



Estudios de Cultura Maya

ISSN: 0185-2574

estudios@servidor.unam.mx

Centro de Estudios Mayas

México

Patiño-Contreras, Alejandro  
Explaining Tzakol: Social Interaction During the Early Classic. A View from Naachtún,  
Petén, Guatemala  
Estudios de Cultura Maya, vol. XLVIII, 2016, pp. 39-70  
Centro de Estudios Mayas  
Distrito Federal, México

Available in: <http://www.redalyc.org/articulo.oa?id=281346952002>

- How to cite
- Complete issue
- More information about this article
- Journal's homepage in redalyc.org

redalyc.org

Scientific Information System

Network of Scientific Journals from Latin America, the Caribbean, Spain and Portugal

Non-profit academic project, developed under the open access initiative

**Explaining Tzakol: Social Interaction During  
the Early Classic.  
A View from Naachtún, Petén, Guatemala**

**Cerámica Tzakol e interacción social  
durante el Clásico Temprano.  
Una mirada desde Naachtún, Petén, Guatemala**

ALEJANDRO PATIÑO-CONTRERAS

Petén Norte-Naachtún Archaeological Project

**ABSTRACT:** I argue that diffusion of Tzakol ceramics was enabled as an effort to overcome social boundaries established between the second half of the second and the early part of the fourth centuries AD. Using the case of Early Classic (AD 200-500/550) ceramics of Naachtún site, I propose that the dispersion of the Tzakol ceramics has to do with an effort to establish systems of interaction of great extent, partly in reaction to social barriers set in earlier times. By participating in this particular network of interaction, the denizens of Naachtún had access to the flow of a considerable amount of resources that enabled the growth of this center.

**KEYWORDS:** ceramics, interaction, Early Classic, ceramic system, Maya.

**RESUMEN:** En este trabajo, propongo que la cerámica Tzakol fue un elemento que permitió el establecimiento de afiliaciones socio-culturales particulares en las Tierras Bajas mayas. Utilizando el caso de las cerámicas del período Clásico Temprano (200-500/550 d.C.) en el sitio de Naachtún, propongo que la dispersión de las cerámicas Tzakol tiene que ver con un esfuerzo por establecer sistemas de interacción de gran extensión, en parte como reacción a barreras sociales establecidas en épocas anteriores. La aceptación de éstos en Naachtún pudo representar una participación activa en redes extensas de interdependencia regional. Ello a su vez abrió el flujo de una cantidad considerable de recursos que permitieron el crecimiento de dicho centro.

**PALABRAS CLAVE:** cerámica, interacción, Clásico Temprano, sistema cerámico, maya.

**RECEPCIÓN:** 4 de junio de 2015.

**ACEPTACIÓN:** 30 de noviembre de 2015.

**DOI:** 10.19130/iifl.ecm.2016.48.759

## **Introduction**

Archaeologists refer to the fine glossy monochrome and polychrome pottery of the Early Classic period (AD 300-550) as Tzakol ceramics, a name that stems from the complex identified in the site of Waxaktun several decades ago (Smith and

Gifford, 1966:167; Willey, Culbert and Adams, 1967: 298-299, 310). Unfortunately, the definition of Tzakol has become a conceptual straightjacket that prescribes what analysts ought to find everywhere in the Maya lowlands (Chase and Chase, 2005: 17-19). In fact, Lincoln (1985) and Laporte (1995) note that sites with this class of assemblages are concentrated in northern Petén, whereas ceramic traditions showing trademarks developed during the Late Preclassic period continue in other places, particularly monochrome pots with waxy finish (Gifford, 1976: 111-112). Therefore, the question of why the denizens of certain centers choose to make and use Tzakol ceramics remains to be answered.

In this paper, I address this particular query from the perspective of the ceramic sequence of the site of Naachtún, located today in the northeastern area of the Department of Petén in Guatemala. The goals of this article include: (1) reconstruct the local evolution of the formal characteristics of local ceramics, placing their development in a regional cultural framework; (2) understand how social convention shapes and influences the realms of economy and technology (Foias and Halperin, 2010; Inomata, 2001; McAnany, 2010; Pool and Bey, 2007).

This work is organized in six sections. First, I address the question of how the Type-Variety-Mode system can be used to reconstruct ancient forms of interaction. My discussion centers on the notion of ceramic system. I adopt this concept as a heuristic device to document resemblances and differences among assemblages, providing in turn a baseline to reconstruct past regional networks. In the next part, I do a brief introduction of the state of research at Naachtún and expose the results of the classification of early materials from this site. Subsequently, I contextualize the findings of Naachtún within regional developments in the Maya lowlands during the timeline that concern this study. The goal of this exercise is to appraise the degree of stylistic likeness between ceramic assemblages from Naachtún and those reported from a selection of sites in the Maya lowlands. Finally, I discuss this information in order to provide a reconstruction of regional patterns of societal interaction in Naachtún.

## The Ceramic System

In general terms, the Type-Variety-Mode classificatory system sorts collections of pottery on the basis of visual and tangible characteristics, including slip color, surface texture, and decorations (painting, applique, carving, among others), setting categories in a hierarchical fashion moving from concrete and specific to general and abstract (Gifford, 1976: 16-17, 25; Sabloff, 1975: 3; Smith and Gifford, 1966; Smith, Willey and Gifford, 1960; Willey, Culbert and Adams, 1967). The usefulness of adopting a particular system of classification lies in determining how it will answer particular questions (Rice, 2013: 26). As I'm looking to reconstruct the formal aspects of ancient forms of social and cultural affiliation, I follow the lead of a number of authors who focus on formal attributes of ceramic types see-

king to relate assemblages in terms of style using the notion of ceramic system (Aimers, 2007, 2014; Bill, 2013: 34; Henderson and Agurcia, 1987: 432).

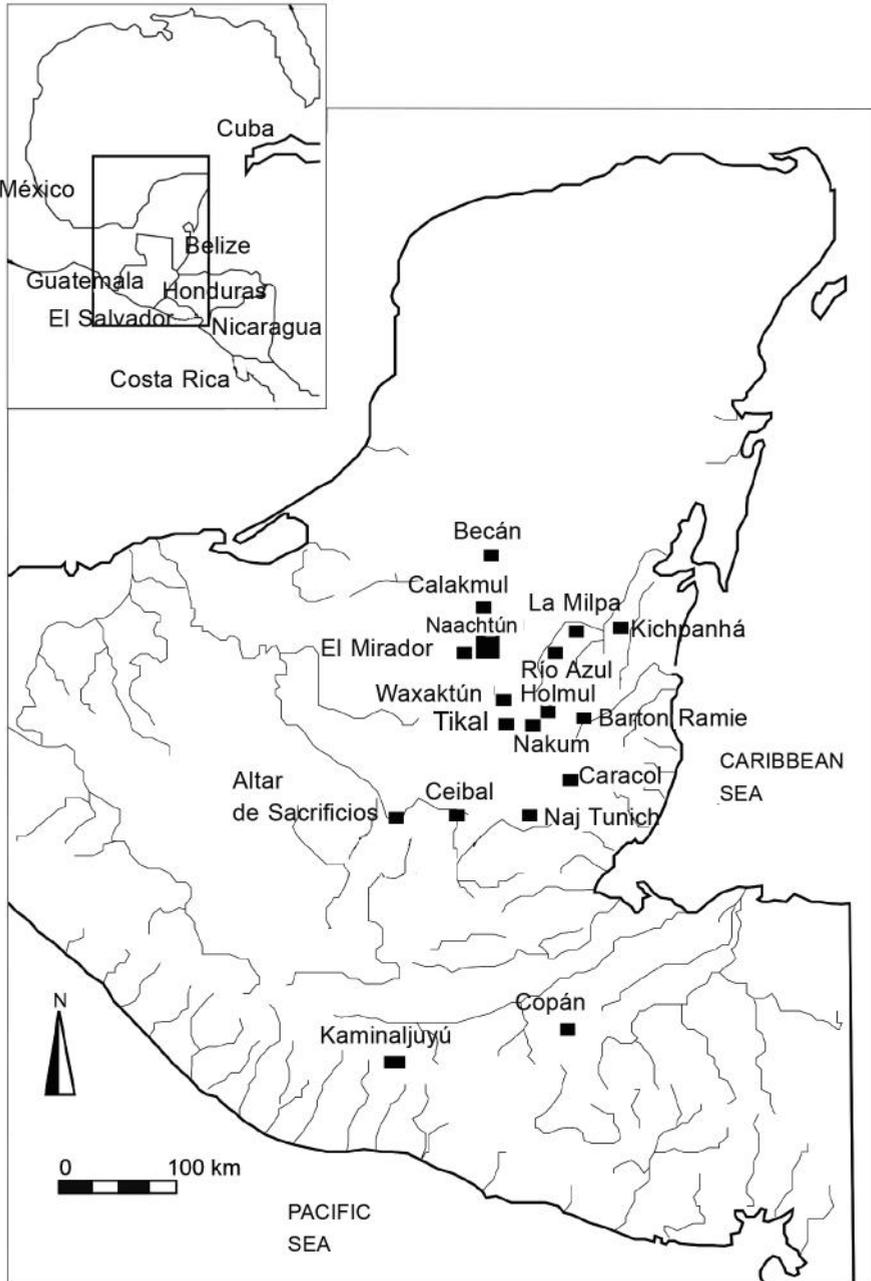
The concept of ceramic system refers to contemporaneous classes of pottery showing similar constellations of formal traits present in a given geographical area, which can include surface finish, decoration, and forms (Gifford, 1976: 12; Phillips and Gifford, 1959: 17 cited in Forsyth, 1983: 9). By using the notion of ceramic system, I seek to identify cultural dispositions to obscure or highlight local variations in local ceramic assemblages with the intention to build, signal, and cue membership to regional networks of societal, economic, and political interaction and interdependence (Aimers, 2014; Bill, 2013; Gifford, 1960). In this regard, the pattern of distribution of Tzakol ceramics speaks of discrete and possibly exclusive networks of regional associations that were enacted in part through particular formal traits in pottery in a particular historical setting (Goselain, 2000: 191; Routledge, 2014: 66-73; Saitta, 2000: 156, 161).

