Maya Society*. Austin: University of Texas Press.
- McAnany, P A (ed), 2004. *K'axob: Ritual, Work and Family in an Ancient Maya Village*. Los Angeles: Costen Institute of Archaeology, University of California.
- McAnany, P A and B Isaac (eds), 1989. *Prehistoric Maya Economies of Belize*. Research in Economic Anthropology, Supplement 4. Greenwich, Connecticut: JAI Press.
- McAnany, P A and S López Varela, 1999. Recreating the Formative Maya Village of K'axob: Chronology, Ceramic Complexes and Ancestors in Archaeological Context, *Ancient Mesoamerica*, **10**, 147-168.
- McAnany, P A, R Storey and A K Lockard, 1999. Mortuary Ritual and Family Politics at Formative and Early Classic K'axob, Belize, *Ancient Mesoamerica*, **10**, 129-146.
- McCafferty, G, 1996. The Ceramics and Chronology of Cholula, Mexico, *Ancient Mesoamerica*, **7**, 299-323.
- McDonald, R C and N Hammond, 1985. The Environment of Northern Belize, in N Hammond (ed), *Nohmul: A Prehistoric Community in Belize, Excavations 1973-1983*, 13-41. British Archaeological Reports International Series 250(i). Oxford: British Archaeological Reports.
- McEwan, C, 1994. *Ancient Mexico in the British Museum*. London: The British Museum.
- McKillop, H, 1980. *Moho Cay, Belize: Preliminary Investigation of Trade, Settlement and Marine Resource Exploitation*. Unpublished MA thesis, Trent University, Peterborough, Ontario.
- McKillop, H, 1984. Prehistoric Maya Reliance on Marine Resources: Analysis of a Midden from Moho Cay, Belize, *Journal of Field Archaeology*, **11**, 25-35.
- McKillop, H, 1989. Coastal Maya Trade: Obsidian Densities from Wild Cane Cay, Belize, in P McAnany and B Isaac (eds), *Prehistoric Maya Economies of Belize*, 17-56. Research in Economic Anthropology, Supplement 4. Greenwich, Connecticut: JAI Press.
- McKillop, H, 1996. Ancient Maya Trading Ports and the Integration of Long Distance and Regional Economies: Wild Cane Cay in South-Coastal Belize, *Ancient Mesoamerica*, **7**, 49-62.
- McKillop, H, 2002. *Salt: White Gold of the Ancient Maya*. Gainesville: University Press of Florida.
- McKillop, H, 2004. The Classic Maya Trading Port of Moho Cay, in J F Garber (ed), *The Ancient Maya of the Belize Valley: Half a Century of Archaeological Research*, 257-272. Gainesville: University of Florida Press.
- McKillop, H, 2005. *In Search of Maya Sea Traders: Archaeology at Wild Cane Cay*. Texas A&M University Anthropology Series, No. 11. College Station: Texas A&M University Press.
- McKillop, H and P F Healy (eds), 1989. *Coastal Maya Trade*. Occasional Papers in Anthropology No. 8. Peterborough: Trent University.
- Meighan, C W, 1974. Prehistory of West Mexico, *Science*, **184**, 1254-1261.

- Meiss, M (ed), 1963. *Latin American Art and the Baroque Period in Europe: Studies in Western Art*. Acts of the Twentieth International Congress of the History of Art, Vol. 3. Princeton: Princeton University Press.
- Mendieta, G de, 1971. *Historia Eclesiástica Indiana*. México, D.F.: Porrúa.
- Michaels, G H, 1987. *A Description of Early Postclassic Lithic Technology at Colha, Belize*. Unpublished MA thesis, Department of Anthropology, Texas A&M University.
- Michaels, G H and H J Shafer, 1994. Excavations at Operation 2037 and 2040, in T R Hester, H J Shafer and J D Eaton (eds), *Continuing Archaeology at Colha*, 117-129. Studies in Archaeology Vol. 16. Austin: Texas Archaeological Research Laboratory, University of Texas.
- Michelet, D, P Becquelin and M-C Arnauld, 2000. *Mayas del Puuc: Arqueología de la Región de Xculoc, Campeche*. México, D.F.: Gobierno del Estado de Campeche, Centre Français d'Études Mexicaines et Centraméricaines.
- Milbrath, S, 1999. *Star Gods of the Maya: Astronomy in Art, Folklore and Calendars*. Austin: University of Texas Press.
- Milbrath, S and C Peraza Lope, 2003. Revisiting Mayapan: Mexico's Last Maya Capital, *Ancient Mesoamerica*, **14**, 1-46
- Milbrath, S and C Peraza Lope, n.d. Time, History and Worldview, in T W Pugh and L Cecil (eds), *Maya Worldviews at Conquest*. Colorado: University of Colorado Press.
- Miles, S W, 1957. The Sixteenth-Century Pokom-Maya: A Documentary Analysis of Social Structure and Archaeological Setting, *Transactions of the American Philosophical Society*, **47**, 735-781.
- Miller, A G, 1972. The Iconography of the Painting in the Temple of the Diving God, Tulum, Quintana Roo, a Tentative Hypothesis, in J L King and N C Tejero (eds), *Religion en Mesoamerica*, 329-333. Mexico City: Sociedad Mexicana de Antropología.
- Miller, A G, 1973. *The Mural Painting of Teotihuacan*. Washington, D.C.: Dumbarton Oaks.
- Miller, A G, 1974a. The Iconography of the Painting in the Temple of the Diving God, Tulum, Quintana Roo, Mexico: The Twisted Cords, in N Hammond (ed), *Mesoamerican Archaeology: New Approaches*, 168-186. Austin: University of Texas Press.
- Miller, A G, 1974b. West and East in Maya Thought: Death and Rebirth at Palenque and Tulum, in M G Robertson (ed), *Primera Mesa Redonda de Palenque, Part II, A Conference on the Art, Iconography and Dynastic History of Palenque, Palenque, Chiapas, Mexico, December 14-22, 1973*, 45-49. Pebble Beach: Pre-Columbian Art Research Institute, Robert Louis Stevenson School.
- Miller, A G, 1975. Introduction to the Dover Edition, in Z Nuttall (ed), *The Codex Nuttall. A Picture Manuscript from Ancient Mexico*, vii-xviii. New York: Dover Publications.
- Miller, A G, 1977. The Maya and the Sea: Trade and Cult at Tancah and Tulum, Quintana Roo, Mexico, in E P Benson (ed), *The Sea in the Pre-Columbian World: A Conference at Dumbarton Oaks, October 26th and 27th, 1974*, 97-139. Washington, D.C.: Dumbarton Oaks.
- Miller, A G, 1982. *On the Edge of the Sea. Mural Painting at Tancah-Tulum, Quintana Roo, Mexico*. Washington, D.C.: Dumbarton Oaks.
- Miller, A G, 1985. The Postclassic Sequence of Tancah and Tulum, Quintana Roo, Mexico, in A F Chase and P M Rice (eds), *The Lowland Maya Postclassic*, 31-49. Austin: University of Texas Press.

- Miller, A G, 1986. From the Maya Margins: Images of Postclassic Politics, in J A Sabloff and E W Andrews V (eds), *Late Lowland Maya Civilisation: Classic to Postclassic*, 199-222. Albuquerque: University of New Mexico Press.
- Miller, M E, 1986. *The Murals of Bonampak*. Princeton: Princeton University Press.
- Miller, M E, 1988. The Boys in the Bonampak Band, in E P Benson and G G Griffin (eds), *Maya Iconography*, 318-330. Princeton: Princeton University Press.
- Miller, M E, 1993. On the Eve of the Collapse: Maya Art of the Eighth Century, in J A Sabloff and J S Henderson (eds), *Lowland Maya Civilization in the Eighth Century A.D., a Symposium at Dumbarton Oaks, 7th and 8th October 1989*, 355-414. Washington, D.C.: Dumbarton Oaks.
- Miller, M E and K A Taube, 1993. *An Illustrated Dictionary of the Gods and Symbols of Ancient Mexico and the Maya*. London: Thames and Hudson.
- Miller, R G, 1981. *Simultaneous Statistical Inference*. Second edition. New York: Springer.
- Miller, V E, 1985. The Dwarf Motif in Classic Maya Art, in M G Robertson and E P Benson (eds), *Fourth Palenque Round Table, 1980, Vol. VI*, 141-153. San Francisco: Pre-Columbian Art Research Institute.
- Miller, V E, 1989. Star Warriors at Chichen Itza, in W F Hanks and D C Rice (eds), *Word and Image in Maya Culture: Explanations in Language, Writing, Representation*, 287-305. Salt Lake City: University of Utah Press.
- Mills, L, 1979. *The Puuc: New Perspectives: Papers Presented at the Puuc Symposium, Central College, May, 1977*. Scholarly Studies in the Liberal Arts Publication No. 1. Pella: Central College.
- Mitchell, W J T, 1986. *Iconology: Image, Text, Ideology*. Chicago: University of Chicago Press.
- Mock, S B, 1994a. The Northern River Lagoon Site (NRL): Late to Terminal Classic Maya Settlement, Saltmaking and Survival on the Northern Belize Coast. Ph.D. dissertation, Department of Anthropology, University of Texas at Albany. Ann Arbor: University Microfilms International.
- Mock, S B, 1994b. Yucatan Presence in Northern Belize Postclassic Ceramics at Colha, in T R Hester, H J Shafer and J D Eaton (eds), *Continuing Archaeology at Colha, Belize*, 9-16. Studies in Archaeology Vol. 16. Austin: Texas Archaeological Research Laboratory, University of Texas.
- Mock, S B, 1997. Preliminary Observations of Postclassic Ceramics from Laguna de On Island, in M A Masson and R M Rosenswig (eds), *The Belize Postclassic Project: Laguna de On Island Excavations 1996*, 61-68. Report to the Department of Archaeology Belmopan, Belize. Albany: Institute of Mesoamerican Studies, University at Albany.
- Mock, S B (ed), 1998a. *The Sowing and the Dawning: Termination, Dedication and Transformation in the Archaeological and Ethnographic Record of Mesoamerica*. Albuquerque: University of New Mexico Press.
- Mock, S B, 1998b. Ceramics from Laguna de On, 1996 and 1997, in M A Masson and R M Rosenswig (eds), *The Belize Postclassic Project 1997: Laguna de On, Progreso Lagoon, Laguna Seca*, 193-202. Occasional Publication No. 2. Albany: Institute of Mesoamerican Studies, University at Albany.
- Molina, A de, 1970. *Vocabulario en Lengua Castellana y Mexicana y Mexicana y Castellana*. México, D.F.: Editorial Porrúa.
- Molinié, A (ed), 1991. *Cultures et Société Andes et Méso-Amérique: Mélanges en Hommage à Pierre Duviols*, Vol. 1. Aix-en-Provence: Université de Provence.

- Mora-Echeverría, J I, 1984. Prácticas y Conceptos Prehispánicos sobre Espacio y Tiempo: a Propósito del Origen del Calendario Ritual Mesoamericano, *Boletín Bibliográfico de Antropología Americana*, **9**, 5-46.
- Morgan, L, 1985. Idea, Idiom and Iconography, in P Darcque and J-C Poursat (eds), *L'Iconographie Minoenne. Actes de la Table Ronde d'Athènes (21-22 Avril 1983)*, 5-19. Athènes: École Française d'Athènes.
- Morgan, L, 1988a. Methods and Aims: A Definition of Iconography, in L Morgan (ed), *The Miniature Wall-Paintings of Thera: A Study in Aegean Culture and Iconography*, 10-16. Cambridge: Cambridge University Press.
- Morgan, L (ed), 1988b. *The Miniature Wall-Paintings of Thera: A Study in Aegean Culture and Iconography*. Cambridge: Cambridge University Press.
- Morris, I (ed), 1994. *Classical Greece: Ancient Histories and Modern Archaeologies*. Cambridge: Cambridge University Press.
- Morris, W F, Jr, 1985. Fall Fashions: Lagartero Figurine Costume at the End of the Classic Period, in M G Robertson and V M Fields (eds), *Fifth Palenque Round Table, 1983, Vol. VII*, 245-254. San Francisco: Pre-Columbian Art Research Institute.
- Munro, D M (ed), 1989. *Ecology and Environment in Belize: An Account of the University of Edinburgh Expedition to Belize, Central America, 1986*. University of Edinburgh Occasional Publication No. 12. Edinburgh: University of Edinburgh.
- Nagao, D, 1987. Public Proclamation in the Art of Cacaxtla and Xochicalco, in R A Diehl and J C Berlo (eds), *Mesoamerica After the Decline of Teotihuacan, A.D. 700-900*, 83-103. Washington, D.C.: Dumbarton Oaks.
- Nalda, E, 1998. Zusammenbruch und politische Neuordnung im mayanischen Tiefland, in A B Castillo, L Staines Cicero, M de la Garza, E Matos M and E Nalda (eds), *Maya: Die nachklassische Periode, 7-22*. München: Hirmer.
- Nance, R C, S L Whittington and B E Borg, 2003. *Archaeology and Ethnohistory of Iximche*. With Contributions by G Guillemin and S R Manrique, Foreword by D Z Chase and A F Chase (series eds). Gainesville: University of Florida Press.
- Nash, M A, 1980. An Analysis of a Debitage Collection from Colha, Belize, in T R Hester, J D Eaton and H J Shafer (eds), *The Colha Project: Second Season 1980. Interim Report*, 333-352. San Antonio and Venice: Center for Archaeological Research, University of Texas at San Antonio, Centro Studie Ricerche Ligabue.
- Nicholson, H B, 1955. The Temalacatl of Tehuacan, *El México Antiguo*, **8**, 95-134.
- Nicholson, H B, 1957. *Topiltzin Quetzalcoatl at Tollan: A Problem in Mesoamerican Ethnohistory*. Unpublished Ph.D. dissertation, Harvard University, Cambridge, Massachusetts.
- Nicholson, H B, 1960. The Mixteca-Puebla Concept in Mesoamerican Archaeology: A Re-examination, in A F C Wallace (ed), *Men and Cultures: Selected Papers from the Fifth International Congress of Anthropological and Ethnological Sciences*, 612-617. Philadelphia: University of Pennsylvania Press.
- Nicholson, H B, 1966. The Problem of the Provenance of the Member of the "Codex Borgia Group": A Summary, in A Pompa y Pompa (ed), *Suma Antropológica en Homenaje a Robert J. Weitlaner*, 145-158. Mérida: Instituto Nacional de Antropología e Historia.
- Nicholson, H B, 1971. Religion in Prehispanic Central Mexico, in G Ekholm and I Bernal (eds), *Archaeology of Northern Mesoamerica, Part 1*, 395-445. Handbook of Middle American Indians Vol. 10, Wauchope (general ed). Austin: University of Texas Press.

- Nicholson, H B (ed), 1976. *Origins of Religious Art and Iconography in Preclassic Mesoamerica*. Los Angeles: University of California, Latin American Centre.
- Nicholson, H B, 1978. The Deity 9 Wind "Ehecatl-Quetzalcoatl" in the Mixteca Pictorials, *Journal of Latin American Lore*, **4**, 61-92.
- Nicholson, H B, 1982. The Mixteca-Puebla Concept Revisited, in E P Benson and E H Boone (eds), *The Art and Iconography of Late Post-Classic Central Mexico*, 227-254. Washington D.C.: Dumbarton Oaks.
- Nicholson, H B, 1996. Mixteca-Puebla, in J Turner (ed), *The Dictionary of Art*, Vol. 21, 739-741. New York: Grove Press.
- Nicholson, H B and R Berger, 1968. *Two Aztec Wood Idols: Iconographic and Chronologic Analysis*. Washington, D.C.: Dumbarton Oaks.
- Nicholson, H B and E Quiñones Keber, 1983. *Art of Aztec Mexico. Treasures of Tenochtitlan*. Washington, D.C.: National Gallery of Art.
- Nicholson, H B and E Quiñones Keber, 1994a. *Mixteca-Puebla: Discoveries and Research in Mesoamerican Art and Archaeology*. Culver City: Labyrinthos.
- Nicholson, H B and E Quiñones Keber, 1994b. Introduction, in H B Nicholson and E Quiñones Keber (eds), *Mixteca-Puebla: Discoveries and Research in Mesoamerican Art and Archaeology*, vii-xv. Culver City: Labyrinthos.
- Noble, S, 1998. Maya Dedications of Authority, in S B Mock (ed), *The Sowing and the Dawning: Termination, Dedication and Transformation in the Archaeological and Ethnographic Record of Mesoamerica*, 65-79. Albuquerque: University of New Mexico Press.
- Noguera, E, 1954. *La Cerámica de Cholula*. México, D.F.: Editorial Guaranía.
- Norweb, A H, 1964. Ceramic Stratigraphy in Southwest Nicaragua, *Proceedings of the 35th International Congress of Americanists, Mexico, 1962*, Vol. 1, 551-561. Mexico City: International Congress of Americanists.
- Nowotny, K A, 1961. *Tlacuilolli: Die mexicanischen Bilderhandschriften, Stil und Inhalt, mit einem Katalog der Codex-Borgia-Gruppe*. Berlin: Gebrüder Mann.
- Nowotny, K A, 1976. *Kommentar. Codex Borgia. Biblioteca Apostolica Vaticana (Messicano Riserva 28)*. Graz: Akademische Druck- und Verlagsanstalt.
- Nowotny, K A (ed), 1968. *Codex Cospì*. Graz: Akademische Druck- und Verlagsanstalt.
- Noyes, E (ed and trans), 1932. *Fray Alonso Ponce in Yucatan*. Middle American Research Institute Publication 4, 297-372. New Orleans: Tulane University.
- Nuttall, Z, 1975. *The Codex Nuttall: A Picture Manuscript from Ancient Mexico*. With New Introductory Text by A G Miller. New York: Dover Publications.
- Officer, K L C, 1984. *From Tuggerah to Dharawal: Variation and Function within Regional Art Style*. Unpublished BA dissertation, Department of Prehistory and Anthropology, Australian National University, Canberra.
- Ortega, T J, 1996. *El Culto y las Representaciones Solares en el Arte y la Arquitectura del México Antiguo*. Zinacantepec, México: El Colegio Mexiquense.
- Osborne, R, 1983. The Myth of Propaganda and the Propaganda of Myth, *Hephaistos*, **5/6**, 61-70.
- Paddock, J (ed), 1966. *Ancient Oaxaca*. Stanford: Stanford University Press.

- Paddock, J, 1982. Mixtec-Puebla Style in the Valley of Oaxaca, in D Stone (ed), *Aspects of the Mixteca-Puebla Style and Mixtec and Central Mexican Culture in Southern Mesoamerica*, 3-6. Middle American Research Institute Occasional Paper 4. New Orleans: Tulane University.
- Palka, J W, 1997. Reconstructing Socio-economic Differentiation and the Collapse at Dos Pilas, Peten, Guatemala, *Ancient Mesoamerica*, **8**(2), 293-306.
- Pang, H D and M D Coe, 1992. *Pre-Columbian Art: Investigations and Insights*. Norman: University of Oklahoma Press.
- Panofsky, E, 1930. *Herkules am Scheiderweg und andere antike Bildstoffe in der neuen Kunst*. Studien der Bibliothek Warburg XVIII. Leipzig: Studien der Bibliothek Warburg.
- Panofsky, E, 1932. Zum Problem der Beschreibung und Inhaltsdeutung von Werken der bildenden Kunst, *Logos*, **21**, 103-119.
- Panofsky, E, 1939. *Studies in Iconology: Humanistic Themes in the Art of the Renaissance*. London: Harper and Row.
- Panofsky, E, 1951. *Gothic Architecture and Scholasticism: An Inquiry into the Analogy of the Arts, Philosophy and Religion in the Middle Ages*. Latrobe: Archabbey Press.
- Panofsky, E, 1953. *Early Netherlandish Painting*. Cambridge, Massachusetts: Harvard University Press.
- Panofsky, E, 1955. *Meaning in the Visual Arts*. New York: Garden City.
- Pappas, N, 1996. *Plato and the Republic*. London: Routledge.
- Parson, L A, 1967-1969. *Bilbao, Guatemala: An Archaeological Study of Pacific Coast Cotzumalhuapa Region*. Publications in Anthropology Vols. 11, 12. Milwaukee: Milwaukee Public Museum.
- Parsons, L A, 1988. Proto-Maya Aspects of Miraflores-Arenal Monumental Stone Sculpture from Kaminaljuyu and the Southern Pacific Coast, in E P Benson and G G Griffin (eds), *Maya Iconography*, 6-43. Princeton: Princeton University Press.
- Pasztory, E, 1976. *The Murals of Tepantitla, Teotihuacan*. New York: Garland Publishing.
- Pasztory, E, 1983. *Aztec Art*. Norman: University of Oklahoma Press.
- Pasztory, E, 1993. Teotihuacan Unmasked: A View Through Art, in K Berrin and E Pasztory (eds), *Teotihuacan: Art from the City of the Gods*, 44-63. San Francisco: Thames and Hudson, The Fine Arts Museum of San Francisco.
- Paxton, M, 1986. *Codex Dresden: Stylistic and Iconographic Analysis of a Maya Manuscript*. 2 vols. Ph.D. dissertation, Department of Art and Art History, University of New Mexico. Ann Arbor: University Microfilms International.
- Paxton, M, 1991. Codex Dresden: Late Postclassic Ceramic Depictions and the Problems of Provenance and Date of Painting, in M G Robertson and V M Fields (eds), *Sixth Palenque Round Table, 1986*, 303-308. Norman: University of Oklahoma Press.
- Paxton, M, 1999. Structure 16, Tulum, Quintana Roo: Iconography and Function of a Late Postclassic Maya Building, in J K Kowalski (ed), *Mesoamerican Architecture as a Cultural Symbol*, 320-339. Oxford: Oxford University Press.
- Peirce, C S, 1985. Logic as Semiotic: The Theory of Signs, in R Innis (ed), *Semiotics. An Introductory Anthology*, 1-23. Bloomington: Indiana University Press.
- Peñalosa, J A, 1969. *La Practica Religiosa en Mexico: Siglo XVI*. Mexico City: Editorial Juan.

Pendergast, D M, 1971. Evidence of Early Teotihuacan-Lowland Maya Contact at Altun Ha, *American Antiquity*, **36**(4), 455-460.

Pendergast, D M, 1974. *Royal Ontario Museum Lamanai Expedition, 1974 – Progress Report*. (10 pp.) Submitted to the Social Sciences and Humanities Research Council of Canada and the Department of Archaeology of the Government of Belize, Belmopan (now Institute of Archaeology, National Institute of Culture and History [NICH], Belmopan), Belize.

Pendergast, D M, 1975a. The Church in the Jungle: The ROM's First Season at Lamanai, *Rotunda*, **8**(2), 32-40.

Pendergast, D M, 1975b. *Royal Ontario Museum Excavations at Lamanai, Belize, 1974-1975: Progress Report (Grant No. S73-0702-X1)*. (30 pp.) Submitted to the Social Sciences and Humanities Research Council of Canada and the Department of Archaeology of the Government of Belize, Belmopan (now Institute of Archaeology, National Institute of Culture and History [NICH], Belmopan), Belize.

Pendergast, D M, 1977. *Royal Ontario Museum Excavations at Lamanai, Belize, 1976-1977: Progress Report (Grant No. S75-0587-X1)*. (43 pp.) Submitted to the Social Sciences and Humanities Research Council of Canada and the Department of Archaeology of the Government of Belize, Belmopan (now Institute of Archaeology, National Institute of Culture and History [NICH], Belmopan), Belize.

Pendergast, D M, 1979. *Excavations at Altun Ha, Belize, 1964-1970*. Vol. 1. Toronto: Royal Ontario Museum.

Pendergast, D M, 1980. *Royal Ontario Museum Lamanai Expedition, 1980 – Progress Report*. (14 pp.) Submitted to the Social Science and Humanities Research Council of Canada and the Department of Archaeology of the Government of Belize, Belmopan (now Institute of Archaeology, National Institute of Culture and History [NICH], Belmopan), Belize.

Pendergast, D M, 1981a. Lamanai Belize: Summary of Excavation Results, 1974-1980, *Journal of Field Archaeology*, **8**, 29-53.

Pendergast, D M, 1981b. Lamanai, Belize: 1981 Excavations, *Mexicon*, **3**, 62-63.

Pendergast, D M, 1981c. *The Royal Ontario Museum Excavations at Lamanai, Belize, 1980-1981: Progress Report (Grant No. 410-80-0023)*. (38 pp.) Submitted to the Social Sciences and Humanities Research Council of Canada and the Department of Archaeology of the Government of Belize, Belmopan (now Institute of Archaeology, National Institute of Culture and History [NICH], Belmopan), Belize.

Pendergast, D M, 1981d. An Ancient Maya Dignitary: A Work of Art from the ROM'S Excavations at Lamanai, Belize, *Rotunda*, **13**(4), 5-11.

Pendergast, D M, 1982a. The 19th-Century Sugar Mill at Indian Church, Belize, *IA (The Journal of the Society for Industrial Archaeology)*, **8**(1), 57-66.

Pendergast, D M, 1982b. Lamanai, Belice, Durante el Posclásico, *Estudios de Cultura Maya*, **XIV**, 19-58.

Pendergast, D M, 1982c. Ancient Maya Mercury, *Science*, **217**, 533-535.

Pendergast, D M, 1982d. *Excavations at Altun Ha, Belize, 1964-1970*. Vol. 2. Toronto: Royal Ontario Museum.

Pendergast, D M, 1982e. *Royal Ontario Museum Lamanai Expedition, 1982 – Progress Report*. (10pp.). Submitted to the Social Sciences and Humanities Research Council of Canada and the Department of Archaeology of the Government of Belize, Belmopan (now Institute of Archaeology, National Institute of Culture and History [NICH], Belmopan), Belize

- Pendergast, D M, 1984a. The Hunchback Tomb: A Major Archaeological Discovery in Central America, *Rotunda*, **16**(4), 5-11.
- Pendergast, D M, 1984b. Excavations at Lamanai, Belize, 1983, *Mexicon*, **6**, 5-10.
- Pendergast, D M, 1985a. Belize: An Updated View, in A F Chase and P M Rice (eds), *The Lowland Maya Postclassic*, 91-103. Austin: University of Texas Press.
- Pendergast, D M, 1985b. Historic Lamanai: Royal Ontario Museum 1985 Excavations at Lamanai, Belize, *Mexicon*, **7**, 9-13.
- Pendergast, D M, 1986. Stability through Change: Lamanai, Belize, from the Ninth to the Seventeenth Century, in J A Sabloff and E W Andrews V (eds), *Late Lowland Maya Civilization: Classic to Postclassic*, 223-249. Albuquerque: University of New Mexico Press.
- Pendergast, D M, 1988. Lamanai Stela 9: The Archaeological Context, *Research Reports on Ancient Maya Writing*, **20**, 1-8. Washington, D.C.: Centre for Maya Research.
- Pendergast, D M, 1990. Up from the Dust: The Central Lowlands Postclassic as seen from Marco Gonzales, Belize, in F S Clancy and P D Harrison (eds), *Vision and Revision in Maya Studies*, 169-177. Albuquerque: University of New Mexico Press.
- Pendergast, D M, 1991. The Southern Maya Lowlands Contact Experience: The View from Lamanai, Belize, in D H Thomas (ed), *Columbian Consequences Vol. 3: The Spanish Borderlands in Pan-American Perspective*, 337-354. Washington, D.C.: Smithsonian Institution Press.
- Pendergast, D M, 1992. Noblesse Oblige: The Elites of Altun Ha and Lamanai, Belize, in D Z Chase and A F Chase (eds), *Mesoamerican Elites: An Archaeological Assessment*, 61-79. Norman: University of Oklahoma Press.
- Pendergast, D M, 1993. Worlds in Collision: The Spanish/Maya Encounter in Sixteenth and Seventeenth Century Belize, in W Bray (ed), *The Meetings of Two Worlds: Europe and the Americas 1492-1650, Proceedings of the British Academy 81*, 105-143. New York: Oxford University Press.
- Pendergast, D M, 1998. Intercessions with the Gods: Caches and their Significance at Altun Ha and Lamanai, Belize, in S B Mock (ed), *The Sowing and the Dawning: Termination, Dedication and Transformation in the Archaeological and Ethnographic Record of Mesoamerica*, 54-63. Albuquerque: University of New Mexico Press.
- Pendergast, D M, 2005. The Lessons of History: Perspectives from Lamanai, Belize, on the Interpretation of Stratigraphy, Core Content and Midden Associations, in K L Johnson (ed), *Onward and Upward!: Papers in Honor of Clement W Meighan*, 233-253. Chico: Stansbury Publishing.
- Pendergast, D M and E Graham, 1990. An Island Paradise (??): Marco Gonzalez 1990, *ROM Archaeological Newsletter*, Series II, No. 41.
- Pendergast, D M, G D Jones and E Graham, 1993. Locating Maya Lowland Spanish Colonial Towns: A Case Study from Belize, *Latin American Antiquity*, **4**(1), 59-73.
- Peraza Lope, C, 1993. Estudios Secuencia del Material Cerámico de San Gervasio, Cozumel. Licenciatura tesis, Departamento de Antropología, Universidad Autónoma de Yucatán.
- Peraza Lope, C, 1998. Mayapán: Ciudad-capital del Posclásico, *Arqueología Mexicana*, **2**, 48-53.
- Peraza Lope, C, M G Euán, P D Kú, B E Ojeda, M L Chim and C G Ayala, 1997. *Trabajos de Mantenimiento y Conservación Arquitectónica en Mayapán, Yucatán: Informe de la Primera Temporada: 1996*. Mérida: Instituto Nacional de Antropología e Historia.

