

INVESTIGATING ANCIENT MAYA LATE POSTCLASSIC PERIOD HOUSEHOLDS
AND THE ASSOCIATED FUNCTION OF THE BUILDINGS AT
SANTA RITA COROZAL, BELIZE

By

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Abstract

Previous archaeological research conducted by the Corozal Postclassic Project (1979-1985) focused primarily on the Postclassic Period at the site of Santa Rita Corozal in northern Belize. Through that research, Santa Rita was demonstrated as an important Postclassic Maya city which likely served as the capital of the ancient Maya province of Chetumal. Given the major reorganization that occurred in the Maya Lowlands at the end of the Classic Period, the assessment of a Postclassic site would demonstrate what, if any changes in the organization of Postclassic Period sites, took place. An extensive analysis of the associated artifact assemblages of six selected household or *plazuela* groups at Santa Rita Corozal was undertaken to more thoroughly understand the organization of a Postclassic Period household to determine the functions served by individual buildings within these groups. This research expounds on the implied functions of buildings based on the variation of artifact distributions from selected household groups at Santa Rita Corozal. This study contributes to a better understanding of ancient Maya households and the intricacies of a Late Postclassic community.

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1.0 Introduction

Households are considered the most basic unit of organization within ancient Maya society (Wilk and Ashmore 1988:1); yet, they remain some of the least understood components within Maya archaeology. It has been suggested that during the Late Classic Period (ca. CE 550-900) Maya households were engaged in varied activities, including production, consumption, pooling of resources, reproduction, co-residence, and shared ownership (Wilk and Ashmore 1988:6). Over some thirty years ago, Wilk and Ashmore (1988:3) indicated that there was debate in identifying an ancient Maya household and in establishing what functions these households were engaged in; that disagreement continues today. Research in the sub-fields of household archaeology and settlement archaeology has provided a better understanding of both the micro-level social context of ancient Maya communities and the large-scale organization existing among the ancient Maya cities (Robin 2003:309); however, Chase and Chase (2014:4) contend that a definition of the formal structural composition of the ancient Maya residential group remains elusive.

In his discussion of the Classic period Maya of the Belize Valley, Willey (1956:777) asserts that ancient Maya settlements are found as clusters of small house mounds dotted along the landscapes. Willey (1956:778) goes on to describe these clusters as built around plazas, varying in numbers and sizes of buildings and even suggests that some are used in varying functions including for the burial of the dead. Sabloff (1996:4) suggests that perhaps it was a sampling bias which delayed Maya archaeologists from recognizing the importance of the “inconspicuous peasant houses” which remained largely invisible up until the 1950’s with Willey’s investigation of the wider settlement area at Barton Ramie in the Belize Valley. Since that time, it has become generally accepted that Maya households are generally arranged in

groups and span the landscape. Up to 2014, the Caracol Archaeological Project had investigated some 118 residential (or *plazuela*) groups at Caracol (Chase and Chase 2014:6). Based on this data, Chase and Chase (2014:9) have recognized that residential groups comprise multiple buildings having different functions ascribed to them including as residential (or domestic), mortuary (or ritual), or palaces (high-status residences) and may even include a few non-residential building types such as sweatbaths and kitchens.

Ethnographic and ethnohistoric research, particularly those conducted by Wauchope (1938), Tozzer (1941), and Roys (1943), provide details of historic-period Maya life and cultural practices within communities in the Yucatan Peninsula in Mexico. These accounts document details of Maya communities closest in time to the ancient Maya of the Postclassic Period (ca. CE 900/950-1542) and allows for comparisons between the two. A drawback to these ethnographic and ethnohistoric documents is that they are largely based on observations and translations of Spanish documents and are not grounded in archaeological research (Shuman 1977:2). Moreover, numerous changes had already been instituted within the Maya communities, with the arrival of the Spanish in the Yucatan by 1542, prior to these documents being recorded.

This research will provide an opportunity to analyze the composition of a Late Postclassic household and to assess the function of the individual buildings within these household or *plazuela* groups. Selected Late Postclassic households and residential groups from Santa Rita Corozal (Figure 1) will serve as the ideal bases for this research as they have been the focus of intense archaeological excavations. The Late Postclassic Period (CE 1250-1542) is an excellent time period for this study, especially given the advantage of having several ethnohistoric documents and accounts from which to draw inferences.

1.1 Research Objective

While research has recognized the presence of “non-residential” structures within household groups (Haviland 1965), the prevalent notion is that most individual buildings served residential functions as domiciles for families, which has been driven by demographic studies seeking to determine the size of ancient populations (Rice and Culbert 1990). Although research in Maya archaeology has ventured into assessing households, through settlement and household archaeology, debate remains on the definition of a household and neither avenue has provided details on individual building function within household groups. This current research seeks to expand on the narrative of the Late Postclassic Period and provide a better understanding of the ancient Maya household by identifying the functions that individual buildings within selected household groups at Santa Rita. In particular, this research seeks to address the following research question: (i) *What are the function(s) that individual structures within selected residential groups at Santa Rita serve?* Based on this single question, one can look at different aspects of the household as it relates to function. For example, are buildings tied to a single function or are they multi-functional? Are particular building types associated with a specific function? Are there directional associations with specific functions?

While investigations have shown that Santa Rita Corozal was occupied from as early as the Preclassic Period, the site is best known for its thriving Postclassic Period settlement (Chase and Chase 1988:7). Previous archaeological research (Gann 1900; Green 1973; Sidrys 1983; Chase and Chase 1988) has established the site of Santa Rita, Corozal in northern Belize (Figure 1) as a thriving Postclassic Period community. The archaeological data documented by the seven-season Corozal Postclassic Project (CPP) from 1979-1984 indicates the presence of a diverse artifact assemblage, including lithics, ceramics, obsidian, ground stone, shell, and jadeite,

which is sufficient and appropriate for quantitative and distributional analyses. The artifact assemblage will aid in the functional assessment of buildings within selected single-phase constructed Late Postclassic households and residential *plazuela* groups. The analysis will be used to substantiate residential activity within structures and identify any variation in function that may exist within individual buildings and between selected residential groups at the site.

In addition to the archaeological data, this research will utilize several ethnohistoric accounts on modern Maya communities and their various practices (Tozzer 1941; Roys 1972) as well as an ethnoarchaeological account on modern Maya houses (Wauchope 1938) in addressing the composition and functions of Postclassic Maya households and residential groups.

In this dissertation, I present an introduction to Santa Rita Corozal and its excavation history (Chapter 2) as well a discussion on ancient Maya households highlighting some of the potential functions (for buildings) that can be implied through the associated artifact assemblage (Chapter 3). Chapter 4 is the specific methodology utilized in this analysis to identify the functions of individual buildings within Late Postclassic residential groups. An analysis of the Corozal Postclassic Project lot cards and catalog cards indicate that there are ten major artifact classes which were recovered from the Santa Rita Corozal excavations. Chapter 5 is an introduction to the six sample household groups at Santa Rita Corozal that have been selected for inclusion in this study. This chapter provides a brief description of the seventeen buildings within the six residential groups that have been selected for inclusion in this analysis. Chapter 6 is an extensive discussion on the distribution of the ten artifact classes within the Santa Rita Corozal assemblage. The distribution is presented per artifact class (chert, obsidian, ground stone, ceramic, metal, jadeite, coral, stucco, bone, and shell) for each sample group and within each individual building. Thereafter, the following three chapters provide discussions based on

the artifact distributions presented in Chapter 6 and how these relate to the individual building (Chapter 7), building types (Chapter 8), and building location (Chapter 9). The discussion in Chapter 10 presents the results of the analysis indicating that most buildings served a domestic function within Late Postclassic household groups at Santa Rita Corozal. An analysis of the associated assemblages provides evidence to support the identification of additional functions such as ritual and manufacturing to be identified within specific locales. These nuances can only be ascertained through the analysis of the complete artifact assemblages associated with each of these structures. Finally, in Chapter 11, I conclude that although these findings are associated with the Late Postclassic Period, many of these practices observed at Santa Rita are continuations of earlier Classic Period traditions.

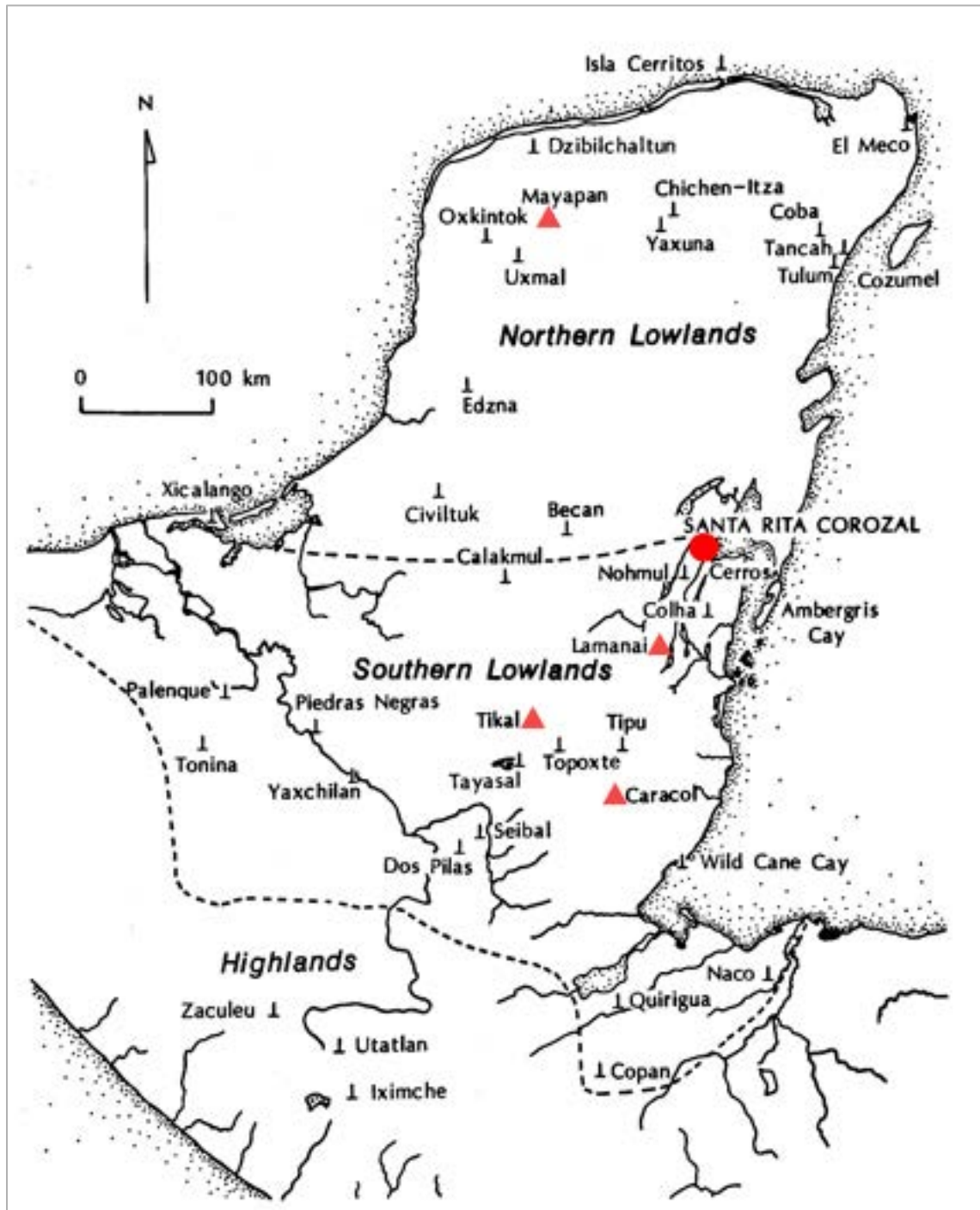
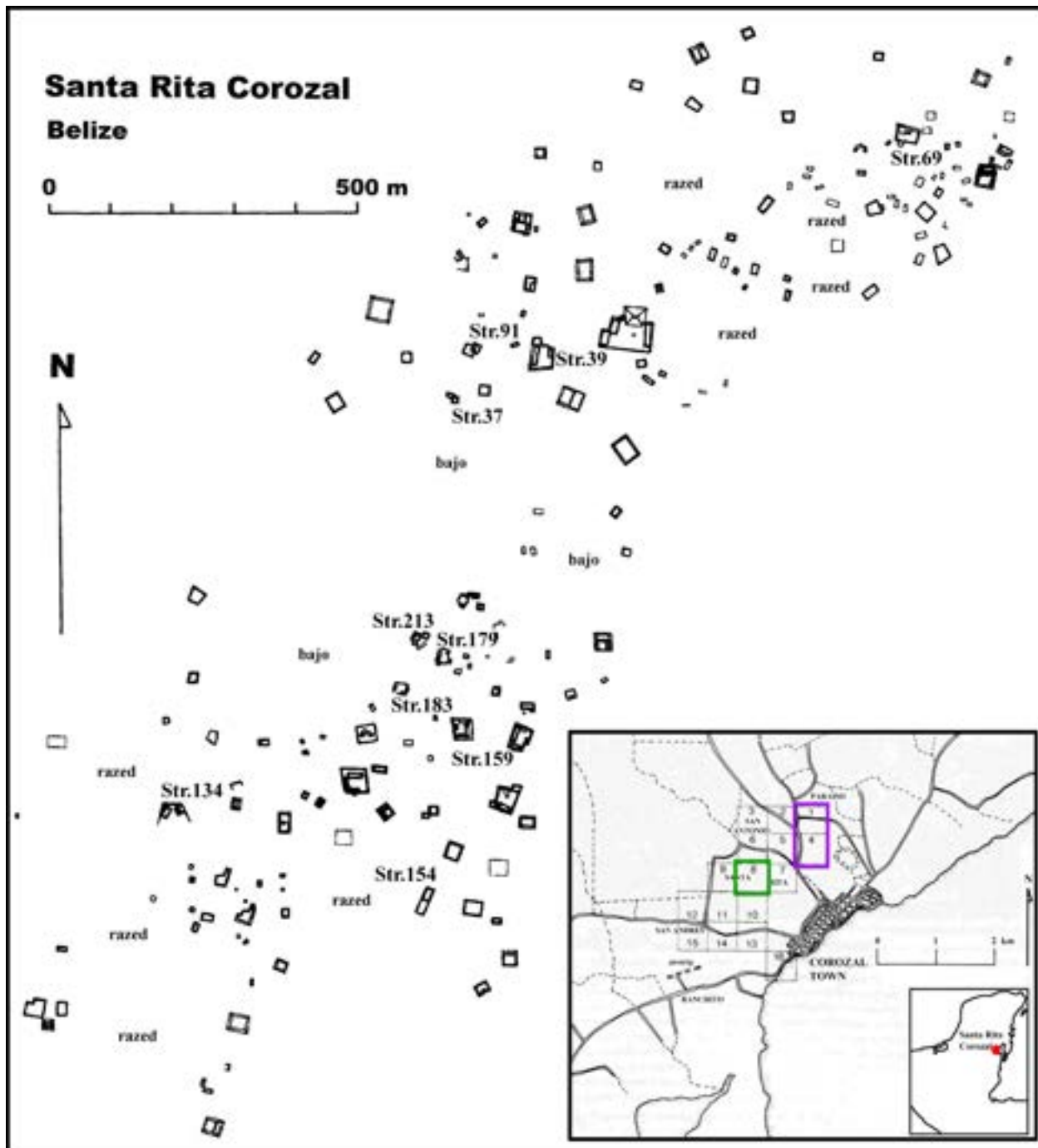


Figure 1. Map highlighting Santa Rita Corozal in northern Belize. Map also includes selected sites mentioned within this text including Caracol and Lamanai, Belize, Mayapán, Mexico and Tikal, Guatemala (map courtesy Chase and Chase 1988).