The symbolic roles of pottery enabling and fashioning principles of social inclusion and exclusion in the Maya lowlands are well documented for the Late Classic period (see for example Reents-Budet, Bishop and MacLeod, 1994; LeCount, 1999, 2010). In general, we know that the creation and use of common traits in ceramics by different groups allowed the constitution of practices of affiliation in daily routine (Yaeger, 2000). Tzakol assemblages of the Early Classic period likely enacted similar functions.

### The site of Naachtún

The site of Naachtún is located today in northeastern Petén, Guatemala (Map 1). Naachtún was “discovered” and mapped for the first time during the early Twentieth Century by the Carnegie Institution of Washington (Rupert and Denison, 1943). The remote location of the site hindered further scientific exploration and systematic excavation until 2004 to 2005 when Kathryn Reese-Taylor of the University of Calgary and a Guatemalan-Canadian team conducted the first systematic archaeological excavations of Naachtún. In 2010, a French-Guatemalan team under the direction of Philippe Nondédéo of the National Centre of Scientific Research of France (CNRS) resumed archaeological excavations at Naachtún and continues to do so today.

The central area of Naachtún encompasses a concentration of monumental buildings placed atop a limestone ridge bordering a seasonal swamp, or *bajo*, to the north and a series of residential compounds of different sizes and compositions to the south (Lemonnier, Cotom and Hiquet, 2014; Nondédéo and Morales-Aguilar, 2012; Rupert and Denison, 1943; Reese-Taylor *et al.*, 2005). The first archaeologist to survey the site dubbed each compound of the monumental epicenter as Group A, B and C, respectively, (Rupert and Denison, 1943). Group A incorporates three large plazas (the north, south, and west plazas), a large



MAP 1. Location of Naachtún in the Maya area and other sites mentioned in the text (Drawing by author).

E-Group, other pyramidal buildings (dubbed Structure XXVII and “La Perdida”), and a walled compound housing several palatial structures. Group B comprises a maze of masonry residential structures on low platforms surrounding a series of patios of different sizes, as well as a pyramidal and public structures (Str. 60-3, 60-4, XXV among others) arranged around two plazas (East Plaza and Plaza Río Bec). Finally, Group C consists of a series of pyramidal buildings, including a triadic group (Str. I), and a monumental acropolis (Map 2)

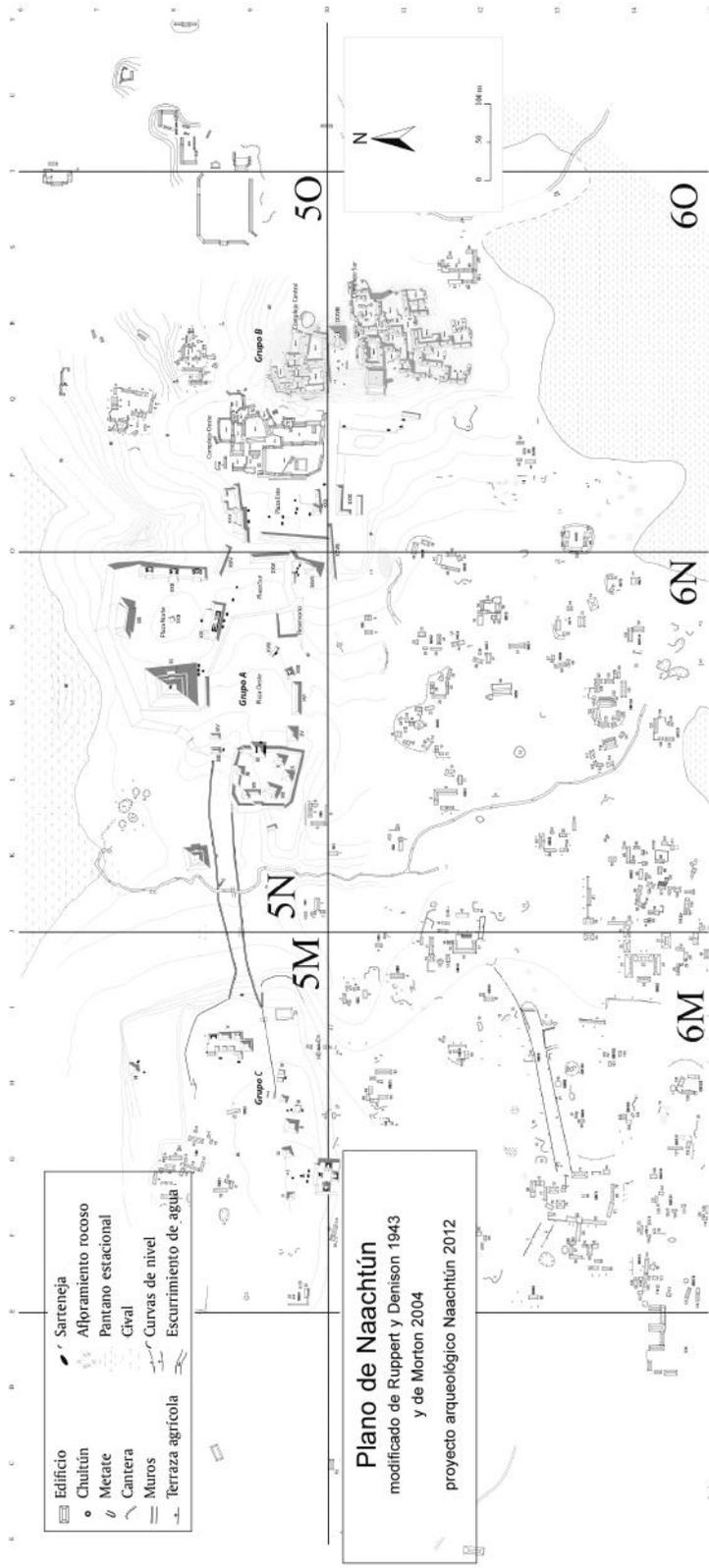
Current research indicates that Naachtún developed from the end of the Late Preclassic period to the Terminal Classic period (Nondédéo and Morales-Aguilar, 2012: 445-447; Nondédéo *et al.*, 2012; Nondédéo *et al.*, 2013; Reese-Taylor and Rangel, 2005; Walker and Alvarado, 2005: 134). Naachtún seemingly began as a small settlement that grew abruptly during the Early Classic period, suggesting that it became a paramount political center in northeastern Petén, a trend that continued during the Late Classic period (Nondédéo *et al.*, 2012; Reese-Taylor *et al.*, 2005; Walker and Alvarado, *op. cit.*). The location of Naachtún amidst different regions and polities likely contributed to the prosperity of its inhabitants over time (Nondédéo, Michelet and Morales-Aguilar, 2012).

## Results and Analysis of Classification of Early Ceramic Materials

The current ceramic chronology of Naachtún is divided into four ceramic complexes and their respective facets. For details on the chronology of the Early Classic period (as well as the contexts and the stratigraphy used to build it), the reader is referred to details presented in Patiño-Contreras (2013: chapter 4). Estimated dates for each ceramic complex are based on cross-references with information from other sites and on radiocarbon dates from Naachtún reported by Walker and Reese-Taylor (2012), although more samples from different classes of depositional contexts are needed to refine the current chronology (Table 1). My analysis also benefited greatly from visits to collections kept in Guatemala City at the Instituto de Antropología e Historia (IDAEH), and from the Atlas Arqueológico de Guatemala in Dolores. In the following part, I discuss in detail the characteristics of wares and vessel forms documented for the Early Classic period in Naachtún.

*Early Classic: Balam Ceramic Complex, Early Facet-Balam I.* The early facet of the Balam complex (AD 150/200-300) is represented by materials collected in four excavations: *Test pit 11* of the walled compound of Group A and *Test pits 5, 7 and 8* of the residential area south of Groups A and B. Although similar ceramics have been retrieved elsewhere, often in association with Late Classic pottery (Patiño-Contreras, 2011), these materials constitute the only set from stratified unaltered contexts, providing a more solid ground for discussion.

The noteworthy aspect of these materials is the presence of two very distinctive classes (Patiño-Contreras, 2013: 96-118). The first group comes from *Test pits 7 and 8* (Operation II.2) and features two types of materials: The first class



MAP 2. The central area of Naachtún (Courtesy Proyecto Naachtún).

Year	TIME PERIOD	Naachtún	Tikal	Waxaktún	El Mirador	Holmul	Barton Ramie
1000	Postclassic		Ceban		Post-Lac Na		New Town
950	Terminal Classic	Muuch	Etnab	Tepeu 3	Lac Na	Kisin	Spanish Lookout
900							
850	Late Classic	Maax III	Imix	Tepeu 2		In Chuah	Tiger Run
800		Maax II					
750		Maax I	Ik	Tepeu 1	Chak		
700	Early Classic	Balam III	Manik 3	Tzakol 3	Acrópolis	K'ahk 3	Hermitage
650			Manik 2	Tzakol 2		K'ahk 2	
600		Balam II	Manik 1	Tzakol 1		K'ahk 1	
550			Balam I	Cimi	Matzanel	Paixbancito	Wayaab
500		Terminal Preclassic	Kuts'	Chuen	Chicanel	Cascabel	Itzamkanak
450	Late Preclassic	Chuen					
400							
350							
300							
250							
200							
150							
100							
50							
0							

TABLE 1. Naachtún ceramic sequence.

shows layers of red, black, orange and cream monochrome slips applied over a light underslip, and waxy surfaces, although some specimens have a lightly glossy hue (Figures 1A and 1B). The second class includes striated and plain unslipped pottery. Both wares have soft pastes, often with black and gray cores, which indicates poor firing. These materials are often found in deep deposits of clayish brown soils placed underneath stone architecture.

The second group is represented by materials collected in the lowest levels of *Test pit 5* (Operation II.2) and *Test pit 11* of the walled compound of Group A (Operation II.1). This group features a series of novel elements added to pre-existing modes that include black monochrome ceramics with mottled finish and fluted surfaces (Figures 2A and 2B), surfaces with a bright glossy finish, polychrome-painted decoration programs encompassing geometrical motifs on the exterior surface of the vessels and horizontal bands in red and black on the exterior and interior surfaces of rims (Figures 3A, 3B, 3C). In addition, I identified a minority of polychrome wares with a somewhat waxy finish represented by *Actuncan Orange Polychrome: unspecified*. This group of ceramics is found within the lowest construction fills of sealed floors of stratified sequences of constructions programs.