- Peraza Lope, C, P D Kú, B E Ojeda and M G Euán, 1999. *Trabajos de Mantenimiento y Conservación Arquitectónica en Mayapán, Yucatán: Informe de la Segunda Temporada: 1997*. Mérida: Instituto Nacional de Antropología e Historia.
- Peraza Lope, C, P D Kú and B E Ojeda, 2001. Descubrimientos Recientes en Mayapán, Yucatán, *Investigadores de la Cultura Maya*, 9(II), 285-293.
- Peterson, K K, 1985. Observations on the IK Windows at Palenque, in M G Robertson and V M Fields (eds), *Fifth Palenque Round Table, 1983, Vol. VII*, 19-27. San Francisco: Pre-Columbian Art Research Institute.
- Piaget, J, 1962. *Play, Dreams and Imitation in Childhood*. New York: Norton.
- Piña Chán, R, 1978. Commerce in the Yucatec Peninsula: The Conquest and Colonial Period, in T A Lee and C Navarrete (eds), *Mesoamerican Communication Routes and Culture Contacts*, 37-48. Papers of the New World Archaeological Foundation 40. Provo: Brigham Young University.
- Piña Chán, R, 1989. *The Olmec: Mother Culture of Mesoamerica*. New York: Rizzoli.
- Piña Chán, R, 1998. *Cacaxtla: Fuentes Históricas y Pinturas*. México, D.F.: Fondo de Cultura Económica.
- Piña Chán, R, 2005. *El Puuc: Una Tradición Cultural Maya*. México, D.F.: El Equilibrista.
- Podro, M, 1982. *The Critical Historians of Art*. New Haven: Yale University Press.
- Pohl, J M D, 2003. Ritual and Iconographic Variability in Mixteca-Puebla Polychrome Pottery, in M E Smith and F F Berdan (eds), *The Postclassic Mesoamerican World*, 201-206. Salt Lake City: The University of Utah Press.
- Pohl, M D, 1976. *Ethnozoology of the Maya: An Analysis of Fauna from Five Sites in the Peten, Guatemala*. Ph.D. dissertation, Harvard University, Cambridge, Massachusetts.
- Pohl, M D, 1990. *Ancient Maya Wetland Agriculture: Excavations on Albion Island, Northern Belize*. Oxford: Westview Press.
- Pohl, M D, K O Pope, J G Jones, J S Jacob, D R Piperno, S D de France, D L Lentz, J A Gifford, M E Danforth and J K Josserand, 1996. Early Agriculture in the Maya Lowlands, *Latin American Antiquity*, 7(4), 355-372.
- Pollock, H E D, 1962. Introduction, in H E D Pollock, R L Roys, T Proskouriakoff and A L Smith (eds), *Mayapan, Yucatan, Mexico*, 1-24. Carnegie Institution of Washington Publication No. 619. Washington, D.C.: Carnegie Institution of Washington.
- Pollock, H E D, 1980. *The Puuc: An Architectural Survey of the Hill Country of Yucatan and Northern Campeche, Mexico*. Memoirs of the Peabody Museum of Archaeology and Ethnology 19. Cambridge, Massachusetts: Harvard University.
- Pollock, H E D, R L Roys, T Proskouriakoff and A L Smith (eds), 1962. *Mayapan, Yucatan, Mexico*. Carnegie Institution of Washington Publication No. 619. Washington, D.C.: Carnegie Institution of Washington.
- Pompa y Pompa, A (ed), 1966. *Suma Antropológica en Homenaje a Robert J. Weitlaner*. Mérida: Instituto Nacional de Antropología e Historia.
- Porter, J B, 1994. The Palace Intaglios: A Composite Stairway Throne at Palenque, in M G Robertson and V M Fields (eds), *Seventh Palenque Round Table, 1989*, 11-18. San Francisco: Pre-Columbian Art Research Institute.

- Powis, T G, 2002. *An Integrative Approach to the Analysis of the Late Preclassic Ceramics at Lamanai*, Belize. Ph.D. dissertation, Department of Anthropology, University of Texas, Austin. Ann Arbor: University Microfilms International.
- Proskouriakoff, T, 1950. *A Study of Classic Maya Sculpture*. Carnegie Institution of Washington Publication No. 593. Washington, D.C.: Carnegie Institution of Washington.
- Proskouriakoff, T, 1955. The Death of a Civilization, *Scientific American*, **192**, 82-88.
- Proskouriakoff, T, 1962a. Civic and Religious Structures at Mayapan, in H E D Pollock, R L Roys, T Proskouriakoff and A L Smith (eds), *Mayapan, Yucatan, Mexico*, 87-164. Carnegie Institution of Washington Publication No. 619. Washington, D.C.: Carnegie Institution of Washington.
- Proskouriakoff, T, 1962b. The Artifacts of Mayapan, in H E D Pollock, R L Roys, T Proskouriakoff and A L Smith (eds), *Mayapan, Yucatan, Mexico*, 321-531. Carnegie Institution of Washington Publication No. 619. Washington, D.C.: Carnegie Institution of Washington.
- Proskouriakoff, T, 1963. Historical Data in the Inscriptions of Yaxchilan, *Estudios de Cultura Maya*, **3**, 149-167.
- Proskouriakoff, T, 1965. Sculpture and Major Arts of the Classic Lowlands, in R Wauchope (ed), *Handbook of Middle American Indians, Vol. 2*, 469-497. Austin: University of Texas Press.
- Proskouriakoff, T, 1974. *Jades from the Cenote of Sacrifice Chichen Itza, Yucatan*. Cambridge, Massachusetts: Peabody Museum of Archaeology and Ethnology, Harvard University.
- Proskouriakoff, T, 1978. Olmec Gods and Maya God-Glyphs, in M Giardino, B Edmonson and W Creamer (eds), *Codex Wauchope*, 113-117. New Orleans: Tulane University, Human Mosaic.
- Proskouriakoff, T, 1980. Maize God: The Symbol of Symbols, *Symbols*, **8**, 8-10.
- Pugh, T W, 2001. Flood Reptiles, Serpent Temples and the Quadripartite Universe: The Imago Mundi of Late Postclassic Mayapan, *Ancient Mesoamerica*, **12**, 247-258.
- Pugh, T W and L Cecil (eds), n.d. *Maya Worldviews at Conquest*. Colorado: University Press of Colorado.
- Pugh, T W and P M Rice, 1997. Arquitectura Estilo Mayapán y Evidencias de Organización Dual en el Sitio Posclásico de Zacpetén, Petén, Guatemala, in J P Laporte and H Escobeda (eds), *X Simposio de Arqueología Guatemalteca*, 521-528. Guatemala: Museo Nacional de Arqueología y Etnología.
- Quenon, M and G le Fort, 1997. Rebirth and Resurrection in Maize God Iconography, in J Kerr and B Kerr (eds), *The Maya Vase Book: A Corpus of Rollout Photographs of Maya Vases, Vol. 5*, 884-899. New York: Kerr Associates.
- Quiñones Keber, E, 1994. The Codex Style: Which Codex? Which Style?, in H B Nicholson and E Quiñones Keber (eds), *Mixteca-Puebla: Discoveries and Research in Mesoamerican Art and Archaeology*, 143-152. Culver City: Labyrinthos.
- Quiñones Keber, E, 2000. *In Chalchihuitl in Quetzalli = Precious Greenstone, Precious Quetzal Feather: Mesoamerican Studies in Honor of Doris Heyden*. Lancaster, California: Labyrinthos.
- Quiñones Keber, E, 2001. Quetzalcóatl, Patrón Dinástico Mexica, *Arqueología Mexicana*, **IX**(53), 46-49.
- Quirarte, J, 1973. *Izapan-Style Art: A Study of its Format and Meaning*. Washington, D.C.: Dumbarton Oaks.
- Quirarte, J, 1975. The Wall Paintings of Santa Rita, Corozal, *National Studies (Belize)*, **3**(4), 5-29.

- Quirarte, J, 1982. The Santa Rita Murals: A Review, in D Stone (ed), *Aspects of the Mixteca-Puebla Style and Mixtec and Central Mexican Culture in Southern Mesoamerica*, 43-57. Middle American Research Institute Occasional Paper 4. New Orleans: Tulane University.
- Ramírez, E, 2001. Historia del Sabio Señor Quetzalcóatl, *Arqueología Mexicana*, **IX**(53), 50-53.
- Ramírez, D and M A Azcárate S, 2002. Investigaciones Recientes en Cozumel, *Arqueología Mexicana*, **XI**(54), 46-49.
- Ramsey, J R, 1975. *An Analysis of Mixtec Minor Art, with a Catalogue*. Ph.D. dissertation, Department of Latin American Studies, Tulane University, New Orleans.
- Ramsey, J R, 1982. An Examination of Mixtec Iconography, in D Stone (ed), *Aspects of the Mixteca-Puebla Style and Mixtec and Central Mexican Culture in Southern Mesoamerica*, 33-42. Middle American Research Institute Occasional Paper 4. New Orleans: Tulane University.
- Rands, R L, R L Bishop and J A Sabloff, 1982. Maya Fine Paste Ceramics: An Archaeological Perspective, in G R Willey (ed), *Excavations at Seibal, Department of Peten, Guatemala, No. 2, Analyses of Fine Paste Ceramics*, 315-338. Cambridge, Massachusetts: Peabody Museum of Archaeology and Ethnology, Harvard University.
- Rawson, J, 1984. *Chinese Ornament: The Lotus and the Dragon*. New York: Holmes and Meier.
- Rawson, J, 1993. Late Shang Bronze Design: Meaning and Purpose, in R Whitfield (ed), *The Problem of Meaning in Early Chinese Ritual Bronzes*, 67-95. London: School of Oriental and African Studies.
- Redfield, R, 1941. *The Folk Culture of Yucatan*. Chicago: University of Chicago Press.
- Reed, N, 1964. *The Caste War of Yucatan*. Stanford, California: Stanford University Press.
- Reents, D and R L Bishop, 1987. The Late Classic Codex Style Polychrome Pottery, *Memorias del Primer Coloquio Internacional de Mayistas*, 775-785. México, D.F.: Universidad Autónoma de México.
- Reents-Budet, D, 1988. The Iconography of Lamanai Stela 9, *Research Reports on Ancient Maya Writing*, **20**, 17-32. Washington, D.C.: Centre for Maya Research.
- Reents-Budet, D, 1991. 'The Holmul Dancer' Theme in Maya Art, in M G Robertson and V M Fields (eds), *Sixth Palenque Round Table, 1986*, 217-222. Norman: University of Oklahoma Press.
- Reents-Budet, D, 1994. *Painting the Maya Universe: Royal Ceramics of the Classic Period*. Durham: Duke University Press.
- Reents-Budet, D, R L Bishop, J T Taschek and J W Ball, 2000. Out of the Palace Dumps: Ceramic Production and Use at Buenavista del Cayo, *Ancient Mesoamerica*, **11**(1), 99-122.
- Reilly, K F, III, 1985. Enclosed Ritual Spaces and the Watery Underworld in Formative Period Architecture: New Observations on the Function of La Venta Complex A, in M G Robertson and V M Fields (eds), *Fifth Palenque Round Table, 1983, Vol. VII*, 125-135. San Francisco: Pre-Columbian Art Research Institute.
- Reilly, K F, III, 1991. Olmec Iconographic Influences on the Symbols of Maya Rulership: An Examination of Possible Sources, in M G Robertson and V M Fields (eds), *Sixth Palenque Round Table, 1986*, 151-166. Norman: University of Oklahoma Press.
- Reilly, K F, III, 1995. Art, Ritual and Rulership in the Olmec World, in M Coe (ed), *Olmec World: Ritual and Rulership*, 369-399. Princeton: Art Museum, Princeton University in association with Harry N Abrams.

- Reilly, K F, III, 1996. The Lazy-S: A Formative Period Iconographic Loan to Maya Hieroglyphic Writing, in M G Robertson, M Macri and J McHargue (eds), *Eighth Palenque Round Table, 1993, Vol. X*, 413-424. San Francisco: Pre-Columbian Art Research Institute.
- Reilly, K F, III, 1999. Mountains of Creation and Underworld Portals: The Ritual Function of Olmec Architecture at La Venta, Tabasco, in J K Kowalski (ed), *Mesoamerican Architecture as a Cultural Symbol*, 14-39. Oxford: Oxford University Press.
- Rice, D S, 1974. *The Archaeology of British Honduras: A Review and Synthesis*. Occasional Publication in Anthropology, Archaeology Series No. 6. Greeley: University of Northern Colorado, Museum of Anthropology.
- Rice, D S, 1986. The Peten Postclassic: A Settlement Perspective, in J A Sabloff and E W Andrews V (eds), *Late Lowland Maya Civilisation: Classic to Postclassic*, 301-346. Albuquerque: University of New Mexico Press.
- Rice, D S, 1988. Classic to Postclassic Maya Household Transitions in the Central Peten, Guatemala, in R R Wilk and W Ashmore (eds), *Household and Community in the Mesoamerican Past*, 227-248. Albuquerque: University of New Mexico Press.
- Rice, D S, P M Rice and T W Pugh, 1998. Settlement Continuity and Change in the Central Peten Lakes Region: The Case for Zacpeten, in A C Riuz, Y Fernández Marquínez, J M García Campillo, J Iglesias Ponce de León, A Lacadena García-Gallo and L T Sanz Castro (eds), *Anatomía de Una Civilización: Aproximaciones Interdisciplinarias a la Cultura Maya*, 207-252. Madrid: Sociedad Española de Estudios Mayas.
- Rice, P M, 1979. The Ceramic and Non-Ceramic Artifacts of Yaxha-Sacnab, El Peten, Guatemala, Part I – The Ceramics: Section B, Postclassic Pottery from Topoxte, *Cerámica de Cultura Maya*, **11**, 1-85. Philadelphia: Laboratory of Anthropology, Temple University.
- Rice, P M, 1983. Serpents and Styles in Peten Postclassic Pottery, *American Anthropologist*, **85**, 866-880.
- Rice, P M, 1984a. Change and Conservatism in Pottery-Producing Systems, in S E van der Leeuw and A C Pritchard (eds), *The Many Dimensions of Pottery: Ceramics in Archaeology and Anthropology*, 231-288. Amsterdam: University of Amsterdam.
- Rice, P M, 1984b. Obsidian Procurement in the Central Peten Lakes Region, Guatemala, *Journal of Field Archaeology*, **11**, 181-194.
- Rice, P M, 1985. Reptilian Imagery and Vessel Function in Peten Postclassic Pottery: A Preliminary View, in M G Robertson (ed), *Fifth Palenque Round Table, 1983, Vol. VII*, 115-122. Pebble Beach: Pre-Columbian Art Research Institute, Robert Louis Stevenson School.
- Rice, P M, 1986. The Peten Postclassic: Perspectives from the Central Peten Lakes, in J A Sabloff and E W Andrews V (eds), *Late Lowland Maya Civilisation: Classic to Postclassic*, 251-299. Albuquerque: University of New Mexico Press.
- Rice, P M, 1987a. Lowland Maya Pottery Production in the Late Classic Period, in P M Rice and R J Sharer (eds), *Maya Ceramics: Papers from the 1985 Maya Ceramic Conference, Part 2*, 525-543. British Archaeological Reports International Series 345(ii). Oxford: British Archaeological Reports.
- Rice, P M, 1987b. *Macanche Island, El Peten, Guatemala: Excavations, Pottery and Artifacts*. Gainesville: University of Florida Press.
- Rice, P M, 1989. Reptiles and Rulership: A Stylistic Analysis of Peten Postclassic Pottery, in W F Hanks and D S Rice (eds), *Word and Image in Maya Culture: Explorations in Language, Writing and Representation*, 306-318. Salt Lake City: University of Utah Press.
- Rice, P M, 1999. Rethinking Classic Lowland Maya Pottery Censers, *Ancient Mesoamerica*, **10**(1), 25-50.

- Rice, P M, 2004. *Maya Political Science: Time, Astronomy and the Cosmos*. Austin: University of Texas Press.
- Rice, P M, n.d. Time, History and Worldview, in T W Pugh and L Cecil (eds), *Maya Worldviews at Conquest*. Colorado: University of Colorado Press.
- Rice, P M, A A Demarest and D S Rice, 2004. The Terminal Classic and the 'Classic Maya Collapse' in Perspective, in A A Demarest, P M Rice, and D S Rice (eds), *The Terminal Classic in the Maya Lowlands: Collapse, Transition and Transformation*, 1-11. Colorado: University Press of Colorado.
- Rice, P M and D S Rice, 2004. Late Classic to Postclassic Transformations in the Peten Lakes Region, in A A Demarest, P M Rice and D S Rice (eds), *The Terminal Classic in the Maya Lowlands: Collapse, Transition and Transformation*, 28-59. Colorado: University Press of Colorado.
- Rice, P M and D W Forsyth, 2004. Terminal Classic-Period Lowland Ceramics, in A A Demarest, P M Rice and D S Rice (eds), *The Terminal Classic in the Maya Lowlands: Collapse, Transition and Transformation*, 28-59. Colorado: University Press of Colorado.
- Rice, P M and R J Sharer (eds), 1987. *Maya Ceramics, Papers from the 1985 Maya Ceramic Conference, Parts 1 and 2*. British Archaeological Reports International Series 345. Oxford: British Archaeological Reports.
- Riegl, A, 1992. *Problems of Style: Foundation for a History of Ornament*. Princeton: Princeton University Press.
- Ringle, W M, 2004. On the Political Organization of Chichen Itza, *Ancient Mesoamerica*, **15**, 167-218.
- Ringle, W M, and G J Bey, 2001. Post-Classic and Terminal Classic Courts of the Northern Maya Lowlands, in T Inomata and S D Houston (eds), *Royal Courts of the Ancient Maya. Vol. 2*, 266-307. Boulder: Westview Press.
- Ringle, W M, T G Negrón and G J Bey, 1998. The Return of Quetzalcoatl: Evidence of the Spread of a World Religion during the Epiclassic Period, *Ancient Mesoamerica*, **9**, 183-232.
- Rivera, M and A Cuidad (eds), 1986. *Primera Mesa Redonda: Los Mayas en el Época Hernán Cortés*. Madrid: Instituto de Cooperación Iberoamericano.
- Robertson, D, 1959. *Mexican Manuscript Painting of the Early Colonial Period: The Metropolitan Schools*. New Haven: Yale University Press.
- Robertson, D, 1963. The Style of the Borgia Group of Mexican Pre-Conquest Manuscripts, in M Meiss (ed), *Latin American Art and the Baroque Period in Europe: Studies in Western Art*, 148-164. Acts of the Twentieth International Congress of the History of Art, Vol. 3. Princeton: Princeton University Press.
- Robertson, D, 1966. Mixtec Religious Manuscripts, in J Paddock (ed), *Ancient Oaxaca*, 298-312. Stanford: Stanford University Press.
- Robertson, D, 1970. The Tulum Murals: The International Style of the Late Post-Classic, *Verhandlungen des XXXVIII Internationalen Amerikanisten-Kongresses, Band II*, 77-88. München: Kommissionsverlag.
- Robertson, D, 1982. Some Comments on Mixtec Historical Manuscripts, in D Stone (ed), *Aspects of the Mixteca-Puebla Style and Mixtec and Central Mexican Culture in Southern Mesoamerica*, 15-26. Middle American Research Institute Occasional Paper 4. New Orleans: Tulane University.
- Robertson, M G (ed), 1974. *Primera Mesa Redonda de Palenque. Part II: A Conference on the Art, Iconography and Dynastic History of Palenque, Palenque, Chiapas, Mexico, December 14-*

22, 1973. Pebble Beach: Pre-Columbian Art Research Institute, Robert Louis Stevenson School.

Robertson, M G (ed), 1976. *The Art, Iconography and Dynastic History of Palenque, Part III*. Pebble Beach: Pre-Columbian Art Research Institute, Robert Louis Stevenson School.

Robertson, M G (ed), 1980. *Third Palenque Round Table, 1978. Part 2 : Proceedings of the Tercera Mesa Redonda Table, June 11-18, 1978*. Austin: University of Texas Press.

Robertson, M G, 1998. Sculpture and Murals of the Usumacinta Region, in P Schmidt, M de la Garza and E Nalda (eds), *Maya*, 296-307. Venice: Bompiani.

Robertson, M G and E P Benson (eds), 1985. *Fourth Palenque Round Table, 1980*. San Francisco: Pre-Columbian Art Research Institute.

Robertson, M G and J D Call (eds), 1978. *Tercera Mesa Redonda de Palenque. Vol. IV: Proceedings of the Tercera Mesa Redonda de Palenque, June 11-18, 1978, Palenque: A Conference on the Art, Hieroglyphs and Historic Approaches of the Late Classic Maya*. Palenque: Pre-Columbian Art Research Institute.

Robertson, M G and V M Fields (eds), 1985. *Fifth Palenque Round Table, 1983, Vol. VII*. San Francisco: Pre-Columbian Art Research Institute.

Robertson, M G and V M Fields (eds), 1991. *Sixth Palenque Round Table, 1986*. Norman: University of Oklahoma Press.

Robertson, M G and V M Fields (eds), 1994. *Seventh Palenque Round Table, 1989*. San Francisco: Pre-Columbian Art Research Institute.

Robertson, M G, M J Macri and J McHargue (eds), 1996. *Eighth Palenque Round Table, 1993*. San Francisco: Pre-Columbian Art Research Institute.

Robles Castellanos, F, 1986. Cronología Cerámica de El Meco, in A P Andrews and F Robles Castellanos (eds), *Excavaciones Arqueológicas en El Meco, Quintana Roo, 1977*, 77-130. Colección Científica. Mérida: Instituto Nacional de Antropología e Historia.

Robles Castellanos, F, 1990. *La Secuencia Cerámica de la Región de Cobá, Quintana Roo*. Serie Arqueología. Mérida: Instituto Nacional de Antropología e Historia.

Robles Castellanos, F and A P Andrews, 1986. A Review and Synthesis of Recent Postclassic Archaeology in Northern Yucatan, in J A Sabloff and E W Andrews V (eds), *Late Lowland Maya Civilization: Classic to Postclassic*, 53-98. Albuquerque: University of New Mexico Press.

Robicsek, F, 1975. *A Study in Maya Art and History: The Mat Symbol*. New York: Museum of the American Indian, Heye Foundation.

Robicsek, F and D Hales, 1988. A Ceramic Codex Fragment: The Sacrifice of Xbalanque, in E P Benson and G G Griffin (eds), *Maya Iconography*, 260-276. Princeton: Princeton University Press.

Robicsek, F, D M Hales and M D Coe, 1981. *The Maya Book of the Dead: The Ceramic Codex, The Corpus of Codex Style Ceramics of the Late Classic Period*. Charlottesville, Norman: University of Oklahoma Press, University of Virginia Art Museum.

Romero Conde, P, 2000. *Inglés-Maya-Español Vocabulario*. Mérida: Centro de Estudios del Mundo Maya.

Roskill, M, 1989. *The Interpretation of Pictures*. Amherst: University of Massachusetts Press.

Rouse, I, 1960. The Classification of Artefacts in Archaeology, *American Antiquity*, **25**(3), 313-323.

Roys, R L, 1933. *The Book of Chilam Balam of Chumayel*. Carnegie Institution of Washington Publication No. 438. Washington, D.C.: Carnegie Institution of Washington.

Roys, R L, 1939. *The Titles of Ebtun*. Carnegie Institution of Washington Publication No. 505. Washington, D.C.: Carnegie Institution of Washington.

Roys, R L, 1943. *The Indian Background of Colonial Yucatan*. Carnegie Institution of Washington Publication No. 548. Washington, D.C.: Carnegie Institution of Washington.

Roys, R L, 1957. *The Political Geography of the Yucatan Maya*. Carnegie Institution of Washington Publication No. 613. Washington, D.C.: Carnegie Institution of Washington.

Roys, R L, 1962. Literary Sources for the History of Mayapan, in H E D Pollock, R L Roys, T Proskouriakoff and A L Smith (eds), *Mayapan, Yucatan, Mexico*, 25-86. Carnegie Institution of Washington Publication No. 619. Washington, D.C.: Carnegie Institution of Washington.

Roys, R L (ed and trans), 1965. *Ritual of the Bacabs: A Book of Maya Incantations*. Norman: University of Oklahoma Press.

Roys, R L, 1976. *The Ethno-Botany of the Maya (1931). With a New Introduction and Supplement Bibliography by Sheila Cosminsky*. ISHI Reprints on Latin America and the Caribbean, G Germani (ed). Philadelphia: Institute for the Study of Human Issues.

Ruggles, C L N and S P Q Rahtz (eds), 1988. *Computer and Quantitative Methods in Archaeology*. British Archaeological Reports International Series 446(i). Oxford: British Archaeological Reports.

Riuz, A C, Y Fernández Marquínez, J M García Campillo, J Iglesias Ponce de León, A Lacadena García-Gallo and L T Sanz Castro (eds), 1998. *Anatomía de Una Civilización: Aproximaciones Interdisciplinarias a la Cultura Maya*. Madrid: Sociedad Española de Estudios Mayas.

Sabloff, J A, 1973. Continuity and Disruption During Terminal Late Classic Times at Seibal: Ceramic and Other Evidence, in T P Culbert (ed), *The Classic Maya Collapse*, 107-132. A School of American Research Book. Albuquerque: University of New Mexico Press.

Sabloff, J A, 1975. *Excavations at Seibal: Department of Peten, Guatemala, No. 2, Ceramics*. Memoirs of the Peabody Museum of Archaeology and Ethnology 13(2). Cambridge, Massachusetts: Harvard University.

Sabloff, J A, 1977. Old Myths, New Myths: The Role of Sea Traders in the Development of Maya Civilization, in E P Benson (ed), *The Sea and the Pre-Columbian World*, 67-88. Washington, D.C.: Dumbarton Oaks.

Sabloff, J A, 1985. Ancient Maya Civilization, in C Gallenkamp and R E Johnson (eds), *Maya: Treasures of an Ancient Civilization*, 34-46. New York: Harry N Abrams.

Sabloff, J A, 1994. *The New Archaeology and the Ancient Maya*. Second edition. New York: Scientific American Library.

Sabloff, J A, 1998. Ancient Maya Civilization in Space and Time, in P Schmidt, M de la Garza and E Nalda (eds), *Maya*, 52-71. Venice: Bompiani.

Sabloff, J A and E W Andrews V, 1986. *Late Lowland Maya Civilization: Classic to Postclassic*. Albuquerque: University of New Mexico Press.

Sabloff, J A and J S Henderson (eds), 1993. *Lowland Maya Civilization in the Eighth Century A.D.* Washington, D.C.: Dumbarton Oaks.

Sabloff, J A and C C Lamberg-Karlovsky (eds), 1975. *Ancient Civilization and Trade*. Albuquerque: University of New Mexico Press.

- Sabloff, J A and W L Rathje (eds), 1975a. *A Study of Changing Pre-Columbian Commercial Systems: The 1972-1973 Seasons at Cozumel, Mexico*. Monographs of the Peabody Museum of Archaeology and Ethnology 3. Cambridge, Massachusetts: Harvard University.
- Sabloff, Jeremy A and W L Rathje, 1975b. The Rise of a Maya Merchant Class, *Scientific American*, **233**(4), 72-82.
- Sabloff, J A, W L Rathje, J G Connor and P L W Sabloff, 1974. Trade and Power in Postclassic Yucatan: Initial Observations, in N Hammond (ed), *Mesoamerican Archaeology: New Approaches*, 397-416. Austin: University of Texas Press.
- Sabloff, J A and R E Smith, 1969. The Importance of both Analytic and Taxonomic Classification in the Type-Variety System, *American Antiquity*, **34**(3), 278-285.
- Sahagún, B de, 1950-1982. *Florentine Codex: General History of the Things of New Spain*. Translated by A J O Anderson and C E Dibble. Salt Lake City: University of Utah Press.
- Sahagún, B de, 1956. *Historia General de las Cosas de la Nueva España*. 4 vols. México, D.F.: Editorial Porrúa.
- Sahagún, B de, 1997. *Primeros Memoriales*. Translated by T Sullivan. Norman: University of Oklahoma Press.
- Sanchez, C S, 1993. Funerary Practices and Human Sacrifice in Teotihuacan Burials, in K Berrin and E Pasztor (eds), *Teotihuacan: Art from the City of the Gods*, 108-115. San Francisco: Thames and Hudson, The Fine Arts Museum of San Francisco.
- Sanders, W T, 1960. *Prehistoric Ceramics and Settlement Patterns in Quintana Roo, Mexico*. Contributions to American Anthropology and History, No. 60. Reprinted from Carnegie Institution of Washington Publication No. 606, 155-264. Washington, D.C.: Carnegie Institution of Washington.
- Sanders, W T, 1973. The Cultural Ecology of the Lowland Maya: A Re-Evaluation, in T P Culbert (ed), *The Classic Maya Collapse*, 325-365. Albuquerque: University of New Mexico Press.
- Sandstrom, A R, 1991. *Corn is Our Blood*. Norman: University of Oklahoma Press.
- Santone, L, 1997. Transport Costs, Consumer Demand and Patterns of Intraregional Exchange: A Perspective on Commodity Production and Distribution from Northern Belize, *Latin American Antiquity*, **8**(1), 71-88.
- Saul, F P, 1973. Disease in the Maya Area: The Pre-Columbian Evidence, in T P Culbert (ed), *The Classic Maya Collapse*, 301-324. Albuquerque: University of New Mexico Press.
- Saul, F P and J M Saul, 1991. The Preclassic Population of Cuello, in N Hammond (ed), *Cuello: An Early Maya Community in Belize*, 134-158. Cambridge: Cambridge University Press.
- Saussure, F, 1959. *Course in General Linguistics*. London: Duckworth.
- Scarborough, V L, 1980. *The Settlement System in a Late Classic Maya Community: Cerros, Northern Belize*. Ph.D. dissertation, Southern Methodist University, Dallas. Ann Arbor: University Microfilms International.
- Scarborough, V L, 1985. Late Preclassic in Northern Belize, in M Thompson, M T García and F J Kense (eds), *Status, Structure and Stratification: Current Archaeological Reconstructions, Proceedings of the 16th Annual Chacmool Conference*, 331-334. Calgary, Alberta: Archaeological Association of the University of Calgary.
- Scarlin, J R, 1999. *Bicephalic Maya Serpent and Composite Monster Mouths - a Threshold to the Supernatural?* Unpublished BA dissertation, University of Essex, Colchester.

- Scarlin, J R, 2000a. *A Commentary on the Iconography, and Suggestions for Its Intended Symbolism, in the Teotihuacan Murals of Tepantitla*. Unpublished MA essay, University of Essex, Colchester.
- Scarlin, J R, 2000b. *Ah'Maxam, the Role of the Maya Artist with Analysis of his Works*. Unpublished MA dissertation, University of Essex, Colchester.
- Schapiro, M, 1959. Style, in A L Kroeber (ed), *Anthropology Today: An Encyclopaedic Inventory*, 287-312. Chicago: University of Chicago Press.
- Schapiro, M, 1973a. Frontal and Profile as Symbolic Forms, in M Schapiro (ed), *Words, Script and Pictures: Semiotics of Visual Language*, 69-112. New York: G Braziller.
- Schapiro, M, 1973b. *Words, Script and Pictures: Semiotics of Visual Language*. New York: G Braziller.
- Schapiro, M, 1982. *Modern Art: 19th and 20th Centuries: Selected Papers*. New York: G Braziller.
- Schele, L, 1976. Genealogical Documentation on the Tri-Figure Panels at Palenque, in M G Robertson (ed), *The Art, Iconography and Dynastic History of Palenque, Part III*, 41-70. Pebble Beach: Pre-Columbian Art Research Institute, Robert Louis Stevenson School.
- Schele, L, 1982. *Maya Glyphs: The Verbs*. Austin: University of Texas Press.
- Schele, L, 1985. The Hauberg Stela: Bloodletting and the Mythos of Maya Rulership, in M G Robertson and V M Fields (eds), *Fifth Palenque Round Table, 1983, Vol. VII*, 135-149. San Francisco: Pre-Columbian Art Research Institute.
- Schele, L, 1986. *The Founders of Lineages at Copan and Other Maya Sites*. Copan Note 8. Copan, Honduras: Copan Mosaics Project/Copan Acropolis Archaeological Project and Instituto Hondureño de Antropología e Historia.
- Schele, L, 1988. The Xibalba Shuffle: A Dance after Death, in E P Benson and G G Griffin (eds), *Maya Iconography*, 294-317. Princeton: Princeton University Press.
- Schele, L, 1989. A Brief Note on the Name of a Vision Serpent, in J Kerr and B Kerr (eds), *The Maya Vase Book: A Corpus of Rollout Photographs of Maya Vases, Vol. 1*, 146-148. New York: Kerr Associates.
- Schele, L, 1997. *Hidden Faces of the Maya*. Poway: ALTI Publishing.
- Schele, L and D A Freidel, 1990. *A Forest of Kings: The Untold Story of the Ancient Maya*. New York: William Morrow.
- Schele, L and N Grube, 1995. *Notebook for the XIXth Maya Hieroglyphic Workshop at Texas: Late Classic and Terminal Classic Warfare*. Transcription by P Wanyerka. Austin: Art Department, University of Texas.
- Schele, L and P Mathews, 1998. *The Code of Kings: The Language of Seven Sacred Maya Temples and Tombs*. New York: Simon and Schuster.
- Schele, L and M E Miller, 1986. *The Blood of Kings: Dynasty and Ritual in Maya Art*. New York: G Braziller.
- Schellhas, P, 1904. *Representations of Deities in the Maya Manuscripts*. Papers of the Peabody Museum of Archaeology and Ethnology 4(1). Cambridge, Massachusetts: Harvard University.
- Schlak, A, 1989. Jaguar Serpent Foot: Iconography as Astronomy, in W F Hanks and D S Rice (eds), *Word and Image in Maya Culture: Exploration in Language, Writing and Representation*, 260-271. Salt Lake City: University of Utah Press.