2.0 Research Area Background

2.1 Geography

Belize is situated on the east coast of the Central America, nestled between Mexico (to the north) and Guatemala (to the west and south). It is bounded by the Caribbean Sea along the entirety of the east coast with shallow waters all along the north coast of Belize (Anderson, 1958). There are two principal rivers flowing northwards which empty into the Corozal Bay. These are the Rio Hondo and the New River. Other rivers to the south, primarily the Belize River, provide access to the western hinterlands being navigable by boats and other shallow draught vessels as far inland as San Ignacio, Cayo, and covering roughly 121 miles of the country from east to west. The northern portion of the country is relatively flat and level. The land primarily consists of thick cretaceous and early tertiary limestone.

2.2 Santa Rita Corozal

Santa Rita Corozal is located in modern day Corozal Town in the Corozal District in northern Belize (Figure 1). The archaeological site once extended along the coast of the Corozal Bay and towards the west and south (Figure 2), but the development of the modern town of Corozal resulted in the destruction of most of the outlying structures of the site. Presently, only the few buildings that represent the site core remain visible and preserved within the boundaries of the archaeological reserve.

Santa Rita Corozal provides the backdrop for this study of ancient Maya Postclassic households. This study is focused on identifying Postclassic households based on variations of artifact content within the selected structures. The basis for this research is that structures were used for varying purposes, and this would be revealed based on the artifact content recovered

during excavations. A structured study of several different buildings from across Santa Rita Corozal would therefore provide a better way of understanding the way in which a Postclassic household functioned and thus determine whether individual buildings had specific functions within the household. Past research suggests that groups or clusters of buildings centered around a single plaza typically indicate residential functions (e.g., Haviland 1965; Rice and Culbert 1990). However, the equation of one building with one residential household does not consider that a single household may have used a variety of buildings for any number of purposes or that differentiation in size and or numbers of buildings within a household may imply occupational variations within the household or within the larger community (e.g., Chase and Chase 2014).

The archaeological record suggests that Santa Rita Corozal has a long history of occupation, although the site is best known for its Postclassic Period remains (Chase 1986:348). The site was first excavated by Thomas Gann (1900), a retired doctor and amateur archaeologist who was stationed in Belize during the late 19th and early 20th centuries. This was followed by several other brief excavation activities by Green (1973:289), Pring (1973), and Sidrys (1983:127) who all agreed that Santa Rita was established in a most desirable location; its proximity to both the coast and riverine environments, with opportune access to trade routes and networks, likely fostered the thriving Postclassic community.

Subsequent archaeological excavations at Santa Rita Corozal were carried out by the Corozal Postclassic Project (CPP), a seven-year research program conducted between 1979 and 1985 under the direction of Diane and Arlen Chase. This project resulted in the excavation of a total of forty-four structures throughout the site (Chase and Chase 2008:79) confirming the presence of ancient Maya occupation during the Postclassic Period and demonstrating that the site had been continuously occupied since the Preclassic Period (Chase and Chase 1988:10). The

excavations revealed that Santa Rita Corozal existed as a small village during the Preclassic Period (ca. BCE 1200 – CE 250), but in the Classic Period (CE 250 – 900) experienced an increase in both population and construction activity of numerous stone buildings along with many associated interments and deposits (Chase and Chase 1988:11). Some remains from the Terminal Classic (CE 800 – 900/950) are found throughout the site, although these have been difficult to identify. A vibrant growth in the community is noted for the Postclassic Period, during which time there was extensive growth and development in the occupation of the site. During the Postclassic Period, Santa Rita flourished and is postulated to have served as the capital of the ancient province of Chetumal (Chase and Chase 1988:7).

Given its coastal location along the Corozal Bay, in between the New and Hondo Rivers, the site was situated in a prime location to serve as a trade and communication center (Chase and Chase 1989:31). The presence of exotic materials like jadeite and obsidian along with other long-distance trade items, such as Plumbate pottery (Sidrys 1983), supports the idea that Santa Rita Corozal was indeed involved in long-distance trading activities.

In terms of spatial organization, the Postclassic community does not exhibit the typical centralized layout noted at several earlier Classic Period sites. As a result of the level of destruction sustained from the growth of the modern town, it has been difficult to ascertain whether Postclassic Santa Rita Corozal ever had a single site core area (Chase 1986:364). Chase and Chase (1988:70; see also Chase 1992:131) suggest that instead there appears to be a non-centralized layout in which multiple structure types, ranging from line-of-stone constructions to multiple-course base wall constructions, are built within varying sectors across the community. Rather than the centralized ceremonial core with smaller buildings extending outwards, the results of the Corozal Postclassic Project suggest a dispersed sector pattern consisting of varying

combinations of both single-room structures and multi-room constructions atop platforms being built within various sectors throughout the site (Chase and Chase 1988:70). However, the boundaries between these sectors have proven difficult to identify because of modern disturbance to the ancient remains.

3.0 Ancient Maya Households

As previously noted, the research outlined here focuses on discussions defining the spatial configuration and functions of buildings within various residential or *plazuela* groups at Late Postclassic Period Santa Rita Corozal. Thus, it is the contention of this thesis that through a combination of archaeological excavation data, ethnohistoric, and ethnographic accounts that a more complete reconstruction of the ancient Maya society can be revealed (e.g., Chase and Chase 2004:243). The archaeological data is critical for this research as it provides the basis through which analysis of the building forms and interpretations of their functions can be conducted. It is by employing analyses on the variations in the quantities and distributions of those recovered artifacts that archaeologists could make predictions as to the functions of individual buildings or groups of buildings which purportedly form households.

Early settlement archaeology conducted in the Belize Valley resulted in several idealized models being proposed for the arrangement of household groups within the Maya Lowlands (Ashmore and Willey 1981:12). The arrangement of these groups suggests that the central plaza area was an important feature within Maya society. These architectural layout models have been referenced as being typical of ancient Maya household formations. In trying to identify the household layout, however, Ashmore (1981:47) recognized that there may have been numerous variations in what constituted a household. She suggested that at minimum, however, there must be adequate space that provides for both shelter and resource-procurement activities for one or more adults plus children (Ashmore 1981:48). There is also recognition that a residence may constitute multiple buildings. Activities such as cooking and craft production, for example, while considered household or residential in nature, may not necessarily be conducted within the dwelling structure. As such, the concept of household clusters or *plazuela* groups may reflect a

single household comprising multiple structures that may have had varied functions. Analysis of selected residential groups at Santa Rita Corozal will attest to the configuration of Late Postclassic households and confirm whether these patterns continued beyond the Classic Period.

Research by Becker (1982; 2004; 2014) further analyzed households but from the perspective of spatial planning properties and the potential of using this planning to make predictions as to the functions of buildings. In particular, his research at Classic Period Tikal (see Figure 1) defined almost a dozen distinct layouts and has recognized a distinct building group pattern known as a Plaza Plan 2. This specific plan is an arrangement of several low, rectangular buildings around a central plaza having a relatively squared, tall ritual structure on the eastern side (Becker 2014:306). While this is a common layout for households at Classic Period Caracol (see Figure 1), comprising almost 80% of these groups (Chase and Chase 2004:144), only 14% of groups at Tikal exhibited this plaza plan. Becker (2004:128) contends that this easily recognizable spatial pattern can be used to predict building function, even prior to excavations, since such eastern structures have been associated with mortuary functions and as a ritual shrine or temple for a residential group while the other buildings within the group are predicted to have served more domestic functions such as dwelling space, storage, and kitchens. These predicted functions can be confirmed through further excavations of the buildings. Becker (2004:132) maintains that while there may be variations in the sizes of these recognized plans across the Maya Lowlands, the form of the plaza plans remains the same. Over time, additions to the basic plans and layouts may have taken place; however, Becker (2001:428) suggests that these may be thought of as cultural variations.

Closer in time to Late Postclassic Santa Rita is the household archaeology research conducted at the Postclassic site of Mayapán (see Figure 1) which also provides comparative

data for analyzing households. Research by Masson, Hare, and Peraza Lope (2014:208-215) has identified several distinct building forms as well as their organization within groups across the landscape. One of the most common residential or dwelling forms identified at Mayapán is a squared- or rectangular-shaped structure consisting of one or two parallel rooms with an interior bench and a frontal patio. There are also several variations noted for this form including some buildings being larger in overall area but with the same basic layout and other buildings lacking interior benches or the patio areas. Masson, Hare, and Peraza Lope (2014:216) also discuss the organization of houses within groups. Though some isolated dwelling structures are situated throughout the site, at least 90% of the Mayapán houses were arranged in some form of group alignment. These group sizes ranged from two houses to four houses. The houses were typically found to be oriented around an inner or central patio or plaza area with at least one house facing eastwards (Masson, Hare, Peraza Lope 2014:227). Analysis of the building forms and group organization exhibited at Santa Rita Corozal should detect whether any of these spatial planning properties observed in the Classic Period Petén continued into the Late Postclassic Period and whether there are any similarities to the patterns observed at Postclassic Mayapán.

Although the focus of this research is on the buildings comprising the residential group, it is also important to consider the use of associated open spaces in the analysis of the household or household group. The daily lives of inhabitants were not restricted to the spaces inside buildings; therefore, it has been suggested that in order to fully analyze the household, the surrounding spaces and the ways in which they were utilized should be taken into account (Becker 2001:431; Robin 2013:55; and Hutson et al. 2004:81). The identification of auxiliary features such as water storage areas, gardens or surrounding milpas and terraces, sweathouses,

chultuns, and the presence of animal pens provide supporting evidence that these associated outside spaces form part of the household or household group.

It is critical that archaeologists recognize that there may be considerable variation in household compositions since individual buildings may vary in spatial layout, in form and function, and in the presence of any associated outdoor features. Research at Caracol indicates that a “normative” Late Classic Period household is typically comprised of a group of structures of varying forms, each of which possibly serve a different function (Chase and Chase 2014:11). Becker (1982:114) explains that a residential complex is likely a series of related structures that can be compared to a modern house having a series of different functioning rooms, all under one common roof. This thesis seeks to determine variations in spatial layout associated with Late Postclassic Santa Rita households.

In addition to a discussion on the functions that individual buildings played in Maya residential groups, “household archaeology” (e.g., Wilk and Rathje 1982) also provides an avenue through which population estimates of ancient Maya society can be assessed. Turner (1976:73) considers population density as one of the most important debates in Classic Maya Lowland civilization. Early studies on Maya demographics employed a basic formula of counting small mounds, determining date of use of mounds through excavation, and converting mound numbers to equate to number of people (Rice and Culbert 1990:13). More recent studies, however, have replaced this practice with intricate calculations as a result of the implications of household archaeology. Rice and Culbert (1990:14) state that household archaeology has forced archaeologists to consider other features of ancient Maya society such as subsistence patterns, variation in building functions, site boundaries, and the continuous occupation of buildings in any demographic analysis.

Haviland (1969:429) suggested that simultaneous occupation of households, modifications to structures over time, and variations in building functions are all critical components to consider when proposing population estimates of ancient Maya cities. Turner (1976:76) added that it was also important to consider the agricultural potential in determining population estimates. He stated that large populations were likely to have been supported by more intensive forms of cultivation rather than by slash-and-burn agriculture (Turner 1976:79). With these factors in mind, Haviland (1969:429) calculated a population estimate using the average size of 5.6 persons (for a nuclear family) per building, resulting in approximately 49,000 inhabitants in an estimated 162.78 square kilometer for Late Classic Tikal. He estimated that Tikal's urban center had a higher population density with an estimated 600 persons per square kilometer while there were only 100 persons per square kilometer in the periphery. On the other hand, Turner (1976:79) proposed a population density of 150-160 persons per square kilometer at Late Classic Rio Bec. Turner's figure is based on an assumption that only 25% of house sites were simultaneously occupied during the Late Classic. He then further suggested that taking the agricultural potential of the site into consideration tripled this proposed figure to approximately 321-643 persons per square kilometer (Turner 1976:81).

Another issue with extracting population estimates is to recognize, particularly during the Postclassic Period, the presence of numerous low-lying line-of-stone foundations (Chase 1990:199). Although many of these were practically invisible on the ground surface, excavations at Santa Rita have provided substantial evidence for the presence of entire residential or *plazuela* groups hidden beneath the ground surface (Chase and Chase 2004:247). This evidence underscores the importance of taking into account line-of-stone constructions in making population estimates.

As the above discussion suggests, there are many components to consider in answering the question of what constitutes a household. Archaeologists need to identify whether there is an isolated structure or group of buildings, considering the possibility that there may be low-lying line-of-stone constructions in the vicinity. It also is important to assess the building forms and their placement within the household group. Additionally, the variation in artifact types and the quantities and the distribution of associated artifacts from each building must be considered for making suitable inferences into their function. One must also take into account that a building may have served multiple functions. In what follows, selected households and residential groups at Santa Rita Corozal form the loci of a comprehensive analysis on the existing variation in building form, spatial arrangements, and associated artifacts and their distribution that will factor into defining the Late Postclassic Period household.

3.1 Late Postclassic Period Household Features

Analyses focused on identifying the function served by individual buildings is dependent on the associated artifacts recovered from the specific building. The literature on Ancient Maya society suggests that there was a highly specialized Classic period population. A ruling class, priests, groups of different statuses, and specialized craftsmen have been identified based on the artifacts encountered within associated special deposit features and households (see Moholy-Nagy 1995 and 1997). Therefore, it is critical to consider the artifact assemblages and their distribution in addressing function related questions.

In her research at Laguna de On, a small Postclassic period site in northern Belize, Masson (2000:80) identified similar low single-coursed building constructions as have been reported at Santa Rita Corozal by the CPP. There she identified several Late Postclassic midden

deposits which point to variation in the functions of the buildings with which they were associated.

Masson (2000:91) characterizes a Late Postclassic period domestic deposit as including a mixture of utilitarian ceramics, lithic tools, ground stone implements, shells, faunal bone, net weights, and obsidian blades. In households where specialized activities other than the typical domestic activities were taking place, it is expected that the associated artifacts would show variation such that there would be an increased quantity of whatever material was being worked. For instance, Masson (2000:87) states that a ceramic producing household would be expected to show both a greater diversity in vessel types as well as in numbers of vessels. The recovered artefact assemblage from a ceramic producing household would also include increased numbers of debris material related to ceramic production such as sherds or mis-fired pottery (and fragments), additional manos and metates used for preparing temper or pigment, and perhaps even evidence of a fire-pit where the ceramics were being fired. An assemblage exhibiting increased manufacturing related debitage would be expected from any specialized production activity whether chert, obsidian, ground stone or even shell.

Similarly, a ritual-related assemblage would be expected to exhibit an increased concentration of whole or reconstructable ceramic vessels including censerware, chert eccentrics, as well as other exotic artifacts such as jade beads, shell beads, and copper bells (Masson 2000:98). Special deposits, in the form of burials and caches and including human remains, would also be expected within assemblages from ritually functioning buildings.

3.2 Postclassic Occupational Specialization

The associated artifact assemblage recovered from household groups could lead to an identification of specific occupational specializations being undertaken by members of a household. Research by Becker (1973) at Classic Period Tikal, Guatemala identified multiple occupational specializations that he proposes are recognizable in the archaeological record. Occupational specializations in a community may be recognized through the archaeologically identifiable characteristics based on recovered artifacts and debris material (Becker 1973:398). Becker (1973:398) also proposes that it is the presence or absence of these features that may account for other observed differences between households such as architectural variations, wealth, and access to raw materials.

The following are some of the potential occupational specialties which may have been present in a coastal Late Postclassic Period site like Santa Rita. Its strategic location along the coast and near to major rivers leading inland provide easy access to raw materials required for the activities listed below. Chase and Chase (1987; 1990; 2004) have indicated that the site of Santa Rita Corozal was flourishing during the Last Postclassic Period. The expectation is that the artifact assemblages recovered from the seventeen buildings included within this study can provide evidence that supports the presence of these occupational specializations within the community and thus allude to the functions of the various buildings.

Lithic Manufacture

This occupation would be readily identifiable based on the large quantities of lithic material (that is, chert and obsidian) in the form of manufacturing debris such as complete tools, broken artifacts, and debitage (from the different stages of manufacture). Large quantities of this

material, particularly in comparison to other artifacts classes, would indicate the presence of a specialized workshop or manufacturing site.