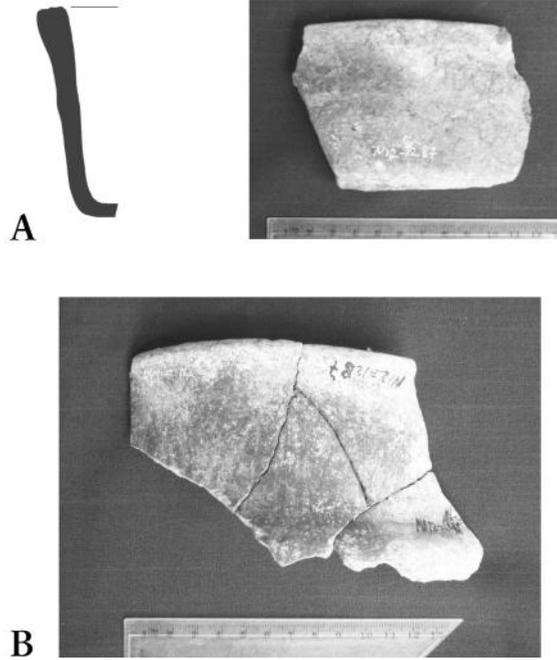


FIGURE 1. Ceramics of the early facet of the Balam Complex. *A)* Polvero Group with Fluted Exterior: Unspecified Variety vessel with thickened rim, square lip with grooved incisions, straight walls and flat bottom. Drawing by Nicole Oakden and photograph by author. *B)* Polvero Group Unnamed Grooved Incised: Unspecified Variety (Photographs by author).

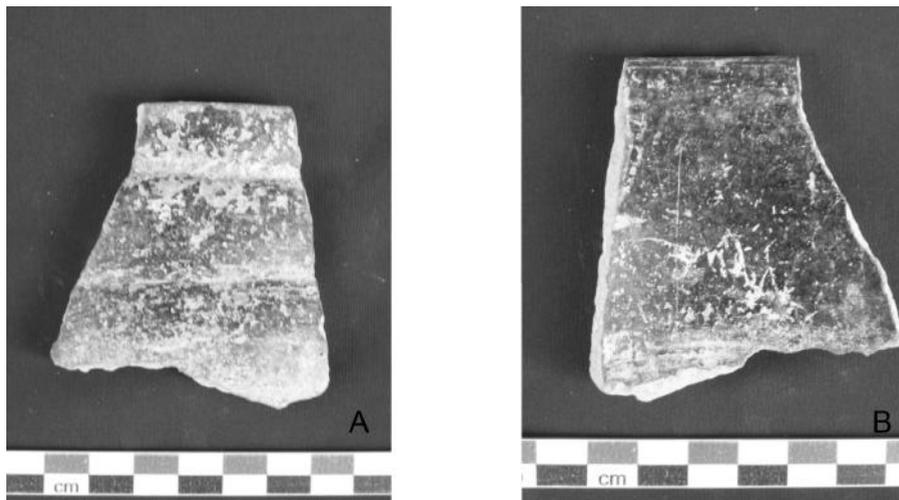


FIGURE 2. Balanza Group, Black Mottled Type: Red Variety; *A)*: exterior surface. *B)*: Interior surface (Photographs by author).

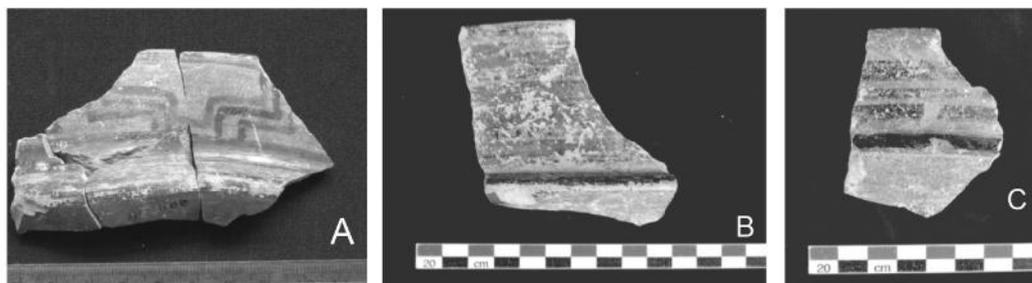


FIGURE 3. Pottery of the early facet of the Balam Complex. Examples of polychrome vessels with basal sharp Z-angles, flared sides with an average height of 5.0 cm, direct rims, and annular bases (photographs by author). A) and B) Dos Arroyos Orange Polychrome: Dos Arroyos variety. C) Actuncan Orange Polychrome: unspecified variety (Photographs by author).

Two classes of unslipped vessels are numerically predominant in this assemblage: 1) jars with tall necks, outcurved rims, and globular bodies; and 2) hemispherical shallow vessels with direct rims. The former likely were used for cooking or storage, whereas the function of the latter is unclear for now. Other observed forms are monochrome flared vessels with straight walls and direct rims; orange and buff polychrome vessels with flared or outcurved sides, basal sharp-Z angles, and annular bases; monochrome pots with straight walls, flat bottoms, thickened rims and flat lips with grooved incisions (Figure 1A); monochrome hemispherical vessels with slightly incurved rims with or without lateral flanges; monochrome jars with tall and short necks and globular bodies. The aforementioned classes of containers seem fit to serve food and liquids. As such, they may have been presented in the course of social encounters, including feasts and ritual ceremonies.

*Early Classic: Balam Ceramic Complex, Middle Facet-Balam II.* The assemblage of the middle facet of the Balam complex (AD 300-400) is comprised by glossy orange ceramics (*Aguila Orange: Aguila*) and unslipped striated pottery (*Triunfo Striated: Triunfo*) (Patiño-Contreras 2013: 171-172). In addition, pottery with red, orange, and black or black-mottled slips remain common features. In general, decoration occurs primarily in the form of incised and painted designs, although ornamentation in the form of applique, carving, and modeling is present in smaller proportions.

The catalog of painted and incised motifs found in Balam II seems richer and more elaborate, although this observation may be the result of sampling limitations. It includes rows of black triangles with stems on top painted on the interior faces of rims (Figure 4A), figurative designs that represent animals or supernatural beings (Figures 4B and C), ovals and lines (Figure 4D), a motif consisting of paired-step frets in red, black, or red and black in tandem (Figure 5A), mats (5B), zigzag lines (5C), horizontal bands and lines with “loops” (6A), rows of red triangles on rims (6B), scrolls, bats (7), and macaw heads in profile. Intriguingly, the frequency of figurative motifs is quite low compared to other classes of imagery.



FIGURE 4. Figurative motifs of ceramics of the middle facet of the Balam ceramic complex. *A)* Row of “hand bells” in black over orange background. *B)* Undetermined figurative motif. *C)* Incised geometric designs (lines) and zoomorphic (bird?) image. *D)* Ovals in applique with incisions and lines (Photographs by author).

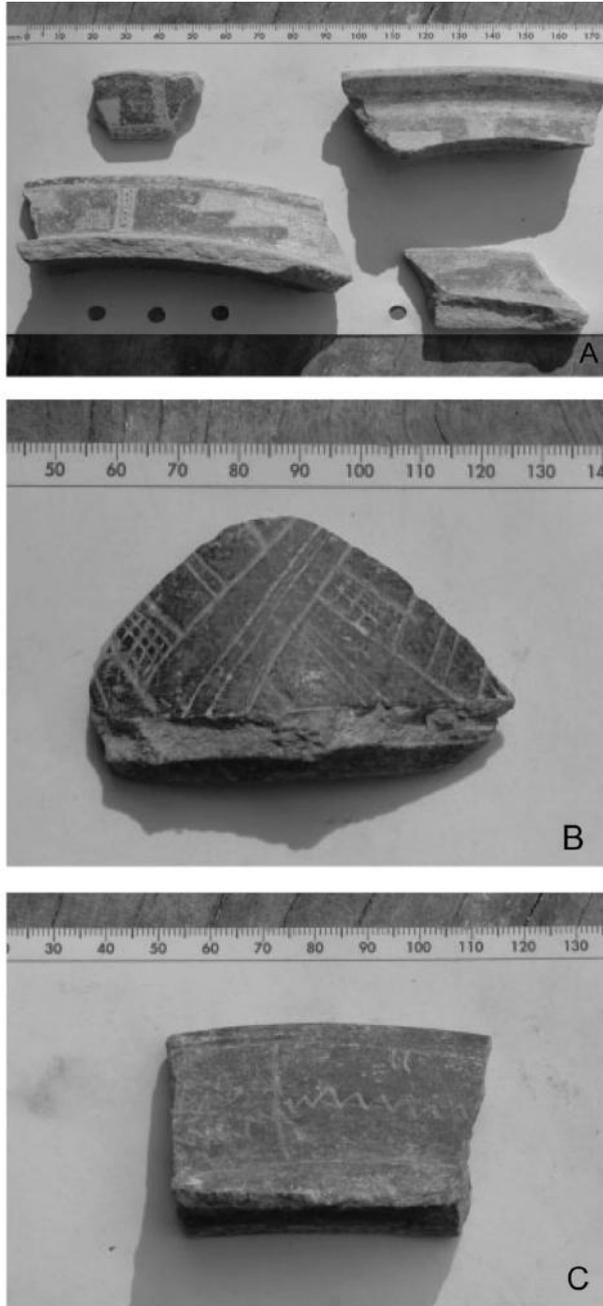


FIGURE 5. Geometrical decorations of middle facet Balam Complex ceramics. A) Double step fret motif in red. B) Incised “mat” motif. C) Zigzag incised design (Photographs by author).



FIGURE 6. Example of painted decoration on Caldero Buff Polychrome: unspecified variety #2 from Naachtún. *A*) Exterior surface showing line with “loops”. *B*) Interior surface showing rows of red triangles on rim and scrolls on the bottom of the pot (Photographs by author).