Schmidt, P J, 1999. Chichén Itzá: Resultados y Proyectos Nuevos, *Arqueología Mexicana*, 7(37), 32-39.

Schmidt, P J, M de la Garza and E Nalda (eds), 1998. *Maya*. Venice: Bompiani.

Scholes, F V and R L Roys, 1968. *The Maya Chontal Indians of Acalan-Tixchel: A Contribution to the History and Ethnography of the Yucatan Peninsula*. Carnegie Institution of Washington Current Report No. 560. Washington, D.C.: Carnegie Institution of Washington.

Schortman, E and S Nakamura, 1991. A Crisis of Identity: Late Classic Competition and Interaction on the Southeast Maya Periphery, *Latin American Antiquity*, 2(4), 311-336.

Searle, J R, 1969. *Speech Acts: An Essay in the Philosophy of Language*. Cambridge: Cambridge University Press.

Sebeok, T A (ed), 1977. *A Perfusion of Signs*. Bloomington: Indiana University Press.

Séjourné, L, 1957. *Burning Water: Thought and Religion in Ancient Mexico*. Guildford: Thames and Hudson.

Seler, E, 1904. The Mexican Chronology, with Special Reference to the Zapotec Calendar, in C Bowditch (ed), *Mexican and Central Mexican Antiquities, Calendar Systems and History*, 11-55. Bureau of American Ethnology Bulletin 28. Washington, D.C.: Smithsonian Institution Press.

Seler, E, 1960. *Gesammelte Abhandlungen zur Amerikanischen Sprach- und Altertumskunde*. 5 vols. Graz: Akademische Druck- und Verlagsanstalt.

Seler, E, 1963. *Comentarios al Códice Borgia*. 2 vols. México, D.F.: Fondo de Cultura Económica.

Seler, E, 1998. The Animal Pictures of the Mexican and the Maya Manuscripts, in J E S Thompson and F B Richardson (eds), *Collected Works in Mesoamerican Linguistics and Archaeology/Eduard Seler (Gesammelte Abhandlungen zur Amerikanischen Sprach- und Altertumskunde)*, Vol. 4, 1-97. Culver City: Labyrinthos.

Sellen, A T, 2002. Storm God Impersonators from Ancient Oaxaca, *Ancient Mesoamerica*, 13, 3-19.

Sempowski, M L, 1994. Mortuary Practices at Teotihuacan, in M L Sempowski and M W Spence (eds), *Mortuary Practices and Skeletal Remains at Teotihuacan*, 1-314. Salt Lake City: University of Utah Press.

Sempowski, M L and M W Spence (eds), 1994. *Mortuary Practices and Skeletal Remains at Teotihuacan*. Salt Lake City: University of Utah Press.

Shafer, H J, 1982. Maya Lithic Craft Specialisation in Northern Belize, in T R Hester, H J Shafer and J D Eaton (eds), *Archaeology at Colha, Belize: The 1981 Interim Report*, 31-38. San Antonio and Venice: Centre for Archaeological Research, University of Texas at San Antonio, Centro Studi e Ricerche Ligabue.

Shafer, H J, 1991. Lithic Craft Specialization and Product Distribution at the Maya Site of Colha, *World Archaeology*, 23(1), 79-97.

Shafer, H J and T R Hester, 1983. Ancient Maya Chert Workshops in Northern Belize, Central America, *American Antiquity*, 48, 519-543.

Sharer, R J, 1977. The Maya Collapse Revisited: Internal and External Perspectives, in N Hammond (ed), *Social Process in Maya Prehistory: Studies in Honour of Sir Eric Thompson*, 532-552. London: Academic Press.

Sharer, R J, 2006. *The Ancient Maya*. Sixth edition with L P Traxler. Stanford: Stanford University Press.

Sharer, R J and W S David (eds), 1987. *Archaeological Investigations in the Northern Maya Highlands, Guatemala: Interaction and the Development of Maya Civilization*. Philadelphia: The University Museum, University of Pennsylvania.

Sharp, R, 1981. *Chacs and Chiefs: The Iconology of Mosaic Stone Sculpture in Pre-Conquest Yucatan, Mexico*. Washington, D.C.: Dumbarton Oaks.

Shelby, T M, 1999. *Polychrome Stucco Façade of Structure N10-28, Lamanai, Belize, Central America*, www.famsi.org/reports/98037/index.html, accessed 2005.

Shelby, T M, 2000a. *Report of the 1998 and 1999 Investigations on the Archaeology and Iconography of the Polychrome Stucco Façade of Structure N10-28, Lamanai, Belize: Final Report of the 1999 Field Season, Lamanai, Archaeological Project*. Submitted to the Foundation for the Advancement of Mesoamerican Studies, Inc.

Shelby, T M, 2000b. *The Structure N10-28 Stucco Project, Lamanai, Belize: Report of the 2000 Field Season, Lamanai, Archaeological Project*. Submitted to the Foundation for the Advancement of Mesoamerican Studies, Inc.

Shelby, T M, 2000c. *The Polychrome Stucco Façade and Architectural Assemblage of Structure N10-28, Lamanai, Belize*. Paper presented at the 65th Annual Meeting of the Society for American Archaeology, Philadelphia, Pennsylvania.

Shennan, S, 1997. *Quantifying Archaeology*. Second edition. Edinburgh: Edinburgh University Press.

Shepard, A O, 1956. *Ceramics for the Archaeologist*. Carnegie Institution of Washington Publication No. 609. Washington, D.C.: Carnegie Institution of Washington.

Shimkin, D B, 1973. Models for the Downfall: Some Ecological and Culture-Historical Considerations, in T P Culbert (ed), *The Classic Maya Collapse*, 269-299. Albuquerque: University of New Mexico Press.

Shook, E M, 1954a. *The Temple of Kukulcan at Mayapan*. Carnegie Institution of Washington Current Report No. 20, 89-108. Washington, D.C.: Carnegie Institution of Washington.

Shook, E M, 1954b. *Three Temples and Their Associated Structures at Mayapan*. Carnegie Institution of Washington Current Report No. 14, 254-291. Washington, D.C.: Carnegie Institution of Washington.

Sidrys, R, 1983. *Archaeological Investigations in Northern Belize, Central America*. Institute of Archaeology Monograph XVII. Los Angeles: University of California.

Silverman, H and D B Small (eds), 2002. *The Space and Place of Death*. Archaeological Papers of the American Anthropological Association No. 11. Arlington: American Anthropological Association.

Sisson, E B and T G Lilly, 1994a. A Codex-style Mural from Tehuacan Viejo, Puebla, Mexico, *Ancient Mesoamerica*, **5**, 33-44.

Sisson, E B and T G Lilly, 1994b. The Mural of the Chimalas and the Codex Borgia, in H B Nicholson and E Quiñones Keber (eds), *Mixteca-Puebla: Discoveries and Research in Mesoamerican Art and Archaeology*, 25-44. Culver City: Labyrinthos.

Smith, A L, 1962. Residential and Associated Structures at Mayapan, in H E D Pollock, R L Roys, T Proskouriakoff and A L Smith (eds), *Mayapan, Yucatan, Mexico*, 165-320. Carnegie Institution of Washington Publication No. 619. Washington, D.C.: Carnegie Institution of Washington.

Smith, Mary E, 1973. The Relationship between Mixtec Manuscript Painting and the Mixtec Language: A Study of some Personal Names in Codices Muro and Sánchez Solís, in E P Benson (ed), *Mesoamerican Writing Systems*, 47-98. Washington, D.C.: Dumbarton Oaks.

- Smith, Michael E, 2003. Information Networks in Postclassic Mesoamerica, in Michael E Smith and F F Berdan (eds), *The Postclassic Mesoamerican World*, 181-185. Salt Lake City: The University of Utah Press.
- Smith, Michael E and F F Berdan, 2003a. Postclassic Mesoamerica, in Michael E Smith and F F Berdan (eds), *The Postclassic Mesoamerican World*, 3-13. Salt Lake City: The University of Utah Press.
- Smith, Michael E and F F Berdan, 2003b. Spatial Structure of the Mesoamerican World System, in Michael E Smith and F F Berdan (eds), *The Postclassic Mesoamerican World*, 21-31. Salt Lake City: The University of Utah Press.
- Smith, Michael E and F F Berdan (eds), 2003c. *The Postclassic Mesoamerican World*. Salt Lake City: The University of Utah Press.
- Smith, Michael E and C M Heath-Smith, 1980. Waves of Influence in Postclassic Mesoamerica? A Critique of the Mixteca-Puebla Concept, *Anthropology*, **4**, 15-50.
- Smith, R E, 1955. *Ceramic Sequence at Uaxactun, Guatemala*. 2 vols. Middle American Research Institute Publication 20. New Orleans: Tulane University.
- Smith, R E, 1957. *The Marquez Collection of X Fine Orange and Fine Orange Polychrome Vessels*. Notes on Middle American Archaeology and Ethnology No. 131. Washington, D.C.: Carnegie Institution of Washington, Department of Archaeology.
- Smith, R E, 1958. The Place of Fine Orange Pottery in Mesoamerican Archaeology, *American Antiquity*, **24**, 157-161.
- Smith, R E, 1971. *The Pottery of Mayapan, Including Studies of Ceramic Material from Uxmal, Kabah and Chichen Itza*. Papers of the Peabody Museum of Archaeology and Ethnology 66. Cambridge, Massachusetts: Harvard University.
- Smith, R E, G R Willey and J C Gifford, 1960. The Type-Variety Concept as a Basis for the Analysis of Maya Pottery, *American Antiquity*, **25**(3), 330-340.
- Smith, V, 2000. The Iconography of Power at Xochicalco: The Pyramid of the Plumed Serpent, in K Hirth (ed), *The Xochicalco Mapping Project, Archaeological Research at Xochicalco, Vol. 2*, 57-82. Salt Lake City: The University of Utah Press.
- Snarskis, M J, S S González and L A Sanchez, 2000. *Artes de América Central en las Colecciones del Museo Barbier-Mueller de Barcelona, Nicaragua, Costa Rica y Panamá*. Barcelona: Museo Barbier-Mueller Art Precolombi.
- Solier, W du, 1946. Primer Fresco Mural Huasteco, *Cuadernos Americanos*, **30**(6), 151-159.
- Sosa, J R, 1985. *The Maya Sky, the Maya World: A Symbolic Analysis of Yucatec Maya Cosmology*. Unpublished Ph.D dissertation, Department of Anthropology, State University of New York at Albany.
- Spero, J M, 1986. *Beyond Rainstorms: The Kawak as an Ancestor, Warrior and Patron of Witchcraft*. Norman: University of Oklahoma Press.
- Spero, J M, 1987. *Lightning Men and Water Serpents: A Comparison of Maya and Mixe-Zoquean Beliefs*. Unpublished MA thesis, Department of Anthropology, University of Texas, Austin.
- Spinden, H J, 1913. *A Study of Maya Art: Its Subject Matter and Historical Development*. Memoirs of the Peabody Museum of Archaeology and Ethnology 6. Cambridge, Massachusetts: Harvard University.
- Spinden, H J, 1975. *A Study of Maya Art: Its Subject Matter and Historical Development*. New York: Dover Publications.

- Stafford, P J and J R Meyer, 2000. *A Guide to the Reptiles of Belize*. London: Academic Press.
- Staines Cicero, L, 1998. Ein letztes glanzvolles Erstrahlen der Kunst, in A B Castillo, L Staines Cicero, M de la Garza, E Matos M and E Nalda, *Maya: Die nachklassische Periode*, 141-214. München: Hirmer.
- Staines Cicero, L (ed), 2001. *La Pintura Mural Prehispánica en México: Area Maya*. B de la Fuente (project director). México, D.F.: Instituto de Investigaciones Estéticas, Universidad Nacional Autónoma de México.
- Stark, B L and B Voorhies (eds), 1978. *Prehistoric Coastal Adaptations: The Economy and Ecology of Maritime Middle America*. New York: Academic Press.
- Stevenson Day, J, 1994. Central Mexican Imagery in Greater Nicoya, in H B Nicholson and E Quiñones Keber (eds), *Mixteca-Puebla: Discoveries and Research in Mesoamerican Art and Archaeology*, 235-248. Culver City: Labyrinthos.
- Stierlin, H, 1982. *The Art of the Aztecs and its Origins*. New York: Rizzoli.
- Stierlin, H, 1997. *The Maya: Palaces and Pyramids of the Rain Forest*. Köln: Taschen.
- Stoddart, D R (ed), 1963. *Effects of Hurricane Hattie on the British Honduras Reefs and Cays, October 30-31, 1961*. Atoll Research Bulletin 95. Washington, D.C.: The Pacific Science Board.
- Stone, A, 1983. *The Zoomorphs of Quirigua, Guatemala*. Ph.D. dissertation, Department of Art History, University of Texas, Austin.
- Stone, A, 1985. Variety and Transformation in the Cosmic Monster Theme at Quirigua, Guatemala, in M G Robertson and V M Fields (eds), *Fifth Palenque Round Table, 1983, Vol. VII*, 39-48. San Francisco: Pre-Columbian Art Research Institute.
- Stone, A, 1989. The Painted Walls of Xibalba: Maya Cave Painting as Evidence of Cave Ritual, in W Hanks and D Rice (eds), *Word and Image in Maya Culture: Exploration in Language, Writing and Representation*, 319-335. Salt Lake City: University of Utah Press.
- Stone, A, 1991. Aspects of Impersonation in Classic Maya Art, in M G Robertson and V M Fields (eds), *Sixth Palenque Round Table, 1986*, 194-202. Norman: University of Oklahoma Press.
- Stone, A, 1996. The Cleveland Plaque: Cloudy Places of the Maya Realm, in M G Robertson, M J Macri and J McHargue (eds), *Eighth Palenque Round Table, 1993*, 403-412. San Francisco: Pre-Columbian Art Research Institute.
- Stone, D, 1957. *The Archaeology of Central and Southern Honduras*. Papers of the Peabody Museum of Archaeology and Ethnology 49(3). Cambridge, Massachusetts: Harvard University.
- Stone, D, 1982a. Cultural Radiations from the Central and Southern Highlands of Mexico into Costa Rica, in D Stone (ed), *Aspects of the Mixteca-Puebla Style and Mixtec and Central Mexican Culture in Southern Mesoamerica; Papers from a Symposium Organized by Doris Stone: 41st Americanist International Congress*, 60-70. Middle American Research Institute Occasional Paper 4. New Orleans: Tulane University.
- Stone, D (ed), 1982b. *Aspects of the Mixteca-Puebla Style and Mixtec and Central Mexican Culture in Southern Mesoamerica*. Middle American Research Institute Occasional Paper 4. New Orleans: Tulane University.
- Stuart, D, 1987a. A Variant of the Chak Sign, *Research Reports on Ancient Maya Writing*, 10. Washington D.C.: Center for Maya Research.
- Stuart, D, 1987b. Ten Phonetic Syllables, *Research Reports on Ancient Maya Writing*, 14. Washington, D.C.: Center for Maya Research.

- Stuart, D, 1988. Blood Symbolism in Maya Iconography, in E P Benson and G G Griffin (eds), *Maya Iconography*, 175-221. Princeton: Princeton University Press.
- Suhler, C, T Arden, D Freidel and D Johnstone, 2004. The Rise and Fall of Terminal Classic Yaxuna, Yucatan, Mexico, in A A Demarest, P M Rice and D S Rice (eds), *The Terminal Classic in the Maya Lowlands: Collapse, Transition and Transformation*, 450-484. Colorado: University Press of Colorado.
- Sweetman, R, 1974. Prehistoric Pottery from Coastal Sinaloa and Nayarit, Mexico, in B Bell (ed), *The Archaeology of West Mexico*, 68-82. Ajijic, Jalisco: Sociedad de Estudios Avanzados del Occidente de México.
- Taladoire, E and B Faugere-Kalfon, 1992. *Archéologie et Art Précolombiens: La Més-Amérique*. Paris: École du Louvre Réunion des Musées Nationaux de la Documentation Française.
- Tanner, J J, 1992. Art as Expressive Symbolism: Civic Portraits in Classical Athens, *Cambridge Archaeological Journal*, **2**(2), 167-190.
- Tarazona, S G and B P Beltran 2001. Xochicalco. La Serpiente Emplumada y Quetzalcóatl, *Arqueología Mexicana*, **IX**(53), 42-45.
- Taube, K A, 1980. *The Deer and Vulture in Classic Maya Religion*. Unpublished BA thesis, University of California, Berkeley.
- Taube, K A, 1985. The Classic Maya Maize God: A Reappraisal, in M G Robertson and V M Fields (eds), *Fifth Palenque Round Table, 1983*, VII, 171-181. San Francisco: Pre-Columbian Art Research Institute.
- Taube, K A, 1988a. A Prehispanic Maya Katun Wheel, *Journal of Anthropological Research*, **44**(2), 183-203.
- Taube, K A, 1988b. A Study of Classic Maya Scaffold Sacrifice, in E P Benson and G G Griffin (eds), *Maya Iconography*, 331-351. Princeton: Princeton University Press.
- Taube, K A, 1988c. *The Ancient Maya New Year Festival: The Liminal Period in Maya Ritual and Cosmology*. Ph.D. dissertation, Yale University, New Haven. Ann Arbor: University Microfilms International.
- Taube, K A, 1989a. Itzam Cab Ain: Caimans, Cosmology and Calendrics in Postclassic Yucatan, *Research Reports on Ancient Maya Writing*, **26**. Washington, D.C.: Center for Maya Research.
- Taube, K A, 1989b. Ritual Humor in Classic Maya Religion, in W Hanks and D Rice (eds), *Word and Image in Maya Culture*, 351-379. Salt Lake City: University of Utah Press.
- Taube, K A, 1989c. The Maize Tamale in Classic Maya Diet, Epigraphy and Art, *American Antiquity*, **1**(54), 31-51.
- Taube, K A, 1992a. *The Major Gods of Ancient Yucatan*. Washington, D.C.: Dumbarton Oaks.
- Taube, K A, 1992b. The Temple of Quetzalcoatl and the Cult of the Sacred War at Teotihuacan, *RES*, **21**, 53-87.
- Taube, K A, 1994a. The Birth Vase: Natal Imagery in Ancient Maya Myth and Ritual, in J Kerr and B Kerr (eds), *The Maya Vase Book: A Corpus of Rollout Photographs of Maya Vases, Vol. 4*, 652-680. New York: Kerr Associates.
- Taube, K A, 1994b. The Iconography of Toltec Chichen Itza, *Prem*, **1994**, 212-246.
- Taube, K A, 1996. The Rainmakers: The Olmec and their Contribution to Mesoamerican Belief and Ritual, in M D Coe (ed), *The Olmec World: Ritual and Rulership*, 83-103. Princeton: Princeton University Press.

- Taube, K A, 2000a. *The Writing System of Ancient Teotihuacan*. Ancient America No. 1. Barnardsville, N.C., Washington, D.C.: Center for Ancient American Studies.
- Taube, K A, 2000b. The Turquoise Hearth: Fire, Self-Sacrifice and the Central Mexican Cult of War, in D Carrasco, L Jones and S Sessions (eds), *Mesoamerica's Classic Heritage: From Teotihuacan to the Aztecs*, 269-340. Boulder: University of Colorado Press.
- Taube, K A, 2001a. Cipactli, in David Carrasco (ed), *The Oxford Encyclopaedia of Mesoamerican Cultures: The Civilizations of Mexico and Central America*, Vol. 1, 218-220. Oxford: Oxford University Press.
- Taube, K A, 2001b. La Serpiente Emplumada en Teotihuacan, *Arqueología Mexicana*, **IX**(53), 36-41.
- Taube, K A, 2003a. Tetitla and the Maya Presence at Teotihuacan, in G Braswell (ed), *The Maya and Teotihuacan: Reinterpreting Early Classic Interaction*, 273-314. Austin: University of Texas Press.
- Taube, K A, 2003b. *Heaven and Hell: Portals, Xibalba and the Flowery Paradise*. Paper presented at the 7th Maya Conference, 5-10 November 2003, The British Museum, London.
- Taube, K A and B L Bade, 1991. An Appearance of Xiuhtechutli in the Dresden Venus Pages, *Research Reports on Ancient Maya Writing*, **24**. Washington, D.C.: Center for Maya Research.
- Taube, K A, S D Houston and D Stuart, 1989. Folk Classification of Classic Maya Pottery, *American Anthropologist*, **8**, 720-726.
- Taylor, D, 1992. Painted Ladies: Costumes for Women on Tepeu Ceramics, in J Kerr and B Kerr (eds), *The Maya Vase Book: A Corpus of Rollout Photographs of Maya Vases*, Vol. 2, 513-523. New York: Kerr Associates.
- Taylor, T, 1987. Flying Stags: Icons of Power in Thracian Art, in I Hodder (ed), *The Archaeology of Contextual Meanings*, 117-132. Cambridge: Cambridge University Press.
- Tedlock, D, 1996. *Popol Vuh: The Definite Edition of the Mayan Book of the Dawn of Life and the Glories of Gods and Kings*. London: Simon and Schuster.
- Thomas, D H (ed), 1991. *Columbian Consequences, Vol. 3: The Spanish Borderlands in Pan-American Perspective*. Washington, D.C.: Smithsonian Institution Press.
- Thomas, N, 1998. Foreword, in A Gell (ed), *Art and Agency: An Anthropological Theory*, vii-xiii. Oxford: Clarendon Press.
- Thompson, J E S, 1929. Maya Chronology: Glyph G of the Lunar Series, *American Anthropologist*, **31**, 223-231.
- Thompson, J E S, 1930. *Ethnology of the Mayas of Southern and Central British Honduras*. Anthropological Series Vol. 17, No. 2. Chicago: Field Museum of Natural History.
- Thompson, J E S, 1931. *Archaeological Investigations in the Southern Cayo District, British Honduras. First and Second Marshall Field Archaeological Expeditions to British Honduras*. Chicago: Anthropological Series/Field Museum of Natural History.
- Thompson, J E S, 1933. *Mexico before Cortés: An Account of the Daily Life, Religion and Ritual of the Aztecs and Kindred Peoples*. New York: C Scribner's Sons.
- Thompson, J E S, 1936. *The Civilization of the Mayas*. Chicago: Field Museum of Natural History.
- Thompson, J E S, 1939a. *Excavation at San Jose, British Honduras*. Carnegie Institution of Washington Publication No. 506. Washington, D.C.: Carnegie Institution of Washington.

- Thompson, J E S, 1939b. *The Moon Goddess in Middle America with Notes on Related Deities*. Washington, D.C.: Carnegie Institute of Washington.
- Thompson, J E S, 1948. *An Archaeological Reconnaissance in the Cotzumalhuapa Region, Escuintla, Guatemala*. Contributions to American Anthropology and History No. 44, 1-94. Washington, D.C.: Carnegie Institution of Washington.
- Thompson, J E S, 1954a. *The Rise and Fall of Maya Civilization*. Norman: University of Oklahoma Press.
- Thompson, J E S, 1954b. *A Presumed Residence of the Nobility at Mayapan*. Carnegie Institution of Washington Current Report No. 19. Cambridge, Massachusetts: Carnegie Institution of Washington.
- Thompson, J E S, 1957. *Deities Portrayed on Censers at Mayapan*. Carnegie Institution of Washington Current Report No. 40, 599-628. Cambridge, Massachusetts: Carnegie Institution of Washington.
- Thompson, J E S, 1960. *Maya Hieroglyphic Writing: An Introduction*. Carnegie Institution of Washington Publication No. 589. Washington, D.C.: Carnegie Institution of Washington.
- Thompson, J E S, 1962. *A Catalog of Maya Hieroglyphs*. Norman: University of Oklahoma Press.
- Thompson, J E S, 1970. *Maya History and Religion*. Norman: University of Oklahoma Press.
- Thompson, J E S, 1972. *A Commentary on the Dresden Codex: A Maya Hieroglyphic Book*. Philadelphia: American Philosophical Society.
- Thompson, J E S, 1973. Maya Rulers of the Classic Period and the Divine Right of Kings, in I Bernal and E K Easby (eds), *The Iconography of Middle American Sculpture*, by the Metropolitan Museum of Art, 52-71. New York: Metropolitan Museum of Art.
- Thompson, J E S, 1975. The Glorier Codex, *Contributions of the University of California Research Facility*, **27**, 1-9.
- Thompson, J E S, 1977. A Proposal for Constituting a Maya Subgroup, Cultural and Linguistic, in the Peten and Adjacent Regions, in G D Jones (ed), *Anthropology and History in Yucatan*, 3-42. Austin: University of Texas Press.
- Thompson, J E S, 1981. The Itza of Tayasal, Peten, in J A Graham (ed), *Ancient Mesoamerica: Selected Readings*, 197-203. Palo Alto: Peek Publications.
- Thompson, J E S, 1988. *The Maya of Belize: Historical Chapters since Columbus*. Belize: Cubola Productions.
- Tiesler, V, 2001. *Decoraciones Dentales de los Antiguos Mayas*. México, D.F.: Ediciones Euroamericanas, Instituto Nacional de Antropología e Historia.
- Tiesler, V, 2006. Life and Death of the Ruler: Recent Bioarchaeological Findings, in V Tiesler and A Cucina (eds), *Janaab' Pakal of Palenque: Reconstructing the Life and Death of a Maya Ruler*, 3-20. Tucson: The University of Arizona Press.
- Tiesler, V and A Cucina (eds), 2006a. *Janaab' Pakal of Palenque: Reconstructing the Life and Death of a Maya Ruler*. Tucson: The University of Arizona Press.
- Tiesler, V and A Cucina, 2006b. Studying Janaab' Pakal and Reconstructing Maya Dynastic History, in V Tiesler and A Cucina (eds), *Janaab' Pakal of Palenque: Reconstructing the Life and Death of a Maya Ruler*, 21-47. Tucson: The University of Arizona Press.
- Tilley, C, 1989. Interpreting Material Culture, in I Hodder (ed), *The Meaning of Things: Material Culture and Symbolic Expression*, 185-194. London: Unwin Hyman.

- Tilley, C, 1991. *Material Culture and Text: The Art of Ambiguity*. London: Routledge.
- Tokovinine, A, n.d. *Art of the Maya Epitaph: The Genre of Posthumous Biographies in the Late Classic Maya Inscriptions*. Cambridge, Massachusetts: Department of Anthropology, Harvard University.
- Tourtellot, G, J A Sabloff and K Carmean, 1992. Will the Real Elites Please Stand Up? An Archaeological Assessment of Maya Elite Behavior in the Terminal Classic Period, in D Z Chase and A F Chase (eds), *Mesoamerican Elites: An Archaeological Assessment*, 80-98. Norman: University of Oklahoma Press.
- Townsend, R F, 1998. *The Aztecs*. London: Thames and Hudson.
- Tozzer, A M, 1907. *A Comparative Study of the Mayas and the Lacandonese*. New York: Published for the Archaeological Institute of America by Macmillan.
- Tozzer, A M (trans), 1941. *Landa's Relacion de las Cosas de Yucatan*. Papers of the Peabody Museum of Archaeology and Ethnology 18. Cambridge, Massachusetts: Harvard University.
- Tozzer, A M, 1957. *Chichen Itza and its Cenote of Sacrifice: A Comparative Study of Contemporaneous Maya and Toltec*. Memoirs of the Peabody Museum of Archaeology and Ethnology 11 and 12. Cambridge, Massachusetts: Harvard University.
- Tozzer, A M, 1982. *Mayas y Lacandonese. Un Studio Comparativo*. Colección INI, 13. México, D.F.: Instituto Nacional Indigenista.
- Trejo, S (ed), 1997. *Mesas Redondas de Palenque: Antología*. Mérida: Instituto Nacional de Antropología e Historia, Consejo Nacional para la Cultura y las Artes.
- Turner, J (ed), 1996. *The Dictionary of Art, Vol. 21*. New York: Grove Press.
- Ucko, P (ed), 1977. *Form in Indigenous Art: Schematisation in the Art of Aboriginal Australia and Prehistoric Europe*. Canberra: Australian Institute of Aboriginal Studies.
- Uriarte, M T (ed), 1988. *Fragmentos del Pasado: Murales Prehispánicos*. México, D.F.: Antiguo Colegio de San Ildefonso, Instituto de Investigaciones Estéticas/UNAM.
- Vail, G, 1988. *The Archaeology of Coastal Belize*. British Archaeological Reports International Series 463. Oxford: British Archaeological Reports.
- Vaillant, G C, 1938. A Correlation of Archaeological and Historical Sequences in the Valley of Mexico, *American Anthropologist*, **40**, 535-573.
- Vaillant, G C, 1940. Patterns in Middle American Archaeology, in C L Hay, R L Linton, S Lothrop, H L Shapiro and G C Vaillant (eds), *The Maya and their Neighbours*, 295-305. New York: Appleton-Century.
- Vaillant, G C, 1941. *Aztecs of Mexico: Origin, Rise and Fall of the Aztec Nation*. New York: Doubleday.
- Vaillant, G C, 1944. *La Civilización Azteca*. México, D.F.: Fondo de Cultura Económica.
- Valdez, F, Jr, 1993. Appendix I. Ceramic Types from Laguna de On Shore, in M A Masson, *Changes in Maya Community Organization from the Classic to Postclassic Periods: A View from Laguna de On, Belize*, 280. Unpublished Ph.D. dissertation, Department of Anthropology, University of Texas at Austin.
- Valdez, F, Jr, and R E Adams, 1982. *The Ceramics of Colha, 1979-1980*. Paper presented at the 45th Annual Meeting of the Society for American Archaeology, Philadelphia.
- Varey, S, 2000. *The Mexican Treasury. The Writing of Dr. Francisco Hernández*. Stanford: Stanford University Press.