Pottery Manufacture

As with the lithics, a specialized pottery manufacture location would have a significantly larger amount of mis-fired and odd pottery and pottery debris than observed at other locations. Pottery manufacture might also be identified through the diversity of pottery items recovered at a specific location which would include finished items as well as items that appear to be incompletely decorated or represent mis-fired fragments. The presence of molds, primarily used for figurines, would be particularly good evidence for pottery manufacture. Evidence in the form of tools and implements, such as smoothing and polishing stones employed in the production of pottery vessels and other ceramic objects, could also indicate manufacturing activities.

Shell Manufacture

Given the location of the site along the coast and its nearness to the reef which runs along the east of the coast of Belize, the Maya living at Santa Rita would have relatively easy access to shells and shell collecting. As with chert and pottery, any evidence of shell craft production would materialize in the form of increased numbers of both worked and unworked shells and shell fragments as well as some partially finished and completed shell artifacts.

Exploitation of the Marine Environment (Fishing Activity)

Being located along the coast provided the community with access to a variety of marine products as food sources. Evidence of fish and turtle remains, sea urchin and stingray spines,

and shells are all indicators that the ancient Maya did enjoy access to and utilized marine sea life in varying aspects of their daily activities. Although it would be rare to find a fishing net in the archaeological data, given the humidity and its effects on artifact preservation, there may be other artifacts which point to this activity. These include ceramic beads and notched sherds likely used as weights along the edges of nets, small points used for spearing fish, and even hooks, fashioned from shell or bones, which could also be a means for harvesting fish and other marine life. Larger ring stones may have been used for anchoring nets for fishing.

Stucco and Masonry

Evidence of stucco fragments and masonry structures at Santa Rita Corozal is indicative of the work of skilled masonry workers and stucco artists. While the evidence of stucco decoration on a building in no way suggests that this was the home of the artist or mason, it does imply that there are unseen occupations within the community. While it would be difficult to verify such occupations within a household, the presence of increased numbers of artifacts such as smoothing stones and other implements required for conducting this type of work could indicate the home of a masonry specialist.

4.0 Methodology

The data under review within this research were the result of seven years of archaeological research conducted by the Corozal Postclassic Project at the archaeological site of Santa Rita Corozal in northern Belize. Excavations were conducted over the period May 1979 through to August 1985 directed under Diane and Arlen Chase with permission granted by the then Belize Department of Archaeology. The original research project was set forth to document the extent of the Postclassic ancient Maya remains within this community and to investigate the nature of Postclassic socio-political organization.

Of the forty-four buildings excavated under the auspices of the Corozal Postclassic Project at Santa Rita Corozal, seventeen were selected for inclusion within this current analysis based on excavation strategy and artifact recovery. Because the construction and occupation of these structures is limited to the Postclassic Period (AD 1000 – 1200s), they provide excellent sources for documenting whether or not there was any functional variation of buildings within household groups at the Postclassic Period community of Santa Rita Corozal. Permission was granted by Drs. Diane and Arlen Chase to access the Corozal Postclassic Project excavation records, in particular the Santa Rita lot cards and catalog cards, and to create a database of the associated artifacts and features of the seventeen selected structures. These particular structures were selected to ensure that a cross-section of varying building types and locations from across the site was incorporated into the current analysis. Thus, some buildings are located within the Northeast Sector of the site and some are within the South Intermediate Sector. Furthermore, some buildings form a residential or *plazuela* group (several buildings within the immediate vicinity positioned around a central plaza area) while others are individual isolated structures and not necessarily associated with any other surrounding structures. Despite these physical

variations in location, all the selected buildings were limited to those having been constructed and occupied during the Late Postclassic Period (CE 1250-1542). All seventeen structures were excavated using a combination of both aerial and trench excavation methods.

An Excel datasheet was created to record the characteristics of each of these structures. Particular features that were recorded were: building type, location within the group, building dimensions (where available), excavation dimensions (where available), artifact classes recovered in association with a specific structure, specific artifact forms, quantity and descriptions as well as dimensions of these artifacts (where available). The Late Postclassic artifact assemblage included within this analysis are primary deposits associated with on-floor materials or from provisional trash associated with buildings or platforms (e.g., a refuse deposit associated with Platform 2) and from within burials and caches.

In addition to the information provided from the Santa Rita excavation lot cards and catalog cards, a review of previously conducted research and analyses was undertaken to supplement the catalog card and lot card data. Details of the overall excavations and particularly on the special deposits (i.e., burials and caches) and the ceramic artifacts recovered in association with those excavations were obtained from reviewing Diane Chase's PhD dissertation (1982) and the Chase and Chase 1988 Santa Rita excavation publication. In terms of the various artifact classes included within this study, a comprehensive review of multiple reports and theses pertaining to the Santa Rita material assemblage was conducted. These provided supplemental information for each of these categories: chert (Shafer and Hester 1988; Marino 2014); obsidian (Seidita 2015); ground stone (Jaeger 1988; Duffy 2011), faunal assemblage (Morton 1988); human remains (Tetlow 2010), and shell (Hamilton 1988). The details for the remaining artifact classes (i.e., metals, coral, stucco) are sourced directly from the CPP catalog cards and with

references made to Diane Chase's 1982 PhD dissertation and the Chase and Chase 1988 Santa Rita excavation publication, where necessary and applicable.

In terms of building type, the various structures selected for this research came from various building types as previously classified by D. Chase (1982:167) and Chase and Chase (1988:14-31; 41-61) for the structures that were observed at Late Postclassic Period Santa Rita Corozal in *plazuela* groups. The sample includes several multiroom and single room structures, a raised platform, and a tandem room structure. A single undetermined building form is observed at Structure 162. As a result of time limitations on the CPP field season, the excavations conducted in South Intermediate Sector were unable to reveal the complete architectural layout of this structure.

Another feature included in this analysis is the location of buildings within their respective residential groups. The database compiled for this study includes the specific location or cardinal direction (whether North, South, East, or West) of which individual buildings were positioned around a plaza, where possible. There is one instance, observed at Structure 189, in which there were no other buildings observed in the immediate vicinity therefore this building is considered as an isolated structure. Other features considered in this analysis include the presence or absence of architectural ritual-related features such as altars and shrines and the presence or absence of special deposits such as burials and caches.

The database was created comprising ten different artifact classes that were recovered by the seven-season CPP excavation program conducted between 1979 and 1985. These artifact classes which account for a total 13,010 individual artifacts include lithics (chipped stone, ground stone); ceramics (pottery, figurines, beads, and net weights); metal (copper, gold, and silver); and organic materials (bone, shell, and coral). The assortment of artifacts recovered

from the excavations at Santa Rita are from primary deposits associated with the selected structures. These include on-floor materials or from provisional trash associated with buildings or platforms (e.g., a refuse deposit associated with Platform 2) and from within burials and caches.

The information garnered from the CPP excavation records for each artifact class includes provenience or context such as operation and lot numbers from which they were recovered along with unique artifact identification numbers for each catalogued item. Additional information provided by these records includes a basic description for each artifact as well as the quantity recovered and individual measurements of artifact features (this information varied for each artifact but typically included length, width, thickness, height, and weight). The CPP catalog cards provided the bulk of the analysis. While not necessary for this dissertation, additional studies could review artifact drawings and/or the original artifacts.

Through their research, the Corozal Postclassic Project established a chronology for Santa Rita Corozal based on ceramic vessel types recovered from within special deposits, specifically from both burials and caches, for dating the construction and occupation of the various structures. The selection of the specific buildings for this current research project was made based on the confirmed Late Postclassic Period date as previously determined by the CPP (Chase 1982; Chase and Chase 1988). This ensured that all the artifacts being considered for this analysis were temporally contextualized to solely the Late Postclassic Period.

A total of seventeen structures have been selected for inclusion in this analysis. These include samples of single room structures, multi-room constructions, a raised platform, and a tandem room construction. The sample includes buildings which form part of a household or *plazuela* group and a single isolated structure. The specific building selections were made such

that this research would encompass only single-phase constructed Postclassic Period buildings. There are variations in the sample with regards to building forms and their placement both within their respective groups and locations across the site. Other auxiliary features to be considered in the analysis of the building functions include the presence or absence of ritual related features such as altars and shrines and any associated ritual deposits. The sample includes household groups in both the Northeast and South Intermediate Sectors of the site.

It is expected from previous work at the site that Late Postclassic Santa Rita Corozal residential groups will exhibit some variation but share some basic layouts and functions that includes both single room and multiroom structures exhibiting a combination of both domestic and ritual functions. The buildings within a residential group should include residential structures for nuclear or extended families as well as auxiliary structures that serve a multitude of functions other than as a dwelling. The associated artifact assemblages will be analyzed to assess both structure and group activities of the seventeen selected buildings.

Inference of building function can be established based on the artifact assemblage recovered from within each building. From excavations at Laguna de On in northern Belize, Masson (2000:89) has made some functional interpretations for several of the structures at that site. In one instance, the combination of primarily utilitarian ceramics, lithic tools, the presence of ground stone *manos* and *metates* as well as several ceramic net weights and faunal bones are thought to imply a domestic function. On the other hand, the presence of censers, several burials, eccentric chert items, and other exotics such as jade and shell beads and effigy figurines, particularly those recovered from within caches, are thought to indicate a ritual function. Previous analyses conducted at Santa Rita have resulted in the possibility of a lithic workshop associated with at least two of the buildings in the South Intermediate sector, based on the

presence of a full reduction sequence, including production related debris, pre-forms, and finished tool forms (Marino 2014:21). In an analysis of ground stone materials from Santa Rita Corozal, Duffy (2011:1) states that the presence of ground stone *manos* and *metates* are indicative of food processing activity suggesting that the associated structure would likely serve a domestic function. Therefore, it is hypothesized that a diverse artifact assemblage will reflect a domestic function, especially since households typically engage in multiple activities. There should be some food procuring and processing implements, evidence of some craft production, and even some ritual-related artifacts. It is expected that structures utilized for specialized functions will have a less diverse assemblage but have high quantities of a specialized artifact assemblage depending on the specific function; for example, a shrine might contain figurines and censers but not ground stone *manos* and *metates* – or in the case of chert tool manufacturing, there would be large quantities of chert artifacts and associated debris material.

For the purposes of this research, quantifying the associated artifact types and assessing their distribution, including considerations of the associated context from within each building or *plazuela* group, will be critical in determining their status as residential spaces and in inferring other building function. A Chi Square Test of Independence is used to test the significance of the associations between building types and building cardinal locations within the group and the varying artifact assemblages in making inferences on the functionality of individual buildings. The correlation made between specific residential spaces and building function will contribute to the understanding of the Late Postclassic Period Maya lifeways, particularly those within a thriving community such as Santa Rita Corozal.

4.1 Limitations

No new excavations. While the nature of this analysis is archaeological, no new archaeological excavations were undertaken within the scope of this project. Major excavations, utilizing both areal clearing and trenches, have already been conducted at Santa Rita Corozal and provide ample data required for the scope of this project. Because the focus of this research is on detailed analyses of the artifact contents and distribution within the various buildings, there was no need for any further excavation activity. Instead, this research will utilize the excavation records documented by the seven-season Corozal Postclassic Project.

Reliance on excavation records. Although there was a reliance on thirty-year old hand-written documents, the records provided sufficient data to ensure the completion of the aims of this project. The dataset stems directly from the excavation records and consists of both lot cards (records excavation specifications), catalog cards (records artifact data) and the general excavation notes used for documenting the research at Santa Rita Corozal. The most important factors retrieved from these records include the quantities of the various artifact types and the specific locations from which these were recovered. Records for all seventeen buildings to be examined were compiled into a database forming the basis for the analyses of these selected Postclassic buildings. One critical aspect of using a legacy collection is that it can be difficult to create a complete data set as the record keeping was not consistent throughout; however, sufficient detail was present to undertake the current analysis.

No accessibility during the COVID-19 Pandemic. The compilation of information into the database to be used for this analysis was done prior to March 2020. Due to restrictions and protocols in place after March 2020, due to the Coronavirus COVID-19 Pandemic, the CPP lot cards and catalog cards were not accessible to the author, therefore, all analysis was conducted

based on the information which had been previously compiled in the database and with reference to previously conducted research at Santa Rita.

5.0 Selected Households at Santa Rita

Based on a first observation of the map of Santa Rita (see Figure 2), one gets the sense that there is little or no conformity in the distribution of structures across the site. However, there are some buildings placed in easily identifiable groups or clusters, thought to represent residential structures or household groups. According to Wauchope's 1938 ethnological account, modern Yucatan Maya communities at the time displayed a somewhat standardized layout with the major administrative and religious buildings located within the central area surrounded by residential buildings moving outwards; this description is in accord with an idealized Spanish town pattern introduced at the time of the conquest (Low 1995). Thus, one question is how closely these ethnographic descriptions match what existed prior to European contact.

The largest architectural feature at Santa Rita Corozal is Structure 7 (see Awe et al. 2020; Chase and Chase 2005), thought to be one of the most complex architectural constructions at the site with occupation and use dated to the Preclassic Period (Chase and Chase 1988:32); however, this construction is not located in the geographical center of the site and while most other buildings appear to have been placed in somewhat of a pattern surrounding this structure, there does not appear to be any standardized pattern for the placement of buildings. The same can be said of the Late Postclassic Period community about which Chase (1982:162) suggests that there does not appear to be any apparent arrangement of buildings except that groups are arranged around central plazas and appear as regularly spaced across the terrain. Without the preservation of ancient roadways, it is also difficult to confirm whether there was indeed any formal layout of the community.

Table 1. List of the selected buildings from Santa Rita Corozal. The table includes the selected buildings along with their sample group designations, building types, and location around plazas.

Sample Group #	Sector	Building	Building Type	Location (around Plaza)
1	Northeast	Platform 2	Raised Platform	Central Platform
1		Structure 73	Multiroom	North
1		Structure 77	Single Room	East
1		Structure 78	Single Room	West
1		Structure 79	Single Room	West
1		Structure 80	Single Room	North
2		Structure 74	Single Room	South
2		Structure 81	Multiroom	North
3		Structure 162	Undetermined	North
3	South Intermediate	Structure 166	Single Room	Central
4		Structure 189	Single Room	Isolated
5		Structure 213	Single Room	North
5		Structure 214	Single Room	East
5		Structure 215	Single Room	South
5		Structure 216	Multiroom	West
6		Structure 183	Tandem Room	South
6		Structure 218	Multiroom	West

For ease of reference and identification during mapping surveys conducted by the Corozal Postclassic Project (CPP), Chase and Chase (1988:87-98) arbitrarily designated varying regions of the site into different sectors. Eight of the selected buildings in this current study are located within the Northeast Sector of the site while the other nine structures are within the South Intermediate Sector (see Table 1 and Figures 2, 3, and 4). Chase (1982:189) describes the Northeast Sector as being located in the northern portion of the site, separated by a modern road from the North Central Sector. The Northeast Sector is characterized as having numerous small mounds and line-of-stone constructions, all associated with Postclassic Period occupation. The

South Intermediate Sector is demarcated by water-logged lowlands (*bajo*) to the north and by a modern road leading to a local school in the south (Chase and Chase 1988:41). The structures in the South Intermediate Sector become less dense, as one moves inland towards the west and moves east towards a natural bluff. Like the Northeast Sector, the South Intermediate Sector provides ample evidence for Late Postclassic Period occupation at Santa Rita Corozal.

Table 1 provides a list of the selected buildings included within this study and indicates their building types and the geographical position of the building within the site and around any associated plaza as well as identifying the sample group number (assigned for analysis purposes) for each of the structures.

5.1 The Northeast Sector

The Northeast Sector of Santa Rita (see Figure 3) lies beneath the modern village of Paraiso (Chase and Chase 1988:14). This area has now been incorporated within the modern town and forms the northern extent of the modern day Corozal Town. Research by the Corozal Postclassic Project suggests that this area was occupied as early as the Late Preclassic and continued through the Historic Period (Chase and Chase 1988:14). Buildings located in the Northeast Sector selected for further analysis within this current research include the Sample Group 1 buildings (Platform 2 and its associated Structures 73, 77, 78, 79, and 80) and the Sample Group 2 buildings (Structures 74 and 81), which lie just north of Platform 2.