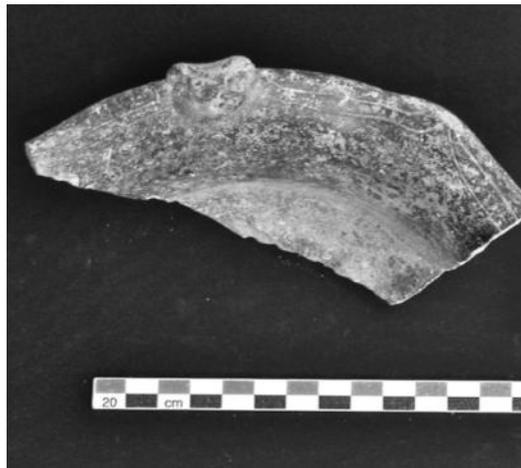


FIGURE 7. Fragment of black incised-modeled vessel shaped as a bat (Photograph by author). The head and the ears are modeled in the middle of the lip and the wings are represented using incised lines that follow the contour of the rim.

The sample of vessel forms belonging to the middle facet of the Balam complex comprises five classes of containers occurring in larger proportions than the rest. For purposes of organization, I have grouped them in five classes. Class 1 corresponds to orange and buff polychrome vessels with annular base and long basal flange (average 1.5 cm long). Class 2 comprises unslipped jars with long neck, outcurved rim and globular body. Class 3 includes monochrome orange and red jar with short necks and globular body. Finally, classes 4 and 5 are orange flared pots and orange hemispherical vessels with direct rim and annular base respectively.

The functional roles of class 2 and 3 likely include storage, transportation of water, and cooking, whereas those of vessels belonging to class 1, 4, and 5 relate to food serving and ritual offerings, a role attested in several archaeological contexts in Naachtún (Morales Aguilar, 2012: figure 20; Walker and Reese-Taylor, 2012: figure 29). A minority of vessels feature idiosyncratic decoration programs as is the case of monochrome and polychrome hemispherical vessel lids from particular loci showing unique arrays of designs (Patiño-Contreras, 2013: 135). These assemblages seem to be distinct commissions intended for the consumption of particular patrons, arguably as expressions of individual socio-political affiliations and the individual standing of the owners. These idiosyncratic vessels occur in low frequencies, suggesting a restricted pattern of distribution for these items.

Another class of vessels represented by tall tripod cylinders with hollow carved and incised rectangular supports indicates that Naachtún participated in pan-Mesoamerican networks of cultural and economic exchange (Varela Torrecilla and Braswell, 2003: 252-253, 259-260). The common decorations of hollow rectangular supports in Naachtún are triangular windows gouged on front, sometimes with incisions on the sides (Figure 8). These resemble examples reported in Matapan in Veracruz, Copan in Honduras, Kaminaljuyu in the Guatemalan Highlands, and Oxkintok and Yaxuná in northern Yucatán, among others (Hutson, 2014: 134, Figure 5.5). Most importantly, local Maya regal elites across the lowlands used cylindrical tripods to hint at real or fictitious associations with Teotihuacan (Iglesias Ponce de León, 2003; Laporte and Fialko, 1990, 1995; Patiño-Contreras, 2013: 206). Identifiable potsherds occur in low percentages in Naachtún (Patiño-Contreras, 2013: 106), conforming to what is expected for prestige goods circulating among elites in pre-industrial societies (Brumfiel and Earle, 1987: 6).

*Early Classic: Balam Ceramic Complex, Late Facet-Balam III.* Ceramics of the late facet of the Balam complex (AD 400-550) are common in Naachtún. Potsherds are found deposited in construction fills under sealed floors, as well as in concentrations of pottery buried under later architectural features. In general, the technical and stylistic characteristics of Balam III pottery show continuities with the middle facet, including widespread use of glossy finish.

At the same time, a series of important formal innovations take place. These include novel vessel forms such as cylindrical and barrel-shaped vases, as well as globular pots with slightly incurved rims. The rims of open vessels have broader

opening angles, often close to 45 degrees, and basal flanges become shorter, being 1.0 and 0.5 cm or less in average (Patiño, 2015: 20-21). The latter are not decorated or present a simple horizontal black or brown horizontal line or band on top. In addition, exterior surfaces of vessels tend to show a rough finish, whereas interior surfaces are more carefully elaborated (Figures 9A, 9B).



FIGURE 8. Example of painted decoration on Caldero Buff Polychrome: unspecified variety #2 from Naachtún. Exterior surface showing line with “loops”. Interior surface showing rows of red triangles on rim and scrolls on the bottom of the pot (Photograph by author).



FIGURE 9. Example of Balam III rim polychrome vessel with short basal flange. A) Interior surface. B) Exterior surface (Photograph by author).

Depictions of animals represented by bird heads are commonplace in the late facet of Balam (Figure 10). The paired red and black step-fret motif found in Balam II continues to be represented on pottery, yet it occurs within horizontal registers placed on the upper part of the interior surface of rims or outside globular vessels. The catalogue of painted designs of Balam III pottery also includes red and black trilobes, rows or black triangles, black or red horizontal bands, chevrons, and rhombi flanked by circles on each side, possibly a stylized representation of the star glyph (Figure 11) (Stone and Zender, 2011: 151). Regarding the case of monochrome pottery, gouged and incised geometrical and figurative designs are observed.

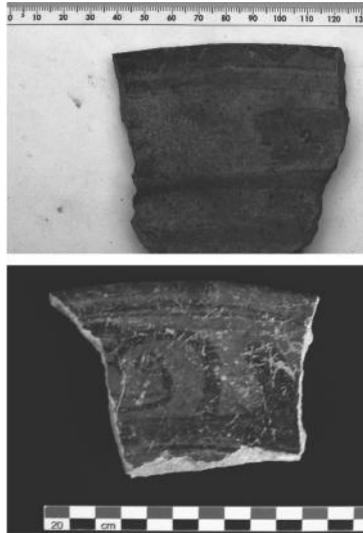


FIGURE 10. Examples of Balam III polychrome painting showing birds with red beak, long beak, and bulging eyes (Photographs by author).



FIGURE 11. Balam III potsherd with possible representation of a star glyph (Photograph by author).

Pan-Mesoamerican elements are present in the late facet of Balam. These include cylindrical tripod vessels with hollow rectangular supports showing a simple incised decoration (Figure 12), as well as few examples of Thin Orange pottery. The latter includes one *Ratones Orange* flared vessel and an applique in the form of a human face (Figure 13), possibly from a cylindrical vessel. These items come from secondary deposits excavated in elite compounds (Nondédéo *et al.* in press). A third specimen was retrieved in a looters' trench and as such its chronological placement remains contentious. Presumably, these Thin Orange ceramics were made in what is today Tepexi de Rodriguez, Puebla, México (Rattray, 1990, 2001: 89, 93-94). The low frequencies of Thin Orange potsherds and their context of origin strongly indicate that these materials were prestige goods (Brumfiel and Earle, 1987; Earle, 1987).



FIGURE 12. Example of Balam III rectangular hollow support with incised decoration (Photograph by author).



FIGURE 13. Thin Orange appliqué, possibly from a cylindrical vessel (Photograph by author).

## Contextualizing the Development of the Ceramics of Naachtún in a Regional Framework

The evolutionary trajectory of early pottery in Naachtún is one of progressive transformation of surface treatment techniques and vessel forms, which was accompanied by the sudden appearance and disappearance of particular traits. The early facet of the Balam ceramic complex shows marked variation in vessel forms, characteristics of surface treatment, and decoration. In contrast, the pottery of the middle and late facets of the Balam ceramic complex tend to show greater consistency. These developments did not occur in isolation, but in close relation to others taking place in the Maya lowlands.

*The Early Facet of the Balam Ceramic Complex-Balam I.* The pottery of Balam I is a local example of a regional trend towards diversification in the aesthetic and technical characteristics of ceramics (Brady *et al.*, 1998: 22; Callaghan, Estrada Belli and Neivens, 2013; Forsyth, 1989: 51, López Varela, 2005: 164-166; Wauchope, 1975: 50). Brady and colleagues (1998: 18) characterized this phenomenon as a “protoclassic” ceramic stage. These authors described their subject as a “content defined unit delimited by the appearance and disappearance of a broad series of ceramic attributes”. Characterized by outstanding experimentation with techniques of surface treatment and vessel forms, constellation of forms, surface finish, decorative treatments, designs and technologies, the “protoclassic” stage developed from about 75 BC  $\pm$  25 to AD 420  $\pm$  20 (*op. cit.*). The pottery that distinguishes the early facet of the Balam ceramic complex can be considered an example.

The ceramic materials of Balam I in Naachtún show in part important correspondences with collections reported for El Mirador Basin. Specifically, the ceramics of Naachtún share modal and typological elements with materials documented in the Paixbaincito Subcomplex of El Mirador, particularly the thickened rim with square lips, and straight walls, as well as the contemporary occurrence of waxy ware and glossy surface finishes (Forsyth, 1989: chapter 4).

However, the ceramics of Naachtún show other homologies with materials reported outside the northern Petén region of Guatemala. To begin with, a series of roughly contemporaneous assemblages feature both waxy red and orange and glossy monochrome and polychrome orange ceramics during the Early Classic in Caracol, Belize (Chase and Chase, 2005). Smith (1955) reports a similar trend in the ceramics of Waxaktun, as well as Laporte (1995) in the Dolores-Poptun Plateau, and Bachand (2010) in Punta de Chimino. In the Belizean sites of Cuello and Chan, Late Preclassic waxy slips continue into the Early Classic (Kosakowsky, 1987: 92, 2012), although in some instances pottery shows a tendency to be glossier (Kosakowsky, 2012: 50-51). Glossier waxy ceramics and orange gloss wares of the early facet of Balam complex in Naachtún are also shared with Naj Tunich in Southeastern Petén (Brady, 1987: 471-475). In addition, light golden brown waxy wares (*San Felipe Group*) are present in both Naachtún and sites in northern

Belize, where this particular class is relatively common (Gifford, 1976: 115-116; López Varela, 2005: 165; Reese, 1989: 56; Valdez, 1987: 143).