- Vargas, E, 1984. Consideraciones Generales sobre las Fortificaciones Militares en Tulum, Quintana Roo, México, *Estudios de Cultura Maya*, **15**, 29-55.
- Viel, R H, 1999. The Pectoral of Altar Q and Structure 11: An Interpretation of the Political Organization at Copan, Honduras, *Latin American Antiquity*, **10**(4), 377-399.
- Villacorta, J A and C A Villacorta, 1930. *Códices Mayas*. Guatemala: Impreso en la Tipografía Nacional.
- Vliet, K, 1989. Social Display of the American Alligator (*Alligator mississippiensis*), *American Zoologist*, **29**, 1019-1031.
- Vogt, E Z and R M Leventhal (eds), 1983. *Prehistoric Settlement Patterns: Essays in Honour of Gordon R. Willey*. Albuquerque: University of New Mexico Press.
- Volosinov, V, 1973. *Marxism and the Philosophy of Language*. London: Seminar Press.
- Wagner, P L, 1964. Natural Vegetation of Middle America, in R Wauchope (general ed), *Handbook of Middle American Indians*, Vol. 1, 216-264. Austin: University of Texas Press.
- Walker, D S, 1990. *Cerros Revisited: Ceramic Indicators of Terminal Classic and Postclassic Settlement and Pilgrimage in Northern Belize*. Unpublished Ph.D. dissertation, Southern Methodist University.
- Walker, S H, 1973. *Summary of Climatic Records for Belize*. Supplementary Report No. 3. Surbiton: Ministry of Overseas Development, Land Resources Division.
- Wallace, A F C (ed), 1960. *Men and Cultures: Selected Papers from the Fifth International Congress of Anthropological and Ethnological Sciences*. Philadelphia: University of Pennsylvania Press.
- Wantland, K F and W C Pusey (eds), 1975. *Belize Shelf - Carbonate Sediments, Clastic Sediments and Ecology*. Tulsa: The American Association of Petroleum Geologists.
- Wauchope, R (ed), 1964-75. *Handbook of Middle American Indians*. 15 vols. Austin: University of Texas Press.
- Wauchope, R, 1970. *Protohistoric Pottery of the Guatemalan Highlands*. *Memoirs of the Peabody Museum of Archaeology and Ethnology* 61, 89-244. Cambridge, Massachusetts: Harvard University.
- Webb, M C, 1973. The Peten Maya Decline Viewed in the Perspective of State Formation, in T P Culbert (ed), *The Classic Maya Collapse*, 367-404. Albuquerque: University of New Mexico Press.
- Webb, M C, 1975. The Flag Follows Trade: An Essay on the Necessary Interaction of Military and Commercial Factors in State Formation, in J A Sabloff and C C Lamberg-Karlovsky (eds), *Ancient Civilization and Trade*, 155-209. Albuquerque: University of New Mexico Press.
- Webster, D and A C Freter, 1990. Settlement History and the Classic Collapse at Copan: A Redefined Chronological Perspective, *Latin American Antiquity*, **1**(1), 66-85.
- West, R C, 1964. Surface Configuration and Associated Geology of Middle America, in R Wauchope (general ed), *Handbook of Middle American Indians*, Vol. 1, 22-83. Austin: University of Texas Press.
- Westheim, P, 1980. *Escultura y Cerámica del Mexico Antiguo*. México, D.F.: Ediciones Era.
- White, C D, 1986. *Palaeodiet and Nutrition of the Ancient Maya at Lamanai, Belize: A Study of Trace Elements, Stable Isotopes, Nutritional and Dental Pathologies*. Unpublished MA thesis, Department of Anthropology, Trent University, Peterborough, Ontario.

- White, C D, 1997. Diet at Lamanai and Pacbitun: Implications for the Ecological Model of Maya Collapse, in S L Whittington and D M Reed (eds), *Bones of the Maya: Studies of Ancient Skeletons*, 171-181. Washington, D.C.: Smithsonian Institution Press.
- Whitecotton, J W, 1977. *The Zapotecs. Princes, Priests and Peasants*. Norman: University of Oklahoma Press.
- Whitfield, R (ed), 1993. *The Problem of Meaning in Early Chinese Ritual Bronzes*. London: School of Oriental and African Studies.
- Whitley, J, 1994. Protoattic Pottery: A Contextual Approach, in I Morris (ed), *Classical Greece: Ancient Histories and Modern Archaeologies*, 51-70. Cambridge: Cambridge University Press.
- Whittaker, J C, D Caulkins and K A Kamp, 1998. Evaluating Consistency in Typology and Classification, *Journal of Archaeological Method and Theory*, **5**(2), 129-164.
- Whittington, S L and D M Reed (eds), 1997. *Bones of the Maya: Studies of Ancient Skeletons*. Washington, D.C.: Smithsonian Institution Press.
- Wiewall, D L, 2004. Preliminary Report of the 2004 Field Season at Lamanai, Belize (OP04-1) for the Dissertation Research Project: The Impact of the Spanish Colonial Regime on Household Production at Lamanai, Belize, during the Late Postclassic-Colonial Tradition (OP04-1). Manuscript on file with the Institute of Archaeology, Belmopan, Belize.
- Wilk, R R and L J Kosakowsky, 1979. The Contextual Analysis Sampling Program at Cuello, 1978: A Very Preliminary Summary, in N Hammond (ed), *National Geographic Society-British-Museum-Rutgers University Cuello Project 1978 Interim Report*, 58-66. Archaeological Research Program, Rutgers University, Publication 1. New Brunswick: Rutgers University.
- Wilk, R R and L J Kosakowsky, 1991. Contextual Analysis, in N Hammond (ed), *Cuello: An Early Maya Community in Belize*, 19-22. Cambridge: Cambridge University Press.
- Wilk, R R and M B Schiffer, 1979. The Archaeology of Vacant Lots in Tucson, Arizona, *American Antiquity*, **44**, 530-536.
- Willey, G R, 1967. Maya Lowland Ceramics: A Report from the 1965 Guatemala City Conference, *American Antiquity*, **32**, 289-315.
- Willey, G R, A L Smith, G Tourtellot, III, and I Graham, 1975. *Excavations at Seibal, Department of Peten, Guatemala, No. 1, Introduction, the Site and its Setting*. Memoirs of the Peabody Museum of Archaeology and Ethnology 13(1). Cambridge, Massachusetts: Harvard University.
- Willey, G R, 1986. The Postclassic of the Maya Lowlands: A Preliminary Overview, in J A Sabloff and E W Andrews V (eds), *Late Lowland Maya Civilization: Classic to Postclassic*, 17-51. Albuquerque: University of New Mexico Press.
- Willey, G R, 1987. *Essays in Maya Archaeology*. Albuquerque: University of New Mexico Press.
- Willey, G R, 1999. Styles and State Formation, *Latin American Antiquity*, **10**(1), 86-90.
- Willey, G R, W R Bullard Jr, J B Glass and J C Gifford, 1965. *Prehistoric Maya Settlement in the Belize Valley*. Papers of the Peabody Museum of Archaeology and Ethnology 54. Cambridge, Massachusetts: Harvard University.
- Willey, G R, T P Culbert and R E W Adams, 1976. Maya Lowland Ceramics: A Report from the 1965 Guatemala City Conference, *American Antiquity*, **32**(3), 289-315.
- Willey, G R and D B Shimkin, 1973. The Maya Collapse: A Summary Review, in T P Culbert (ed), *The Classic Maya Collapse*, 457-502. Albuquerque: University of New Mexico Press.
- Willey, G R, A L Smith, G Tourtellot III and I Graham, 1975. *Excavations at Seibal. Introduction: The Site and Its Setting*. Memoirs of the Peabody Museum of Archaeology and Ethnology 13(1). Cambridge, Massachusetts: Harvard University.

- Wilk, R R and W Ashmore (eds), 1988. *Household and Community in the Mesoamerican Past*. Albuquerque: University of New Mexico Press.
- Wilk, R R and L J Kosakowsky, 1991. Archaeological Investigations, 1975-1987: Contextual Analysis, in N Hammond (ed), *Cuello: An Early Maya Community in Belize*, 19-22. Cambridge: Cambridge University Press.
- Wilson, S M, H B Iceland and T R Hester, 1998. Preceramic Connections between Yucatan and the Caribbean, *Latin American Antiquity*, **9**(4), 342-352.
- Winning, H von, 1961. The Reptile's Eye Glyph, *Ethnos*, **26**, 121-166.
- Winning, H von, 1977. Rituals Depicted on Polychrome Ceramics from Nayarit, in A Cordy-Collins and J Stern (eds), *Pre-Columbian Art History: Selected Readings*, 121-134. Palo Alto: Peek Publications.
- Winters, H, 1955a. *A Vaulted Temple at Mayapan*. Carnegie Institution of Washington Current Report No. 30. Washington, D.C.: Carnegie Institution of Washington.
- Winters, H, 1955b. *Three Serpent Column Temples and Associated Platforms at Mayapan*. Carnegie Institution of Washington Current Report No. 32, 397-423. Washington, D.C.: Carnegie Institution of Washington.
- Wolff, K H (ed), 1993. *From Karl Mannheim*. New Brunswick: Transaction Publishers.
- Wonderly, A W, 1981. *Late Postclassic Excavations at Naco, Honduras*. Ph.D. dissertation, Department of Anthropology, Cornell University, Ithaca. Latin American Studies Program, Dissertation Series No. 86.
- Wright, A C S, D H Romney, R H Arbuckle and V E Vial, 1959. *Land in British Honduras: Report of the British Honduras Land Use Survey Team*. Colonial Research Publications No. 24. London: Her Majesty's Stationary Office.
- Wright, L E, 1997. Biological Perspectives on the Collapse of the Pasi3n Maya, *Ancient Mesoamerica*, **8**(2), 267-274.
- www.Geocities.com/capecanaverl/hangar3288/archaeology.htm, sourced 2005.
- www.research.famsi.org/kerrmaya.html, sourced 2006.
- Zeman, J J, 1977. Peirce's Theory of Signs, in T A Sebeok (ed), *A Perfusion of Signs*, 22-39. Bloomington: Indiana University Press.

Appendix 1: Summary of Lamanai structures and assessment terms

Part 1: Summary of Lamanai structures

Str. N9-56 and Str. N9-59



Fig. A1.1. Lamanai Str. N9-56, 'Mask' Temple.

Str. N9-56 (Pendergast 1981a:36-39, 51, 1982b:29, 1986:230, 242, 1998:56-57) lies in the northern Central Precinct on the shore of the lagoon. The earliest phase for which we have evidence is Late Preclassic. Str. N9-56 is a structure with a two-chambered building on its summit which was razed for remodelling in later phases. This structure underwent major modifications during the Late Preclassic; one resulted in a new stair and significant changes made to the main lower landing area. All modifications were frontal developments, leaving the sides of the structure exposed. Large stair-side outset masks embellished the terraced platform in both Preclassic and Middle Classic Periods. The Middle Classic Period masks were modelled in stone and were originally coated in an unusual grey stucco in which ground charcoal was mixed with plaster. One of these masks is fully exposed and was restored in 2002 (Fig. A1.2). Str. N9-56 fell into ruin in the Postclassic Period, but the large platform that supported it, Str. N9-53, had several small, low platforms constructed on its surface in the Postclassic Period. One was the locus of a re-erected Classic Period stela (Lamanai Stela 1; Fig. 6.36b, Chapter 6). Another low platform, Str. N9-59, contained fragments of a number of reconstructible vessels with effigy feet and a miniature pedestal-based jar modelled as a maize husk (Chapter 7: see Gatah ceramics section). A cache, Cache N9-59/1, containing a seated effigy

vessel, cup and jade and shell beads was associated with the core-deposit (Pendergast 1981a:51, 1982b:29-30). At the same time, many Chen Mul Modeled-style effigy censers were smashed atop Str. N9-56 (between 50 and 100), probably deposited when the small platforms were built in the fourteenth century. The style of the ceramics demonstrates a link between Lamanai and Northern Yucatan in the Late Postclassic. A Chen Mul Modeled-style effigy censer was also found deposited in Burial N10-14/1 in Structure N10-14, part of the elite compound N10[3] (see below).

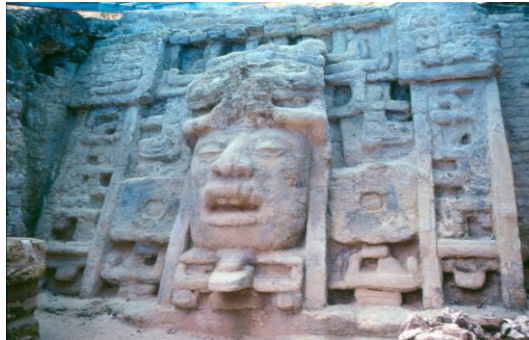


Fig. A1.2. Stair outset masks of Str. N9-56, 'Mask' Temple.

Str. N9-56 revealed a tomb that was placed near the front of the base of the structure's stair and is dated to circa A.D. 500. This tomb was constructed on a floor of an earlier building, most likely just before the new building phase was started, a phase that included the grey stucco masks adorning the platform's stair-side outsets. A second tomb was located beneath the north stair of the main group platform (Str. N9-53). It is dated to the Early Classic Period and is therefore roughly contemporaneous with the first tomb.

Str. N10-1



Fig. A1.3. Lamanai Platform N10-1.

Str. N10-1 (Loten 1985:88) is a small platform that represents three phases of construction, all Postclassic, and which stands in the plaza onto which Str. N10-2 and Str. N10-4 face (Figs. 3.2.2-3, Chapter 3). The plaza lies in the southern part of the central zone of monumental construction, right at the lagoon's edge (Loten 1985:87). The construction of Str. N10-1 is associated with the Buk phase, probably functioning as a support for some sort of ritual activity. Its core contained two burials (Burials N10-1/1 and N10-1/2) accompanied by large quantities of pottery.

Str. N10-2



Fig. A1.4. Lamanai Str. N10-2.

Str. N10-2 (Pendergast 1981a:44, 48; 1982b:24) is situated on the west side of the same plaza that supports Str. N10-1 (Figs. 3.2.2-3, Chapter 3). Str. N10-2 consists of a much larger platform with Postclassic construction above Classic Period or earlier structures. It was an important setting for both Terclerp and Buk phase activities, although its original construction indicates a much earlier date than the Terclerp phase, probably back to Preclassic times. Two structures most likely of Early Classic date were topped by a sequence of four buildings. Of the four constructions, the second shows affinities with northern Yucatan, consisting of a colonnaded single-room building with wattle-and-daub walls and plaster floor, roughly 20 metres long by 10 metres wide. The walls were plastered and painted with polychrome designs (Loten 1985:88-89; Pendergast 1982b:24, 1986:235, Fig. 7.3). The roof must have been made of timber

combined with matting and other materials and was supported by two rows of large timber columns (Loten 1985:89; Pendergast 1981a:44, 1982b:24).

The vessels I examined from this structure were recovered from twenty-six burials and two caches (Pendergast 1981a:44). Maya structures were periodically extended and/or built over to mark the passage of time or events in the lives of rulers (Pendergast 1979). Caches mark important occasions, often period-ending ceremonies that are usually timed to coincide with the completion of structure construction phases at Lamanai (Graham 2004). Burials were inserted into the structure's core material, capped by different floors (Pendergast 1974, 1975b). The burials' placements thus indicate their deposition while the structure was still in use. The vessels are predominantly from the 'Gom' floor construction phase (thirty-six out of forty vessels bearing imagery; see Appendix 4, Table A4.13). Consequently, the style of Buk phase imagery is irrespective of any 'change over time'. The caches might have marked completion-related ceremonies. One important cache marks the last activity atop a floor prior to initiation of further construction (Cache N10-2/2; Pendergast, personal communication 2005) and the other cache is set within the core of the structure's outermost stair (Cache N10-2/6). Fifty burials occurred in total in this structure (Pendergast 1982b:25), all, based on the nature and quantity of burial accoutrements as well as the context, individuals of high rank or status (Pendergast 1981a:48). The vessels, in all but one case, were smashed and strewn over the burials (Pendergast 1981a:44, Fig. 18) and, in every instance, at least one piece had been removed prior to interment, which Pendergast (1981a:44, 1982b:25) suggests indicates retention by relatives or others, perhaps for ceremonial use. Str. N10-2's function is hard to know with certainty. Its size, form and location suggest an administrative or possibly even a residential function. Pendergast suggests it was certainly ceremonial (Pendergast 1981a:48; 1982b:24), as a small square altar was found at the rear (west) wall of the room of one phase, around which corn, beans and other food crops had been burned (Loten 1985:89; Pendergast 1986:236). Floor construction also seems to make residential use unlikely (Pendergast, personal communication 2005). Str. N10-2 probably continued in use possibly until the fifteenth or early sixteenth century, as a number of modifications were made that repeated the earlier Late Terminal Classic structure (Pendergast 1986:241).

Str. N10-4

Fig. A1.5. Lamanai Str. N10-4.

Str. N10-4 borders the east side of the plaza that also contains Str. N10-1 and Str. N10-2 (Pendergast 1981a:46; Figs. 3.2.2-3, Chapter 3). Str. N10-4 represents a complicated series of events most likely including multiple probable long-term use of a Classic Period structure as a burial mound, followed by two or more small houses built atop the burial mound (Pendergast 1981a:43, 1982b:26). A total of forty-six burials was found in Str. N10-4, all placed within the core of a platform that overlay the razed remains of an earlier structure (Pendergast 1981a:46, 1982b:26). Unfortunately, the platform's floors were completely eroded, or, as in the case of the faces, stones may have been stolen. Nothing remained structurally or in the way of artefacts to date this construction into which the forty-six burials were inserted. Dating of the razed earlier structure also remains elusive, although construction features suggest a Preclassic context. Twenty-six of the forty-six burials produced vessels, and the ceramic evidence suggests that most burials might come from the same period that approximates the last two building phases of Str. N10-2 and the second Str. N10-1 burial (Pendergast 1981a:47, 1982b:27). At least one burial dates to the fifteenth, or early sixteenth century (Pendergast 1977). The individuals buried in Str. N10-4 were all of high rank or status, as some are accompanied by grave goods and are placed close to Str. N10-1 and Str. N10-2 (Pendergast 1981a:48).

Str. N10-7

Fig. A1.6. Lamanai Str. N10-7.

Str. N10-7 lies west of Str. N10-2 at the eastern limit of the large Plaza N10[2] at the centre of the site, known as the Jaguar Plaza (Figs. 3.2.2-3, Chapter 3). Str. N10-7 was built as a single effort near the end of the Classic Period, most likely in the ninth century A.D., perhaps to cap a burial accompanied by San José-type Terminal Classic vessels (Thompson 1939). The burial was dug into a low platform of undetermined earlier date, which was probably the first construction at this spot (Pendergast 1981a:43). Further burials are cut into the upper core of Str. N10-7, which points to continuous use of the structure into Buk times. However, the structure was probably in ruins by the end of the fourteenth century (Pendergast 1981a:43). Str. N10-7's small platform surface suggests it served a ritual or ceremonial function.

Str. N10-9

Fig. A1.7. Lamanai Str. N10-9, 'Jaguar' Temple.

Str. N10-9 (Pendergast 1986:230-231, 234) is a large terraced platform situated at the south side of the Jaguar Plaza N10[2] (Figs. 3.2.2-3, Chapter 3). Str. N10-9 experienced continuous use from Classic through Postclassic times. After initial construction in the Classic Period, modifications were only carried out to the front of Str. N10-9. The two main modifications included new stairs and stair-side outsets, the first modification dating to the Late Classic Period, and the second to the early to mid Postclassic Period, most likely no later than the thirteenth century A.D. (Loten 1985:89; Pendergast 1981a:35, 43). The earlier construction consists of Lamanai Building Type chambered buildings (two in the later construction) placed on the centre stair. No building stood on the structure's summit (Pendergast 1981a:35, 43, Figs. 4-5 and 14, 1982b:23). The second main modification represents the only monumental Postclassic Period construction at the site and even though the structure's technical attributes are entirely Classic, the construction contained Postclassic Period ceramics in its core (Loten 1985:89, Fig. 4). Minor construction at the base of Str. N10-9 continued until perhaps as late as the fifteenth or early sixteenth century, based on recovered ceramics (Pendergast 1985a:98). Str. N10-9 was maintained, with particular focus on its axis, until it was abandoned after a date in the fourteenth or early fifteenth century A.D. (Pendergast 1981a:44, 1982b:23).

At, or after, the abandonment of Str. N10-9 sometime during the Early to Middle Postclassic Period, a great deal of pottery was deposited over the structure's central stair and a midden started to accumulate in the plaza at the base of the east side of Str. N10-9. This midden, known as the 'Jaguar Midden', spread to the south side of Str. N10-7 and down over the platform edge to rest along the rear of Str. N10-2 (Pendergast 1981a:44, 1982b:23).

Str. N10-9 contained both burials and caches placed within the structure during its use, and its size alone suggests its importance in the Terminal Classic Period and, also, perhaps in the Early Postclassic Period, which saw its continued use. Its function was most likely ceremonial.

Ottawa Palace Courtyard Group

The Ottawa Palace Courtyard Group N10[3]



Fig. A1.8. The Ottawa Palace Courtyard Group N10[3].

At least seven structures surround Plaza N10[3] to form the elite compound or Ottawa Group (Fig. A1.9): Str. N10-12 (covers and subsumes Str. N10-77 and Str. N10-78), Str. N10-15, Str. N10-17, Str. N10-18, Str. N10-19 and Str. N10-28. Str. N10-12 forms the south side of the Jaguar Plaza (Graham 2004:231-232; Pendergast 1986:231). Based on the fact that most of the buildings were subdivided into multiple chambers, several of which have benches, the Ottawa Group is thought to have functioned as an elite residential or administrative group. However, Str. N10-17 in its last, probably end-of-Classic stage, evidenced only a platform surface with no telltale features. The courtyard of the Ottawa Group was filled in at the end of the Classic Period and the painted stucco frieze of Str. N10-28 was destroyed at the same time. Except for Strs. N10-15 and N10-19, which continued to be added to in stone, all masonry buildings around the courtyard were razed and sealed by a level of quarried stones or boulders; these and other structures built around Plaza N10[3] were of wood. These construction efforts are dated by Graham (2004:232-240) to the Terminal Classic Period. The stones or boulders that covered Strs. N10-28, N10-77 and N10-78 formed the core of faced platforms that supported wooden buildings (Graham 2004).

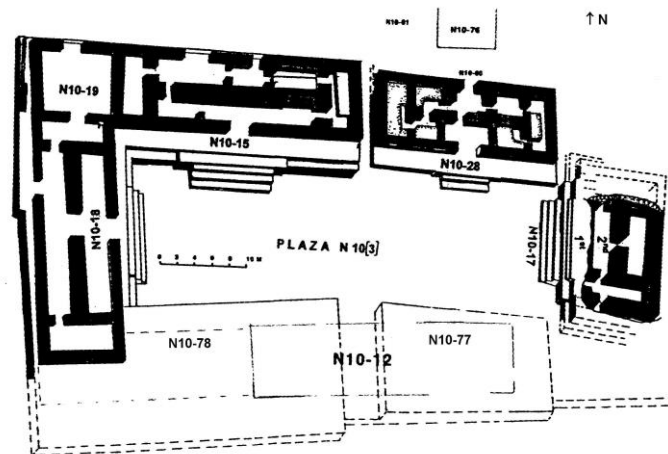


Fig. A1.9. Plan of N10[3]. Graham 2004:229, Fig. 3.

Str. N10-12

Str. N10-12 (Graham 2004:231-232, 234) is a structure situated on the south side of Plaza N10[3] (see above). Str. N10-12 comprises a succession of Terminal Classic to Postclassic Period buildings, mainly built of wood, which overlie two earlier probable Classic Period structures, Str. N10-77 and Str. N10-78. Str. N10-12 was built over Str. N10-77 and Str. N10-78 when the N10[3] courtyard was filled in in the Terminal Classic Period. Str. N10-12 revealed at least two major phases, one in the Terminal Classic Period and one in the Early Postclassic Period. Ceramic analysis is ongoing, but evidence so far suggests that the buildings comprising Str. N10-12 served multiple purposes (Graham 2004). Caches are associated with Str. N10-12, 1st, the Terminal Classic phase and burials with Str. N10-12, 2nd, the Early Postclassic phase. Three burials were cut into the Terminal Classic Period building's floor when the Early Postclassic platform was constructed (Burials N10-12/6, N10-12/7 and N10-12/8). A Late Postclassic Period midden accumulated on the northeast side of Str. N10-12; it is therefore possible that a Late Postclassic Period structure went undetected.

Str. N10-15

Str. N10-15 (Pendergast 1985a:95, 1986:233) is situated on the north side of Plaza N10[3] (Figs. 3.2.2-3, Chapter 3). It is a masonry-walled residential building, probably with wooden roof, which experienced a great number of internal and external modifications that appear to span the ninth to the eleventh centuries A.D.

Str. N10-17 and Str. N10-18

Str. N10-17 and Str. N10-18 (Pendergast 1986:237-239) are situated at the east and west ends of Plaza N10[3] (Figs. 3.2.2 and 3.2.3, Chapter 3). Both structures were used in Classic times and continued in use in some form from the twelfth to early fifteenth centuries. Str. N10-18 revealed a Late Classic Period cache (Pendergast 1981c). Both Str. N10-17 and Str. N10-18 revealed midden material scattered around their perimeters (perhaps deposited as early as the fourteenth century) that contained ceramics and other objects similar to those discovered in burials found in Structures N10-1, N10-2 and N10-4.

Str. N10-18 was probably a residence in the eighth and ninth centuries. Str. N10-17 was chambered but then rebuilt as a platform that completely cracked the partially-razed earlier structure. No evidence exists regarding the building, which was presumably made of perishable material and which the new platform supported; sherds from associated deposits date from the twelfth to fifteenth century, suggesting that a succession of perishable buildings may have stood here (see also Graham 2004).

Str. N10-28

Str. N10-28 (Graham 2004:224; Pendergast 1985a:93, 1986:231) is located at the northeast side of Plaza N10[3] (Figs. 3.2.2-3, Chapter 3) and probably represents the last major masonry addition to the Ottawa elite compound constructed in the early ninth century A.D.. Str. N10-28's plan and exterior surface features suggest that the building functioned as a semi-public, residence-related structure. Str. N10-28 originally displayed a highly elaborate upper zone embellished with modelled stucco covered in rich polychrome painting. The theme of the frieze was rulership and includes what is most likely a portrait of a Lamanai ruler flanked by Lamanai's ruling elite, captives, supernaturals and other kingship symbols (Graham 2004:224; Shelby 2000a, 2000b, 2000c). The frieze was destroyed and upper portions of the structure razed during the large-scale filling-in of Plaza N10[3] in the Terminal Classic Period. Str. N10-28 was replaced by a wooden structure (Graham 2004:224), a distinctive fate of other masonry constructions in this group of buildings in the Terminal Classic Period.

Str. N10-27

Fig. A1.10. Lamanai Str. N10-27, the 'Stela Temple' with Stela 9.

The earliest phase of Str. N10-27 (Graham 2004:230-231) of which we have evidence is Late Preclassic. Str. N10-27 was modified several times before being abandoned or falling into disuse in the Terminal Classic Period.

Excavation revealed ceramics around the structure's lower courses and central stair that comprise a special-activity midden that began some time in the Terminal Classic Period, when the building was no longer maintained. The midden forms a slope abutting Str. N10-27 and buried the central stair (Graham 2004:230). The structure's use appears to have ended abruptly (Graham 2004:230) with the lower portion of the structure's re-erected Middle Classic stela, Stela 9 (Fig. 6.36a, Chapter 6), shattering due to fire or accidental breakage at its base (Pendergast 1988:4).

Midden deposition began immediately after the stela's shattering. Stela 9 is buried by debris. The bulk of the midden material I examined comes from the southwest side of Str. N10-27, with the source of activity that created the midden lying south of the structure, perhaps in the Ottawa Plaza N10[3] group (Graham 2004:230). Ceramics from the midden date from the Terminal Classic Period (Terclerp phase) to Early Postclassic Period (Buk phase; ca. A.D. 800 - 1250; Table 1.1, Chapter 1). Late Postclassic activity associated with Str. N10-27 included small platforms in front of the structure, and the area was again re-used in the sixteenth century or perhaps later – Yglesias-phase (Early Historic Period) ceramics were found in the Str. N10-27 midden's southwest side. An Yglesias-phase burial was intruded into the midden west of the terrace face near the structure's southwest corner (Graham 2001).

In summary, Str. N10-27 was abandoned for its primary ceremonial use at the end of the Classic Period, with midden material deposited in the Terminal Classic Period, throughout the Buk phase, then again in the Yglesias phase.

Str. N10-43



Fig. A1.12. Lamanai Str. N10-43.

Str. N10-43 (Pendergast 1981a:34, 41-42, 1986:230) delimits the northern border of Plaza N10[5] in the northern Central Precinct. At thirty-three metres, it is the tallest building at Lamanai and represents one of the largest securely-dated Preclassic structures in the Maya area. While the majority of construction of Str. N10-43 is Preclassic, final large-scale modifications changed the structure in Late Classic times (Pendergast 1981a:41, Figs. 12-13). The Preclassic form of Str. N10-43 was dramatically changed, most likely early in the Late Classic Period, with a long single-chambered building placed on top of the razed remains of the landing-level units. The front of Str. N10-43 was also altered. Str. N10-43 was most likely built atop a structure antedating the Preclassic Period building. At the foot of Str. N10-43, a Postclassic Period cache was found that contained a Buk phase tetrapod dish with a single jade bead, evidence of a certain amount of interest in the structure in Postclassic times (Pendergast 1982b:29, 1998:59; Fig. 6.27, Chapter 6).

Spanish Churches

Str. N12-11 (YDL I, 1st Church) and N12-13 (YDL II, 2nd Church)



Fig. A1.13. Lamanai Str. N12-11 (YDL I), 1st Spanish Church.



Fig. A1.14. Lamanai Str. N12-13 (YDL II), 2nd Spanish Church.

Two sixteenth century Spanish churches were discovered at Lamanai, the earlier (Str. N12-11, YDL I; Fig. A1.13) likely to date to the 1540s A.D. (Graham et al. 1989). The later (Str. N12-13, YDL II; Fig. A1.14), more impressive, church is believed to have been built towards the end of the sixteenth century or in the very early seventeenth century. The naves of both churches were constructed of wood, but the sanctuary of Str. N12-13 is of stone. The churches are located circa 750 metres south of the site's Central Precinct (Pendergast 1981a:29, 51-52, Fig. 2, 1982b:31).

The first church, Str. N12-11, was built over a demolished Tulum-style structure. After the desecration of the second church, Str. N12-13, in 1640 or 1641, it was used for about four to five decades by the Maya for residential purposes, perhaps up to the end of the seventeenth century (Pendergast 1981a:52, 1982b:32, 1985a:102, 1986:243;). Three cache offerings and a burial

which date to this time were found in YDL II (Pendergast 1981a:52). The ceramics found in and around YDL II are identical to those from Terminal Postclassic Period contexts and can only be determined as Early Historic due to their association with the church. The church was finally used as a smithy by the British in the nineteenth century, circa 1850 - 1880 (Graham 2004:228; Pendergast 1982b:32).

Str. N12-12 ('Rectory')

Str. N12-12 (Graham 2004:228) lies directly north of Str. N12-13 and abuts Str. N12-13 on its north side. Artefact, stratigraphic and structural evidence suggest that Str. N12-12 was in use during, and probably beyond, the Spanish Historic Period as a residence. Str. N12-12 seems to have been built on a platform of Postclassic Period stone masonry and was successively modified. A nineteenth century Irish soda bottle recovered from the core suggests use as late as the 1800s (Graham 2001).