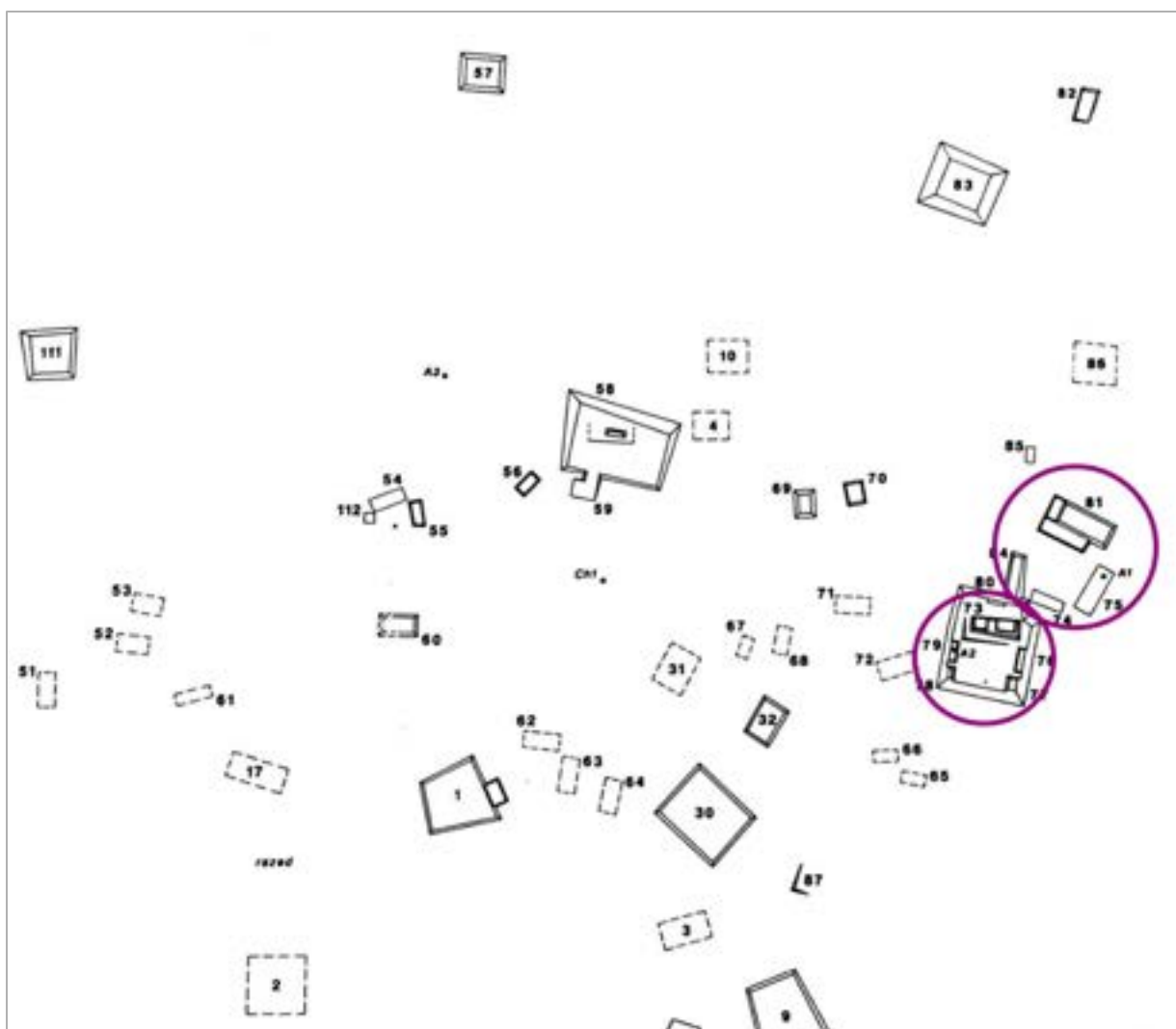


Figure 3. Map of the Northeast Sector at Santa Rita. The highlighted buildings are part of the seventeen selected buildings (Sample Groups 1 and 2) included within this research. Map courtesy of Chase and Chase (1988:89).

5.1.1 Sample Group 1: Platform 2 Group

Platform 2 is a central raised platform structure upon which six smaller buildings (Structures 73, 76, 77, 78, 79, and 80) are constructed (D. Chase 1986:358). Based on previously confirmed Late Postclassic Period occupation at this locus, Platform 2 construction along with Structures 73, 77, 78, 79 and 80 were selected for inclusion within this study.

Platform 2

The largest architectural feature included within this study is the Platform 2 construction. While several of the sample groups within this study are built atop platform features, Platform 2 is the largest standing at approximately 2 m in height and 44 m by 36 m in length and width (Chase and Chase 1988:25; D. Chase 1986:358). It is a rectangular shaped construction which housed at least six smaller, rectangular buildings (Structures 73, 76, 77, 78, 79, and 80) at its summit (Chase and Chase 1988:25; D. Chase 1982:318). All buildings, except for Structure 76 but including the Platform 2 construction, are part of this current analysis. The platform itself may have actually been built as early as the Preclassic Period but the archaeological record suggests that the major period of occupation was during the Late Postclassic period (Chase and Chase 1988:25).

Structure 73

Built atop Platform 2, this is a 21.5 m by 6.0 m rectangular building (Chase and Chase 1988:26). It forms the north side of the summit on Platform 2. Excavations indicate that the building had both a rear and front platform and a raised interior rear room (Chase and Chase 1988:26).

Structure 77

Located on the south end of the platform, this rectangular structure forms the far southeast corner of the summit on Platform 2 (D. Chase 1982:366). The building was not well-preserved but archaeological investigations here revealed a complex Postclassic construction history (Chase and Chase 1988:26). Excavations also indicate that Structure 77 had a raised

substructure (D. Chase 1982:366). The recovery of some polychrome stucco fragments in this area suggests that the building may have been covered with a mural painting (Chase and Chase 1988:27).

Structure 78

This small, rectangular structure forms the southwest corner on the summit of Platform 2 (D. Chase 1982:359). This building, like Structure 77, was not well preserved (D. Chase 1982:359). Excavations by the Corozal Postclassic Project were only able to recover the northern facing its substructure and some evidence of a stairway linking Structures 78 and 79 (Chase and Chase 1988:31).

Structure 79

A rectangular structure that forms the west side of the summit on Platform 2 (D. Chase 1982:395). This building was well-constructed and found mostly intact by the Corozal Postclassic Project (D. Chase 1982:395). Excavations revealed a substructure with upright slab facings that were still in place (Chase and Chase 1988:31).

Structure 80

Structure 80 forms the far north edge on the summit of Platform 2 (Chase and Chase 1988:31). The building measured approximately 8 m by 3 m (D. Chase 1982:363). The rectangular structure was made of line-of-stone construction and consisted of either a central raised area with a terrace on either sides or a double line-of-stone supported wall constructed between two terraces (D. Chase 1982:363).

5.1.2 Sample Group 2: Structures 74 and 81

Structures 74 and 84, are tangent to Platform 2 on its northern side, forming a formal residential *plazuela* group along with Structures 75 and 81. The southern and northern buildings, Structures 74 and 81, were selected for further analysis in this current study.

Structure 74

This is a well-defined, slightly raised rectangular building that was constructed and utilized entirely during the Postclassic period (Chase and Chase 1988:17). It comprises a low double wall line-of-stone construction and is built immediately adjacent to the northeast corner of Platform 2. The building measured approximately 16.7 m by 4.7 m (D. Chase 1982:242).

Structure 81

Structure 81 is situated slightly north and east of Platform 2. Excavations at this location suggest that the building may have been entirely Postclassic in both construction and use (Chase and Chase 1988:18). This is one of the more complex structures within this study being a multi-room structure with a frontal terrace and an interior shrine (Chase and Chase 1988:18; D. Chase 1982:251-258; see also Chase and Chase 2013:56). The building was constructed on a slightly raised platform almost 80 cm above the ground surface with double line-of-stones set upright to form the outer walls of the building (Chase and Chase 1988:18; D. Chase 1982:252). The building was approximately 36 m by 8.5 m in dimension with the frontal terrace extending a further 7.7 m further southwards (Chase and Chase 1988:18-19). The recovery of numerous

stucco fragments suggests that this structure may have been decorated with painted stucco on its surface (Chase and Chase 1988:19).

5.2 The South Intermediate Sector

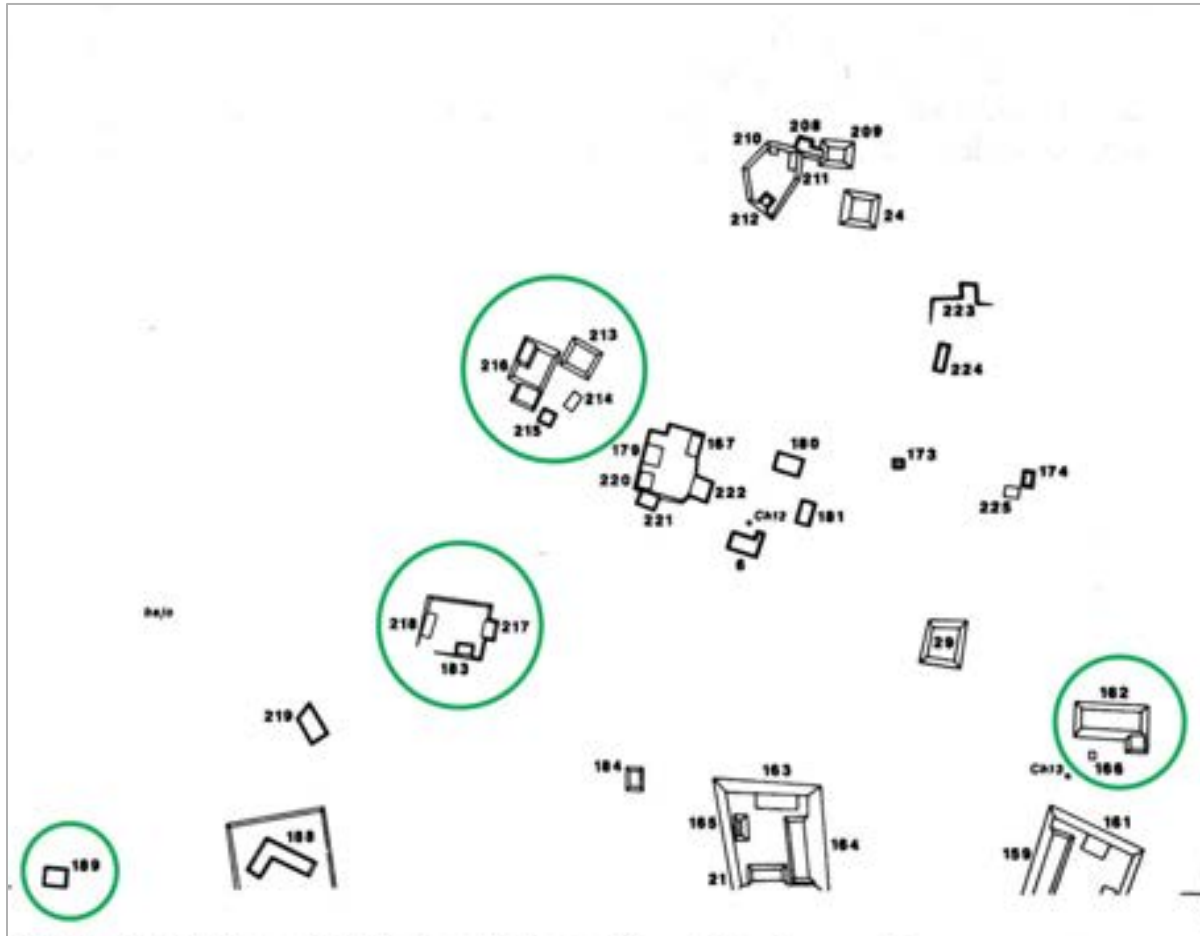


Figure 4. Map of the South Intermediate Sector at Santa Rita. The highlighted buildings include Sample Groups 3, 4, 5, and 6 which are those buildings included as part of this study. Map courtesy Chase and Chase (1988:92).

This sector is bounded by bajo or swampy lowlands to the north, a natural bluff to the west, and by a modern road to the south while the modern town of Corozal (at least in the late 70s and early 80s) was to the east (Chase and Chase 1988:41). This sector is known to contain

some of the most important Postclassic deposits at Santa Rita (Chase and Chase 1988:41). Four of the sample groups in this study are located within the South Intermediate Sector (see Figure 4). These include Sample Group 3 (Structures 162 and 166), Sample Group 4 (Structure 189), Sample Group 5 (Structures 213, 214, 215, and 216), and Sample Group 6 (Structures 183, 217, and 218).

5.2.1 Sample Group 3: Structures 162 and 166

Two buildings forming Sample Group 3 in the South Intermediate Sector are part of this analysis. Due to time limitations this area was never fully excavated (Chase and Chase 1988:43). For this reason, the northern building and larger of the two, Structure 162, was never fully excavated. Based on the CPP map, however, it appears that Structure 162 forms the north edge of what would have been a central plaza area. Structure 166 was constructed in this central plaza area to the south of Structure 162.

Structure 162

Built atop a small platform, the building rises about 1.50 m above the ground surface (Chase and Chase 1988:43). The rectangular structure is the north building of a group formed by both itself and Structure 166. Excavations revealed a disturbed line-of-stone construction (Chase and Chase 1988:43). As a result of time limitations, this building was never fully excavated.

Structure 166

Structure 166 is a squared-shape line-of-stone construction rising less than half a meter above the ground surface (Chase and Chase 1988:43). The building measures approximately 3.0

m by 2.70 m and is situated in the plaza area just south of Structure 162 (Chase and Chase 1988:43). It was completely Postclassic in construction and use (Chase and Chase 1988:43). Chase and Chase (1988:43) consider this structure as a “shrine” given the recovery of two burials which account for a total of seven individuals and several deposits associated with this location.

5.2.2 Sample Group 4: Structure 189

A single isolated building forms the extent of Sample Group 4 in the South Intermediate Sector of the site. Based on the CPP map, it does not appear as though this structure was aligned with any others or was constructed around a plaza feature as seen at the other groups within this study.

Structure 189

This isolated structure is square in shape measuring approximately 7.7 m by 6.7 m (Chase and Chase 1988:61). The Postclassic construction utilized upright slabs of stone to define the substructure and excavations revealed a stairway on its eastern side (Chase and Chase 1988:61). This Late Postclassic construction was set directly above an area of earlier Preclassic and Protoclassic activity, including several interments (Chase and Chase 1988:61).

5.2.3 Sample Group 5: Structures 213, 214, 215, and 216

A group of four buildings forms Sample Group 5 in the South Intermediate Sector. All buildings were arranged around a central plaza. Unlike the other sample groups in this study, all four buildings in this group were excavated and all four are included in this study.

Structure 213

Structure 213 is the northern building in a group of four buildings in the central area of the South Intermediary Sector (Chase and Chase 1988:47). Structure 213 is a rectangular raised stone construction measuring 6.1 m by 8.0 m with a front stoop extending a further 1.1 m to the south (Chase and Chase 1988:48).

Structure 214

Structure 214 is the eastern structure within Sample Group 5. A rectangular line-of-stone construction, the building measures approximately 3.0 m by 8.0 m (Chase and Chase 1988:52). This building was completely invisible on the ground surface (see D. Chase 1990 for a discussion on vacant terrain buildings at Santa Rita). Interestingly, there was very little artifactual material associated with this building (Chase and Chase 1988:53).

Structure 215

Structure 215 forms the southern edge of the plaza in Sample Group 5. This is a well-defined Late Postclassic stone construction measuring 5.4 m by 4.5 m (Chase and Chase 1988:53). Similar to Structure 214, this building was also not visible on the ground surface.

Structure 216

This is a multi-room building forming the western side of the group. Excavations at this location revealed that this structure was built atop an earlier, deeply buried Classic Period construction (probably by happenstance) (Chase and Chase 1988:54). The Postclassic building is primarily a line-of-stone construction measuring 22.0 m by 11.7 m (Chase and Chase

1988:54). Two small interior shrines are associated with this structure; one in the northern part of the structure and the other in the central part of the building (Chase and Chase 1988:54).