Concerning inventories of vessel forms, glossy and polychrome open vessels with a basal sharp Z angle and flared sides with direct rims found in Naachtún strongly resemble forms reported for *Tixcacal Orange Polychrome: Tixcacal* of the late facet of the Pakluum complex (AD 150-AD 250) in Becan (Ball, 1977: 67, figure 24c), as well as two examples of funerary pots from a royal burial in Nakum dated between the second and the third centuries AD. (Żrałka *et al.*, 2011: figure 14b). The presence of a common technological and aesthetic corpus between Naachtún and the aforementioned sites strongly suggests related cultural traditions among the peoples of these places, as well as exchanges of information among them and awareness of each other's ceramic repertoire.

Other elements of the "Protoclassic" stage reported elsewhere in the Maya lowlands are not present in Naachtún. Particularly, no examples of mammiform supports are attested here (Walker and Reese Taylor, 2012: 26). Comparisons with assemblages of whole fine vessels recovered in funerary elite contexts at Holmul enhance this observation. Arrays of monochrome and orange polychrome open containers include tetrapod forms with hollow rattle mammiform and pedestals (Callaghan, 2013: figures 8, 9, 12, and 13). Other differences lie on programs of painted designs observed in these vessels include a possible mat design in black, registers of three parallel vertical lines, scrolls, depictions of macaws, interlocked step and bracket-like elements containing rows of horizontal black spots, rows of black triangles, and solid colors (*ibid.*: figures 8, 9a, b, d, f, and 13b). Callaghan (*ibid.*: 337) proposes that top-ranking groups in Holmul funneled the allocation of these goods through diacritical feasts where such vessels circulated as social valuables in a restricted fashion. I cannot use current evidence at hand to posit the existence of a similar arrangement in Naachtún. Nonetheless, local innovations and idiosyncratic combinations of modes are openly displayed in vessels that possibly had food serving functions, suggesting an interest to assert differentiation through ceramics in social gatherings tethered to commensalism.

Likewise, Usulután ceramics are not found in Naachtún (although waxy orange potsherds of Balam I show a form of resist painting too eroded to discern), standing in sheer contrast to collections in sites of southeastern Petén and western Belize such as Naj Tunich and Chan respectively (Brady, 1987: 471-475; Kosakowsky, 2012: 51), or from eastern Belize as Kichpanha (Reese, 1989: 56). As is the case for tetrapod vessels with hollow mammiform supports, Usulután ceramics were selectively adopted, used, and combined at each site, suggesting to the existence of particular forms of association in the Maya lowlands.

The degree of divergence in combinations of surface treatment, vessel form, and programs of decoration observed among assemblages reported at different sites, including Naachtún, points at the presence of several ceramic systems in the Maya lowlands during the second century AD and the early part of the fourth century AD. Each system seems to represent particular networks of association

covering centers located within a very limited geographical range (Chase and Chase, 2005: 21-29; Lincoln, 1985: 73-75; Sullivan and Valdez Jr., 2006: 79).

*The Middle Facet of the Balam Complex-Balam II.* Generally speaking Balam II ceramics are part of a relatively homogeneous ceramic system that covered most of the northern Maya lowlands. In terms of surface treatment, inventories of vessel form, and decorations, the ceramics of Naachtún can be related to fourth and fifth century assemblages reported in Tikal (Culbert, 1993: 9), Waxaktún (Smith, 1955; Smith and Gifford, 1966; Willey, Culbert and Adams, 1967: 298-299), Holmul (Callaghan, 2013: figures 14, 15, 16, 18, 20, 21, 22, 23, 25), centers in the Three Rivers Region such as Río Azul, La Milpa, Dos Hombres (Sagebiel, 2005; Sullivan, 2002; Sullivan and Sagebiel, 2003: 28-31), El Mirador (Forsyth, 1989), as well as Becan (Ball, 1977) and Calakmul (Domínguez Carrasco, 1994). The presence of ceramics of the Remate group, which grows in popularity in subsequent periods in Naachtún (Patiño-Contreras, 2011; Patiño and Forné, 2012), also suggests associations with the southeastern Petén area where *Remate* materials are common (Laporte, 2007).

Stylistic resemblances between Naachtún and other sites are remarkable pronounced in orange and buff painted vessels with long basal flanges, flared sides, and annular bases. For example, the ceramics of Naachtún display important similarities with examples from Waxaktun (Smith, 1955. Vol. 2, figures 1d, 6b, 10h, 11 f-h, 24a 8-9, 25b 1-6, 8-12, 27 a 4-7b; Smith and Gifford, 1966: 155), Tikal (Culbert, 1993), Holmul (Callaghan, 2013: figure 20 a, 21c, 22a, 23a, 25f, 28 a and c), Altar de Sacrificios (Adams, 1971: 37), Barton Ramie (Gifford, 1976: 179), Calakmul (Dominguez Carrasco, 1994: 101), Altar de Sacrificios (Adams, 1971: 37), and Becan (Ball, 1977: 67). At the same time, examples from Naachtún feature unique elements. Pairs of black or red step frets occur frequently on the basal flanges of polychrome ceramics from this site. This patterning differs from that seen in other sites where long basal flanges show rows of black triangles, fields of black and red rectangles, red and black horizontal lines, black “hand bells” (these are triangles, semi-circles, and flat lines with vertical stems on top arranged in horizontal lines), dots, scrolls, or combinations of all of these elements are the most common motif on basal flanges (Adams, 1971: figures 32 f, g, h; figure 34f; Smith, 1955, volume 2: figures 25, 26, 27; Valdez, 1987: figures 39 and 40) (Figures 6, 7, 8, and 9).

A trait particular to the middle facet of the Balam complex is the low visibility of figurative themes (Figure 10), particularly animals and supernatural beings. In contrast, felines, deities, birds, and human figures are more prominently displayed in other places such as Holmul (Callaghan, 2013: figures 18, 20c, 21c, 22a; Smith, 1955, volume 2: figures 1d, 6b, 10h, 11 f-h, 24a 8-9). In addition, programs of resist painting reported in Tikal (Culbert, 1993), Waxaktún (Smith, 1955; Smith and Gifford, 1966) and Holmul (Callaghan, 2013: figure 26) are not yet found in Naachtún for the middle facet of the Balam ceramic complex.

*The Late Facet of the Balam Complex-Balam III.* The formal and stylistic traits of the ceramics of the late facet remain more or less the same observed for the previous facet. In this regard, Balam III ceramics continue to be part of a relatively homogeneous ceramic system, showing strong consistency with the ceramics of other sites in the lowlands. In fact, innovations such as orange polychrome hemispherical and globular vessels with slightly incurved rims and placement of polychrome decoration in the interior surface of open vessels with short basal flanges and annular bases mirror the characteristics of contemporaneous pottery in Petén and northern Belize (Cheetham, 2011: 133, figure 8.4; Culbert 1993; Finamore and Houston, 2014: 108; Smith, 1955). In addition, the presence of prestige goods represented by Thin Orange ceramics and tripod cylinders indicate the persisting importance of Pan-Mesoamerican bonds in local organization by the end of the Early Classic.

An intriguing element of Balam III is the importance of the bird head motif on polychrome ceramics, an element that stands as a striking contrast with the rarity of zoomorphic representations in Balam II. In addition, the placement of particular designs on vessels changed over time. For instance, the double step motif placed on basal flanges in Balam II is moved to the interior surface of rims in Balam III. These trends strongly suggest a shift in the symbolic framework responsible for the formalization of socio-cultural interaction. However, in the absence of a corpus of designs to compare with, it is unclear if the denizens of Naachtún continued identifying themselves through the use of peculiar motifs on their ceramics. This point requires further research in the future.

To summarize, the materials of the middle and late Early Classic in Naachtún, and those of others sites that I have discussed in this section, can be identified as Tzakol ceramics, which are characterized by an accent on the use of glossy finish in monochrome and polychrome serving pots (Ball, 1976: 327; Smith and Gifford, 1966; Willey, Culbert and Adams, 1967: 298-299). While there are important differences in programs of decoration found across the Maya lowlands, the strong presence of common constellations of techniques of surface treatment and peculiar vessel forms such as the container with flared walls, basal flanges, and annular bases in a plethora of sites argues for the presence of at least one ceramic system with a large geographic distribution covering many centers. The social implications of these patterns are discussed in detail in the next section.

## Discussion

Participation in regional ceramic systems shifted in Naachtún over time while the formal characteristics of each system changed. As transformations in the formal characteristics of local pottery hint at changes in regional contacts, the level of inclusiveness of the networks responsible for enabling associations between sites changed as well. On the one hand, the ceramic systems documented for fourth

and fifth centuries AD are relatively more homogeneous and widespread in space. On the other hand, we see the presence of several and quite diverse ceramic systems with narrow spatial distributions during the onset of the Early Classic.

Pattern of distribution of techniques of surface treatment and vessel forms in Naachtún and sites discussed here strongly suggests an interest in establishing and enforcing more inclusive notions of networking through material culture in the middle Early Classic. Yet programs of decoration accentuated difference over time.

The early facet of the Balam ceramic complex is an example of one of the several ceramic systems present in the Maya lowlands between the late half of the second century and the early part of the fourth century AD. However, I don't think that striking differences in techniques of surface treatment documented for the beginning of the Early Classic period mean that open interaction between different centers was precluded. By the middle Early Classic period, in contrast, the middle facet of the Balam ceramic complex in Naachtún was part of a single and relatively homogenous ceramic system with a remarkably large geographical scope. What dynamics were responsible for these developments in the archeological record of Naachtún?

Assemblages dominated by glossy and unslipped ceramics together with monochrome and polychrome vessels with flared sides, basal flanges, and annular bases are cultural manifestations reported in sites located in central Petén, southern Campeche, and the Three Rivers region in Belize that share a history of associations with a system of interrelated and programmatic-like alliances and conquests spearheaded by a Teotihuacan-related Maya elite from about the second half of the Fourth century AD. (Adams, 1999: 139; Braswell, 2003: 7-11, 33-41; Callaghan, 2013: 337; Culbert, 1993; Estrada-Belli *et al.*, 2009; Freidel, Escobedo and Guenter, 2007; Martin and Grube, 2008: 29-36; Reese-Taylor and Walker, 2002: 102; Sullivan and Sagebiel, 2003: 31; Stuart, 2000). Epigraphic data from Naachtún states that this center was affiliated to such network (Cases and Lacadena, 2014: 378-379; Nondédéo *et al.* in press).