Part 2: Assessment terms (Loten and Pendergast 1984)

- Burial** Burials contain interments. The adults sometimes show signs of cranial deformation. The burials are often accompanied by grave goods other than ceramics. Specific details are listed in the relevant appendix tables (see Appendices 3 to 6).
- Tomb** Tombs are complex interments in large enclosures that are usually masonry and are sometimes capped with a permanent edifice, whereas burials are simpler and usually smaller enclosures that are non-masonry (e.g., Lamanai Tombs N9-56/1 and N12-26/1).
- Cache** Caches are special deposits without inhumations that may mark period endings or structure phases or other rituals. Specific details are listed in the relevant appendix tables (see Appendices 3 to 6).
- Midden** Midden refers to the accumulation of deliberately-discarded artefacts and ecofacts, normally fragmentary, from ceramic vessels to chert, obsidian, ground stone, animal bone and shell (refuse).
- Core** The core refers to the structural support of a platform or wall. It literally and metaphorically represents the structure's support and strength. The core content may consist of stone, broken pottery and other debris or even refuse. Caches are often placed within the core material of structures.
- Surface** Surface material describes artefacts or ecofacts found on the surface of the ground. The original context of surface material is uncertain. Surface material normally represents post-abandonment phenomena, including weathering and erosion.
- Collapse** Collapse refers to structural remains.

Appendix 2: Lamanai Terminal Classic to Early Historic vessel typology and ceramic terms

Part 1: Lamanai Terminal Classic to Early Historic vessel typology

Lamanai Polychromes (Terminal Classic Period)

Dishes

Group Name: **Lamanai Polychrome**

Description:

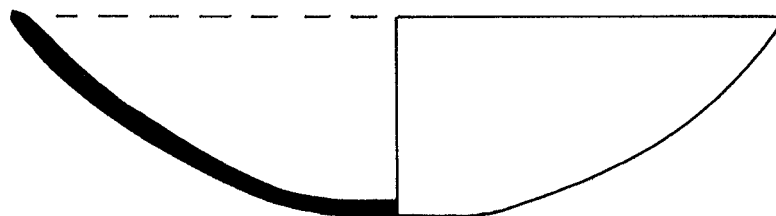
Principal Identifying Modes: (1) red and orange slip; (2) sweeping thick black painting; (3) dishes usually with incurved sides.

Surface Finish: Orange and red slip is applied to the interior and exterior of the dishes.

Iconography: Continuous imagery bands run around the interior rim of the dishes. Jaguars and birds are painted onto the dish base interiors with thick and sweeping black lines.

Form: Dishes with incurved, outcurved or flared sides with direct rims with pointed or rounded lips or outflared everted rims with rounded lips. The dishes have slightly rounded, flat (in one case with a slight circular indentation) or ring bases. One dish has a basal angle, and one of the dishes has an exterior medial ridge and interior medial angle at the same height as the aforementioned ridge.

Phase: Terclerp



[for interior views see Catalogue Figs. 2.1.2a, 4-9]

Incised vessels (Terminal Classic Period)

Bowls

Group Name: -----

Description:

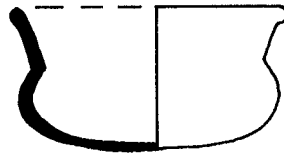
Principal Identifying Modes: (1) shiny black slip; (2) incision; (3) wide-mouthed bowls with incurved or vertical sides.

Surface Finish: Black slip is applied to the interior and exterior of the dishes.

Iconography: Incised imagery bands run around the exterior rim of the bowls.

Form: The first bowl has incurved sides with a direct rim and interior thickened lip. The bowl has a slightly rounded base. The second bowl has vertical sides with a direct rim and rounded lip. This bowl has a ring base and a medial angle.

Phase: Terclerp



Vases

Group Name: -----

Description:

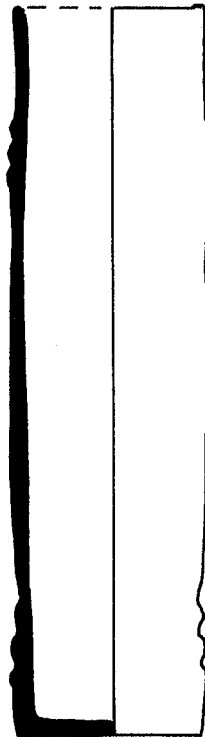
Principal Identifying Modes: (1) black shiny slip; (2) incision; (3) vase with vertical sides.

Surface Finish: Shiny black slip applied to vase exterior.

Iconography: Incised imagery bands and panels spread around the entire exterior width of the vase.

Form: Vase with vertical sides and a direct rim with pointed lip and flat base.

Phase: Terclerp



Incised vessels (Postclassic Period)

Pedestal-based jars

Early Postclassic

Group Name: **Lamanai Camp Group**

Description:

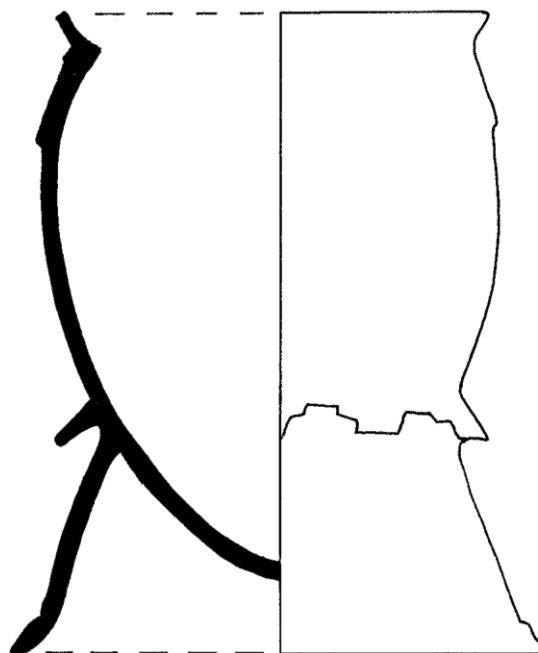
Principal Identifying Modes: (1) orange slip; (2) incising and occasional appliqué-modelling; (3) jars with high flaring pedestal bases with or without segmented basal flanges.

Surface Finish: The orange slip has a low sheen and is applied to the exterior of the vessel and the interior of the jar rim. The interior of the jar is unslipped as is its underside, obscured from view by the pedestal base. The pedestal base interior is unslipped.

Iconography: Six alternating plain and imagery panels are incised around the exterior shoulders of the jars. This incision pattern is either repeated or replaced by a continuous imagery band which runs the exterior width of the pedestal bases. Incision lines follow the contour lines of the segmented basal flanges. Three pedestal-based jars display appliqué-modelled and stuccoed effigy heads and arms attached to the jars' shoulders (Catalogue Figs. 3.1.3-3.1.5).

Form: Flaring pedestal-based jars sometimes with segmented basal flanges. The jars have incurved sides with outflared ('collared') necks with direct rims with lips ranging from squared to rounded and bevelled-in. The jars have rounded bases. Sometimes the shoulder of the jar is defined by a ridge. The high pedestal bases have outcurved sides, slightly convex, with **base rims** alternating between exterior folded **base rims** with squared or rounded lips, and outflared everted **base rims** with rounded or pointed lips.

Phase: Buk



*Late Postclassic*Group Name: **New River Group**

Description:

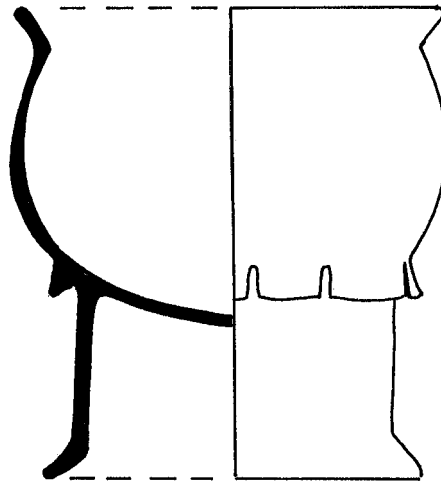
Principal Identifying Modes: (1) red slip; (2) incising and **cut-out shapes**; (3) jars with high flaring pedestal bases and segmented basal flanges.

Surface Finish: The red slip has a dull sheen and is applied to the exterior of the vessel and the interior of the jar rim. The interior of the jar is unslipped as is its underside, obscured from view by the pedestal base. The pedestal base interior is unslipped.

Iconography: Twelve alternating plain and scroll incised panels are arranged around the exterior shoulders of the jars, while the pedestal bases display cut-away shapes framed by a singular incision line. Incision lines follow the contour lines of the segmented basal flanges.

Form: Pedestal-based jars with segmented basal flanges. The jars have incurved sides with outflared ('collared') necks with direct rims with rounded lips and rounded bases. The high pedestal bases have outflared everted **base rims** with slightly rounded lips.

Phase: Cib



Censers

Early Postclassic

Group name: -----

Description:

Principal Identifying Modes: (1) unslipped; (2) incising, pierced-work and stuccoed appliqué-modelling; (3) bowls with high pedestal bases, sometimes with flanges; (4) evidence of burning on interior.

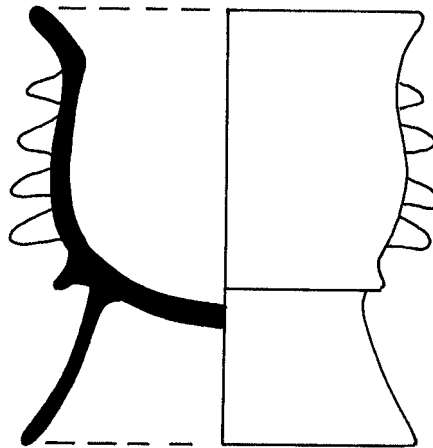
Surface Finish: The vessels are unslipped but show remnants of stuccoing and some pigment.

Iconography: Appliqué-modelled and stuccoed effigy figures and spikes are attached to the bowls' exteriors on two of the vessels. Remnants of pigment are visible on some.

Form: Pedestal-based bowls either with plain basal flange or segmented rim, medial and basal flanges. The bowls have incurved sides with either outflared ('collared') or outcurved necks with direct rims with rounded lips. The bowl bases are rounded. The high pedestal bases have outcurved or flared sides, can be slightly convex, with direct **base rims** with rounded lips.

Function: Censers

Phase: Buk



*Late Postclassic*Group name: **New River Group**

Description:

Principal Identifying Modes: (1) unslipped; (2) incising, pierced-work and appliqué-modelling; (3) vase with high pedestal base and three segmented flanges.

Surface Finish: The vessel is unslipped but shows remnants of stuccoing and some blue pigment.

Iconography: Pierced imagery panels separated by narrow plain strips extend around the vase beneath the rim. Twelve appliqué concentric discs are attached to the vase and pedestal base. There is evidence of stuccoing and remnants of blue pigment.

Form: Pedestal-based vase with outcurved sides with exterior folded rim with rounded lip. The vase has a rounded base pierced with four circular holes arranged in a rectangle. The vase displays three segmented flanges, a rim, medial and basal flange. The transition between the vase and high pedestal base is smooth, giving the vessel a cylindrical form on the exterior. The pedestal base has outcurved sides with an exterior folded **base rim** with pointed lip.

Function: Censer

Phase: Cib

[Fig. 7.1.2, Chapter 7]

Chalices

Early Postclassic

Group Name: **Lamanai Camp Group**

Description:

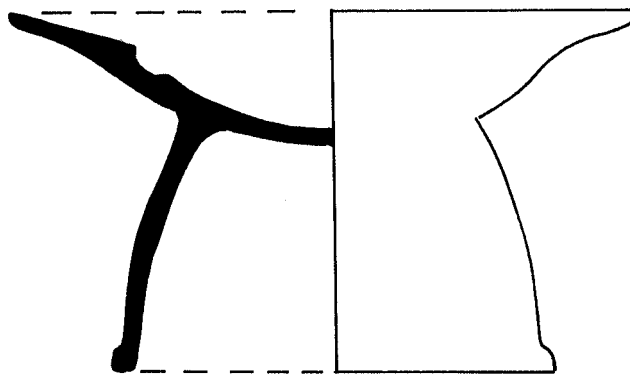
Principal Identifying Modes: (1) orange slip; (2) incising and occasional pierced-incision work, one chalice is plain; (3) dishes with high flaring pedestal bases.

Surface Finish: The orange slip has a low sheen and is applied to the exterior and interior of the dish and the exterior of the pedestal base. The pedestal base interior and the underside of the dish, obscured from view by the pedestal base, are unslipped.

Iconography: Either alternating plain and incised imagery panels or incised and/or pierced imagery bands run around the exterior width of the pedestal base.

Form: Flaring pedestal-based dishes with outflared everted rims with rounded lips. The dishes have slightly-rounded bases and a slight interior medial angle. The high pedestal bases have outcurved sides, the majority of which are slightly convex. The pedestal base **base rims** range from exterior folded **base rims** with squared or rounded lips, to outflared everted **base rims** with rounded or squared lips and an exterior ridge at the **base rim** angle, and direct rims with squared and rounded lips.

Phase: Buk



Jars

Early Postclassic

Group Name: **Lamanai Camp Group**

Description:

Principal Identifying Modes: (1) orange slip; (2) plain or incised and sometimes with appliqué-modelling*; (3) jars, one with lateral horizontal strap handles, with outcurved and vertical necks and flat or rounded bases.

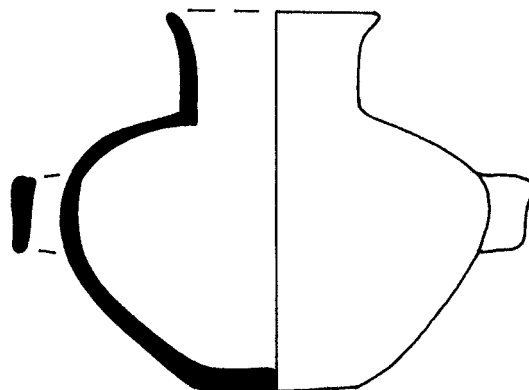
Surface Finish: The orange slip has a low sheen and is applied to the exterior of the vessels, the interior of the jar necks and sometimes to the exterior of the jar bases. The interior of the jars are unslipped.

Iconography: Alternating plain and incised imagery panels or incised imagery bands run around the shoulders of the jars. Some jars display appliqué-modelled and stuccoed bird heads attached to the jar shoulders.

Form: Outcurved and vertically-necked jars with rims ranging from direct rims with either rounded, bevelled-out, or pointed lips, to outflared everted rims with squared lips, to exterior thickened rims with rounded lips, and interior thickened rim with rounded lip. The jars have flat or rounded bases, and in one case an incurved base. Two jars have lateral horizontal strap handles.

Phase: Buk

*In one instance, a miniature jar forms an appliqué-modelled toad. The body of the toad doubles as the jar, which is supported by the toad's feet. The jar has an outcurved neck and small rounded vertical strap handles attached to the neck rim. Remnants of stuccoing and pigment are visible.



Bowls

Early Postclassic

Group Name: **Lamanai Camp Group**

Description:

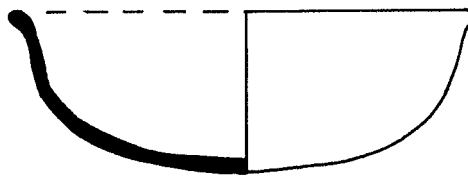
Principal Identifying Modes: (1) orange slip; (2) plain or incised; (3) in general bowls with outcurved or slightly incurved sides and slightly rounded bases, although the bowls show a great deal of variation, especially in rim and lip handling.

Surface Finish: The orange slip has a low sheen and is applied to the exterior and interior of the vessels.

Iconography: Alternating plain and incised imagery panels or incised imagery bands run below the exterior rim of the bowls.

Form: In general, bowls with outcurved or slightly-incurved sides. The bowls have slightly-rounded bases, some with a slight circular indentation. The rims of the incised bowls range from direct rims with squared and rounded lips, to exterior and interior thickened rims with rounded, squared, pointed or bevelled-in lips, and outflared everted rims with rounded lips; the rims of the bowls without incising range from exterior folded rims with squared lips, to interior thickened rims with pointed or bevelled-in lips, and direct rims with bevelled-out lips.

Phase: Buk



Group Name: -----

Description:

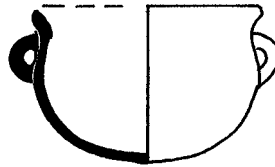
Principal Identifying Modes: (1) unslipped; (2) appliqué-modelled ridges which form an effigy face; (3) bowl with incurved sides and outcurved neck.

Surface Finish: Unslipped.

Iconography: Horizontal and vertical appliqué-modelled ridges form an effigy face on exterior body of bowl.

Form: Bowl with incurved sides and outcurved neck. The neck has a direct rim with squared lip and a slightly-rounded base. The bowl has rounded and horizontally attached strap handles.

Phase: Buk



*Late Postclassic***Group Name: New River Group****Description:**

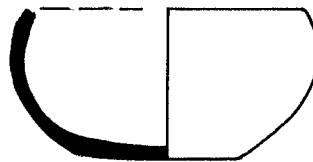
Principal Identifying Modes: (1) red slip; (2) plain or incised; (3) bowls with slightly incurving sides and slightly rounded bases.

Surface Finish: The red slip has a dull sheen and is applied to the exterior and interior of the bowls.

Iconography: Alternating plain and scroll incised panels run around the exterior rims of the bowls.

Form: The bowls have slightly-incurving sides with interior thickened rims with bevelled-in lips, if incised, and rounded lips if plain. The bowls have slightly incurved bases.

Phase: Cib



Tripod bowls

Early Postclassic

Group Name: **Lamanai Camp Group**

Description:

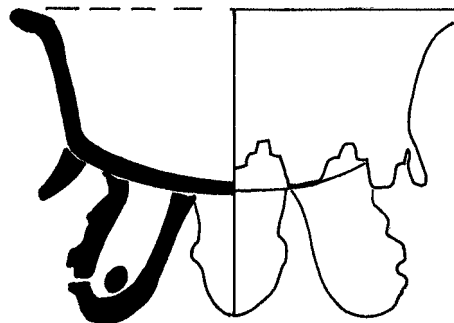
Principal Identifying Modes: (1) orange slip; (2) plain or incised bowls with plain or appliqué-modelled effigy and animal feet; (3) tripod bowls with outcurved or slightly-incurved sides with or without segmented basal flanges and splayed plain or appliqué-modelled feet.

Surface Finish: The orange slip has a low sheen and is applied to the exterior and interior of the tripod bowls.

Iconography: Incised imagery bands run around the exterior rims or the entire exterior width of the tripod bowls. Incision lines follow the contour lines of the segmented basal flanges. The tripod bowl feet are often appliqué-modelled as animal and effigy figures.

Form: Tripod bowls with or without segmented basal flanges. The bowls of the tripod bowls have outcurved sides with outflared everted rims with rounded lips. The bowls have slightly-rounded bases sometimes with a basal angle. One tripod bowl has incurved sides with outflared neck with direct rim with rounded lip and a rounded base, while another plain tripod bowl has slightly-incurved sides with direct rim with rounded lip. The plain tripod bowls have rounded bases. The tripod bowl feet are splayed hollow ovoid feet, each foot usually containing a clay bead, and often represent appliqué-modelled effigy or animal figures.

Phase: Buk



Tripod dishes

Early Postclassic

Group Name: **Lamanai Camp Group**

Description:

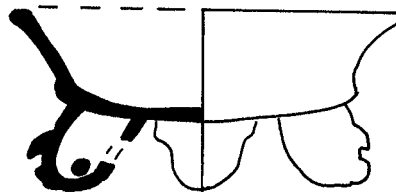
Principal Identifying Modes: (1) orange slip; (2) plain or incised dishes with plain or modelled effigy and animal feet; (3) tripod dishes with outcurved or slightly-incurved sides with or without segmented basal flanges and splayed plain or appliqué-modelled feet.

Surface Finish: The orange slip has a low sheen and is applied to the exterior and interior of the tripod dishes.

Iconography: Incised imagery bands run around the exterior rims or the entire exterior width of the tripod dishes. Incision lines follow the contour lines of the segmented basal flanges. The tripod dish feet are often modelled as effigy or animal forms.

Form: Tripod dishes with or without segmented basal flanges. The dishes' sides range from outcurved to incurved and flared. The dish rims range from outflared everted rims with rounded, pointed, or squared lips, to interior thickened rims with rounded or pointed lips, and direct rims with rounded, squared, pointed or bevelled-out lips. The dishes have slightly rounded bases sometimes with a basal angle. The tripod dish feet vary between splayed hollow ovoid, oven and bulbous feet, each foot usually containing a clay bead, and, in one instance, having splayed solid ovoid feet. The feet often represent appliqué-modelled effigy or animal forms.

Phase: Buk



*Late Postclassic***Group Name: New River Group****Description:**

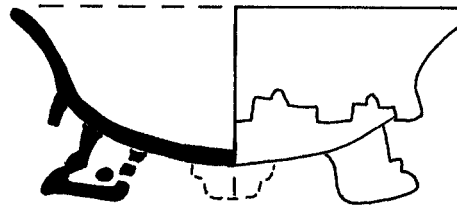
Principal Identifying Modes: (1) red slip; (2) plain or incised dishes with plain or appliqué-modelled effigy and bird feet; (3) tripod dishes with outcurved sides with or without segmented basal flanges and splayed plain or appliqué-modelled feet.

Surface Finish: The red slip has a dull sheen and is applied to the exterior and interior of the tripod dishes and some of their bases. Some of the appliqué-modelled feet show evidence of stuccoing.

Iconography: Scroll-incised panels separated by plain narrow panels or incised imagery bands run around the exterior rims of the tripod dishes. Incision lines follow the contour lines of the segmented basal flanges. The tripod dish feet often form appliqué-modelled effigy or animal figures.

Form: Tripod dishes with or without segmented basal flanges. The dishes have outcurved sides with direct rims with rounded lips. The dishes have slightly-rounded bases with a basal angle. The tripod dish feet range between splayed hollow oven and ovoid effigy or plain feet, each foot usually containing a clay bead. The feet often represent modelled effigy or animal figures.

Phase: Cib



Group Name: **Gatah ceramics (New River Group)**

Description:

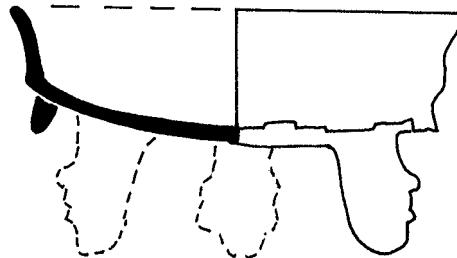
Principal Identifying Modes: (1) red-washed slip; (2) plain bowls with appliqué-modelled effigy feet; (3) tripod bowls with segmented basal flanges and appliqué-modelled effigy head feet.

Surface Finish: The red wash is dull and is applied to the exterior and interior of the tripod bowls.

Iconography: The tripod bowl feet form appliqué-modelled effigy heads.

Form: Tripod bowls with segmented basal flanges. The bowls have outcurved sides with interior thickened rims, or, in one case, a direct rim with rounded lip. The bowls have slightly-rounded bases, usually with a basal angle. The tripod bowl feet are splayed hollow oven or ovoid feet and represent appliqué-modelled effigy heads.

Phase: Gatah, potentially Late Postclassic, part of a sub-complex (Ball 1977a:3; Gifford 1976:11-12) and part of the late facet (Gifford 1976:46, Fig. 8) of the Cib phase (see Chapter 7).



Grater bowls

Early Postclassic

Group name: **Lamanai Camp Group**

Description:

Principal Identifying Modes: (1) orange slip; (2) interior incised dishes; (3) tripod dishes with slightly-incurved sides and splayed hollow feet.

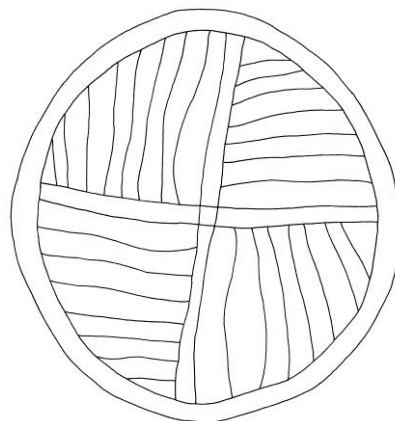
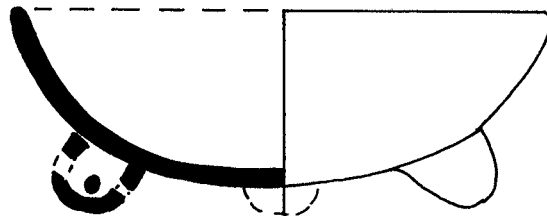
Surface Finish: The orange slip has a low sheen and is applied to the exterior and interior of the tripod dishes and the exterior of their feet.

Iconography: Incision appears contained within a circular border-frame on the interior base of the tripod dish.

Form: Tripod dishes with slightly-incurved sides with direct rims with squared, rounded, pointed, or bevelled-out lips, or, in one case, with a slightly interior thickened rim with rounded lip. The dishes have slightly-rounded bases. The tripod dishes have splayed hollow bulbous, ovoid or oven feet, containing individual clay beads. Feet display varying combinations of opposing lateral circular perforations or vertical slits, and ventral and dorsal circular perforations.

Function: Food grater bowls

Phase: Buk



[line drawing of interior incision]

*Late Postclassic***Group Name: New River Group**

Description:

Principal Identifying Modes: (1) red slip; (2) interior incised dishes; (3) tripod dishes with incurved sides and oven feet.

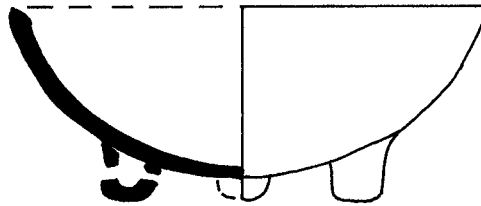
Surface Finish: The red slip has a dull sheen and is applied to the exterior and interior of the tripod dishes and the exterior of their feet.

Iconography: The interior base of the tripod dish displays incision contained within a circular border-frame.

Form: Tripod dishes with incurved sides with direct or interior thickened rims with rounded lips. The dishes have rounded bases. The tripod dish feet are slightly splayed hollow oven feet, not containing individual clay beads.

Function: Food grater bowl

Phase: Cib



Tetrapod bowls

Early Postclassic

Group Name: **Lamanai Camp Group**

Description:

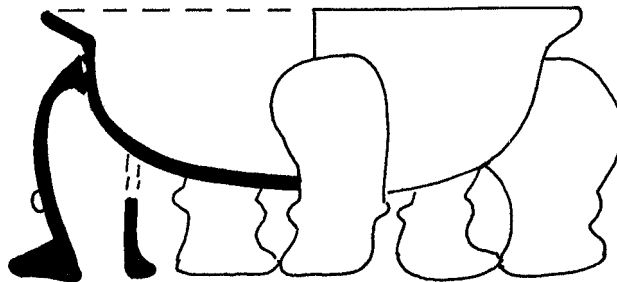
Principal Identifying Modes: (1) orange slip; (2) incised with feet modelled as animal or humanoid legs and eroded appliqué-modelled attachment, perhaps effigy head; (3) tetrapod bowl with modelled feet.

Surface Finish: The orange slip has a low sheen and is applied to the exterior and interior of the tetrapod bowl and exterior of its feet.

Iconography: Concentric circles are incised around the exterior bowl of the tetrapod vessel. The tetrapod bowl feet double as modelled animal or humanoid legs, bent at the knee, and the remnants of an appliqué-modelled attachment, perhaps an effigy head, is centrally-attached to the body of the bowl between two of the feet. One foot is missing; however, all feet appear to point in the same direction.

Form: Tetrapod bowl with incurving sides and outflared neck with direct rim with rounded lip. The bowl has a rounded base and is supported by four modelled humanoid or animal feet, which resemble pawed legs bent at the knee.

Phase: Buk



Group Name: Lamanai Camp Group**Description:**

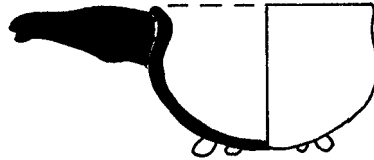
Principal Identifying Modes: (1) unslipped; (2) horizontal appliqué-modelled animal handle; (3) tetrapod bowl.

Surface Finish: Unslipped.

Iconography: Appliqué-modelled long and solid horizontal animal handle.

Form: The tetrapod bowl has incurved sides and an outcurved neck. The neck has a direct rim with rounded lip. A solid, long and horizontal animal appliqué-modelled handle is attached to the rim and upper body of the bowl. The base of the bowl is slightly rounded. The tetrapod feet consist of four small, solid and rounded nubbin feet.

Phase: Buk



Tetrapod dishes

Early Postclassic

Group Name: **Lamanai Camp Group**

Description:

Principal Identifying Modes: (1) orange slip; (2) incised, with feet modelled as animal or humanoid legs, and appliqué-modelled effigy heads; (3) tetrapod dishes with outcurved sides, segmented basal flanges and modelled feet and head.

Surface Finish: The orange slip has a low sheen and is applied to the exterior and interior of the tetrapod dishes and feet. The appliqué-modelled head and feet show remnants of stuccoing and blue pigment on one vessel. The undersides of the dishes are unslipped.

Iconography: Incised imagery bands run around the entire exterior width of the tetrapod dishes. Incision lines follow the contour lines of the segmented basal flanges. The tetrapod dish feet double as modelled animal or humanoid legs and appliqué-modelled effigy heads are centrally attached to the exterior body of the dishes between the two front feet.

Form: Tetrapod dishes with segmented basal flanges. The dishes have outcurved sides with outflared everted rims with rounded lips. The dishes have slightly rounded bases and basal angles. Two of the four feet are cylindrical and represent the two truncated front legs of an animal, while the other two double as the creature's bent hind legs, although the hind legs appear humanoid since their knees bend inwards.

Phase: Buk

[Figs. 6.17 and 26, Chapter 6]

Pedestal-based jars (small, with long neck)

Early Postclassic

Group Name: **Lamanai Camp Group**

Description:

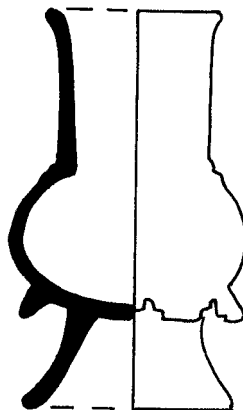
Principal Identifying Modes: (1) orange slip or unslipped; (2) incision or appliqué-modelled effigy face attachments; (3) jars with high pedestal bases, one with a segmented basal flange.

Surface Finish: The orange slip has a low sheen, and in one instance (LA 95/4; Catalogue Fig. 3.1.10), and is applied to the exterior of the vessel and the interior of the jar rim. The interior of the jar is unslipped as is its underside, obscured from view by the pedestal base. The pedestal base interior is unslipped.

Iconography: Three consecutive and horizontally-arranged incised imagery bands run around the exterior rim of the jar neck of one of the vessels. Incision lines follow the contour lines of its segmented basal flange. An appliqué-modelled effigy face is attached to the neck of the second jar neck.

Form: Pedestal-based jars, one with a segmented basal flange. The jar with the segmented basal flange has an outcurved neck with direct rim and pointed lip. It has a rounded base and its high pedestal base has outcurved sides with interior thickened rim and rounded lip; the other jar has a vertical neck with direct rim and pointed lip. The base of this jar is slightly-rounded and its high pedestal base has outcurved sides with a direct **base rim** and rounded lip.

Phase: Buk



Group Name: **Silho ('X') Fine Orange Incised** (A. Andrews, personal communication 2006; Rands et al. 1982:331-332)

Description:

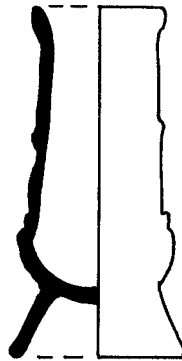
Principal Identifying Modes: (1) unslipped; (2) incision; (3) jar with high pedestal base.