Indications are that the southern part of the building was likely a lithic production area for small chert arrow-points (Chase and Chase 1988:54; Marino 2014:49).

5.2.4 Sample Group 6: Structures 183 and 218

There are three buildings comprising Sample Group 6. The eastern building, Structure 217, however, was not excavated by the CPP. For this reason, only the western and southern buildings, Structures 218 and 183, were selected for inclusion within this study.

Structure 183

This building forms the southern side of the group associated with Structures 218 (west) and 217 (east). Chase and Chase (1988:57) classify this as tandem room building given it has one broad front room with a smaller rear room attached via a single doorway. The 7.2 m by 3.1 m building was in fairly good condition at the time of excavation with upright line-of stone construction clearly visible and a double line-of-stone construction forming the outer walls of the rear room that measures 5.8 m by 4.0 m (Chase and Chase 1988:57). Excavations provided ample evidence including several deposits and a multiple individual burial along with the presence of an interior altar signifying a ritual function for this building (Chase and Chase 1988:57-59).

Structure 218

This is the western building in a small group within the South Intermediary Sector of Santa Rita. Structure 218 is a multi-room, well-defined line-of-stone structure measuring 6.0 m by 15.0 m (Chase and Chase 1988:59). This Late Postclassic structure is thought to have been used into the Contact Period as several artifacts dating to this later time were recovered at this locale during excavations (Chase and Chase 1988:60).

6.0 Artifacts

This chapter provides details on the associated artifact assemblages which include ten different artifact classes, namely chert, ceramic, ground stone, obsidian, metal, jadeite, coral, stucco, bone, and shell, that were recovered from the seventeen buildings selected for analysis at Santa Rita Corozal. The following section will provide a brief introduction to each of the artifact classes as well as a very brief description of the main artifact types within each class. This section will also provide a detailed discussion on the distribution of the 13,010 artifacts included in this study in relation to the seventeen selected buildings at Santa Rita Corozal.

6.1 Chert Artifacts

This section provides a description of all the chipped stone tool, more commonly referred to as simply chert, material excavated and recovered from within the seventeen structures at Santa Rita Corozal selected for inclusion within this study. Presented is the range of chert artifacts associated with each of the structures, and the comparative distribution of the artifact types throughout these selected buildings. This chapter will also provide discussion on the likely activity these artifacts may be associated with particularly as it relates to defining a function for the specific buildings.

The collection for this analysis includes a total of 7528 pieces of chert artifacts identified as either tools or non-tools. The varying assemblage of formal chert tools includes complete worked bifaces, several utilitarian pieces such as scrapers, hammerstones, and adzes, as well as other specialized tools such as drills and points. The non-tools assemblage includes pieces previously identified as flakes, chunks and chips as well as other miscellaneous fragments some of which may have been used in the past and others of which were debitage only.

Given the location of Santa Rita Corozal, within northern Belize and its relatively close distance to Colha, the known source for chert and majority of lithic artifacts across Belize, it is understandable that Santa Rita Corozal would have access to this material type. Chert is an essential item for any ancient Maya household as it is utilized for a wide variety of activities including, but not limited to, agricultural production (clearing land), food procurement (hunting), food processing (butchering), as offerings (ritual purposes), and for multiple other utilitarian activities around the house including aiding in specialized craft production activities.

As Shafer and Hester (1988) and Marino (2014) indicate, a small portion of this chert collection comprises few formal tools in the form of finely made, tiny projectile points. A larger portion of the collection, however, is found to be comprised of debitage material of which flakes, chips and chunks are the most prominent types. The raw material of the chipped stone tools within this study has been identified as chert. Further breakdown into descriptions beyond tools and non-tools will not be considered within this study as this has been previously discussed in other literature including Shafer and Hester (1988) and Marino (2014). The goal of this study is to ascertain the function of the buildings through the analysis of the artifact collection recovered therein.

Table 2 below provides an inventory of the different chipped stone tools and non-tool artifacts recovered from the 17 structures included within this study.

Table 2. Inventory of chert artifact types recovered in association with selected structures included within this study at Santa Rita Corozal.

Chert Artifacts Inventory	
<i>Total number of chert artifacts</i>	7294
Tools	
<i>Adze</i>	1
<i>Biface</i>	157
<i>Blade</i>	64
<i>Celt</i>	2
<i>Drill</i>	6
<i>Eccentric</i>	2
<i>Hammer stone</i>	7
<i>Knife</i>	1
<i>Point</i>	219
<i>Preform</i>	1
<i>Scraper</i>	34
<i>Uniface</i>	13
Non-tools	
<i>Chip</i>	201
<i>Chunk</i>	777
<i>Core</i>	41
<i>Flake</i>	5749
<i>Nodule</i>	19

Chert Artifact Types

The chert artifacts within this assemblage have been divided into two major categories, tools and non-tools. The non-tools are primarily the by-products of chert tool manufacture while the tool category is comprised of formal worked artifacts in the varying forms including points and bifaces. The tools also include other utilitarian artifacts such as scrapers, hammerstones, and drills. A brief description of these types will be provided.

Tools

Based on the chert assemblage included within this study, the chert tools account for the smaller portion (7%; n=507) of the total chert assemblage. These artifacts are manufactured using a reductive sequence in which flakes are removed from a core and fashioned into various shapes and sizes depending on the function required (Marino 2014:46-47). Shafer and Hester (1988:111) add that the lithic collection observed at Santa Rita comprises few formal tools in the form of points and biface tool fragments.

Biface

Bifaces are evenly flaked, with sharp lateral edges and feature a plano-convex to triangular to trapezoidal cross-section. These may or may not have a stemmed base (Marino 2014:38). Bifaces are fashioned such that they are suitable for hand-held use (Sidrys 1983:284).

Uniface

These tools are manufactured in such a manner that only one surface displays large, deep flake scars. Unifaces typically exhibit a single worked edge suitable for cutting purposes. They are typically not intended for precision but rather for rough tasks after which they are readily discarded.

Point

These artifacts are considered the most delicate of the chert pressure flaked tools (Sidrys 1983:286). Shafer and Hester (1988:112) describe the Santa Rita points as being elongate triangular in form and with mostly unifacial trimming techniques to form the point and the base.

The points included within this study are identified as having notches on either sides and feature varying shaped bases (Marino 2014:24). According to the descriptions provided on the CPP catalog cards, most of the points within this Santa Rita Corozal assemblage are very small points ranging between 7.50 cm to 1.10cm in length.

Preform (Tool blank)

Preforms or Tool Blanks are point-sized specimen that have been received preliminary pressure-flaking but have an overall unfinished appearance and lack the side-notches common in the formal points (Shafer and Hester 1988:114). Sidrys (1983:282) states that sometimes these blanks are used as is, but more often they go further along in the production stage where they are fashioned into blades and points.

Knife

Knives are typically larger than the points and feature stemmed bases (Shafer and Hester 1988:114). Knives are sometimes manufactured from a microblade and lenticular in cross-section featuring sharp tips as a result of bifacial retouching (Sidrys 1983:287). These tools would be utilized for cutting tasks. The Santa Rita Corozal chert assemblage included in this study features one example of a knife recovered in association with Structure 166 (Chase and Chase 1988:43).

Scraper

The scraper is manufactured from a single large blade suited for scraping functions (Sidrys 1983:288). These tools are elliptical in cross-section and oval or circular in shape

(Sidrys 1983:288). There are 34 examples of scrapers within the artifact assemblages recovered in association with six of the seventeen buildings selected for this study.

Drill

The drill often stems from chips or flakes that have been modified for boring, drilling or gouging and is formed by having numerous tiny flakes removed from one end to create a point (Sidrys 1983:289). A total of six drill specimen were associated with the artifact assemblages of three buildings included within this study.

Hammerstone

Hammerstones are often created from waste chert chunks or nearly exhausted cores (Sidrys 1983:290). These are used as percussion tools for a wide variety of tasks around the household and are a key implement in chert tool production activities (Sidrys 1983:290). Because of their function, hammerstones tend to display battered surfaces (Sidrys 1983:291). Seven examples of hammerstones are included in this study.

Non-tools

Non-tools are the by-products of the chert tool manufacturing process. These activities include core reduction as well as percussion and pressure flaking which results in the production of non-tools artifacts such as flakes, chips and chunks (Sidrys 1983:277). The highest percentage (93%) of the Santa Rita chert assemblage is comprised of non-tools of which flakes account for approximately 85% of the total.

Flake

Flakes represent the highest percentage of residual waste from the chert tool manufacturing process (Sidrys 1983:280; Shafer and Hester 1988:116; Marino 2014:46). Flakes account for 80% of the chert assemblage and 85% of the non-tool category of the Santa Rita chert assemblage included in this study. These artifacts are usually thin and flat. It is suggested that flakes may exhibit signs of use-wear due to their potential function as cutting implements (Sidrys 1983:281)

Core

Cores are the base chert block used for any chert tool production. Percussion and pressure flaking are applied to the core in order to remove flakes producing scarring on their surfaces which are indicative of the tool manufacturing processing (Marino 2014:47). Forty-one examples of cores recovered from eight buildings at Santa Rita Corozal are included within this study.

6.1.1 Distribution of Chert Artifacts

As indicated in Table 3, the chert artifacts within this study have been further divided by location. The chert artifacts recovered from those selected buildings within the Northeastern Sector constitute 35% of the total chert, which is further broken down into representing 215 tools and 2360 non-tools. Similarly, the chert artifacts recovered from the South Intermediate sector constitute approximately 65% of the total chert. This amounts to a further breakdown of 293 tools and 4427 non-tools.

Table 3. Distribution of chert artifacts by sectors at Santa Rita Corozal.

	Northeast Sector		South Intermediate Sector		TOTAL	
	<i>n</i>	% of NE chert	<i>n</i>	% of SI Chert	<i>n</i>	% of total chert
<i>Tools</i>	215	8.35	293	6.21	508	6.96
<i>Non-Tools</i>	2360	91.65	4427	93.79	6787	93.04
TOTAL	2575		4720		7295	

Northeast Sector

Chert artifacts recovered from within the buildings in the Northeastern Sector of the site account for approximately 35% (n=2575) of all the chert included within this study. The collection of chert artifacts includes both tool forms such as points, bifaces and scrapers as well as various non-tools such as flakes, chunks and chips (Figure 5). The non-tools account for approximately 92% (n=2360) of the chert in the Northeast Sector while the tools comprise the remaining 8% (n=215). Of all the tools in the Northeast Sector, the most common forms recovered include the biface (n=72; 33%), followed by the point (n=60; 28%), and the blade (n=43; 20%) while the remaining 17% includes tools forms such as scrapers (n=24), drills (n=5), unifaces (n=4), hammerstones (n=3), celts (n=2), a preform (n=1), and an adze (n=1). In the non-tool category (see Figure 6), the most common form recovered is the flake (n=1589; 67%), chunk (n=609; 26%) and chip (n=156; 6%). Other non-tool forms such as the core (n=4) and nodule (n=2) account for less than 1% of all non-tools recovered within the Northeast Sector.

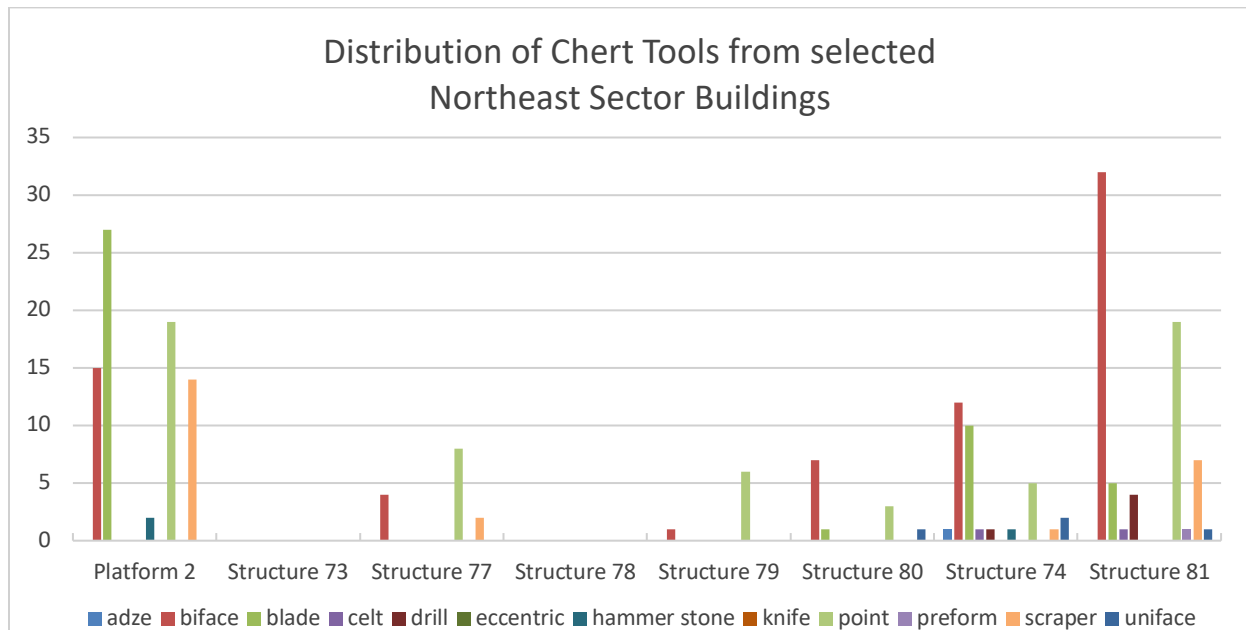


Figure 5. Distribution of chert tools from selected buildings (Sample Groups 1 and 2) in the Northeast Sector at Santa Rita Corozal.

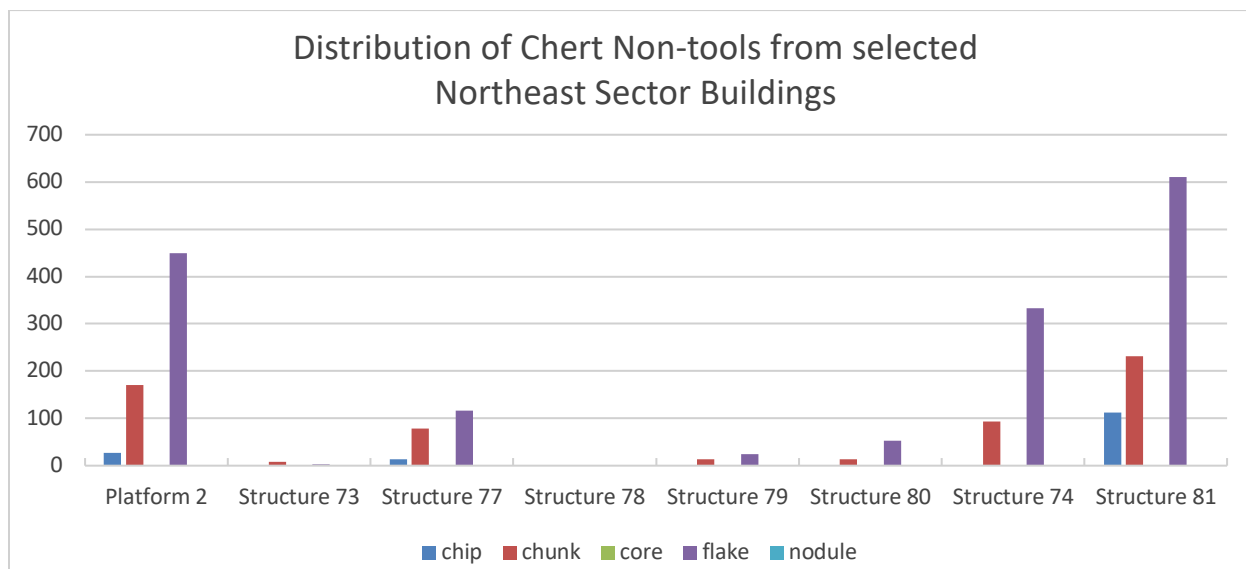


Figure 6. Distribution of chert non-tools from selected buildings (Sample Groups 1 and 2) in the Northeast Sector at Santa Rita Corozal.