Elite politics and conquest may have played a role in the consolidation of this system to some extent. However, the establishment of a more inclusive regional network may have been opted as a response to the insular scope of previous systems of interaction. In fact, several sites of different sizes and ranks in the southern Maya lowlands established close social, economic, and arguably religious and political connections (Hammond, 1977: 65-75, 1990: 122-124; Laporte and Fialko, 1995: 65; Pyburn *et al.*, 1998; Rathje, 1971: 283, 1977: 380-381; Reese-Taylor and Walker, 2002: 91-93, 110, 111; Willey, 1977: 156). By expanding their grid of regional connections, the populations of individual centers may have enhanced their economic and social opportunities. The remarkable growth in construction activity and settlement extension observed in Naachtún during Balam II seems to exemplify this trend, as it may have been fueled by growing influx of resources from a wide array of sources (Nondédéo *et al.*, 2013: 126-127).

Close interaction with other centers in the Maya lowlands continued in the late part of the Early Classic as suggested by the presence of formal and stylistic traits very similar to those reported in other centers. The presence of imports from Puebla and tripod cylinders in Balam III strongly indicates that forms of direct or indirect interaction with other areas of Mesoamerica continued to be important during the late part of the Early Classic. At the same time, alterations in the themes presented on painted decoration suggest that the symbolic elements responsible for local and regional integration changed between the later part of the fifth and the early part of the sixth century AD.

### Closing Remarks

The ceramic assemblages of the middle facet of the Balam ceramic complex in Naachtún were part of a cultural network of large spatial scope that developed during the course of the fourth and fifth centuries AD. Here, I argued that this phenomenon could be grasped with the aid of the concept of ceramic system developed in the Type-Variety-Mode classification system. At a methodological level, this paper shows the usefulness of this concept identifying stylistic resemblances and differences.

All in all, the adoption of the formal and stylistic parameters that characterize Tzakol ceramics at each site sought to overcome socio-cultural boundaries set between the late second century and the early fourth century AD. The denizens of Naachtún embraced this network of associations, but related to it highlighting their own distinctive identity through idiosyncratic programs of decoration. In my view, the selection of distinctive graphic elements in the decoration of vessels possibly denoted individual centers. More work in other sites with Tzakol pottery is required to have a deeper understanding of the dynamics of integration and segregation presented in this paper.

### BIBLIOGRAPHY

Adams, Richard E.W.

- 1971 *The Ceramics of Altar de Sacrificios*. Cambridge, MA: The Peabody Museum-Harvard University (Papers of the Peabody Museum of Archaeology and Ethnology, volume 63, number 1).
- 1999 *Río Azul: An Ancient Maya City*. Norman: University of Oklahoma Press.

Aimers, James J.

- 2007 "The Curse of the Ware: Using Ceramic Systems in Belize", *Research Reports in Belizean Archaeology*, 4: 101-110. Belmopan: Institute of Archaeology, National Institute of Culture and History.
- 2014 "Follow the Leader: Fine Orange Pottery Systems in the Maya Lowlands", *The Maya and their Central American Neighbors: Settlement Patterns, Architecture,*

*Hieroglyphic Texts and Ceramics*, pp. 308-332, Geoffrey E. Braswell (ed.). Oxon and New York: Routledge.

Bachand, Bruce R.

- 2010 "Onset of the Early Classic Period in the Southern Maya Lowlands: New Evidence from Punta de Chimino, Guatemala", *Ancient Mesoamerica*, 21 (1): 21-44.

Ball, Joseph W.

- 1976 "Ceramic Sphere Affiliations of the Barton Ramie Ceramic Complexes", *Pre-historic Pottery Analysis and the Ceramics of Barton Ramie in the Belize Valley*, pp. 323-344, James C. Gifford (ed.). Cambridge, MA: Peabody Museum of Archaeology and Ethnology, Harvard University (Memoirs of the Peabody Museum of Archaeology and Ethnology, 18).
- 1977 *The Archaeological Ceramics of Becan, Campeche, México*. New Orleans: Middle American Research Institute-Tulane University (Middle American Research Institute Publication 43).

Bill, Cassandra R.

- 2013 "Types and Traditions, Spheres, and Systems: A Consideration of Analytic Constructs and Concepts in the Classification and Interpretation of Maya Ceramics", *Ancient Maya Pottery: Classification, Analysis, and Interpretation*, pp. 29-45, James J. Aimers (ed.). Gainesville: University Press of Florida.

Brady, James E.

- 1987 "A Re-Evaluation of Protoclassic Orange Wares", *Maya Ceramics: Papers from the 1985 Maya Ceramic Conference*, pp. 469-477, Prudence M. Rice and Robert J. Sharer (eds.). Oxford: BAR (International Series, 345).

Brady, James E., Joseph W. Ball, Ronald L. Bishop, Duncan C. Pring, Norman Hammond and Rupert A. Housley

- 1998 "The Lowland Maya Protoclassic: A Reconsideration of its Nature and Significance", *Ancient Mesoamerica*, 9 (1): 17-38.

Braswell, Geoffrey E.

- 2003 "Introduction: Reinterpreting Early Classic Interaction", *The Maya and Teotihuacan: Reinterpreting Early Classic Interaction*, pp. 1-43, Geoffrey E. Braswell (ed.). Austin: University of Texas Press.

Brumfiel, Elizabeth M. and Timothy K. Earle

- 1987 "Specialization, Exchange, and Complex Societies: An Introduction", *Specialization, Exchange and Complex Societies*, pp. 1-9, Elizabeth M. Brumfiel and Timothy K. Earle (eds.). Cambridge: Cambridge University Press.

Callaghan, Michael G.

- 2013 "Politics Through Pottery: A View of the Preclassic-Classical Transition from Building B, Group II, Holmul, Guatemala", *Ancient Mesoamerica*, 24 (2): 307-341.

- Callaghan, Michael G., Francisco Estrada-Belli and Nina Neivens de Estrada  
 2013 "Technological Style and Terminal Preclassic Orange Ceramics in the Holmul Region, Guatemala", *Ancient Maya Pottery: Classification, Analysis, and Interpretation*, pp. 121-141, James John Aimers (ed.). Gainesville: University Press of Florida.
- Cases, Ignacio and Alfonso Lacadena  
 2014 "Operación III.5. Estudios Epigráficos Temporada 2014", *Proyecto Petén-Norte Naachtún 2010-2014: Informe de la Quinta Temporada de Campo 2014*, pp. 371-384. Report submitted to the Departamento de Monumentos Prehispánicos y Coloniales (DEMOPRE) and the Instituto de Antropología e Historia of Guatemala (IDAEH), Philippe Nondédéo, Julien Hiquet, Dominique Michelet, Julien Sion and Lilian Garrido (eds.). Guatemala: Centre National de la Recherche Scientifique, University of Paris 1 and Centro de Estudios Mexicanos y Centro-Americanos.
- Chase, Arlen F. and Diane Z. Chase  
 2005 "The Early Classic Period at Caracol, Belize: Transitions, Complexity, and Methodological Issues in Maya Archaeology", *Reports in Belizean Archaeology 2*: 17-38. Belmopan: Institute of Archaeology, National Institute of Anthropology and History.
- Cheetham, David  
 2011 "The Role of 'Terminus Groups' in Lowland Maya Site Planning: An Example from Cahal Pech", *The Ancient Maya of the Belize Valley: Half a Century of Archaeological Research, First Paperback Printing*, pp. 125-148, James F. Garber (ed.). Gainesville: University Press of Florida.
- Culbert, T. Patrick  
 1993 *Tikal Report N. 25, Part A: The Ceramics of Tikal: Vessels from the Burials, Caches and Problematic Deposits*. Pennsylvania: University of Pennsylvania, The University Museum (Tikal Report, 25A).
- Domínguez Carrasco, María del Rosario  
 1994 *Calakmul, Campeche: Análisis de la cerámica*. México: Universidad Autónoma de Campeche (Colección Arqueología).
- Earle, Timothy K.  
 1987 "Specialization and the Production of Wealth: Hawaiian Chiefdoms and the Inka Empire", *Specialization, Exchange and Complex Societies*, pp. 64-75, Elizabeth Brumfiel and Timothy K. Earle (eds.). Cambridge: Cambridge University Press.
- Estrada-Belli, Francisco, Alexandre Tokovinine, Jennifer Foley, Heather Hurst, Gene Ware, David Stuart and Nikolai Grube  
 2009 "A Maya Palace at Holmul, Petén, Guatemala and the Teotihuacan 'Entrada': Evidence from Murals 7 and 9", *Latin American Antiquity*, 20 (1): 228-259.