Surface Finish: Unslipped.

Iconography: Two consecutive and horizontally-arranged incised imagery bands run around the exterior rim of the jar neck.

Form: Pedestal-based jar with outcurved neck with slightly exterior-folded rim with squared lip. The jar has a slightly-rounded base. The high pedestal base has flared sides with a direct **base rim** with squared lip.

Phase: Buk



Pedestal-based vases

Early Postclassic

Group Name: **Lamanai Camp Group**

Description:

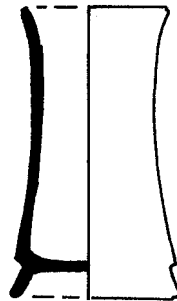
Principal Identifying Modes: (1) orange slip; (2) incised; (3) pedestal-based vases.

Surface Finish: The orange slip has a low sheen and is applied to the exterior of the vase and pedestal base. The interior of the vessel and its pedestal base are unslipped.

Iconography: Incised imagery bands run around the exterior widths of the vases.

Form: Pedestal-based vases. The vases have slightly-outcurved sides with an interior thickened rim with rounded lip. The vases have an incurved base. The low pedestal bases display flared sides with a direct **base rim** with squared lip.

Phase: Buk



Plates

Late Postclassic

Group Name: **New River Group**

Description:

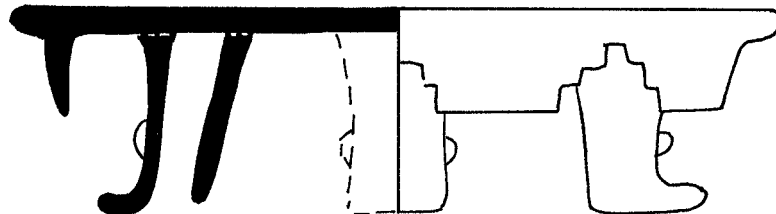
Principal Identifying Modes: (1) red slip; (2) incision; (3) flat plates with segmented flange, one with tripod-feet.

Surface Finish: The red slip has a dull sheen and is applied to the exterior of the plates and their segmented flanges. The undersides of the plates and interior of the segmented flanges are unslipped.

Iconography: Incision lines follow the contour lines of the segmented flanges. Each flange segment contains an incised scroll pendant from top. The tripod feet are modelled to resemble slippered feet. Each foot wears an anklet of four appliqué discs.

Form: Plates with no sides (i.e. flat) but with a segmented flange which might double as the support of one of the plates where no feet are present; however, perhaps these are just missing. The hollow tripod feet are columnar and terminate in a slightly upturned point.

Phase: Cib



Single-barrelled drums

Early Postclassic

Group Name: **Lamanai Camp Group**

Description:

Principal Identifying Modes: (1) orange slip; (2) plain or incised, in one instance with appliqué-modelling; (3) hollow jars with long necks and pedestal bases.

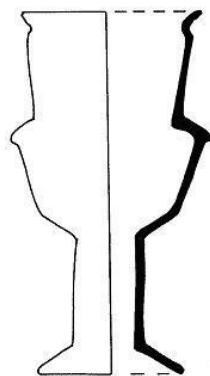
Surface Finish: The orange slip has a low sheen and is applied to the exterior of the entire vessel, i.e. the jars and pedestal bases and is also applied to the interior of the neck rims. The interiors of the vessels are unslipped.

Iconography: Incised panels are centrally-placed on the jar body. The panels are laterally-framed by more imagery bands. In one instance, an appliqué-modelled bird head is attached to the centre of a round incised panel. Incised imagery bands run around the entire width of the interior of the outflared everted **base rims**.

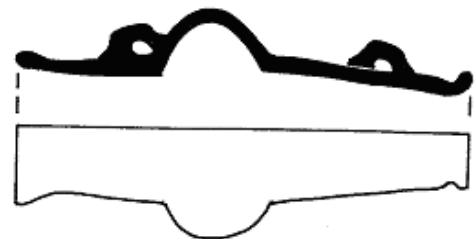
Form: Hollow pedestal-based jars with long and narrow pedestal bases with outflared everted rims with rounded or squared lips (a). The sides of the jar pedestal bases are slightly incurved or vertical and are sometimes slightly-convex. The necks have outflared or outcurved sides, sometimes slightly-convex, with direct rims with rounded lips or outflared everted rims with pointed lips. Two pierced appendages are attached on the same side of one vessel, to the jar neck and top of the pedestal base (b). Both appendages have a circular perforation which probably held material to suspend the drum from the neck of an individual during use. The drum would have lain horizontally across the player's chest, within easy reach for beating.

Function: Drums

Phase: Buk



a



b

Frying-pan censers

Early Postclassic

Group Name: **Lamanai Camp Group**

Description:

Principal Identifying Modes: (1) unslipped; (2) plain or appliqué-modelled animal extension ('handles'); (3) upturned dish with attached elongated hollow tubes or extensions ('handles').

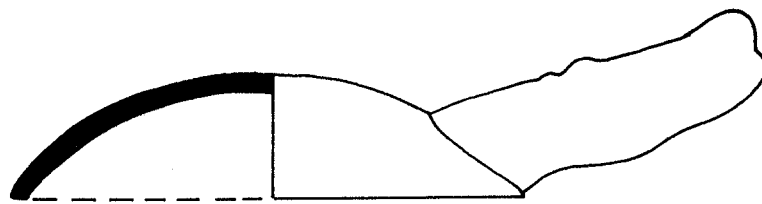
Surface Finish: Unslipped.

Iconography: Long extensions modelled as animals are attached to the upturned dishes.

Form: Upturned dishes with incurved sides with direct rims and squared lips. Either an elongated hollow tube with straight neck and direct rim with slightly-rounded lip is attached to the exterior rim of the upturned dish, or the tube is an elongated hollow ovoid appliqué-modelled animal extension. The angle at which the tubes or extensions are attached to the upturned dishes varies. An opening into the upturned dish is created where the tube/extension is attached to the dish. This opening would have permitted smoke, from burning incense placed under the upturned dish, to travel through the hollow tube/extension and escape through holes strategically placed along its length. The holes are arranged along the tube to complement the appliqué-modelled animal imagery (e.g., as nostril holes), the escaping smoke most likely creating a striking visual effect.

Function: Censers

Phase: Buk



Chen Mul Modeled-style effigy censers

Late Postclassic

Group Name: ----

Type: Chen Mul Modeled-style

Description:

Principal Identifying Modes: (1) unslipped; (2) appliqué-modelled effigy figures; (3) pedestal-based bowls.

Surface Finish: The vessels are unslipped.

Iconography: Appliqué-modelled effigy figures are attached along the bowls and pedestal bases.

Form: Pedestal-based bowls with appliqué-modelled effigy figures. The bowls have slightly-incurved sides with direct rims with slightly-rounded lips. The bowl bases are slightly-rounded. The pedestal bases have flared sides with direct **base rims** with squared lips or exterior folded **base rims** with squared or rounded lips.

Function: Censers

Phase: Cib

[Fig. 4.4c, Chapter 4]

Tripod bowls or jars*Early Postclassic*

Group Name: **Lamanai Camp Group**

Description:

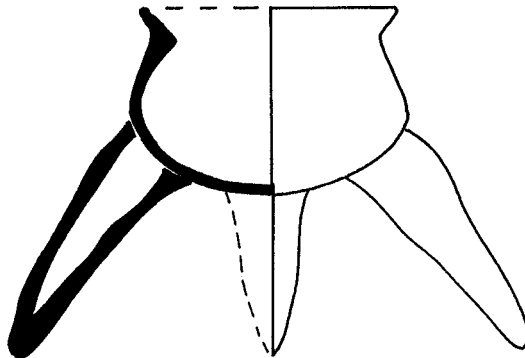
Principal Identifying Modes: (1) unslipped; (2) pierced and appliqué-modelled bird head feet; (3) tripod bowl with incurved sides and outflared neck.

Surface Finish: Unslipped, but remnants of stucco are visible on the bowl and feet.

Iconography: A pierced and incised imagery band runs around the width of the bowl. The tripod bowl feet form appliqué-modelled bird heads with long beaks.

Form: Tripod bowl with incurved sides and outflared neck. The neck has a direct rim with slightly-bevelled-in lip. The bowl has a slightly-rounded base and a slight basal angle. The long tripod bowl feet are splayed hollow conical feet and form appliqué-modelled bird heads with long beaks.

Phase: Buk



Terminal Postclassic/Early Historic

Group Name: -----

Description:

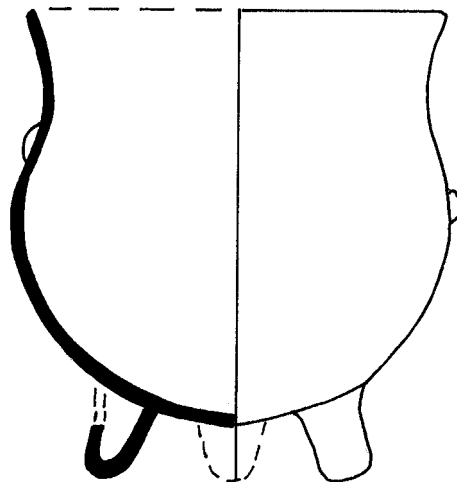
Principal Identifying Modes: (1) unslipped; (2) plain with appliqué-modelled attachments; (3) tripod bowls with incurved sides and outcurved neck.

Surface Finish: Unslipped.

Iconography: Rows of appliqué discs or oval indentations run around the exterior of the vessel necks. Appliqué concentric discs are attached to the bowl, in one instance supplemented by appliqué-modelled spikes.

Form: Tripod bowls with incurved sides and outcurved necks. The necks have direct rims with slightly-rounded lips. The bowls have rounded bases. The tripod bowl feet are splayed hollow ovoid feet with large ventral slits or splayed solid conical feet with a circular perforation at the top right hand side.

Phase: Yglesias



Effigy containers and vases

Terminal Postclassic/Early Historic

Group Name: **Indian Church modelled**

Description:

Principal Identifying Modes: (1) remnants of stuccoing, pigment and red slip; (2) appliqué-modelled animals, zoomorphic and anthropomorphic figures; (3) hollow appliqué-modelled containers, some lidded, or vases.

Surface Finish: The appliqué-modelled animals, zoomorphic and anthropomorphic figures may show remnants of stuccoing, pigment and red slip.

Iconography: Appliqué-modelled animal, zoomorphic and anthropomorphic figures.

Form: Appliqué-modelled animal, zoomorphic and anthropomorphic figure containers (some with lids) or vases. The vessel openings of the containers are either placed on the vessel tops, which form the creatures' backs, or, in two instances, appear on the upper back of a seated jaguar and mountain lion, and in one instance on the top of a humanoid figure's headwear (see Figure below).

Phase: Yglesias



Appliqué-modelled whistles

Early Postclassic

Group Name: **Lamanai Camp Group**

Description:

Principal Identifying Modes: (1) red slip; (2) appliqué-modelled animals and figures; (3) whistles.

Surface Finish: The whistles show remnants of red slip.

Iconography: Appliqué-modelled animal and effigy figures.

Form: Appliqué-modelled whistles of animal and effigy figures.

Function: Whistles

Phase: Buk

[Catalogue Figs. 3.14.1-2]

Pedestal-based bowls

Terminal Postclassic/Early Historic

Group Name: -----

Description:

Principal Identifying Modes: (1) sometimes red slip; (2) plain vases with appliqué-modelled attachments; (3) pedestal-based bowl.

Surface Finish: Remnants of red slip are visible on the appliqué-modelled face of one of the two vessels.

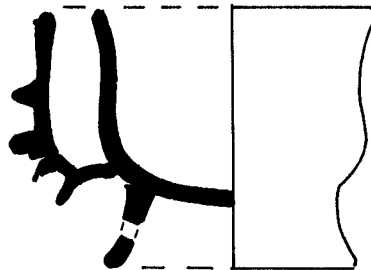
Iconography: Hollow appliqué-modelled effigy or human faces are attached to the sides of the vases. One vase has one row of appliqué discs running around the top of the pedestal base and another around the vase body at mid-height.

Form: Pedestal-based vases. The vases have outcurved or outflared sides with direct rims with squared lips. The vases have slightly-rounded bases. The pedestal bases have outcurved sides with direct **base rims** with rounded lips.

The pedestal bases are pierced.

Function: Censers

Phase: Yglesias



Group Name: -----

Description:

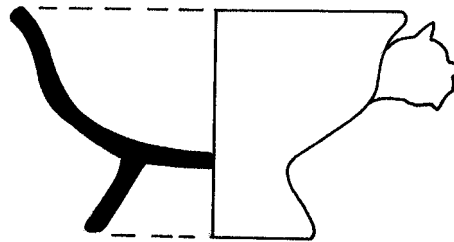
Principal Identifying Modes: (1) plain bowl with appliqué-modelled attachment; (2) pedestal-based bowl.

Surface Finish: --

Iconography: Appliqué-modelled head and forearms of animal attached above the medial flange to the side of the bowl.

Form: Pedestal-based bowl. The bowl has outcurved sides with a direct rim with rounded lip. The bowl has a slightly rounded base, an interior medial angle and exterior segmented medial flange. The pedestal base has flared sides with a direct **base rim** with rounded lip.

Phase: Yglesias



Modelled pedestal-based jar

Late Postclassic

Group Name: **Gatah ceramics (New River Group)**

Description:

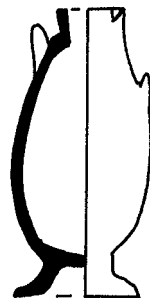
Principal Identifying Modes: (1) red wash/slip or unslipped(?); (2) appliqué-modelled jar; (3) pedestal-based jar.

Surface Finish: The red wash/slip has a dull sheen and is applied to the exterior of the jar, pedestal base and the interior of the rim.

Iconography: The pedestal-based jar forms an appliqué-modelled maize husk (see Figure below; Catalogue Fig. 5.2.1).

Form: The pedestal-based jar has a vertical neck with direct rim with squared lip. The base of the jar is slightly-rounded with an exterior ridge at the neck angle. The pedestal base has outcurved sides with outflared everted **base rim** with rounded lip.

Phase: Gatah, potentially Late Postclassic, part of a sub-complex (Ball 1977a:3; Gifford 1976:11-12) and part of the late facet (Gifford 1976:46, Fig. 8) of the Cib phase (see Chapter 7).



Part 2: Ceramic terms

- Incision:** Imagery produced wholly or predominantly by carving with a sharp implement onto the wet clay surfaces of vessels (Catalogue Figs. 3.3.1-3.3.39). The imagery is made permanent during firing. Incised vessels may reveal smaller amounts (than the incised areas) of excision that define the 'incised' motifs (see below; e.g., Catalogue Fig. 3.1.8g).
- Excision:** Imagery produced by excision with a sharp implement onto the wet clay surfaces of vessels. Vessels examined reveal excision always accompanying incised imagery, with small excised areas surrounding the main incised motifs (Catalogue Figs. 3.1.8g, 3.2.5b, 4.3.9). The excised areas are external to the peripheral incisions. Vessels will be referred to as 'incised' as this is the technique that predominates and because it represents the term used in the literature (e.g., Graham 1987a:82, 88). The imagery is made permanent during firing.
- Painting:** Pigment applied with brushes to the smooth surfaces of ceramics prior to or after firing (Catalogue Figs. 2.1.2-9).
- Modelling:** Anything shaped or formed using wet clay, usually for a three-dimensional effect and may also include incision, paint and stucco at Lamanai (Catalogue Figs. 3.1.3 and 11).
- Stuccoed:** Ceramics covered in a lime wash that is subsequently painted (Fig. 7.1.2).
- Open-work:** Motif shapes cut out of ceramic walls (Catalogue Figs. 3.2.2, 10 and 19). Lamanai open-work is usually outlined or accompanied by incision.
- Gouged:** Vessels that display less-pronounced forms than achieved through modelling, with scratched, scored, scraped, marked, or gashed vessels.

Appendix 3: Lamanai Terminal Classic ceramic data (Terclerp phase; ca. A.D. 800 - 1000)

Individual motifs

Table A3.1: Number of individual motifs

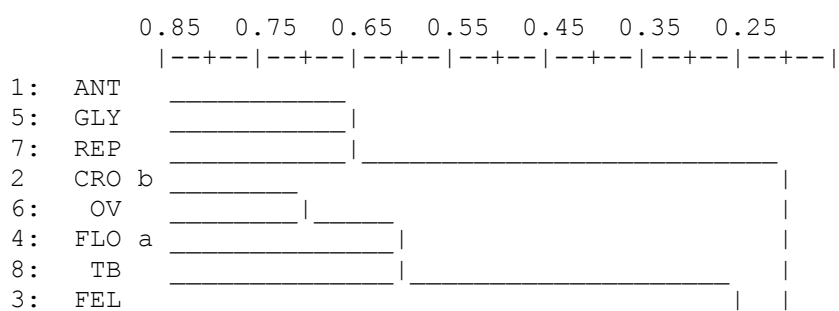
Motifs	Motif key	Number
Glyph	GLY	7
Oval	OV	7
Triangle band	TB	6
Cross _b	CRO b	5
Other motif	OM	5
Scroll _d	SCR d	3
Feline	FEL	3
Flower _a	FLO a	3
Anthropomorphic	ANT	2
Cross _a	CRO a	2
Reptile	REP	2
Organic	ORG	2
Cross-hatch	CRH	1
Intertwined band	IB	1
Feather	FEA	1

Motif combinations/substitutions

Table A3.2: Frequent occurrence/high similarity coefficients

Anthropomorphic	2	0	0	0	0.67	0	0.67	0
Cross b	0	5	0.25	0.60	0	0.71	0.20	0.60
Feline	0	1	3	0	0	0.25	0.20	0.29
Flower a	0	3	0	3	0	0.60	0	0.60
Glyph	2	0	0	0	3	0.20	0.65	0
Oval	0	5	2	3	1	7	0.20	0.63
Reptile	2	1	1	0	2	1	3	0
Triangle band	0	4	2	3	0	5	0	6
	+-----+-----+-----+-----+-----+-----+-----+-----							
	Anthropomorphic	Cross b	Feline	Flower a	Glyph	Oval	Reptile	Triangle band

The **bold-script** diagonal shows the total count of each motif. To the left of this diagonal are the counts of combination between the isolated motifs; to the right are the similarity coefficients of motif combinations.

Table A3.3: Single linkage dendrogramTable A3.4: Most-significant similarity coefficients

Motif combinations	Similarity coefficient (S_J)
Oval/Cross _b	0.71
Reptile/Anthropomorphic	0.67
Glyph/Anthropomorphic	0.67
Reptile/Glyph	0.65
Oval/Triangle band	0.63
Cross _b /Flower _a	0.60
Cross _b /Triangle band	0.60
Oval/Flower _a	0.60
Triangle band/Flower _a	0.60

Jaccard's similarity coefficient (S_J) for the most-significant Terclerp phase motif combinations.

Motif combinations/substitutions related to vessels (24 vessels/sherds)

Table A3.5: Terclerp phase motifs related to vessel forms and motif and vessel surface treatment

<p>Forms associated with motifs</p>	<p>Only six vessel forms:</p>	<p><i>Form:</i> Predominantly dishes (11) Cylinder vases (5) Bowls (4) Jars (2) Tetrapod bowl, tripod vase (1 each)</p>	<p><i>Imagery:</i> All but one on interior. All on exteriors. All on exterior rims. Both on exterior neck rims, one also on body. Both on exterior rims, tripod vase also on feet.</p>
<p>Motif Treatment</p>	<p>All but two dishes display motifs that occur in bands, i.e. there are few isolated motifs.</p>		
<p>Surface Treatment associated with motifs</p>	<p>Colour: Polychrome, orange, and black (half the cylinder vases are black). Slip: 22 are slipped, 12 are painted. Paint: Dishes are usually slipped then painted. Handling: All cylinder vases are incised, as are most bowls. Only one tripod vase is also modelled and one bowl is also gouged. State: Most (18) were recovered complete-reassembled/whole or fragmentary, 6 were sherds.</p>		
<p>Individual Motifs</p>	<p><i>Glyph</i> (7) Most frequent motif, always in bands, often on cylinder vases. Molded-carved vessels. <i>Oval</i> (7) All dishes and 1 bowl. <i>Cross_{a/b}</i> (7) All dishes and 1 cylinder vase. Always in bands. <i>Scroll_d</i> (3) All Lamanai polychrome dishes. <i>Feline</i> (3) All Lamanai polychrome dishes. <i>Triangle band</i> (6) All Lamanai polychrome dishes. <i>Flower_a</i> (3) All Lamanai polychrome dishes. <i>Reptile</i> (3) 2 Molded-carved vessels: both orange, slipped, incised, and one is modelled (tripod vase) and 1 polychrome dish; never isolated, but in bands. <i>Anthropomorphic</i> (2) Molded-carved vessels. <i>Organic</i> (2) Low occurrence, only on fire-clouded dishes; only isolated motif. <i>Cross-hatch, Feather, Intertwined band</i> (1 each) <i>Horizontal band</i> (17) Predominantly dishes, and all vessel forms. <i>Vertical band</i> (11) Predominantly dishes, and all but 2 vessel forms.</p>		

Motif Combinations	TB/OV	(5)	Identical Lamanai polychrome dishes.
	TB/CRO _b	(4)	Identical Lamanai polychrome dishes.
	FLO _a /CRO/OV/TB	(3/4)	Identical Lamanai polychrome dishes (3, perhaps 4, as interior centre of fourth is eroded).
	FEL/TB	(2)	Identical Lamanai polychrome dishes.
	ANT/GLY/REP	(2)	Both Molded-carved vessels.
	SCR _d /CRO	(2)	Both Lamanai polychrome dishes.

Archaeological contexts – spatial, temporal and depositional variation and combinations thereof

Table A3.6: Terclerp phase ceramics related to structures, motifs/motif combinations and burial/cache contents

Structure	Burial/ cache no.	Lot no.	Vessel forms	Motifs/motif combinations	Burial/cache contents
N9-33					
Burial	3	LA 304/1	Bowl	CRH/OM	
N10-2					
Core		LA 115/33	Bowl	ANT/REP/GLY	
Collapse		LA 62/	Cylinder vase	GLY/OM	
N10-4					
Burial	4	LA 70/2	Bowl	OM	Heirloom or relic in Cib burial phase, or disinterment.
N10-12, 1st					
Cache	2	LA 1697/1	Dish	FLO _a /TB/CRO _b /OV	Cache along primary axis. Cache N10-12/2 was more to the east than Cache N10-12/8. Three obsidian blades and ash/charcoal (<i>Pinus sp.</i> , probably <i>Pinus caribea</i> ; Graham, personal communication 2007).
		LA 1697/2	Dish	FLO _a /TB/CRO _b /OV	
		LA 1697/3	Dish	TB/CRO _b /OV	
		LA 1697/4	Dish	FLO _a /TB/CRO _b /OV	
	8	LA 1894/7	Dish	FEL/TB/OV/OM	Cache along primary axis. Cache N10-12/8 was more to the west than Cache N10-12/2. Also 4 globular red-rimmed small jars,
		LA 1894/8	Dish	FEL/TB/OM	

				2 ceramic discs about 8-10 cm in diameter, 1 of the jars was filled with carbon (<i>Pinus sp.</i> , probably <i>Pinus caribea</i> ; Graham personal communication 2007).
N10-15				
Cache	8	LA 694/7	Dish	FEL/REP/SCRb/CROb/OV
				Polychrome dish (LA 694/7) and eight plain dishes (LA 694/1-6, 8-9) to total 9 dishes, obsidian blades, large number of eccentric flints (22+: crescent [9+], anthropomorphic form [3+], serrated disc hooked with a serrated crescent), jade, bone pin, hammerstone, chert flake blades, organic objects (decayed). <u>Top group of cache materials:</u> Dishes /1 and /2 placed lip-to-lip, at north side of cache, placed in partly separate niche higher than remainder (see below), large obsidian flake blades (17 in total) within dish /2. <u>Lower group of cache materials:</u> Dishes /3 and /4 placed lip-to-lip in centre of lower group of materials, dish /3 filled with organic decay product, obsidian blade /19, jade bead /20, 2 jade discs /21-22 and bone pin(?) /23; dish /5, on edge at east side of /3; dish /6, on edge at southwest corner of /3; polychrome dish /7 inverted at west beside /3 and /4 and placed above dishes /8 and /9 placed lip-to-lip, dish /9 contained 5 obsidian blades; flint /37 (bipoint with centre crescent) at edge of lip-to-lip dishes /8 and /9 (south side), flint /38 (serrated crescent) hooked with flint /41 (serrated disc) north of /37, flint /42 (large crescent with centre projection) north of /41, under end of flint /36 (beneath chert flake blades /40 set in a mass of probably decayed organic product), hammerstone associated with flints /37-38, above /flint flake objects /43-51 (total 9) west of /37-39; flint /11 vertical below /1 and /2, beside /3 and /4.
Fill of pit		LA 656/5	Dish	ORG
Core		LA 630/6	Bowl	CRH
Surface		LA 661/1	Tripod vase	ANT/REP/FEA/GLY

N10-18					
Cache	3	LA 625/2	Dish	ORG	Obsidian blades and lancet blades (43) placed under dish and east and west of dish.
Midden		LA 515/4	Cylinder vase	GLY	
N10-27					
Midden		LA 718/ LA 1433	Dish Cylinder vase	SCRd/CROa GLY	
N10-66					
Burial	3	LA 658/1	Cylinder vase	GLY	
N11-5					
Midden		LA 812/1	Bowl	OV/GLY	
P8-102					
Burial	15	LA 508/7	Cylinder vase	CROa	Mature male adult. Fragments of vessel broken and scattered near feet and over left knee, mussel shell ornaments, shell ear plug.
P8-2					
Chultun	Chamber 1	LA 496/12	Jar	RE	
		LA 496/Temp1	Jar	TB	
		LA 496/Temp5	Dish	SCRd	

Appendix 4: Lamanai Early Postclassic Period ceramic data (Buk phase; ca. A.D. 1100 - 1250)

Burial/cache sample

Individual motifs

Table A4.1: Number of individual motifs

Motifs	Motif key	Total occurrences
Scrolla	SCR a	41
Flower _b	FLO b	32
Oval	OV	29
Reptile	REP*	27
Anthropomorphic	ANT ⁺	23
Feather	FEA	23
T-shaped band	TSB	21
Cross-hatch	CRH	21
Triangle band	TB	15
Intertwined band	IB	14
Cross _c	CRO c	9
Bird	BIR	7
Cross _b	CRO b	6
Arc band	AB	5
Animal misc.	ANI	4
Flower _a	FLO a	3
Flower _c	FLO c	3
Triangle	TRI	3
Rectangle band	RB	2
Feline	FEL	1
Scroll _b	SCR b	1

*REPs refers to reptiles displaying serpentine characteristics, REP_c to reptiles displaying crocodilian characteristics and REP_b to bicephalic reptiles. *ANT_c refers to anthropomorphs displaying *Chac* characteristics.

Motif combinations/substitutions

Table A4.2: Frequent occurrence/high similarity coefficients

Arc band	5	0	0	0	0	0	0.15	0.15	0	0	0	0.15	0.15	0.15	0.19	0	0
Animal misc.	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.10
Anthropomorphic	0	0	16	0	0.25	0.10	0.25	0.25	0	0	0.20	0.26	0.25	0.25	0.20	0.10	0.24
Bird	0	0	0	6	0.15	0	0.15	0.15	0	0	0.19	0.15	0.15	0.15	0.10	0	0.15
Cross-hatch	0	0	5	1	20	0.10	0.25	0.25	0.15	0.10	0.20	0.25	0.25	0.30	0.20	0	0.20
Cross b	0	0	1	0	3	6	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0	0.10	0.13
Feather	2	0	6	1	6	2	23	0.35	0	0.10	0.20	0.35	0.36	0.35	0.20	0.13	0.20
Flower b	2	0	7	2	10	1	13	32	0	0	0.20	0.35	0.35	0.57	0.20	0	0.20
Flower a	0	0	0	0	2	1	0	0	3	0	0	0	0.15	0.15	0	0	0.15
Flower c	0	0	0	0	2	1	1	0	0	3	0.14	0.10	0.10	0.10	0.10	0	0.10
Intertwined band	0	0	1	3	2	1	3	3	0	2	13	0.20	0.20	0.20	0.23	0	0.12
Oval	1	0	9	1	7	2	13	14	0	1	3	27	0.25	0.40	0.20	0.10	0.20
Reptile	3	0	5	2	9	3	13	13	1	3	6	13	26	0.40	0.20	0	0.20
Scroll a	3	0	7	2	13	3	13	25	2	1	3	16	18	37	0.20	0	0.20
Triangle band	3	0	1	3	4	0	3	6	0	1	5	3	5	8	14	0	0
Triangle	0	0	1	0	0	1	3	0	0	0	0	1	0	0	0	3	0.10
T-shaped band	0	2	7	2	5	3	5	3	3	1	6	4	7	5	0	1	20
	Arc band	Animal misc.	Anthropomorphic	Bird	Cross-hatch	Cross b	Feather	Flower b	Flower a	Flower c	Intertwined band	Oval	Reptile	Scroll a	Triangle band	Triangle	T-shaped band

The **bold-script** diagonal shows the total count of each motif. To the left of this diagonal are the counts of combinations between isolated motifs; to the right are the Jaccard similarity coefficients of these combinations.

Table A4.3: Single linkage dendrogram

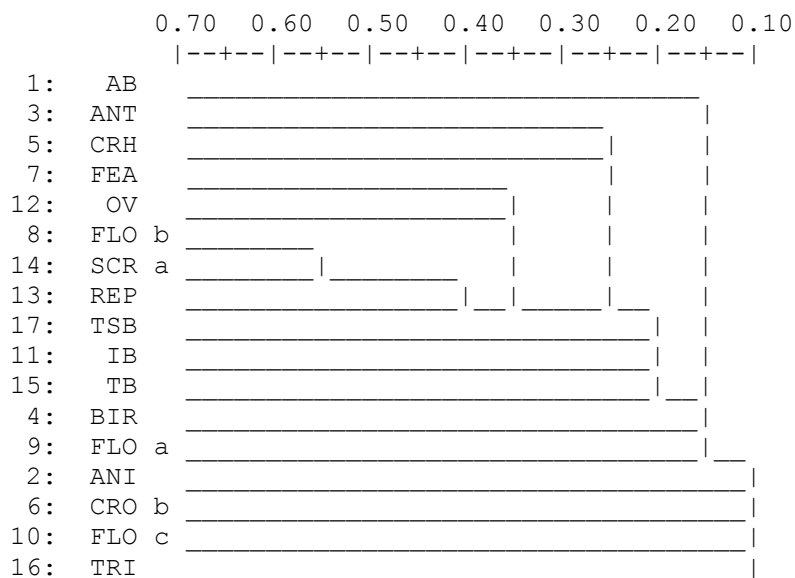


Table A4.4: Percentage association table

AB		0	0	0	0	0	8	6	0	0	0	3	11	8	21	0	0	
ANI		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	
ANT		0	0	0	25	16	26	21	0	0	7	33	19	18	7	33	35	
BIR		0	0	0	5	0	4	6	0	0	23	3	7	5	21	0	10	
CRH		0	0	31	16	50	26	31	66	66	15	25	34	35	28	0	25	
CRO b		0	0	6	0	15	8	3	33	33	7	7	11	8	0	33	15	
FEA		0	0	37	16	30	33	40	0	33	23	48	50	35	21	100	25	
FLO b		40	0	43	33	50	16	56	0	0	23	51	50	67	42	0	15	
FLO a		0	0	0	0	10	16	0	0	0	0	0	3	5	0	0	15	
FLO c		0	0	0	0	10	16	4	0	0	15	3	11	2	7	0	5	
IB		0	0	6	50	10	16	13	9	0	66	11	23	8	35	0	30	
OV		20	0	56	16	35	33	56	43	0	33	23	50	43	21	33	20	
REP		60	0	31	33	45	50	56	40	33	100	46	48	48	35	0	35	
SCR a		60	0	43	33	65	50	56	78	66	33	23	59	69	57	0	25	
TB		60	0	6	50	20	0	13	18	0	33	38	11	19	21	0	0	
TRI		0	0	6	0	0	16	13	0	0	0	0	3	0	0	0	5	
TSB		0	100	43	33	25	50	21	9	100	33	46	14	26	13	0	33	
+-----+																		
		A	A	A	B	C	C	F	F	F	F	I	O	R	S	T	T	T
		B	N	N	I	R	R	E	L	L	L	B	V	E	C	B	R	S
			I	T	R	H	O	A	O	O	O			P	R		I	B
							b		b	a	c				a			

Table A4.5: Most-significant similarity coefficients

Motif combinations	Similarity coefficient (S_j)
Flower _b /Scroll _a	0.57
Reptile/Scroll _a	0.40
Oval/Scroll _a	0.40
Reptile/Feather	0.36
Reptile/Flower _b	0.35
Feather/Scroll _a	0.35
Feather/Flower _b	0.35
Feather/Oval	0.35
Oval/Flower _b	0.35
Reptile/Oval	0.35
Scroll _a /Cross-hatch	0.30

Jaccard's similarity coefficient (S_j) for the most-significant Early Postclassic burial/cache sample motif combinations.