Sample Group 1: *Platform 2 Group*

Approximately 42% of all the chert from the Northeast are recovered from within the group of buildings including Platform 2 and the associated buildings sitting atop the platform. A total of 1085 chert artifacts was recovered from the Sample Group 1 buildings. This assemblage consisted of 110 tool forms representing 51% of all tools in the Northeast Sector and 1403 non-tool forms or 41% of all non-tools in the northeast. Table 4 provides the details of the breakdown in numbers of tools and non-tools recovered from specific buildings within this group. The table also indicates the percentage of what this represents within the group and within the Northeast Sector.

Table 4. Chert artifacts recovered from selected buildings within the Northeast Sector at Santa Rita Corozal.

Building	Number of Tools	Percent within group	Number of Non-Tools	Percent within group	Total	Percent total of NE sector
Platform 2	77	70.00	647	66.36	724	28.12
Structure 73	0	0.00	11	1.13	11	0.43
Structure 77	14	12.73	212	21.74	226	8.78
Structure 78	0	0.00	1	0.10	1	0.04
Structure 79	7	6.36	37	3.79	44	1.71
Structure 80	12	10.91	67	6.87	79	3.07
<i>SAMPLE GROUP 1 SUB-TOTAL</i>	<i>110</i>		<i>975</i>		<i>1085</i>	<i>42.14</i>
Structure 74	34	32.38	428	30.90	462	17.94
Structure 81	71	67.62	957	69.10	1028	39.92
<i>SAMPLE GROUP 2 SUB-TOTAL</i>	<i>105</i>		<i>1385</i>		<i>1490</i>	<i>57.86</i>
TOTAL	215		2360		2575	

Figure 7 below provides details on the percentages of the different tool types recovered in association with specific buildings in Sample Group 1. As indicated in the table, there were no chert tools recovered from either Structure 73 or from Structure 78. The most common tool type recovered from Sample Group 1 are points (n=36), blades (n=28), and bifaces (n=27). Other tool types include scrapers (n=16), hammer stones (n=2), and unifaces (n=1). The highest diversity in tool types at Sample Group 1 is seen at Platform 2 from which 5 different tool types were recovered (Figure 7). Although appearing in smaller quantities, similar tool types recovered in association with Platform 2 were also recovered from several other buildings in Sample Group 1 with the exception of hammer stones. The two hammer stones recovered from Platform 2 are the only ones recovered in association with Sample Group 1. At least four different tool types are recovered in association with Structure 80. These include bifaces (n=7), blades (n=1), points (n=3), and unifaces (n=1). The single uniface represents 100% of this tool type recovered in association with Sample Group 1. Several bifaces and points were also recovered in association with both Structures 77 and 79; additionally, two scrapers complete the tool assemblage at Structure 77.

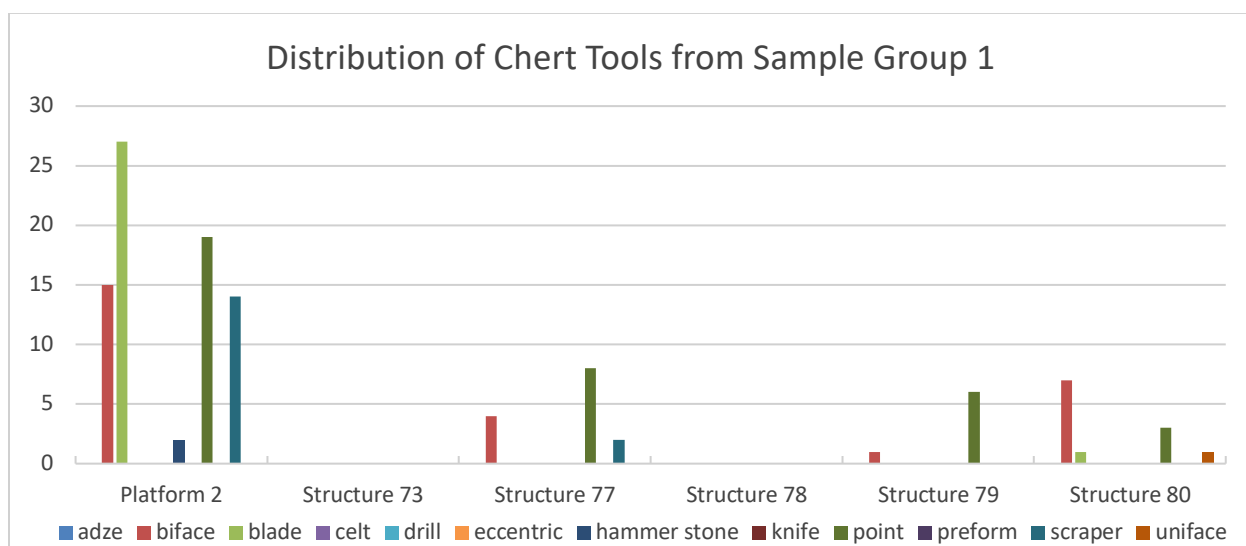


Figure 7. Distribution of chert tools recovered in association with Sample Group 1 buildings in the Northeast Sector at Santa Rita Corozal.

The non-tool assemblage at Sample Group 1 is also very diverse and includes chips (n=41), chunks (n=285), flakes (n=646), and a nodule (n=1). Combined, these quantities represent approximately 40% of the non-tool chert assemblage in the Northeast Sector. Non-tool chert types were recovered in association with all six structures within Sample Group 1.

The Structure 77 chert assemblage represents 22% of the Sample Group 1 total and includes the most variety with chips (n=14), chunks (n=79), cores (n=2), flakes (n=116), and a nodule (n=1). Although the Platform 2 chert non-tool assemblage was less diverse than that of Structure 77, this assemblage represents 66% of the Sample Group 1 total and is notable since it had the highest frequencies of chips (n=27), chunks (n=171), and flakes (n=449). The combined non-tool chert assemblages of Structures 73, 78, 79, and 80 account for approximately 10% of the Sample Group 1 non-tools and each of these assemblages contained chunks and flakes while that of Structure 78 included only a single chert flake.

Sample Group 2: *Structures 74 and 81*

The chert assemblage recovered in association with the two buildings in Sample Group 2 accounts for approximately 58% of the total Northeast Sector chert assemblage. The chert tool types represent just over 49% of the Northeast Sector chert tool assemblage. This diverse chert tool assemblage includes adzes (n=1), bifaces (n=45), blades (n=15), celts (n=2), drills (n=5), hammer stones (n=1), points (n=24), preform (n=1), scrapers (n=8) and unifaces (n=3) (see Figure 8). The non-tool chert assemblage represents approximately 59% of the Northeast Sector

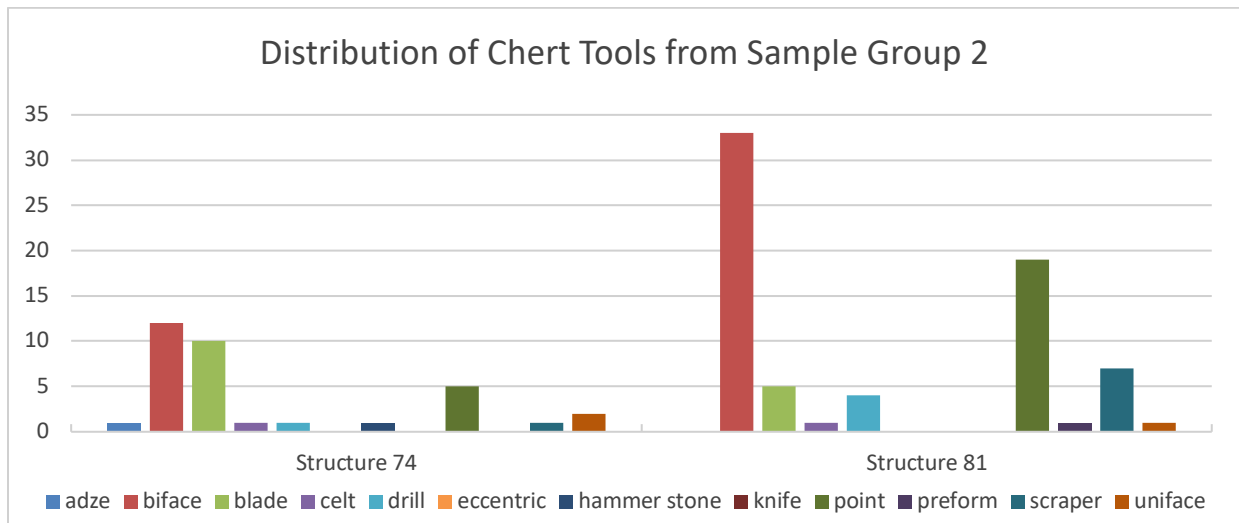


Figure 8. Distribution of chert tool types recovered in association with Sample Group 2 buildings at Santa Rita Corozal.

assemblage and includes chips (n=115), chunks (n=324), cores (n=2), flakes (n=943), and a nodule (n=1).

The Structure 74 assemblage represents approximately 30% of the Sample Group 2 chert assemblage and 18% of the total Northeast Sector chert. This assemblage includes 34 chert tools representative of nine different tool types: adze (n=1), biface (n=12), blade (n=10), celt (n=1), drill (n=1), hammer stone (n=1), point (n=1), scraper (n=1), and uniface (n=2). The tools represent 7.4% of the Structure 74 chert assemblage. There are three non-tool types representing 428 non-tools within this assemblage; it includes chips (n=2), chunks (n=93), and flakes (n=333). The non-tools (n=428) represent just over 92% of the Structure 74 assemblage and approximately 29% of the Sample Group 2 non-tool chert assemblage. Though there was only a single adze and celt recovered from Structure 74, these represent 100% and 50%, respectively, for total adzes and celts included within this study.

The Structure 81 chert assemblage represents approximately 70% of the Sample Group 2 chert assemblage and 40% of the total Northeast Sector chert assemblage. The chert assemblage recovered from Structure 81 is also a combination of both tools and non-tool forms. In terms of tool forms, a total of 71 pieces which represents 7% of the total chert assemblage recovered in association with Structure 81. These tools include bifaces (n=33), scrapers (n=7), blades (n=5), drills (n=4) as well as a celt (n=1), a preform (n=1), and several points (n=19) which accounts for just over 30% of all points from within the Northeast Sector. The non-tool forms (n=957) recovered from Structure 81 account for approximately 93% of the total chert artifacts recovered in association with this building and 64% chert non-tools recovered from the Sample Group 2 buildings. These non-tool chert types include hundreds of flakes (n=610), chunks (n=231) and chips (n=113) and a single nodule (n=1).

South Intermediate Sector

The remaining four sample groups in this study are located within the South Intermediate sector of the site. The chert artifacts from selected buildings in the South Intermediate Sector account for over 65% of the total recovered chert. Of this amount, 6% are classified as tools (Figure 9) while the remaining 94% is made up of non-tool artifacts (Figure 10). The composition of the chert assemblage is very similar to those recovered from the Northeast Sector. Although there are no celts or adzes within this collection, there are additional types not accounted for within the Northeast assemblage including two eccentrics and one knife (long-stemmed point).

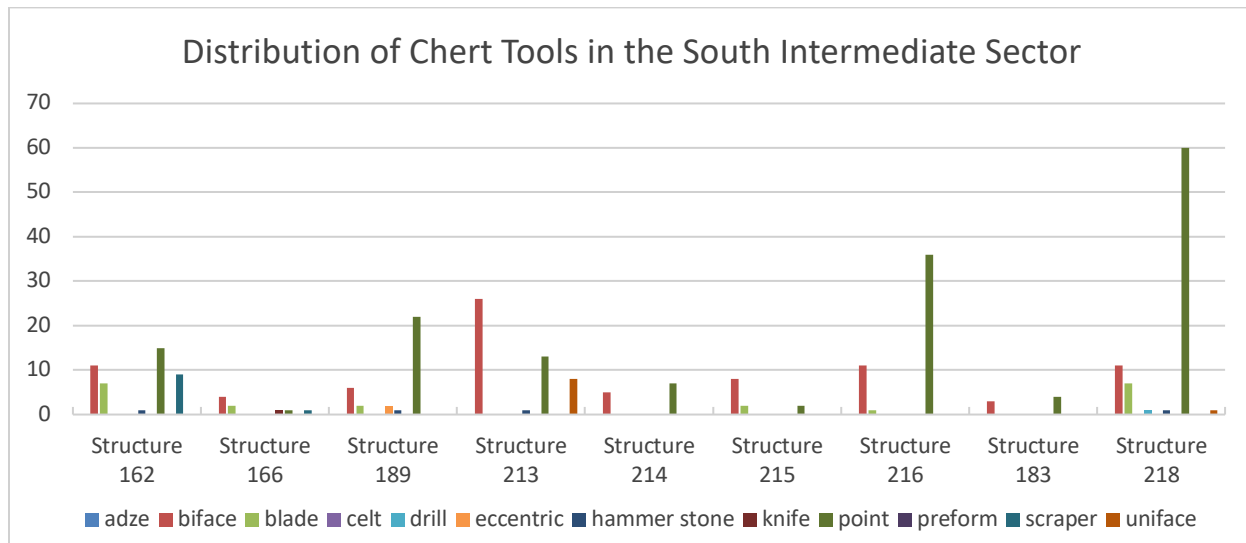


Figure 9. Distribution of chert tools recovered from selected buildings in the South Intermediate Sector at Santa Rita Corozal.

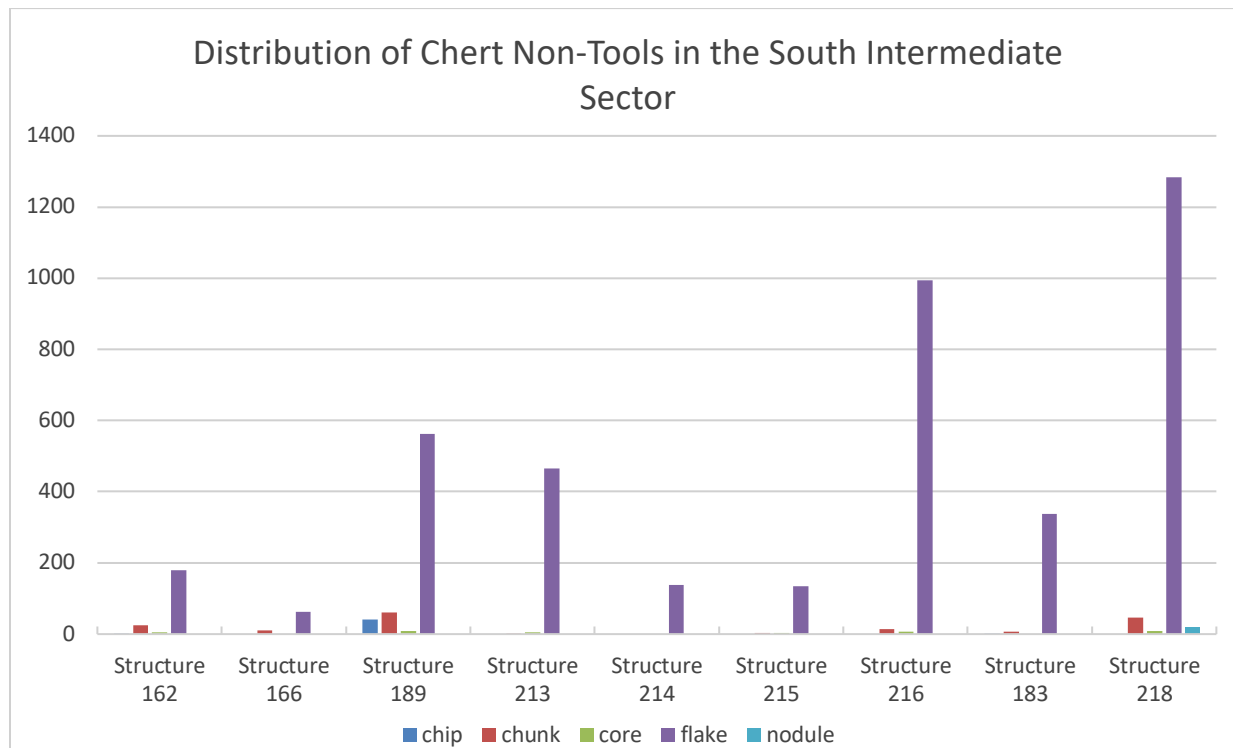


Figure 10. Distribution of chert non-tools recovered from selected buildings in the South Intermediate Sector at Santa Rita Corozal.