- Finamore, Daniel and Stephen D. Houston (eds.)  
 2010 *Fiery Pool: The Maya and the Mythic Sea*. New Haven, CO: Peabody Essex Museum, Salem and Yale University Press.
- Foias, Antonia E. and Christina T. Halperin  
 2010 "Pottery Politics: Late Classic Maya Palace Production at Motul de San José, Petén, Guatemala", *Journal of Anthropological Archaeology*, 29 (3): 392-411.
- Forsyth, Donald W.  
 1983 *Investigations at Edzná, Campeche, México: volume 2: Ceramics*. Provo, UT: Brigham Young University (Papers of the New World Archaeological Foundation, 46).  
 1989 *The Ceramics of El Mirador, Petén, Guatemala. El Mirador Series Part 4*. Provo UT: Brigham Young University (Papers of the New World Archaeological Foundation, 63).
- Freidel, David A., Hector L. Escobedo and Stanley Guenter  
 2007 "A Crossroad of Conquerors", *Gordon A. Willey and American Archaeology: A Contemporary Perspective*, pp. 187-209, Jeremy A. Sabloff and William L. Fash (eds.). Norman: University of Oklahoma.
- Gifford, James C.  
 1960 "The Type-Variety Method of Ceramic Classification as an Indicator of Cultural Phenomena", *American Antiquity*, 25: 341-347.  
 1976 *Prehistoric Pottery Analysis and the Ceramics of Barton Ramie in the Belize Valley*. Cambridge, MA: Peabody Museum of Archaeology and Ethnology, Harvard University (Memoirs of the Peabody Museum of Archaeology and Ethnology, 18).
- Gosselain, Olivier P.  
 2000 "Materializing Identities: An African Perspective", *Journal of Archaeological Method and Theory*, 7 (3): 187-217.
- Hammond, Norman  
 1977 "Ex Oriente Lux: A View from Belize", *The Origins of Maya Civilization*, pp. 45-75, Richard E. W. Adams (ed.). Albuquerque: University of New Mexico Press.  
 1990 *Ancient Maya Civilization*. Fourth printing. New Brunswick and New Jersey: Rutgers University Press.
- Henderson, John S. and Ricardo Agurcia F.  
 1987 "Ceramic Systems: Facilitating Comparison in Type-Variety Analysis", *Maya Ceramics: Papers from the 1985 Maya Ceramic Conference*, pp. 431-438, Prudence M. Rice and Robert S. Sharer (eds.). Oxford: BAR (International Series, 345).
- Hutson, Scott R.  
 2014 "Urbanism, Architecture, and Internationalism in the Northern Lowlands during the Early Classic", *The Ancient Maya of México: Reinterpreting the Past of*

*the Northern Maya Lowlands*, pp.119-142, Geoffrey E. Braswell (ed.). Oxon and New York: Routledge.

Iglesias Ponce de León, María Josefa

- 2003 "Problematical Deposits and the Problem of Interaction: The Material Culture of Tikal during the Early Classic Period", *The Maya and Teotihuacan: Rinterpreting Early Classic Interaction*, pp. 167-198, Geoffrey E. Braswell (ed.). Austin: University of Texas Press.

Inomata, Takeshi

- 2001 "The Power and Ideology of Artistic Creation: Elite Craft Specialists in Classic Maya Society, *Current Anthropology*, 42 (3): 321-333.

Kosakowsky, Laura J.

- 1987 *Preclassic Maya Pottery at Cuello, Belize*. Tucson: The University of Arizona Press (Anthropological Papers of the University of Arizona, 47).
- 2012 "Ceramics and Chronology at Chan", *Chan: An Ancient Maya Farming Community*, pp. 42-70, Cynthia Robin (ed.). Gainesville: University Press of Florida.

Laporte, Juan Pedro

- 1995 "¿Desplomamiento o problema analítico? El Clásico Temprano en el sureste del Petén", *VII Simposio de Investigaciones Arqueológicas en Guatemala*, pp. 609-639, Juan Pedro Laporte and Héctor Escobedo (eds.). Guatemala: Museo Nacional de Arqueología y Etnología and Asociación Tikal.
- 2007 *La secuencia cerámica del sureste del Petén: tipos, cifras, localidad, historia del asentamiento. Monografía 3, Atlas Arqueológico de Guatemala*, <<http://www.atlasarqueologico.com/pdf/monografias>> [Retrieved November 16, 2011].

Laporte, Juan Pedro and Vilma Fialko

- 1990 "New Perspectives on Old Problems: Dynastic References for the Early Classic Maya at Tikal", *Vision and Revision in Maya Studies*, pp. 33-66, Flora Clancy and Peter Harrison (eds.). Albuquerque: University of Mexico Press.
- 1995 "Un reencuentro con Mundo Perdido, Tikal, Guatemala", *Ancient Mesoamerica*, 6 (1): 41-94.

LeCount, Lisa J.

- 1999 "Polychrome Pottery and Political Strategies in Late and Terminal Classic Maya Society". *Latin American Antiquity*, 10 (3): 239-258.
- 2010 "Mount Maloney People? Domestic Pots, Everyday Practice, and Social Formation of the Xunantunich Polity", *Classic Maya Provincial Politics: Xunantunich and its Hinterlands*, pp. 209-230, Lisa J. LeCount and Jason Yaeger (eds.). Tucson: University of Arizona Press.

Lemonnier Eva, Julio A. Cotom and Julien Hiquet

- 2014 "La periferia sur de Naachtún: Patrón de asentamiento y secuencia de ocupación en una extensa zona residencial", *XXVII Simposio de Investigaciones Arqueológicas en Guatemala*, pp. 921-934, Bárbara Arroyo, Luis Méndez Salinas and Andrea Rojas (eds.). Guatemala: Museo Nacional de Arqueología y Etnología and Asociación Tikal.

Lincoln, Charles

- 1985 "Ceramics and Ceramic Chronology", *A Consideration of the Early Classic Period in the Maya Lowlands*, pp. 55-91, Gordon R. Willey and Peter Mathews (eds.). Albany, New York: University of New York at Albany, Institute for Mesoamerican Studies (Institute for Mesoamerican Studies, 10).

López Varela, Sandra

- 2005 "The Microcosms of Formative Pottery from K'axob, Belize", *New Perspectives on Formative Mesoamerican Cultures*, pp. 159-169, Terry G. Powis (ed.). Oxford: Archaeopress (BAR International Series, 1377).

Martin, Simon and Nikolai Grube

- 2008 *Chronicle of the Maya Kings and Queens*, 2<sup>nd</sup> edition. London and New York: Thames and Hudson.

McAnany, Patricia A.

- 2010 *Ancestral Maya Economies in Archaeological Perspective*. New York: Cambridge University Press.

Morales-Aguilar, Carlos

- 2012 "Operación II.2: Sondeos estratigráficos en el Grupo A", *Proyecto Petén-Norte Naachtún 2012-2014: Informe de la Segunda Temporada de Campo 2011. Report presented to the Departamento de Monumentos Prehispánicos y Coloniales (DEMOPRE) and the Instituto de Antropología e Historia de Guatemala (IDAEH)*, pp. 105-128, Philippe Nondédéo, Dominique Michelet, Carlos Morales-Aguilar and Julien Sion (eds.). Guatemala: Centre National de la Recherche Scientifique, University of Paris 1 and Centro de Estudios Mexicanos y Centro-Americanos.

Nondédéo, Philippe and Carlos Morales-Aguilar

- 2012 "Conclusiones de la Temporada 2011", *Proyecto Petén-Norte Naachtún 2010-2014: Informe de la Segunda Temporada de Campo 2011. Report submitted to the Departamento de Monumentos Prehispánicos y Coloniales (DEMOPRE) and the Instituto de Antropología e Historia of Guatemala (IDAEH)*, pp. 445-448, Philippe Nondédéo, Dominique Michelet, Carlos Morales-Aguilar and Julien Sion (eds.). Guatemala: Centre National de la Recherche Scientifique-University of Paris 1 and Centro de Estudios Mexicanos y Centro-Americanos.

Nondédéo, Philippe, Dominique Michelet and Carlos Morales-Aguilar

- 2012 "Resumen de la Temporada de Campo 2011", *Proyecto Petén-Norte Naachtún 2010-2014: Informe de la Segunda Temporada de Campo 2011. Report submitted to the Departamento de Monumentos Prehispánicos y Coloniales (DEMOPRE) and the Instituto de Antropología e Historia of Guatemala (IDAEH)*, pp. 25-34, Philippe Nondédéo, Dominique Michelet, Carlos Morales-Aguilar and Julien Sion (eds.). Guatemala: Centre National de la Recherche Scientifique, University of Paris 1 and Centro de Estudios Mexicanos y Centro-Americanos.

Nondédéo Philippe, Carlos Morales A., Alejandro Patino, Mélanie Forné, Chloé Andrieu, Julien Sion, Dominique Michelet, Charlotte Arnauld, Céline Gillot, Mónica de León, Julio Cotom, Eva Lemonnier, Gregory Pereira e Isaac Barrientos

2012 "Prosperidad económica en Naachtún: resultados de las dos primeras temporadas de investigación", *XXV Simposio de Investigaciones Arqueológicas en Guatemala*, pp. 227-235, Bárbara Arroyo, Lorena Paiz and Héctor Mejía (eds.). Guatemala: Museo Nacional de Arqueología y Etnología and Asociación Tikal.

Nondédéo, Philippe, Alejandro Patiño, Alfonso Lacadena, Ignacio Cases, Julien Hiquet, Dominique Michelet, Chloé Andrieu and Lilian Garrido

In press "El Papel de Teotihuacan en la formación de una capital regional maya: el ocaso de Naachtún, Petén", *XXIX Simposio de Investigaciones Arqueológicas en Guatemala*, Bárbara Arroyo, Luis Alberto Méndez and Lorena Paiz (eds.). Guatemala: Museo Nacional de Arqueología y Etnología and Asociación Tikal.

Nondédéo, Philippe, Alejandro Patiño, Julien Sion, Dominique Michelet and Carlos Morales-Aguilar

2013 "Crisis multiples en Naachtún: aprovechadas, superadas e irreversibles", *Milennary Maya Societies: Past Crises and Resilience*, pp. 122-147, M. Charlotte Arnauld and Alain Breton (eds.), <[www.mesoweb.com/publications/MMS/9\\_Nondedeo\\_etal.pdf](http://www.mesoweb.com/publications/MMS/9_Nondedeo_etal.pdf), pp.122-147> [Retrieved October 1, 2014].

Patiño-Contreras, Alejandro

2011 "Operación 21: análisis del material cerámico", *Proyecto Petén Norte-Naachtún 2010-2014: Informe de la Primera Temporada de Campo (del 4 de abril al 14 de mayo de 2012). Report presented to the Departamento de Monumentos Prehispánicos y Coloniales (DEMOPRE) and the Instituto de Antropología e Historia de Guatemala (IDAEH)*, pp. 69-119, Philippe Nondédéo and Dominique Michelet (eds.). Guatemala: Centre National de la Recherche Scientifique, Centro de Estudios Mexicanos and Centro-Americanos.

2013 "Pottery, Differentiation, Integration, Politics: Ceramic Consumption and Manufacture in Naachtún during the Preclassic and the Early Classic Periods", Ph.D. Thesis. Calgary: University of Calgary, Department of Archaeology.