Midden sample

Sample

After removal of motifs occurring isolated or combined only with either horizontal and/or vertical bands (animal miscellaneous, anthropomorphic, bird, scroll_{b/c} and T-shaped band), 198 examples remained, which were scored on 15 isolated motifs (variables).

Individual motifs

Table A4.6: Number of individual motifs

Motifs	Motif key	Total occurrences
Triangle band	TB	151
Scroll _a	SCR a	132
Feather	FEA	109
Flower _b	FLO b	74
Oval	OV	68
Intertwined band	IB	50
Triangle	TRI	29
Cross-hatch	CRH	27
Arc band	AB	22
Reptile	REP	17
Rectangle band	RB	12
Cross _b	CRO b	15
Arch	ARC	5
Flower _a	FLO a	3
Flower _c	FLO c	3
T-shaped band	TSB	3
Anthropomorph	ANT	2
Animal misc.	ANI	1
Bird	BIR	1
Scroll _b	SCR b	1
Scroll _c	SCR c	1

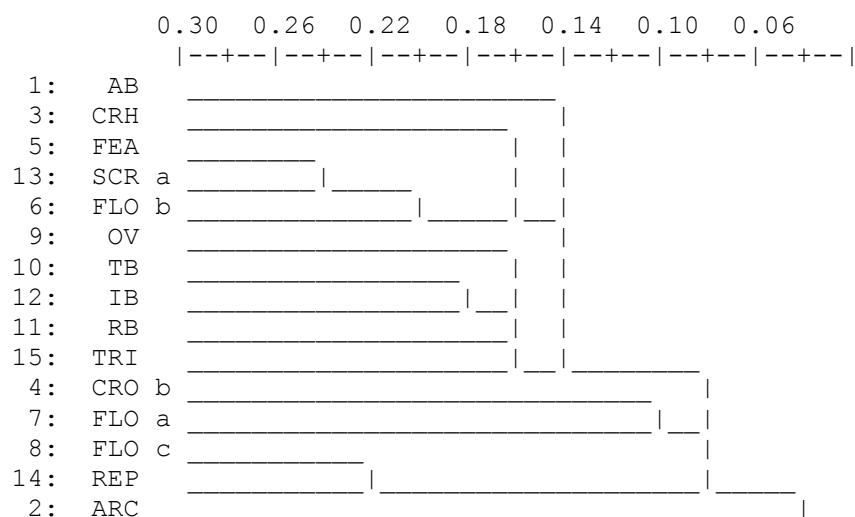
Motif combinations/substitutions

Table A4.7: Frequent occurrence/high similarity coefficients

Arc band	18	0	0	0.08	0	0	0	0	0.14	0.14	0	0.16	0.14	0	0.14
Arch	0	3	0	0	0.05	0.05	0	0	0	0	0	0	0.05	0	0
Cross-hatch	0	0	17	0	0.16	0.16	0	0	0.14	0.14	0	0	0.16	0.08	0.14
Cross b	2	0	0	8	0.08	0.08	0.10	0	0.09	0.08	0	0	0.08	0	0
Feather	0	1	11	2	62	<u>0.20</u>	0	0.08	0.15	0.14	0.14	0	<u>0.26</u>	0.08	0.14
Flower b	0	2	3	2	11	42	0	0	0.14	0.14	0.14	0.14	<u>0.21</u>	0.08	0.14
Flower a	0	0	0	1	0	0	3	0	0	0.08	0	0	0	0	0
Flower c	0	0	0	0	1	0	0	2	0.08	0.08	0	0	0	<u>0.22</u>	0
Oval	1	0	6	5	15	7	0	2	51	0.16	0.16	0.16	0.14	0.08	0.16
Triangle band	12	0	2	1	11	9	2	2	17	71	0	<u>0.18</u>	0.14	0.08	0.16
Rectangle band	0	0	0	0	1	2	0	0	1	0	9	<u>0.16</u>	0.14	0	0.16
Intertwined band	7	0	0	0	0	1	0	0	3	16	6	33	0.14	0	0.16
Scroll a	2	1	10	1	24	17	0	0	13	5	1	1	56	0.08	0.14
Reptile	0	0	2	0	5	3	0	2	3	2	0	0	4	9	0.08
Triangle	2	0	2	0	4	4	0	0	3	13	1	4	5	1	23

Arc band	Arch	Cross-hatch	Cross b	Feather	Flower b	Flower a	Flower c	Oval	Triangle band	Rectangle band	Intertwined band	Scroll a	Reptile	Triangle
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The **bold-script** diagonal shows the total count of each motif. To the left of this diagonal are the counts of combinations between isolated motifs; to the right are the similarity coefficients of motif combinations. Underlining indicates high values.

Table A4.8: Single linkage dendrogram**Table A4.9: Most-significant similarity coefficients**

Motif combinations	Similarity coefficient (S_J)
Scroll _a /Feather	0.26
Reptile/Flower _c	0.22
Scroll _a /Flower _b	0.21
Feather/Flower _b	0.20
Intertwined band/Triangle band	0.18

Jaccard's similarity coefficient (S_J) for the most-significant Buk phase midden sample motif combinations.

Motif combinations/substitutions related to vessels (916 vessels/sherds)

Table A4.10: Early Postclassic ceramic motifs related to vessel forms and motif and vessel surface treatment

<p>Form associated with motifs</p>	<p>Occurs on 17 vessel forms (all)</p> <p>basal</p>	<p><i>Forms:</i> Predominantly bowls Pedestal bases Drums Pedestal-based jars</p> <p>Chalices Censers Tripod dishes/bowls Jars Grater bowls Frying-pan censers Tetrapod bowls/dishes Whistles Vessel lids Tripod jars</p> <p>Cylinder vase Pedestal-based vase Effigy vase, net sinker</p>	<p><i>Imagery:</i> All on exterior rims. All on pedestal base exteriors.</p> <p>All on shoulders, pedestal bases and/or exterior T-shaped band flanges. All on pedestal bases, one with motif on interior rim. On shoulders and body. All on exterior rims, feet, and/or exterior T-shaped band flanges. Predominantly on shoulders. Cross_c on interior base. All on 'handles'. All on exterior rims and feet and/or T-shaped band basal flanges. Modelled bodies. On lids. On shoulder, feet and/or exterior T-shaped band basal flanges.</p> <p>(1 occurrence each).</p>
<p>Motif Treatment</p>	<p>Most vessels display motifs occurring in bands, 6 display imagery in cartouches, of which half are drums. Few isolated motifs occur; a quarter of all Buk phase material, including all grater bowls and whistles, display isolated motifs.</p>		
<p>Surface Treatment associated with motifs</p>	<p>Colour: Slip: Paint: Handling: State:</p>	<p>Most (ca. 95%) are orange/red. Most (ca. 98%) are slipped. Only 9 are also painted: Most are incised, 7% are also modelled: 10 are incised and open-worked: Only 146 were recovered complete-reassembled/whole or fragmentary; the rest are sherds.</p>	<p>4 tripod dishes/bowls, 1 pedestal-based jar, 1 tetrapod dish and 3 chalices. All frying-pan censers, tetrapod bowls/dishes, whistles, tripod jars 92% of tripod dishes/bowls, 40% of ped.-based jars, 25% of jars. Mostly chalices, 2 drums, 2 pedestal bases, 1 tripod jar.</p>

Individual Motifs	<i>Scroll</i> _{a-d}	(234)	On 62% of chalices, including the only one with imagery on its interior rim, 50% pedestal-based jars. 3 scroll _b (1 pedestal-based jar, 1 jar, 1 chalice) and 1 scroll _d (chalice).
	<i>Triangle band</i>	(218)	Always incised.
	<i>Flower</i> _{a-c}	(169)	On 52% of chalices, 50% pedestal-based jars, 26% drums. 6 flower _c (3 chalices, 2 bowls and 1 pedestal-based jar) and 5 flower _a (3 bowls and 2 pedestal-based jars).
	<i>Feather</i>	(161)	On 25% of drums.
	<i>Oval</i>	(138)	65% on bowls.
	<i>Intertwined band</i>	(88)	79% on bowls, 75% of chalices are incised and open-worked.
	<i>Reptile</i>	(60)	On 3 of 7 modelled frying-pan censers. 25% are modelled: all pedestal-based jars, all frying-pan censer 'handles', and one tetrapod dish.
	(of which crocodiles)	(5)	All as appliqué-modelled frying-pan censer handles.
	(of which serpents)	(3)	All as appliqué-modelled frying-pan censer handles.
	<i>Cross-hatch</i>	(58)	Not on jars, drums, tripod bowls.
	<i>Cross</i> _{b/c}	(35)	Appear isolated on all grater bowl interior bases. Cross _b (3 pedestal-based jars, 9 pedestal bases) and cross _c (9 grater bowls).
	<i>T-shaped band</i>	(34)	All appliqué-modelled flanges; appear on 78% of all tripod vessels, half pedestal-based jars, all tetrapod bowls.
	<i>Arc band</i>	(33)	Only on bowls, apart from one drum.
	<i>Anthropomorphic</i>	(31)	On 'distinctive' vessels: predominantly tripod vessels, 4 out of 5 tetrapod bowls/dishes, some pedestal-based jars, 2 whistles and only on 1 bowl (the most prolific Buk phase vessel form). Only half are incised, but 85% are modelled.
	<i>Bird</i>	(24)	Often occurs isolated (including 1 frying-pan censer, 1 whistle, 1 drum). Over half are modelled.
	<i>Rectangle band</i>	(19)	81% on bowls.
	<i>Animal</i>	(8)	5 out of 8 occur isolated and all but one bowl is modelled.
	<i>Arch</i>	(6)	75% on bowls
<i>Feline</i>	(1)	Appliqué-modelled effigy vase.	
<i>Horizontal band</i>	(444)		
<i>Vertical band</i>	(127)		
<i>Rectangle</i>	(302)		

Motif Combinations		
FLO _{b-c} /SCR _{a-c}	(67)	On half of chalices. All FLO _b /SCR _a , apart from 1 FLO _c /SCR _b and 1 FLO _b /SCR _{a/b} .
REP/SCR _{a-c}	(27)	Predominantly on pedestal-based jars and chalices. All REP/SCR _a , apart from 2 REP/SCR _b (1 chalice and 1 pedestal-based jar) and possibly 1 REP/SCR _c (chalice).
REP/FEA	(20)	Predominantly on pedestal-based jars and chalices.
FEA/SCR _{a-c}	(53)	All FEA/SCR _a , apart from 1 FEA/SCR _b (jar).
FEA/FLO _{b/c}	(32)	All FLO _b apart from one FLO _c (pedestal-based jar).
FEA/OV	(33)	
CRH/FLO _{a-c}	(23)	On a quarter of pedestal-based jars, 21% of chalices. 64% occur of pedestal bases. 27% are modelled: mostly pedestal-based jars. All CRH/FLO _b , apart from 3 CRH/FLO _a (2 pedestal-based jars and 1 bowl) and 4 CRH/FLO _c (2 chalices, 1 bowl, 1 pedestal-based jar).
IB/TB	(42)	75% on bowls.
OV/CRH	(15)	
OV/FLO _{a-c}	(30)	All OV/FLO _b , apart from 1 OV/FLO _a (bowl) and 1 OV/FLO _c (chalice).
REP/OV	(16)	Predominantly on pedestal-based jars and chalices.
REP/CRH	(13)	Predominantly on pedestal-based jars and chalices.
OV/SCR _{a-c}	(35)	On 17 % of chalices. All OV/SCR _a , apart from 2 OV/SCR _b (1 pedestal-based jar, 1 chalice) and 1 OV/SCR _c (chalice).
CRH/FEA	(19)	
CRH/SCR _{a-c}	(26)	Predominantly on pedestal-based jars and chalices. All CRH/SCR _a .

Archaeological contexts – spatial, temporal, and depositional variation and combinations thereof

Table A4.11: Lamanai structures related to function and occurrence of Early Postclassic ceramics

Structure	Function	No
<i>N10-27</i>	Ceremonial/ritual/pyramidal type	535
<i>N10-2</i>	Ceremonial/administrative/columned	85
<i>N10-9</i>	Ceremonial/ritual/pyramidal type	57
<i>N10-12</i>	Residential/administrative/'palace' type	36
<i>N10-4</i>	Unknown, possibly ruined, admin./resid. building	24
<i>N10-7</i>	Ritual/ceremonial/pyramidal type	16
<i>N10-15</i>	Residential/administrative/'palace' type	12
<i>N10-1</i>	Ceremonial/ritual: Small plaza/courtyard platform or dance platform	12
<i>N10-11</i>		10
<i>N10-43</i>	Ceremonial/ritual/pyramidal type	10
<i>OP00-2B</i>		4
<i>N10-14</i>		2
<i>N10-28</i>	Administrative/residential/'palace' type	2
<i>N10-69</i>		2
<i>N10-18</i>	Palace type	2
<i>P8-102</i>		1
<i>N10-17</i>	Ceremonial /ritual	1
<i>OP00-2A</i>		1
<i>YDL 11/2</i>	Sixteenth-century church	1
Miscellaneous:		
<i>N10-2 Plaza</i>		1
<i>N12</i>		1
<i>TDP (Toilets)</i>		1
<i>South perimeter of site</i>		1
<i>TDP Burial 6</i>		1

Lamanai structures related to function and occurrence of whole (midden and burial/cache) Early Postclassic data sample (916 examples).

Table A4.12: Assessment

Assessment	No. of vessels/sherds	%	Whole/complete-reassembled or fragmentary	Sherds
<i>Midden</i>	556	61	19	537
<i>Burial</i>	99	11	82	15
<i>Surface</i>	70	8	19	51
<i>Collapse</i>	38	4	10	28
<i>Core</i>	29	3	10	18
<i>Cache</i>	8	1	5	2

Occurrence and percentage of whole (midden and burial/cache) Early Postclassic ceramic data sample (916 examples) related to assessment. The last two columns show the number of whole/complete-reassembled or fragmentary vessels and sherds for each assessment type. The percentages do not add up to 100% as context is not always known.

Table A4.13: Early Postclassic ceramics related to structures, motifs/motif combinations and burial/cache contents

Structure	Burial/ cache no.	Lot no.	Vessel forms	Motifs/motif combinations	Burial/cache contents	Comments	
N10-1/							
<i>Burial</i>	1	LA 13/1	<i>Pedestal-based jar</i>	REPs/ FLOa/CRH/SCRa/TSB	Male mature adult (seated in LA 13/3). LA 13/3 contained flecks of charcoal and pieces of burnt soil, which might represent spontaneous combustion of organic objects or products of earlier burning activity associated with interment. LA 13/4 is described as a Silho (Chichen) Fine Orange import from Northern Yucatan (Pendergast 1986:236). In fact, a Silho ('X') Fine Orange incised vessel (Rands et al. 1982:331-332; A. Andrews, personal communication 2006).	LA 13/1: PIB above burial.	
		LA 13/3	<i>Pedestal-based jar (giant)</i>	REPs/CRH/SCRa/TSB, perhaps ANT, perhaps REpC			LA 13/9: IB framed by TB.
		LA 13/7	<i>Tripod dish with blue BIRD feet</i>	REPs/FEA/IB/RB/TSB/BIR			LA 13/5: kneeling <i>Itzamna</i> figure.
		LA 13/11	<i>Tripod dish with blue BIRD feet</i>	BIR/TSB			
		LA 13/9	<i>Tripod bowl with ANT feet</i>	ANT/IB/TB/TSB			
		LA 13/15	<i>Tripod dish with ANT feet</i>	ANT/TSB			
		LA 13/8	<i>Tripod bowl with plain feet</i>	TSB			
		LA 13/5	<i>Tetrapod dish</i>	ANT/REPs+b/FLOb/SCRa/FEA/TSB			
		LA 13/10	<i>Grater bowl</i>	CROc			
	LA 13/4	<i>Pedestal-based vase</i>					
	2	LA 21/4	<i>Pedestal-based vase</i>	REPs+ perhaps c/ FEA/FLOb/SCRa/TSB/AB	Male mature adult (seated). 89 shell beads (possibly necklace or inserted in wrapping that encased body): 79 large and small <i>Marginella</i> (specific placement around skeleton) and 10 large <i>Oliva</i> shells, 2 <i>Flamingo tongue</i> shells, large <i>Oliva</i> shells, jade pendant (pos. bird head), bone pin; in core beneath RIC floor.	LA 21/4: PIB atop burial pit.	
		LA 21/5	<i>Pedestal-based vase (nearly identical to LA 21/4)</i>	REPs/FEA/FLOb/SCRa/TSB/AB			
	N10-2/						
	<i>Burial</i>	1	LA 31/1	<i>Grater bowl</i>	CROc	Child (prob. 3-5 years). Construction phase: SCAT.	Portion of vessel scattered east of skull, remainder in south area of pelvis.

4	LA 44/1	<i>Bowl</i>	FLOb/SCRa	Female adult and child (possibly mother and child). <i>Oliva</i> shell (on left elbow of adult), stone, hammerstone (between knees of adult), obsidian flake blade. Construction phase: GOM.	Part of vessel NW of head of adult and scattered elsewhere.
8	LA 48/2	<i>Bowl</i>	REPb/FLOc/CRH/TB/FLOb/IB	Possibly female adult. Jade bead between skull and bowl. Construction phase: GOM.	Also LA 48/1 plain bowl west side and atop head; 'pot-bellied' creature tripod-feet (LA 48/3; PIB) east of skull as is LA 48/2 (bowl).
	LA 48/3	<i>Tripod dish with ANT feet</i>	ANT		
10	LA 61/1	<i>Pedestal-based jar</i>	ANTc/TSB/REPs/FLOb/OV/FEA	Male mature adult (seated; principal individual interred in Str. N10-2 at the time of GOM construction). Gold sheet objects (6), pyrite mirror (on right wrist), copper bell (associated with mirror, LA 61/13), <i>Marginella</i> beads (around neck). Construction phase: GOM.	Both pedestal-based jars are elaborately modelled <i>Chac</i> figures with feather headdresses decorated with ovals; grater bowls placed lip to lip and within pedestal-based jar (LA 61/1); LA 61/4 (PIB) with ANT head, stuccoed, then painted (different deity).
	LA 61/4	<i>Pedestal-based jar</i> (frag.; spiked)	ANT/TSB/FEA/OV		
	LA 61/5	<i>Pedestal-based jar</i> (frag.; spiked)	ANT		
	LA 61/2 LA 61/3	<i>Grater bowl</i> <i>Grater bowl</i>	CROc CROc		
11	LA 100/1	<i>Tripod bowl with plain feet</i>	CRH	Child (under 2 years). 3 rattle globular feet. Construction phase: GOM.	Sherd with complex imagery band placed north of skull, 1 piece of rim broken away.
15	LA 116 (all)	<i>Pedestal-based jar</i> (8 sherds) <i>Pedestal bases</i> (4) <i>Chalice</i> (sherd)	1 ANT/OV, 1 REP, 1 FEA/OV, 2 OV 1 SCRa, 1 FEA/SCRa, 1 FEA 1 OV FEA/OV	Adult. Freshwater mussel shell, chert blade tip. Construction phase: GOM.	All sherds.
16	LA 118/2	<i>Bowl</i>	CRH/SCRa/TB	Mature female adult. <i>Oliva</i> beads, bone needles and pins, obsidian blades, bronze pierced-work ring. Construction phase: GOM.	Bowl at side of left leg (PIB).

19	LA 123/2	<i>Chalice</i>	REPs(?)/FLOc/IB	Child (8-10 years). <i>Oliva</i> beads (lower left arm bracelet). Construction phase: GOM.	Chalice (PIB) scattered with base at feet; bowl (PIB); also two plain jars (PIB).
	LA 123/5	<i>Bowl</i>	TB/FLOb		
20	LA 127/2	<i>Tripod bowl with plain feet</i>	IB/TB/TSB	Male and female mature adults (latter with cranial deformation, possibly a couple). Construction phase: GOM.	All ANT are humanoid. LA 127/7-9 'killed', /2-6 not 'killed'. Also a jar (LA 127/1), primarily west of skull of female, all remaining vessels PIB and spread over and around bodies.
	LA 127/5	<i>Tripod bowl with plain feet</i>	IB/TB/TSB		
	LA 127/6	<i>Tripod bowl with ANT feet</i>	ANT/TSB		
	LA 127/4	<i>Tripod dish with ANT feet</i>	ANT		
	LA 127/7	<i>Chalice</i>	ANT/FLOb/SCRa/ OV		
	LA 127/3	<i>Bowl</i>	REPs+c /SCRa/FLOa+b		
	LA 127/8	<i>Pedestal-based jar</i>	FLOb/CRH/TSB/possibly ANT		
	LA 127/9	<i>Jar</i>	FEA/FLOb/SCRb		
21	LA 128/1	<i>Jar</i>	BIR/FLOb/SCRa/IB framed by TB/REpb(?)	Teen (13 to 18 years old). Construction phase: GOM.	Jar (PIB) at south side of body with bird head placed on Teen's shoulder.
23	LA 131/3	<i>Drum (double-barrelled)</i>	Plain	Construction phase: GOM.	
	LA 131/4	<i>Drum (double-barrelled)</i>	Plain		
28	LA 143/1	<i>Grater bowl</i>	CROc	Child (under 5 years). Construction phase: GOM.	PIB.
33	LA 149/1	<i>Chalice</i>	OV	Child (under 8 years). Construction phase: BAT.	Small piece removed from base.
38	LA 158/1	<i>Pedestal-based jar (small)</i>	ANT/OV	Infant. Construction phase: SCAT.	<i>Chac</i> (prob. PIB) above burial.
39	LA 164/1	<i>Grater Bowl</i>	CROc	Child (ca. 8-10 years). Green stone and marcasite necklace; in core under 'Gom' floor. Construction phase: GOM.	PIB atop upper back.
40	LA 165/1	<i>Pedestal-based jar</i>	FLO/SCRa/OV	Probably female adult (with cranial deformation). Construction phase: GOM.	Both vessels PIB and scattered over back.
	LA 165/2	<i>Chalice</i>	FLO/SCRa		

	41	LA 169/1	<i>Chalice</i>	FLO/CRH/SCRa (no photo or drawing)	Construction phase: GOM.	
	45	LA 176/1 LA 176/2 LA 176/3	<i>Tripod dish with ANT feet</i> <i>Tripod dish with ANT feet</i> <i>Bowl</i>	ANT ANT/REPb/CRH/OV/FEA/FLOb/SCRa/ OV double PB topped by AB	Adult(?). Construction phase: GOM.	Supernatural ANT; PIB of vessels.
	49	LA 319/1	<i>Chalice</i>	REPC(?)/SCRa/OV/FLOb	Two individuals, one a child (ca. 8 years; possibly 2 separate burials cut into NEAR floor. Construction phase: GOM.	PIB of vessels.
Cache	2	LA 34/7 LA 34/10 LA 34/12	<i>Tripod bowl</i> <i>Tetrapod bowl</i> <i>Frying-pan censer</i>	FEL ANTturtle/ <i>Itzamna</i> /TB Plain	Burnt material (corn, beans burnt in situ; cornstalks, perhaps plastered and painted in the form of human figures), <i>Oliva</i> bead, chert blade, bark beater, smashed metate, bone cylindrical object (burnt), obsidian projectile point or blade fragment. Construction phase: last activity atop GOM floor prior to initiation of construction of SCAT: highly important offering.	Mid-summer or early-autumn offering associated with agriculture; also miniature bowl (LA 34/7) with feline face (complete); tetrapod bowl of kneeling turtle/ <i>Itzamna</i> deity; also large censer (LA 34/11) and frying-pan censer (LA 34/12).
	6	LA 134/1	<i>Chalice</i>	SCRa/REPb(?)	Atop a stone in core of TUN stair, dedicatory to outermost stair.	
Core and miscellaneous		LA 129/1 LA 107/1 LA 107/3 LA 115/1 LA 32/1 LA 26/19 LA 62/19 LA 115/25 LA 26/23 LA 109/9 LA 135/7 LA 62/7	Variety, mostly bowls <i>Effigy maskette</i> <i>Turtle effigy</i> <i>Bowl</i> <i>Toad effigy jar</i> <i>Drum</i> <i>Grater bowl</i> <i>Whistle</i> <i>Whistle</i> <i>Effigy small find</i> <i>Bird small find</i> <i>Bird small find</i> <i>Frying-pan censer</i>	ANT/REPC Turtle REPb/FLOa/OV/CRH Toad REPC/TB CROc ANT ANT ANT BIR BIR REPC	LA 129/1: associated with Str. N10-2. LA 107/1: related to Cache N10-2/2 and its burnt material.	

N10-4/

<i>Burial</i>	1	LA 64/1	<i>Pedestal-based jar</i>	REPb/FEA/FLOb/CRH/SCRa	Mature male adult. Shell 'horse collar' ornament.	Pedestal-based jar PIB over upper back area. Also plain bowl (LA 64/2) covering skull.
	2	LA 68/4 LA 68/6 LA 68/5 LA 68/1	<i>Bowl</i> <i>Bowl</i> <i>Pedestal-based jar</i> <i>Grater bowl</i>	REPb/SCRa/OV FLOb/SCRa/OV/possibly REPb FEA/FLOa/SCR CROc	2 individuals (mature male and female adults). Copper false wirework ring, spindle whorl (bird). Construction phase: MUK.	Female with all artefacts; PIB of all vessels (scattered): bowl (LA 68/4) portion beneath skull of male, pedestal-based jar (LA 68/5) scattered above burial, bowl (LA 68/7, plain) portion at head of male, bowl (LA 68/6) scattered above burial.
	3	LA 69/13 LA 69/3	<i>Chalice</i> <i>Jar</i>	ANT/FLOb/CRH BIR/CRH in TB frame	Prob. male (sub)adult (unfused molar crowns, hollow-rooted molars). Gold sheet (covering organic object hung on necklace), pyrite mirror (most placed on face and top of head), copper bells (2) with wire work (prob. on same necklace as gold sheet covered object), copper clothing ornaments, necklace of marcasite (perhaps originally pyrite) beads plus two copper bells (placed over right arm), <i>Spondylus</i> beads (11; adjoining mirror pieces), necklace of marcasite (perhaps originally pyrite) beads (61), celts (extensively used; one on each wrist), large quadrifacial <i>mano</i> , bone circlets. Construction phase: MUK.	Probably once ANT on chalice, chalice PIB above burial, PIB of jar spread over rear of skull and right shoulder.
	5	LA 71/6 LA 71/2 LA 71/1	<i>Frying-pan censer</i> <i>Bowl</i> <i>Drum</i> (single-barrelled)	ANI(turtle) ANTc Plain	Child (under 3 years). Bowl with <i>Chac</i> face, south of burial, PIB; drum, jade necklace (2 jade beads and 19 stone discs), shell beads. Construction phase: MUK.	LA 71/6: Turtle censer. LA 71/2: bowl with <i>Chac</i> face (PIB).

9	LA 72/1	<i>Pedestal-based jar</i>	FLOa+b/CRH/SCRa/TSB	2 individuals. 7 large stingray spines (east of pelvis), gold sheet (covering organic object), carved animal mandible representing animal (with glyphs and numerals), spatulate bone object, freshwater mussel shell pieces (possibly mosaic pieces), large <i>Marginella</i> beads (244), <i>Oliva</i> (86) and <i>Marginella</i> (119) beads, tiny shark tooth.	Right arm of upper individual directly overlays skull of lower individual. Most bowl sherds (LA 72/4) beneath skull of lower individual. PIB of all vessels, bar LA 72/2 (tripod bowl with plain feet and TSB flange).
	LA 72/3	<i>Chalice</i>	IB		
	LA 72/11	<i>Chalice</i>	ANTI/FLOb/CRH/SCRa		
	LA 72/4	<i>Bowl</i>	FLOb/SCRa/CRH/OV/IB/TB, probable REPs with CRH near		
	LA 72/2	<i>Tripod bowl with plain feet</i>	TSB		
13	LA 76/1	<i>Chalice</i>	FLOb/CRH/SCRa/TB/ possibly REPC	Mature female adult.	Also plain bowl (LA 76/2), PIB over chest and head; chalice (LA 76/1) PIB over lower body and skull.
17	LA 79/4	<i>Tetrapod bowl</i> (minature)	ANI(turtle)	Early teenager. Necklace of jade and shell beads and copper bell, <i>Marginella</i> bead at left knee.	Turtle tetrapod bowl.
23	LA 86/1	<i>Chalice</i> (very fragmentary)	SCRa	Mass of bones. <i>Marginella</i> beads (5).	Calvarium of child in bone mass, not associated with other bones. PIB of chalice.
30	LA 92/7&1 LA 92/2	<i>Pedestal-based jar</i> (frag.) <i>Grater bowl</i>	FLO CROc	Mature female. Pottery spindle whorl with incised bird, bird bone, obsidian flake blades (2). Construction phase: TUK.	Grater bowl PIB on right side of chest; PIB of pedestal-based jar.
45	LA 246/4	<i>Tripod jar</i> (PIB)	BIR/IB	Mature male adult. Shell body-section ornament, lamina of pyrite.	Healed fracture on left hand. Whole jar atop skull (LA 246/1), tripod jar (LA 246/4; PIB), also tripod dish (PIB).
Cache	3	LA 67/1	<i>Tripod dish with ZOO feet</i>	ANI(turtle)/TSB	Obsidian flake blades (2). Tripod dish with turtle feet.