Sample Group 3: *Structures 162 and 166*

The chert artifacts within this sample group represent just over 7% of the total amount of chert recovered from the South Intermediate Sector. Like the other groups, it is a combination of both tools and non-tools (Figure 11). Within this group, the larger number of chert artifacts was recovered in association with the northern Structure 162. This structure had a total of 43 tools and 211 non-tools which represents approximately 83% and 74%, respectively, of the chert collected from this group. The remaining 17% (n=9) and 26% (n=73) of tools and non-tools were excavated from within Structure 166, the smaller, southwestern building of the group. One outstanding recovery noted from Structure 166 is the recovery of a complete long-stemmed point further classified as a knife. This artifact is the only one of this type recovered from the selected buildings included within this research.

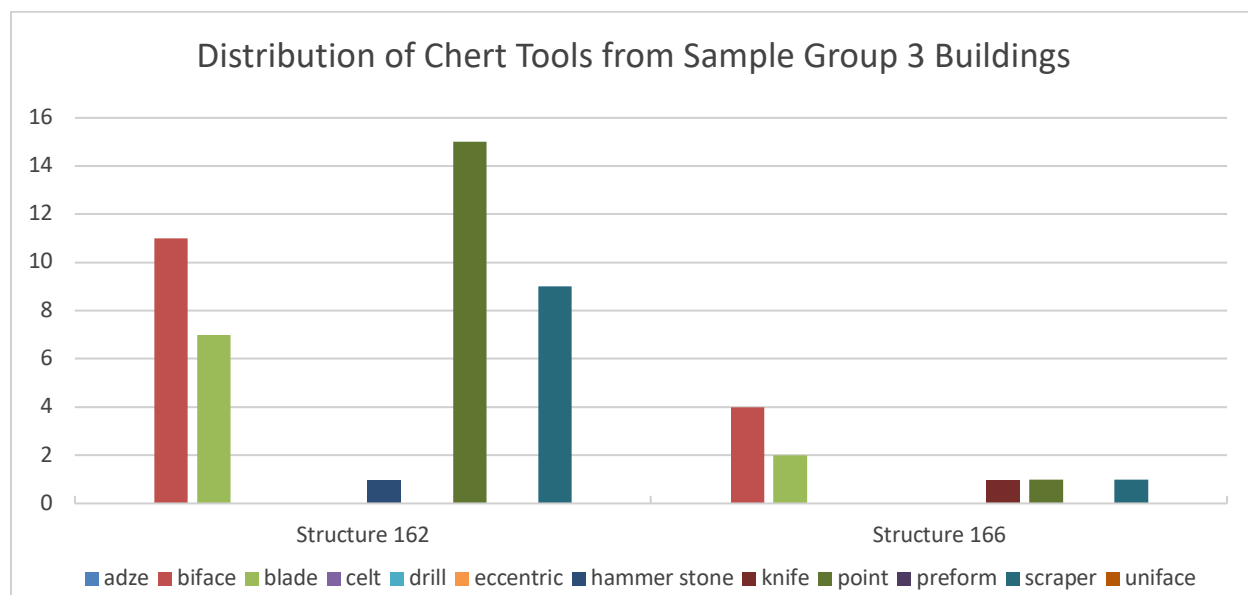


Figure 11. Distribution of chert tools recovered from Sample Group 3 in the South Intermediate Sector at Santa Rita Corozal.

Sample Group 4: *Structure 189*

The tools and non-tool chert artifacts from Structure 189 account for almost 15% of the total South Intermediate Sector chert artifacts. The chert artifact assemblage from Structure 189 exhibits much diversity in the range of types recovered (Figure 12). There were 33 tools recovered which included a total of 22 points, 6 bifaces, 2 blades, and a single hammerstone as well as the only 2 eccentrics recovered from these selected buildings. Combined these tools represent 11% of all the tools recovered from the South Intermediate Sector. The non-tool artifacts include 563 flakes, 60 chunks, 41 chips, and 8 cores. Combined this represents 15% of all the non-tools within the selected buildings of the South Intermediate Sector.

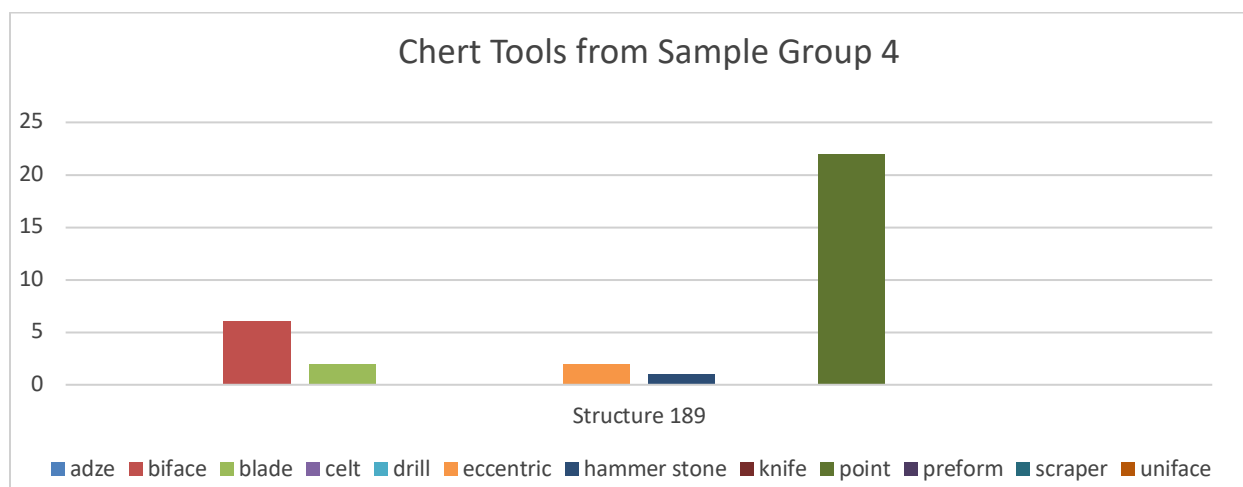


Figure 12. Chert tools recovered in association with Sample Group 4 (Structure 189) in the South Intermediate Sector.

Sample Group 5: *Structures 213, 214, 215 and 216*

While there are both tools and non-tools recovered from this group, there are limited types associated with these buildings. The total number of chert artifacts (n=1890) represents

approximately 40% of the total chert recovered within this South Intermediate Sector. The Sample Group 5 tools account for approximately 24% of all tools. The common types in all four buildings are limited to mostly bifaces and points (see Figure 13). At Structures 214 and 215, both these categories account for less than 10% each of bifaces and points within this sample group. In addition to bifaces and points, other tools recovered from Structure 213 also include a single hammerstone, representing 20% of all hammerstones from the South Intermediate Sector, and 8 unifaces representing 80% of unifaces from the South Intermediate Sector. Structure 216 is the location from which the most points in this group were recovered. The 36 points from this location accounts for just over 60% of all points from this group and approximately 36% of points overall.

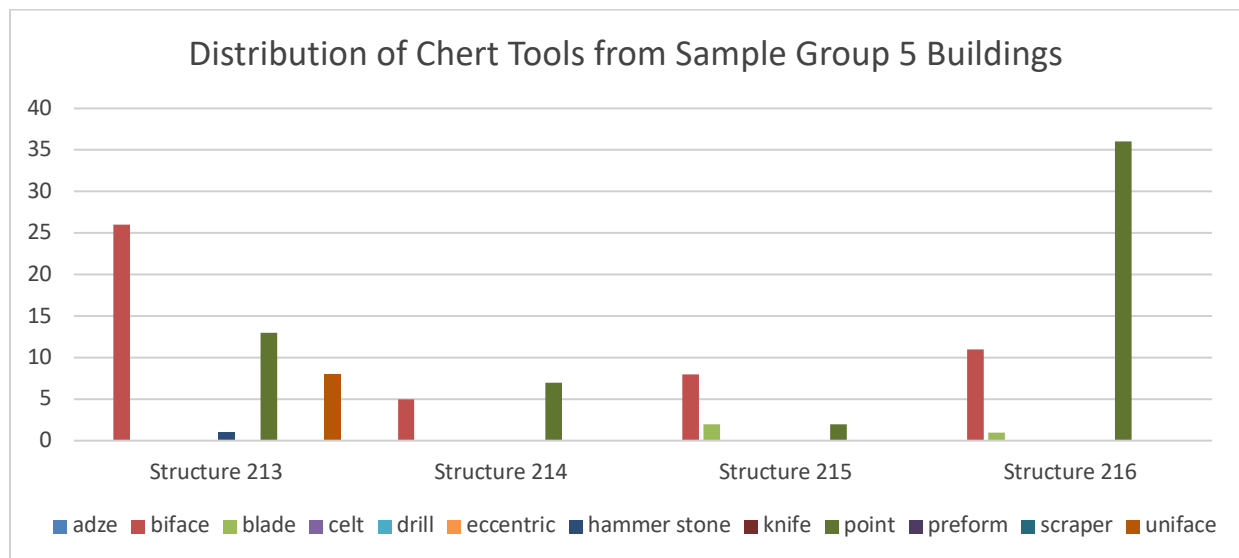


Figure 13. Distribution of chert tools recovered in association with Sample Group 5 buildings in the South Intermediate Sector at Santa Rita Corozal.

The non-tools from Sample Group 5 account for 40% (n=1770) of all non-tools from the South Intermediate Sector. Similar to the tool category, the non-tools are also limited in the

number of types recovered from this group (see Figure 14). The chert non-tools recovered in association with the Sample Group 5 buildings include only three different types: chunks, cores and flakes. The largest percentage of non-tools (57%), including flakes (n=995), cores (n=7) and chunks (n=14), was recovered in association with Structure 216. Only Structure 214 had no chunks or cores. Even though they had similar artifact types, the percentages of non-tools vary from 27% at Structures 213 to 8% at Structure 215. The breakdown of the three non-tool categories recovered at these two buildings show that Structure 213 was associated with 2 chunks, 5 cores, and 466 flakes while Structure 215 was associated with 4 chunks, 4 cores, and 134 flakes.

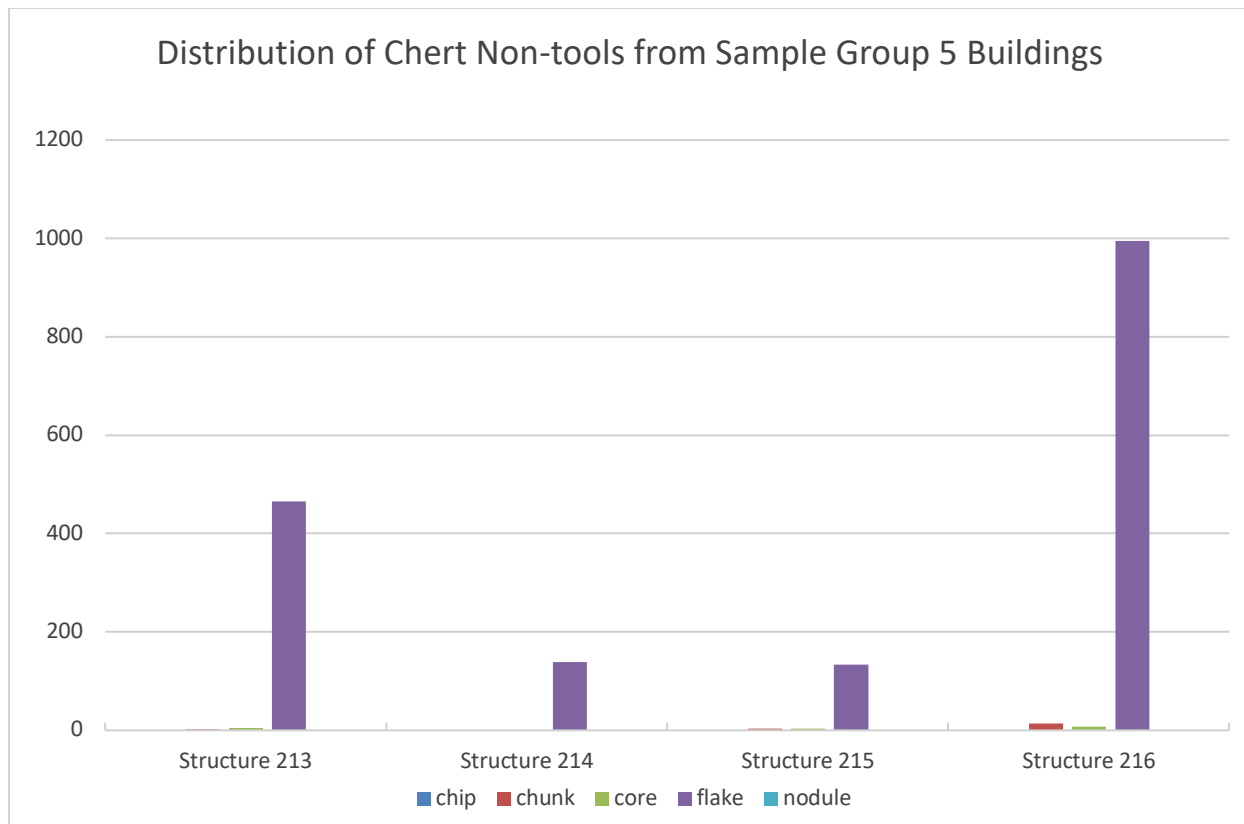


Figure 14. Distribution of chert non-tool types recovered in association with Sample Group 5 buildings in the South Intermediate Sector at Santa Rita Corozal.

Sample Group 6: Structures 183 and 218

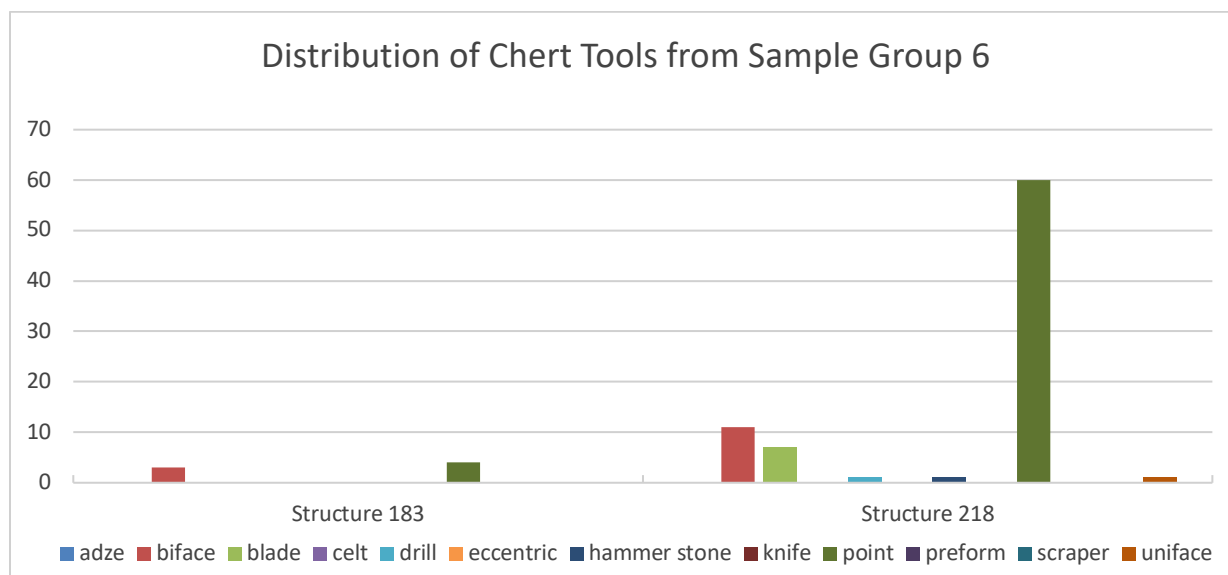


Figure 15. Distribution of chert tool types recovered in association with Sample Group 6 buildings in the South Intermediate Sector at Santa Rita Corozal.