2015 "Patrones de desarrollo en la cerámica de Naachtún, Petén, Guatemala", *Travaux et Recherches dans les Ameriques du Centre*, 67: 11-38.

Patiño-Contreras, Alejandro and Mélanie Forné

2012 "Operación IV.1: análisis cerámico de la temporada 2011", *Proyecto Petén-Norte Naachtún 2012-2014: Informe de la Segunda Temporada de Campo 2011. Report presented to the Departamento de Monumentos Prehispánicos y Coloniales (DEMOPRE) and the Instituto de Antropología e Historia de Guatemala (IDAEH)*, pp. 397-434, Philippe Nondédéo, Dominique Michelet, Carlos Morales-Aguilar and Julien Sion (eds.). Guatemala: Centre National de la Recherche Scientifique, University of Paris 1 and Centro de Estudios Mexicanos y Centro-Americanos.

Pool, Christopher A. and George J. Bey III

2007 "Conceptual Issues in Mesoamerican Pottery Economies", *Pottery Economics in Mesoamerica*, pp. 1-38, Christopher A. Pool and George J. Bey III (eds.). Tucson: The University of Arizona Press.

- Pyburn, K. Anne, Boyd Dixon, Patricia Cook and Anna McNair  
 1998 "The Albion Island Settlement Pattern Project: Domination and Resistance in Early Classic Northern Belize", *Journal of Field Archaeology*, 25: 37-62.
- Rathje, William L.  
 1971 "The Origins and Development of Lowland Classic Maya Civilization", *American Antiquity*, 36 (3): 275-285.  
 1977 "The Tikal Connection", *The Origins of Maya Civilization*, pp. 373-382, Richard E. W. Adams (ed.). Albuquerque: University of New Mexico Press.
- Ratray, Evelyn Childs  
 1990 "New Findings on the Origins of Thin Orange Ceramics", *Ancient Mesoamerica*, 1: 181-195.  
 2001 *Teotihuacan: Ceramics, Chronology and Cultural Trends*. México and Pittsburgh, PA: Instituto Nacional de Antropología e Historia and University of Pittsburgh (Serie Arqueología de México).
- Reents-Budet, Dorie, Ronald L. Bishop and Barbara MacLeod  
 1994 "Painting Styles, Workshop Locations and Pottery Production", *Painting the Maya Universe: Royal Ceramics of the Classic Period*, pp. 164-233, Dorie Reents-Budet (ed.). Durham: Duke University Press.
- Reese-Taylor, Kathryn V.  
 1989 "The Ceramics of Kichpanha, Northern Belize", MA Thesis. Texas: College Station, Texas A&M University, Department of Anthropology.
- Reese-Taylor, Kathryn and Debra S. Walker  
 2002 "The Passage of the Late Preclassic into the Early Classic", *Ancient Maya Political Economies*, pp. 87-122, Marilyn A. Masson and David A. Freidel (eds.). Lanham: Altamira Press.
- Reese-Taylor, Kathryn and Martín Rangel  
 2005 "Síntesis de la Primera Temporada de Campo del Proyecto Naachtún", *Proyecto Arqueológico Naachtún Informe Numero 1: Primera Temporada de Campo (febrero-abril de 2004) en el sitio arqueológico Naachtún, Municipio de Flores, Departamento de Petén, Guatemala. Report submitted to the Instituto de Antropología e Historia de Guatemala*, pp. 144-146, Martín Rangel and Kathryn Reese-Taylor (eds.). Guatemala: Proyecto Arqueológico Naachtún.
- Reese-Taylor, Kathryn, Peter Mathews, Marcelo Zamora, Martín Rangel, Debra S. Walker, Silvia Alvarado, Ernesto Arredondo, Shawn Morton, Roberta Parry, Baudilio Salazar and Jeffrey Seibert  
 2005 "Proyecto Arqueológico Naachtún: Resultados preliminares de la Primera Temporada de Campo 2004", *XVIII Simposio de Investigaciones Arqueológicas en Guatemala 2004*, pp. 85-95, Juan Pedro Laporte, Barbara Arroyo and Hector Mejía (eds.). Guatemala: Museo Nacional de Arqueología y Etnología and Asociación Tikal.

- Rice, Prudence M.  
 2013 "Type-Variety: What Works and What Doesn't", *Ancient Maya Pottery: Classification, Analysis and Interpretation*, pp. 11-28, James J. Aimers (ed.). Gainesville: University Press of Florida.
- Routledge, Bruce  
 2014 *Archaeology and State Theory: Subjects and Objects of Power*. London and New York: Bloomsbury Academic.
- Rupert, Karl and John H. Denison Jr.  
 1943 *Archaeological Reconnaissance in Campeche, Quintana Roo, and Petén*. Washington, D.C.: Carnegie Institution of Washington (Carnegie Institution of Washington Publication, 545).
- Sabloff, Jeremy A.  
 1975 *Excavations at Seibal: Ceramics*. Cambridge, MA: Peabody Museum of Archaeology and Ethnology, Harvard University (Memoirs of the Peabody Museum of Archaeology and Ethnology, volume 13, number 2)
- Saitta, Dean J.  
 2000 "Theorizing the Political Economy of Southwestern Exchange", *The Archaeology of Regional Interaction*, pp. 151-166, Michelle Hegmon (ed.). Boulder: University Press of Colorado.
- Sagebiel, Kerry L.  
 2005 "Shifting Allegiances at La Milpa, Belize", Ph.D. Thesis. Tucson: The University of Arizona, Department of Anthropology.
- Smith, Robert E.  
 1955 *Ceramic Sequence at Uaxactun, Guatemala, Volumes 1 and 2*. New Orleans: Tulane University, Middle American Research Institute (Middle American Research Institute Publication, 20).
- Smith, Robert E., Gordon R. Willey and James C. Gifford  
 1960 "The Type-Variety Concept as a Basis for the Analysis of Maya Pottery", *American Antiquity*, 25 (3): 330-340.
- Smith, Robert E. and James C. Gifford  
 1966 *Maya Ceramic Varieties, Types and Wares at Uaxactun. Supplement to Ceramic Sequence at Uaxactun, Guatemala*. New Orleans: Tulane University, Middle American Research Institute (Middle American Research Institute Publication, 28).
- Stone, Andrea and Marc Zender  
 2011 *Reading Maya Art: A Hieroglyphic Guide to Ancient Maya Paintings and Sculpture*. New York: Thames and Hudson.
- Stuart, David  
 2000 "The Arrival of Strangers: Teotihuacan and Tollan in Classic Maya History",

*Mesoamerica's Classic Heritage: From Teotihuacan to the Aztecs*, 465-524, David Carrasco, Lindsay Jones and Scott Sessions (eds.). Boulder: University Press of Colorado.

Sullivan, Lauren A.

2002 "Dynamics of Interaction in Northwestern Belize", *Ancient Maya Political Economies*, pp. 197-222, Marilyn A. Masson and David A. Freidel (eds.). Lanham: Altamira Press.

Sullivan, Lauren A. and Kerry L. Sagebiel

2003 "Changing Political Alliances in the Three Rivers Region", *Heterarchy, Political Economy and the Ancient Maya*, pp. 25-36, Vernon L. Scarborough, Fred Valdez Jr. and Nicolas Dunning (eds.). Tucson: The University of Arizona Press.

Sullivan, Lauren A. and Fred Valdez Jr.

2006 "The Late Preclassic to Early Classic Transition in the Three Rivers Region", *Research Reports in Belizean Archaeology*, 3: 73-83.

Valdez Jr., Fred

1987 *The Prehistoric Ceramics of Colha, Northern Belize*, Ph.D. Thesis. Harvard, MA: Harvard University, Department of Anthropology.

Varela Torrecilla, Carmen and Geoffrey E. Braswell

2003 "Teotihuacan and Oxkintok: New Perspectives from Yucatán", *The Maya and Teotihuacan: Reinterpreting Early Classic Interaction*, pp. 249-271, Geoffrey E. Braswell (ed.). Austin: University of Texas Press.

Walker, Debra S. and Silvia Alvarado

2005 "Análisis de materiales arqueológicos", *Proyecto Arqueológico Naachtún Informe Numero 1: Primera Temporada de Campo (febrero-abril de 2004) en el sitio arqueológico Naachtún, Municipio de Flores, Departamento de Petén, Guatemala. Report submitted to the Instituto de Antropología e Historia de Guatemala*, pp. 131-142, Martin Rangel and Kathryn Reese-Taylor (eds.). Guatemala: Proyecto Arqueológico Naachtún.

Walker, Debra S. and Kathryn Reese-Taylor

2012 *Naachtún, Petén, Guatemala: First Analyses. Report submitted to the Foundation for the Advancement of Mesoamerican Studies Inc.*, <<http://www.famsi.org/reports/06035/06035Walker01.pdf>> [Accessed February 5, 2013].

Wauchope, Robert

1975 *Zacualpa, El Quiche, Guatemala: An Ancient Provincial Center of the Highland Maya*. New Orleans: Tulane University (Middle American Research Institute Publication 36).

Willey, Gordon R.

1977 "The Rise of Classic Maya Civilization: A Passion Valley Perspective", *The Origins of Maya Civilization*, pp. 133-157, Richard E.W. Adams (ed.). Albuquerque: University of Mexico Press.

- Willey, Gordon R., T. Patrick Culbert and Richard E.W. Adams  
1967 "Maya Lowland Ceramics: A Report from the 1965 Guatemala City Conference", *American Antiquity*, 32 (3): 289-315.
- Yaeger, Jason  
2000 "The Social Construction of Communities in the Classic Maya Countryside: Strategies of Affiliation in Western Belize", *The Archaeology of Communities: A New World Perspective*, pp. 123-142, Marcello A. Canuto and Jason Yaeger (eds.). London: Routledge.
- Żrałka, Jarosław, Wiesław Koszkul, Simon Martin and Bernard Hermes  
2011 "In the Path of the Maize God: A Royal Tomb at Nakum, Petén, Guatemala", *Antiquity*, 85 (329): 890-908.