N10-7/

Burial	1	LA 95/1	<i>Pedestal-based jar</i>	REPs/FEA/FLOb+c/CROb/CRH/IB/TSB/OV	Female (?) mature adult. Irregular pieces of obsidian (46), <i>Oliva</i> bead, bone pin or awl. Post-fire burnt on interior (LA 95/2). Post-fire burnt on interior (LA 95/3).	PIB (all vessels), random deposition (all vessels), pedestal-based jar (LA 95/2) interior burning and deity on side; pedestal-based jar (LA 95/3) interior burning and deity on side; several vessels were 'killed' (LA 95/5, /6, and /8). LA 95/7: 'Upended' figure.
		LA 95/6	<i>Pedestal-based jar</i> (killed)	REPb/FEA/SCRa/IB/TSB		
		LA 95/4	<i>Pedestal-based jar</i> (mini)	TB/TSB/IB		
		LA 95/2	<i>Pedestal-based jar</i> (spiked)	ANTc/REPs/SCRa/OV/TB/CROb		
		LA 95/3	<i>Pedestal-based jar</i>	ANT		
		LA 95/5	<i>Chalice</i> (killed)	REPs/FLOb/SCRa		
		LA 95/8	<i>Chalice</i> (killed)	REPc/SCRa/OV		
		LA 95/7	<i>Bowl</i>	ANTu/REPb/FEA/CRH/SCRa/OV		
2	LA 102/1	<i>Bowl</i>	REP/CRH/SCRa/FLOa+b/OV	Fragments of skull.	Skeletal and ceramic fragments mixed before interment.	
	LA 102/7	<i>Bowl</i>	REPb(?)/CRH/FLOb/OV			
	LA 102/6	<i>Bowl</i>	FEA/FLOb/SCRa/OV/possibly REPc			
	LA 102/2	<i>Chalice</i>	REPb(?)/FEA/FLOb/CRH/SCRa/OV			
	LA 102/3	<i>Drum</i>	REPb/AB or FEA/PB			
	LA 102/5	<i>Jar</i>	CRH/OV			
3	LA 166/9	<i>Plain bowl</i>	Plain	Male (?) mature adult. Stingray spine, pair of jade ear ornaments, jade bead. <i>T. angulata</i> shell, 4 pearls, obsidian blades (67), decayed organic objects. Burning (charcoal) associated with funerary activity. This burial dates early construction of the structure to the Late Classic.	Bowl inverted beneath skull; dish (LA 166/6) at sides of, and under, skull; PIB of multiple vessels.	
	LA 166/6	<i>Plain bowl</i>	Plain			

N10-9/

Burial	10	LA 245/5	<i>Tetrapod bowl</i>	OV/ possibly ANT	Male mature adult (with cranial deformation). Jade pendant (at point of mandible, probably suspended around neck), bone pins.	ANT head missing.
		LA 245/6	<i>Chalice</i> (open-work)	REPs(?)/FEA/OV		

N10-12/					
Cache	1	LA 562/2 LA 562/1	Bowl Jar	SCRa/AB IB/OV/TB/ possibly REPs	Obsidian coves and blades (total weight 2.063 kg) from surface to ca. 20 cm below, obsidian cores and blades, 3 deciduous human teeth associated with the cache, large group of calcite crystals, single ceremonial flint.
N10-14					
	2	LA 583/1	Bowl	SCRa	Male mature adult.
N10-43					
Cache	1	LA 318/1	Tetrapod dish	ANT/OV/SCRa/FLOb/TSB/BIR feet	Single tabular jade (LA 318/2) bead in tetrapod dish.
N10-28/					
Burial	1	LA 567/1 LA 567/5	Pedestal-based jar Drum	REP/FEA/FLOa/SCR/OV BIR/FLOb/SCRa/OV/TB	Mature adult. Bipointed blades (2), over and in line with right humerus and lower arm.
N10-69/					
Burial	2	LA 789/2 LA 789/3	Pedestal-based jar Bowl	CRH/SCRa/CROa CROb/SCRa/CRH	Possible frontal view of the earth monster.
P8-102					
Cache	3	LA 523/2	Pedestal base	FLO/CRO	Chert blade.
TDP					
Burial		LA 1881/1	Chalice	TB/SCRa/FLOb/FEA/possibly REPs	
(Misc. Burial 6)		LA 264/1	Tripod jar with turtle(?) feet	ANI/TSB	Tripod jar with possible turtle feet.

Table A4.14: Early Postclassic middens that revealed re-constructible ceramics

Midden at base of Str. N10-9 stair

Lot No.	Vessel forms	Motifs/motif combinations
LA 187	<i>Bowl</i>	REPs/BIR/SCRa/FEA
LA 187(?)	<i>Bowl</i>	SCRa/FLOb
LA 187(?)	<i>Bowl</i>	REP/CRH/SCR/aFLOb
LA 187(?)	<i>Bowl</i> (sherd)	REP/FEA
LA 187(?)	<i>Bowl</i> (sherd)	SCRa/FEA/BIR(?)
LA 187(?)	<i>Bowl</i> (sherd)	REPC/SCRa/FLOb
LA 187(?)	<i>Bowl</i> (sherd)	FLOa+c
LA 187/3	<i>Bowl</i> (sherds)	FLOa/TB
LA 243/8	<i>Bowl</i>	SCRa
LA 243/12	<i>Bowl</i>	IB/PB/AB
LA 243/Temp1	<i>Bowl</i> (sherd)	IB/AB
LA 243/Temp2	<i>Bowl</i> (sherd)	SCRa, possibly REPs
LA 243/3	<i>Chalice</i>	TB/CRH/FEA/OV/RE
LA 243/4	<i>Chalice</i>	Blue painted base, no incision (motifs)
LA 243/6	<i>Chalice</i>	TB/SCRa+b/REPs possibly c/OV/FLOb
LA 243/16	<i>Chalice</i>	TB/FLO(?)/CRH/FLOc/IB/OV
LA 243/19	<i>Chalice</i>	TB
LA 243/20	<i>Chalice</i>	TB/CRH/FLOc/REPs+c/OM
LA 243/21	<i>Chalice</i>	REPb/CRH/FEA/SCRa/FLOb
LA 243/22	<i>Chalice</i>	SCRc/possibly REPb
LA 243/2	<i>Jar</i>	TB/REPs+c
LA 243/10	<i>Pedestal-based jar</i> (censer)	'Spiked'.
LA 243/23	<i>Tripod dish with ANT feet</i>	ANT

Midden associated with Str. N10-18

Lot No.	Vessel forms	Motifs/motif combinations
LA 469/Temp1	<i>Frying-pan censer</i>	REPs
LA 469/Temp5	<i>Bowl</i>	SCRa

Midden associated with Str. N10-12

Lot No.	Vessel forms	Motifs/motif combinations
LA 1873	<i>Tripod bowl with plain feet</i>	IB/TSB

Midden associated with Str. N10-17

Lot No.	Vessel forms	Motifs/motif combinations
LA 516/1	<i>Jar</i>	IB

Midden west of Str. N10-2

Lot No.	Vessel forms	Motifs/motif combinations
LA 62/73	<i>Tripod dish</i>	TSB

NEW VESSELS from field season 2004 (not inputted in database)

Lot No.	Vessel forms	Motifs/motif combinations
LA 1717/1	<i>Chalice</i>	SCRa/CRH/OV/ possibly ANT
LA 1896/9	<i>Pedestal-based jar</i>	REP/FLOc+b/CRH/SCRa/TSB
LA 1962/1	<i>Pedestal-based jar</i>	SCRb/FLOb/TSB
LA 2236/4	<i>Pedestal-based jar</i>	SCRb/REP(?)/OV/CROb
LA 2236/2	<i>Jar</i>	SCRa+b/CROb

Table A4.15: Early Postclassic Period core, surface and collapse finds related to structures, vessels, motifs and motif combinations

Structure	Vessel forms	Motifs/motif combinations
Surface		
<i>N10-2 Plaza</i>	<i>Whistle</i> (LA 54/1)	Bird.
<i>N10-7</i>	<i>Small find</i> (LA 163/23)	Bird.
<i>N10-12</i>	Mostly <i>bowl</i> sherds	7 out of 12 display scrolls.
<i>N10-15</i>	All <i>bowl</i> sherds	-
<i>N10-27</i>	Fragmentary <i>bowl</i>	-
<i>N10-43</i>	All <i>bowl</i> sherds	Very few motifs.
<i>N12-11</i>	Fragmentary <i>frying-pan censers</i> (LA 42/1)	Crocodile and serpent.
<i>South perimeter of site</i>	Fragmentary <i>frying-pan censer</i>	Crocodile.
Collapse		
<i>N10-1</i>	<i>Small find</i> (LA 10/8)	Crocodile.
<i>N10-2</i>	Varied vessel forms, predominantly appliqué-modelled, including 2 of 4 Buk phase whistles. All but one were recovered complete-reassembled/whole or fragmentary. <i>Whistle</i> (LA 62/19) <i>Frying-pan censer</i> (LA 62/7) <i>Small find</i> (LA 57/3) <i>Small find</i> (LA 62/15) <i>Bowl</i> (LA 182/4)	Displaying iconic motifs, such as animal misc., crocodile and anthropomorphic motifs. This is the only structure that revealed a significant number of iconic motifs that tally with other finds based around this structure (see burial/cache sample section) and underscore this structure's importance. Anthropomorph. Crocodile. Bird. Animal (possibly dog). T-shaped band/arc band.
<i>N10-4</i>	<i>Small find</i> (LA 153/18)	Bird.
<i>N10-7</i>	<i>Whistle</i> (LA 172/12)	Anthropomorph.
<i>N10-9</i>	<i>Jar</i> sherd	-
<i>N10-11</i>	Predominantly <i>bowl</i> sherds	-
<i>N10-12</i>	<i>Bowl</i> sherd	-
<i>N10-27</i>	Predominantly <i>bowl</i> sherds	-

Miscellaneous motifs

Certain motifs on Early Postclassic Lamanai ceramics defied secure symbolic interpretation. These include a feline tripod vessel (Catalogue Fig. 3.6.1), feathers (e.g., Catalogue Figs. 3.1.3, 6, 8-9, 11, 3.2.6, 17, 19, 21, 23, 3.3.7-8, 14, 17, 28, 3.4.1, 14, 3.9.2-3 and 3.11.1-2) and arc bands (Catalogue Figs. 3.3.13, 23, 24 and 34). The feather motif is very frequent, yet shows no particularly strong associations in relation to archaeological contexts, structures where found and vessel forms. The wide distribution in structure and vessel form suggests that the feather was a motif used widely as a descriptor to mark objects as precious or elite; this is supported in the comparative data (see Hellmuth 1988:177, Fig. 5.2; Stuart 1988:193, Fig. 5.23). Arc bands may represent rows of feathers. They only occur on bowls, predominantly from the midden abutting Structure N10-27. The midden material is associated with disposal activity linked to the neighbouring elite compound N10[3] (Graham 2004:230). Consequently, arc bands may reflect a particular non-funerary elite ritual linked to Group N10[3], a particular substance contained, or possibly both.

Appendix 5: Lamanai Late Postclassic ceramic data (Cib phase [and Gatah]; ca. A.D. 1250 - 1450)

Cib phase ceramics

Individual motifs

A5.1.1: Number of individual motifs

Motifs	Motif key	Number
Scroll _c	SCR c	17
T-shaped band	TSB	9
Ovals	OV	8
Anthropomorphic	ANT	7
Bird	BIR	6
Scroll _e	SCR e	3
Flower _a	FLO a	2
Flower _b	FLO b	2
Scroll _b	SCR b	1
Cross-hatch	CRH	1
Cross _c	CRO c	1
Intertwined band	IB	1
Other motifs	OM	1

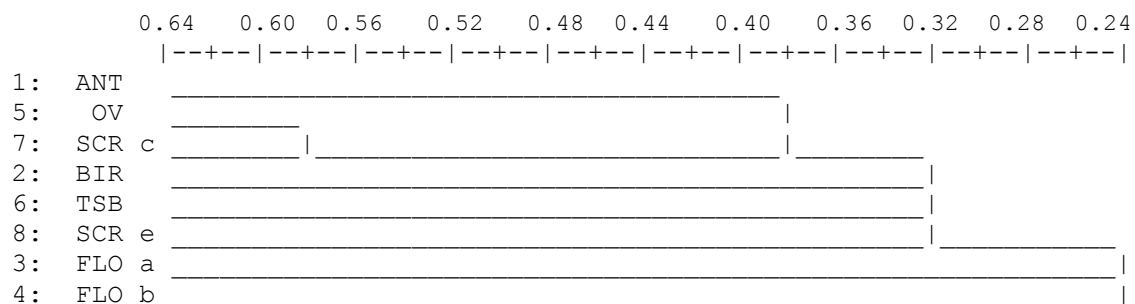
Motif combinations/substitutions

A5.1.2: Frequent occurrence/high similarity coefficients

Anthropomorphic	7	0.33	0	0	0.38	0.32	0.38	0
Bird	3	6	0	0	0	0.32	0.32	0.33
Flower a	0	0	2	0	0.25	0.24	0.24	0
Flower b	0	0	0	2	0.25	0.24	0.24	0
Oval	2	0	2	2	8	0.32	<u>0.58</u>	0.32
T-shaped band	2	2	1	2	4	9	<u>0.32</u>	0.33
Scroll c	5	3	2	2	7	4	11	0
Scroll e	0	2	0	0	1	3	0	3

Anthropomorphic	Bird	Flower a	Flower b	Oval	T-shaped band	Scroll c	Scroll e
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The **bold-script** diagonal shows the total count of each motif. To the left of this diagonal are the counts of combinations between the isolated motifs; to the right are the similarity coefficients of motif combinations. Underlining indicates high values.

Table 5.1.3: Single linkage dendrogram**Table A5.1.4: Most-significant similarity coefficients**

Motif combinations	Similarity coefficient (S_j)
Oval/Scroll _c	0.58
Scroll _c /Anthropomorphic	0.38
Oval/Anthropomorphic	0.38

Jaccard's similarity coefficient (S_j) for the most-significant Cib phase sample motif combinations.

Motif combinations/substitutions related to vessels (27 vessels/sherds)

Table A5.1.5: Late Postclassic Cib phase motifs related to vessel forms and motif and vessel surface treatment

<p>Form associated with motifs</p>	<p>8 vessel forms</p>	<p><i>Form:</i> Mostly tripod vessels (12) Jars (5) Bowls (3) Grater bowls (2) Pedestal-based jars (2) Tetrapod dish, censer, tripod-plate (1)</p>	<p><i>Imagery:</i> All on exterior rims, feet (when modelled), and TSB basal flanges. All on shoulders. All on exterior rims. Both on interior bases. Both on shoulders, pedestal-bases, and exterior TSB flange. On exterior.</p>
<p>Motif Treatment</p>	<p>All vessels display motifs occurring in bands, apart from the two grater bowls, where <i>cross_c</i> is displayed in isolation. Motifs only occur isolated on these two grater bowls and one tripod dish with plain feet.</p>		
<p>Surface Treatment associated with motifs</p>	<p>Colour: Slip: Paint: Handling: State:</p>	<p>All are red, except the censer. All are slipped, except the censer. Blue pigment added to incision lines of two chalices. All are incised, over half are also modelled: 11 are only incised: 3 are open-worked: 18 were recovered complete-reassembled/whole or fragmentary, the rest (8) are sherds.</p>	<p>all tripod dishes, apart from one with plain feet, both plates, both pedestal-based jars, which are both also open-worked. all jars, bowls, and grater bowls. both pedestal-based jars and the censer.</p>
<p>Individual Motifs</p>	<p><i>Scroll_c</i> (20) <i>T-shaped band</i> (9) <i>Anthropomorph</i> (7) flanges. <i>Bird</i> (6) <i>Flower_a</i> (2) <i>Flower_b</i> (2) <i>Cross_c</i> (2)</p>	<p>This motif occurs even more often than the framing and separating devices VB and HB (see below). On all vessel forms but grater bowls. Only occur as appliqué-modelled basal flanges and on 4 vessel forms: predominantly tripod dishes (2 with bird feet, 2 with ANT feet), both pedestal-based jars, both plates, and the censer. Only as appliqué-modelled supports on all tripod dishes with ANT feet. Two also have TSB Only as appliqué-modelled supports on all tripod dishes with bird feet. On 1 bowl and 1 censer. On 1 pedestal-based jar and 1 jar. Only isolated on the interior bases of both grater bowls. Only incised.</p>	

Motif Combinations	OV/SCR _c	(8)	On 2 bowls, 2 tripod dishes with ANT feet, 1 pedestal-based jar, 1 jar, the plate and censer.
	TSB/SCR _c	(6)	On the tripod plate, pedestal-based jars, 2 of tripod dishes with BIR feet and the censer. All vessels display incision and modelling.
	BIR/SCR _c	(5)	All on tripod dishes with BIR feet. All vessels display incision and modelling.

Archaeological contexts – spatial, temporal and depositional variation and combinations thereof

Table A5.1.6: Late Postclassic Cib phase ceramics related to structures, motifs/motif combinations and burial/cache contents

Structure	Burial no.	Lot no.	Vessel forms	Motifs/motif combinations	Burial contents	Comments
N10-4						
<i>Burial</i>	14	LA 77/1	<i>Tripod plate</i>	TSB/SCR _e /OV	Adult. Tripod plate inverted beside bone fragments.	
	21	LA 83/1 LA 83/2	<i>Tripod dish with ANT feet</i> <i>Tripod dish with ANT feet</i>	ANT/SCR _c /OV ANT/SCR _c /OV	Adult male. Evidence of pre-inhumation breakage (PIB) of vessel: LA 83/1: 2 sherds beneath or around skull of Burial /19, remainder at east end and along north side of bone mass; LA 83/2: main portion beneath skull of Burial /19 with additional sherds at east end of bone mass.	
	22	LA 85/1	<i>Tripod dish with plain feet</i>	HB/VB	Adult mature female. PIB: portions of vessel over body and additional piece east of skull.	
	28	LA 90/1	<i>Grater bowl</i>	CRO _c	Old male adult. PIB of vessel, part-inverted over left elbow, shoulder and mid-back;	

				globular pottery bead, animal jaw, polished bone, pyrite mirror fragments, shell disc beads and adornos, jade disc bead, copper-button ornaments (6), crystal bead (possibly centre piece of necklace), fragments of stone mosaic, stone discs (2), shell disc, jade tubular bead fragment possibly in mouth, <i>Flamingo tongue/Oliva</i> /marine shells, human and animal teeth beads, small celt, carved bone representations (5) of human fingers, marcasite disc.	
29	LA 91/3	Grater bowl	CROc	Female mature adult. Vessel above skeleton with one frag. at left side of neck, PIB; copper bell-headed pins (2).	
46	LA 247/2	Pedestal-based jar	SCRc/IB/TSB/CRH	2 primary individuals and secondary interments with detached skulls in pile of skeletal material: A: mature seated adult male; B: male teenager placed face down at bottom of grave with arms spread out (unusual burial practice at Lamanai), first buried and associated with many artefacts, therefore, most important individual in burial (Pendergast 1981d). C: three plus individuals, mature adults (sex not determined); D: old adult (sex not determined).	
	LA 247/14	Pedestal-based jar	SCRc/TSB/FLOb/OV		whole
	LA 247/5	Tripod dish with ANT & BIR feet	ANT/BIR/SCRc		
	LA 247/6	Tripod dish with ANT & BIR feet	ANT/BIR/SCRc		
	LA 247/16	Tripod dish with ANT & BIR feet	ANT/BIR/SCRc		
	LA 247/15	Tripod dish with BIR feet	BIR/SCRc/TSB		whole
	LA 247/4	Tripod dish with BIR feet	BIR/SCRc/TSB		whole
	LA 247/19	Tripod dish with ANT feet	ANT/TSB	Associated artefacts: 3 gold sheet objects, jade beads (2), copper bell, very large chert blade dagger, carved human tibia tube (ruler figure, bird motif), animal teeth (2), shark tooth, crab claw, stuccoed wooden bowl or gourd painted green and other colours. Extensive blackening (burn marks) on left side, body and base of pedestal-based jar (LA 247/14).	whole
	LA 247/12	Bowl	SCRc	LA 247/12 at left elbow of youth.	whole
	LA 247/22	Bowl	SCRb/FLOa/OV	LA 247/22 contained in pedestal-based jar LA 247/14.	whole
	LA 247/1	Censer	FLOa/SCR/OV/TSB	LA 247/1 'killed': five holes through bottom into base perforated from underside (whole bar few rim pieces); broken in half: one half placed at southeast corner and the other at northeast corner of burial.	LA 247/1 displays concentric ovals.

	LA 247/3	<i>Bowl</i>	Plain	
<i>Collapse/core</i>	LA 63/1	<i>Tripod dish with ANT feet</i>	ANT/TSB	
N10-14				
<i>Burial</i>	1	LA 580/2 LA 557/1	<i>Tripod dish with BIR feet</i> <i>Chen Mul Modeled-style effigy censer</i>	BIR ANT
				Male (old adult). Large copper axe/celt, small copper tweezers. Chen Mul Modeled-style effigy censer (LA 557/1) of warrior with padded breast-plate and possible spear.
N10-15				
<i>XIX floor mortar & ballast</i>	LA 638	<i>Jar</i>	SCRc	sherd
N10-27				
<i>Midden</i>	LA 1436	<i>Jar</i>	SCRc	sherd
N10-43				
<i>Below CLOVER floor</i>	LA 362 LA 362	<i>Jar</i> <i>Jar</i>	FLOb/SCRc/OV/TB SCRc	sherd sherd
<i>Miscellaneous</i>				
		<i>Bowl</i>	SCRc/OV	
		<i>Jar</i>	SCRc	
		<i>Tetrapod dish(?)</i>	SCRc	
<i>Camp area</i>	LA 641/1	<i>Tripod dish with plain feet</i>	OM	

Gatah ceramics**Individual motifs**Table A5.2.1: Number of individual motifs

Motifs	Motif key	Total occurrence
Anthropomorphic	ANT	14
T-shaped band	TSB	4
Ovals	OV	2
Other motifs: (Maize vase, indecipherable creatures)		3

Table A5.2.1. Number of individual motifs in the Gatah sample.

Motif combinations/substitutions related to vessels (16 ceramic examples)

Table A5.2.2: Gatah motifs related to vessel forms and motif and vessel surface treatment

<p>Form associated with motifs</p>	<p>All are tripod vessels with ANT feet, apart from: 2 miniature pedestal-based jars: 1 modelled as a maize husk and 1 modelled as an anthropomorph, 2 vessel ANT 'attachments' of vessels now destroyed and a spiked tripod jar: 9 tripod bowls, 2 tripod dishes, 1 tripod jar. 6 have motifs occurring on vessel feet, 5 on feet and exterior basal flanges and 3 on exteriors.</p>		
<p>Motif Treatment</p>	<p>5 vessels display motifs that occur in bands (all T-shaped band flanges), and 12 vessels have isolated motifs.</p>		
<p>Surface Treatment associated with motifs</p>	<p>Colour/paint: Slip: Handling: State:</p>	<p>All are red/orange, apart from tripod jar and pedestal-based jar of anthropomorph (stuccoed then painted). All are slipped/washed, apart from the tripod jar and pedestal-base jar modelled as an anthropomorph. All are modelled. All were recovered fragmentary, apart from two reconstructible vessels (maize husk and anthropomorph jars).</p>	
<p>Individual Motifs</p>	<p><i>Anthropomorphic</i> <i>T-shaped band</i> <i>Oval</i> <i>Maize husk</i></p>	<p>(14) (5) (2) (1)</p>	<p>On all but one tripod bowl that displays an indecipherable motif. 1 pedestal-based jar. 6 tripod vessels have imagery on feet; 5 also exhibit exterior T-shaped band basal flanges. Only occurs as exterior modelled flanges on tripod vessels. On tripod jar and anthropomorphic pedestal-based jar. On pedestal-based jar.</p>
<p>Motif Combinations</p>	<p><i>Anthropomorphic/T-shaped band</i></p>	<p>(4)</p>	<p>On both tripod dishes with anthropomorphic feet.</p>

Archaeological contexts – spatial, temporal and depositional variation and combinations thereof

Table A5.2.3: Gatah vessels and associated artefacts

Structure	Lot Number	Assessment	Associated artefacts
Platform N9-59	LA 390/1	Core	Scattered human bone. Sherds occurred throughout; LA 390/13 is a small miniature jar appliqué-modelled as a maize husk.
	LA 390/2	Core	
	LA 390/3	Core	
	LA 390/4	Core	
	LA 390/5	Core	
	LA 390/6	Core	
	LA 390/7	Core	
	LA 390/8	Core	
	LA 390/9	Core	
	LA 390/10	Core	
	LA 390/11	Core	
	LA 390/12	Core	
	LA 390/13	Core	
	LA 390/14	Core	
<i>Cache /1</i> associated with core of Platform N9-59 deposit.	LA 391/3	Core	Seated anthropomorphic figure containing jade and Spondylus shell beads. Cache also contained a cup (Pendergast 1981a:51, 1982b:29-30).

Appendix 6: Lamanai Terminal Postclassic/Early Historic ceramic data (Yglesias phase; ca. A.D. 1500 - 1700)

Individual motifs

Table A6.1: Number of individual motifs

Motifs	Motif key	Total occurrences
Anthropomorphic	ANT	13
Zoomorphic	ZOO	5
Animal miscellaneous	ANI	4
Feline	FEL	4
Oval	OV	3
Other motif	OM	2
Shell	SHE	1
Glyph	GLY	1
Rectangle	RE	1
Triangle	TRI	1

Motifs related to vessels (28 vessels/sherds)

Table A6.2: Yglesias phase motifs related to vessel forms and motif and vessel surface treatment

Form associated with motifs	Occurs on 9 vessel forms	<i>Form:</i> Mostly on effigy vessels (18) Effigy containers (8) Effigy vases (8) Effigy jars (2) Pedestal-based bowls (4) Tripod jars (3) Bowl (1 each) Censer Vessel 'attachment'	<i>Imagery:</i> All on vessel bodies. All on exteriors. All on bodies.
Motif Treatment	Only 21% of vessels display motifs that occur in bands; 86% of motifs occur isolated.		
Surface Treatment associated with motifs	Colour: Slip: Paint: Handling: State:	Only 4 are orange/red: 2 are slipped: 6 are stuccoed: 4 are painted: All are modelled. All were recovered complete-reassembled/whole or fragmentary.	4 effigy containers, 1 pedestal-based bowl, 1 tripod jar. (2 effigy containers are buff, but were probably originally also orange/red.) Most could not be determined. 1 effigy container and 1 tripod jar. 3 effigy containers, 2 effigy vases and 1 tripod jar (also slipped). 1 effigy container and 1 effigy jar.

Individual Motifs	<i>Anthropomorphic</i>	(13)	Widely distributed on vessel forms:	On over half of all effigy vessels (9): 4 effigy containers, 4 effigy vases, 1 effigy jar; half the pedestal-based bowls (2), tripod jar, censer (1 each).
	<i>Zoomorphic</i>	(5)	Only as modelled effigy containers.	
	<i>Animals miscellaneous</i>	(4)	On 3 effigy vases and 1 effigy jar.	
	<i>Feline</i>	(4)	1 effigy vase, 1 effigy container, 1 pedestal-based bowl and 1 vessel 'attachment'.	
	<i>Oval</i>	(3)	On 2 tripod jars and 1 pedestal-based bowl (painted red and black).	
	<i>Shell</i>	(1)	Modelled effigy container.	
Motif Combinations	Not applicable.			

Archaeological contexts – spatial, temporal and depositional variation and combinations thereof

Table A6.3: Yglesias phase ceramics related to structures, motifs/motif combinations and burial/cache contents

Structure	Cache/tomb no.	Lot number	Vessel forms	Motifs/motif combinations	Burial/cache contents	Comments
N10-42						
Surface		LA 735/1	Pedestal-based bowl	ANT/OV		
		LA 735/2	Pedestal-based bowl	ANT		
N11-3						
Cache	1	LA 839/1	Effigy container	FEL		
	2	LA 850/1	Effigy container	ANT		ANT with <i>mano et metate</i> ; head missing.
	3	LA 874/1	Effigy vessel lid	ANT		
N11-4						
Cache	1	LA 833/1	Effigy container	ANT/ZOO	Intruded into top core, facing south, upright; four polished stones around ZOO (at SW, SE, NW, NE); globular gold bead (on clay core) beneath orifice of ZOO at base of interior, jade tubular bead beside gold bead, jade and <i>Spondylus</i> irregular discs.	Crocodilian zoomorph with spotted deer antlers and fish tail and personage in mouth.
N12-11 1st Spanish Church (YDL I)						
Cache	2	LA 739/1	Effigy vase	FEL	Contained charcoal and bone pin or needle tips. Below that vessel was a flint (chert) blade pointing to NE; clandestine offering at construction of church.	Church was built ca. 1550.

N12-12 The 'Rectory'						
Cache	1	LA 757/1	Effigy container	ZOO	Fragmentary, in core with no associated artefact.	Crocodile with jaguar spots, fish mouth, deer antlers, ringed eyes
N12-13 2nd Spanish Church (YDL II)						
Cache	1	LA 740/2	Effigy container	ZOO	'Column Base' Altar I cache.	
	2	LA 423/4	Effigy container	ZOO	Sub-stela cache (Stela 4), dated to after A.D. 1641 (Pendergast 1985a:101).	
	4	LA 766/1	Effigy vase (face cup)	ANT	Cache N12-13/4 may have been deposited when church was built, but could be of seventeenth-century construction (possibly following church destruction in 1640-1641).	
		LA 766/2	Effigy vase (face cup)	ANT		
		LA 766/3	Effigy vase (face cup)	ANT		
		LA 766/4	Effigy vase (face cup)	ANT		
		LA 766/5	Effigy vase (toad)	ANI (toad?)		
		LA 766/6	Effigy vase (toad)	ANI (toad?)		
	5	LA 767/1	Effigy container	ZOO/ANT	Set upright in cache, whole until body pierced in excavation.	Most likely to be post 1641.
N12-26						
Tomb	1 (Hunchback Tomb')	LA 774/1	Effigy container	ANT/GLY	Three individuals: one of which was a child laid out very carefully, representing the last activity of the tomb. Sherds of Victorian crockery and other materials of that date within headdress and ash in body of LA 774/1 (partly stuccoed, killed and PIB); copper-tin bronze ring, copper-tin bells (one with each adult), copper-tin pins or pin tops (2), polished stones (2), severed human upper-arm bones (2), carved dolphin bone and other bones, shell pendant, chert blade (one with each	Late fifteenth, early sixteenth century tomb (Pendergast 1984a:8). LA 774/1 represents a hunchbacked figure, possibly the portrait of a ruler/official.
		LA 774/17	Effigy jar	ANI (monkey)		
		LA 774/15	Pedestal-based bowl	ANI (feline/bat)		
		LA 774/4	Frying-pan censer			
		LA 774/10	Frying-pan censer			

					adult), two worked human humeri, hematite laminae (associated with each individual), jade, shell (including <i>Spondylus</i>), and pyrite beads and artefacts.
<hr/>					
P8-26					
Cache	1	LA 411/1	Effigy jar	ANT/SHE	Lidded vessel faces north with top of shell to south, contained small amount of indurated soil (possible organic offering). Post-abandonment.
<hr/>					
P8-29					
Cache	1	LA 397/1	Effigy jar	ANT	
<hr/>					
Miscellaneous					
Gann	-	Gann 09.0594	Effigy container	ZOO/ANT	
New River			Pedestal-based jar/bowl	ANT	'Upended' figure.