Sample Group 6 includes data from two buildings, Structures 183 and 218; the third building in this group, Structure 217, was not investigated by the Corozal Postclassic Project. The chert artifacts from these two structures represent approximately 38% of the chert from the South Intermediate Sector and 25% of the overall chert in this analysis. In comparing the two buildings, the chert artifacts from Structure 218 are both more numerous and diverse (see Figure 15). Blades (n=3) and points (n=4) are the only tool types at Structure 183, while chips (n=2), chunks (n=7), and flakes (n=337) form the non-tool category. Combined, these chert artifacts represent 20% of all the chert from within this sample group.

Structure 218, on the other hand, has a diverse assemblage which accounts for the remaining 80% of chert artifacts in this group. In terms of the tool category, which accounts for

5% of the chert here, they include bifaces (n=11), blades (n=7), and points (n=60), as well as a single drill, hammerstone, and uniface. Together these tools account for approximately 17% of all tools in this study. In particular, the points account for 27% all points in this study. Non-tools constitute approximately 95% of the chert artifacts recovered in association with Structure 218. These include 1284 flakes, 46 chunks, 17 nodules, and 8 cores. These flakes represent approximately 22% of all flakes, while the chunks and nodules and cores represent 6%, 100%, and 20%, respectively.

6.2 Obsidian Artifacts

Obsidian artifacts are ubiquitous to Maya sites. Artifacts fashioned from the volcanic glass are known to have a very sharp edge (Sidrys 1983:305). There is no known obsidian source in Belize therefore all the obsidian recovered at Santa Rita Corozal is an indication of participation in the extensive Late Postclassic trade network. Meissner (2014:137) states that obsidian is only found in the volcanic highlands of Mexico and Guatemala. The presence of obsidian tools at Santa Rita Corozal and in association with artifact assemblages of only selected buildings (multiroom and non-residential structures) is an indication of the restricted access associated with obsidian and other such exotic artifact classes (Marino et al. 2020:787). Seidita (2015:37) and Seidita, Chase, and Chase (2018:169-170) argue that the Postclassic community at Santa Rita Corozal was importing obsidian in the form of partially reduced obsidian cores from Mexican and Guatemalan sources and were engaged in the local production of blades.

The obsidian assemblage within this study consists of both tools and non-tools (Table 5). The tools are limited to four types, namely the blade, point, microblade, and burin while the non-tool types are limited to the flake, chip, and core. The obsidian recovered from these structures

is split into 60% located in the South Intermediate Sector while the remaining 40% is located within the Northeast Sector. Approximately 88% of the assemblage are tools with the majority (83%) being blades while the points, micro blades, and a single burin account for 6% of the assemblage. The non-tool category constitutes approximately 12% of the obsidian assemblage and includes flakes, chips and a few obsidian cores.

Table 5. Inventory of the obsidian artifact assemblage from selected buildings at Santa Rita Corozal.

Obsidian Artifacts Inventory	
<i>Total Obsidian Artifacts</i>	546
Tools	
<i>Blade</i>	452
<i>Burin</i>	1
<i>Microblade</i>	2
<i>Point</i>	26
Non-Tools	
<i>Chip</i>	30
<i>Core</i>	6
<i>Flake</i>	29

Obsidian Artifact Types

Obsidian artifacts, like chert, are manufactured using a chipped flake technique. Seidita (2015:21) provides details on the two different techniques, percussion and pressure reduction, that are utilized in reducing the obsidian core into blades. Seidita (2015:21) further explains that percussion reduction, via an impact on the core, occurs in the initial stage of the blade reduction sequence whereas pressure reduction, on the other hand, is the steady application of force applied to the core, using a narrow-ended tool. This precise technique is used to fine tune the desired shape of the end product (Seidita 2015:21).

Blade

The highest percentage (83%) of the obsidian artifacts included within this study comes in the form of blades and blade fragments. These are typically in the form of slim, long blades with parallel edges and a prismatic or trapezoidal cross-section (Sidrys 1983:307). Blades are usually identified as being longer than they are wide (Seidita 2015:22). Micro blades are similar in shape except at a much smaller proportion. The only two micro blades in this assemblage range between 0.80 – 1.50 cm in length and only 0.30 – 0.50 cm in width. See Appendix Figure 1B for an example of an obsidian blade fragment (P8C/42-1; Structure 81).

Point

Like the chert points, the obsidian point is the most delicately and precise of the bifacially worked obsidian tools. Although the manufacturing of obsidian points (Seidita 2015:21) follows the same principles of their chert counterparts (Marino 2014:22), there are far less obsidian points in the Santa Rita assemblage than there are chert points. See Appendix Figure 1E for an example of an obsidian point (P8C/58-2; Structure 81).

Cores

Obsidian cores, like those included in this assemblage, are the end result of the production of obsidian blades. This process is initiated with the removal of flakes from an obsidian nodule in a systematic fashion resulting in a polyhedral core. Seidita (2015:24) explains that the polyhedral core is the result of having removed all initial series blades to eliminate percussion scars from the surface of the core. It is this polyhedral core that is then imported via long-distance trade networks into Santa Rita Corozal (Seidita, Chase and Chase

2018:174). The core is then subjected to further processing to produce the widely used prismatic blades which are commonly found at ancient Maya sites. The presence of cores within an assemblage, therefore, is thought to be an indication that blades were likely being produced at that location. See Appendix Figure 1A for an example of an obsidian point (P8C/24-2; Structure 81).

Debitage (chips, chunks, and flakes)

Again, like the chert manufacturing process, the obsidian tool manufacturing process similarly produces artifacts that are not blades that derived from the reduction sequence of producing blades (Seidita 2015:26). These are typically in the forms of chips, chunks, and flakes. Sidrys (1988:312) contends that flakes, unlike otherdebitage pieces, were likely utilized for their cutting edge. Examples of an obsidian chip (P8C/30-2) and miscellaneous fragment (P8C/45-1) can be seen in Appendix Figure 1C and 1D; both recovered from Structure 81.

6.2.1 Distribution of Obsidian Artifacts

The Northeast Sector

Approximately 40% of all the obsidian used in this analysis was recovered within the Northeast Sector of the site (see Figure 16). This percentage amounts to a total of 220 obsidian artifacts. Of this amount, almost 90% are tools, largely in the form of blades along with several points as well as micro blades and a single burin. Interestingly, the only micro blades and burins in this study are associated with buildings in the Northeast Sector. The non-tool category, 10% of the obsidian assemblage, comprises 2 cores, 5 flakes and 12 obsidian chips.

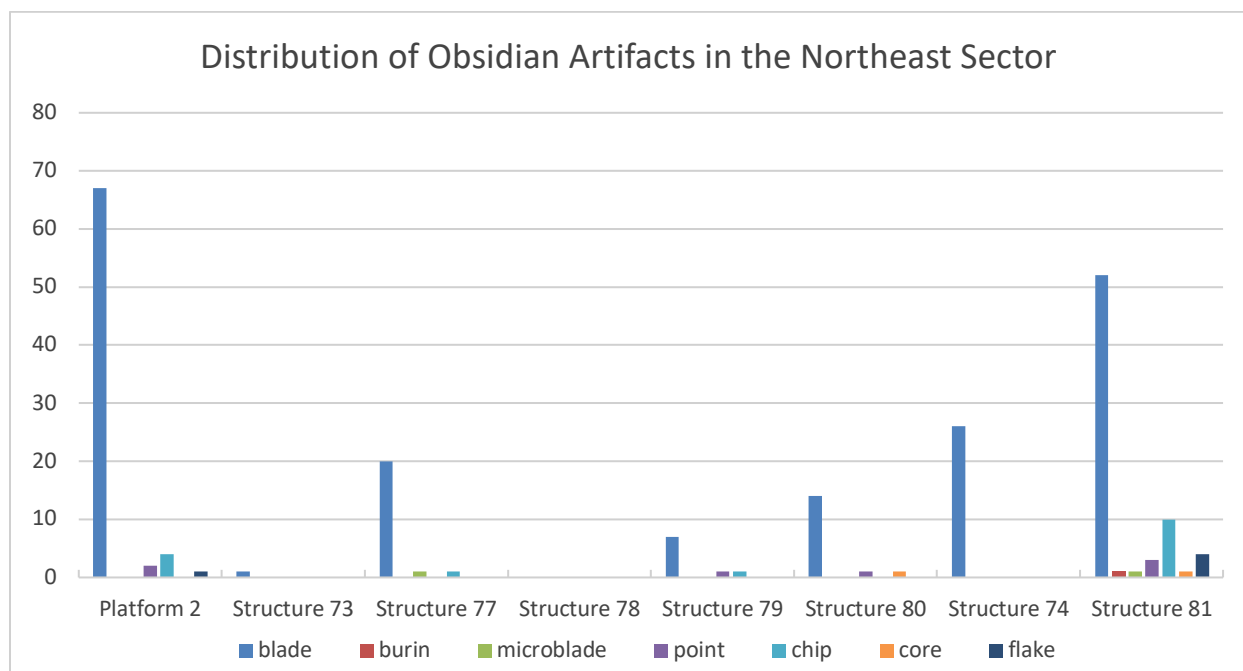


Figure 16. Distribution of obsidian artifacts recovered in association with selected buildings in the Northeast Sector at Santa Rita Corozal.

Sample Group 1: *Platform 2 Group*

Approximately 55% of the Northeast Sector obsidian is associated with buildings in Sample Group 1. Apart from Structure 78, all buildings contained at least a single obsidian artifact (Figure 16). A single obsidian blade is the extent of the assemblage at Structure 73 which accounts for less than 1% of obsidian within the group. At Structure 79, the assemblage is slightly more diverse consisting of 7 blades, 1 point and a single chip representing approximately 7% of the group total. With just over 13% of the obsidian in this sample group, Structure 80 has a total of 16 obsidian artifacts. These include 14 blades and 1 point while the non-tool category consists of a single core. The assemblage at Structure 77 accounts for about 18% of the group and includes a high percentage (96%) of tools with a total of 20 blades and 1 micro blade.

The obsidian assemblage recovered in association with Platform 2 constitutes 60% of the Sample Group 1 obsidian assemblage. 93% of this assemblage consist of tools of which there are 67 blades and 2 points. The remaining 7% consists of 1 flake and 4 chips. Of the Platform 2 obsidian assemblage, only 3 obsidian blade fragments were recovered in association with any special deposit. A multiple individual burial (SDP6E-1) was located in the northern section of the building and placed beneath three aligned stones which may have functioned as an altar (Chase and Chase 1988:26). The burial included a host of grave goods such as several ceramic vessels and beads, shell beads, chert fragments and the three obsidian blade fragments (D. Chase 1982:323-325). Interestingly, a refuse deposit was identified to the south of Platform 2 in which a host of artifacts, including obsidian, was recovered. Chase (1982:338-340) suggests that this area may have been of ceremonial or ritual significance based on the types of artifacts recovered, which also included several censerware fragments, and that multiple interments, largely of women and children, were also recovered from this area.

Sample Group 2: *Structures 74 and 81*

The Sample Group 2 obsidian assemblage represents 45% of the Northeast Sector obsidian assemblage. Combined, a total of 98 obsidian artifacts were recovered in association with Structures 74 and 81 (Figure 16). Approximately 85% are tools while 15% represent non-tool obsidian artifacts.

Representing approximately 21% of the Sample Group 2 obsidian and 12% of the Northeast Sector obsidian total, the assemblage at Structure 74 is limited to a total of 26 blades.

With a total of 72 obsidian artifacts, the Structure 81 assemblage accounts for approximately 73% of the Sample Group 2 obsidian assemblage and 33% of the Northeast Sector

obsidian total. The assemblage is divided into 80% tools and 20% non-tools. The tool category includes blades (n=52), points (n=3), a micro blade (n=1) and a burin (n=1). This burin represents 100% of this category as it is the only of its type within this sample. The single micro blade is one of only two of this type of obsidian artifact within this sample. Of the eight buildings in the Northeast Sector, the obsidian assemblage recovered in association with Structure 81 included the most non-tool elements. The non-tools specifically include a core (n=1) representing 20% of this category in this study; chips (n=10) which represent 34% of the sample total; and flakes (n=4) representing 14% of the total obsidian flakes in this study. Chase and Chase (1988:19) suggest that the number of chert points and preforms recovered on the floor of the structure indicate that manufacturing of these items likely occurred at this location. It is likely then that obsidian artifacts were also being produced along with the chert items, based on the types and quantities of obsidian artifacts recovered in association with this building.

South Intermediate Sector

Approximately 60% of the overall obsidian assemblage is located within the South Intermediate Sector. Obsidian artifacts were recovered from every building in the South Intermediate Sector (Figure 17). The assemblage consists of both tools and non-tools, though the specific tool types are not as diverse as those in the Northeast Sector. Unlike the Northeast Sector, there are no micro blades nor burins found in the South Intermediate Sector obsidian assemblage. The obsidian tool category is limited to blades and points. Interestingly however, there are many more obsidian non-tool types in the form of flakes, chips and cores than those represented in the Northeast Sector of the site.

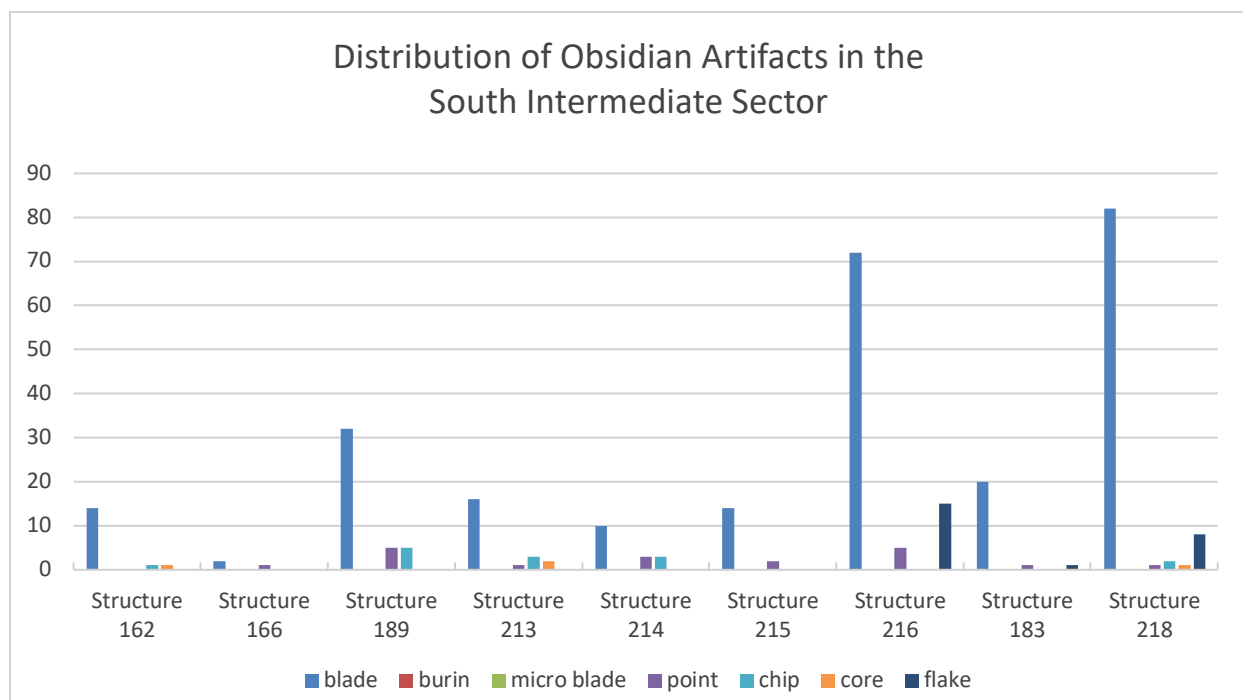


Figure 17. Distribution of obsidian artifacts recovered in association with buildings in the South Intermediate Sector at Santa Rita Corozal.

Sample Group 3: *Structures 162 and 166*

With a total of 19 obsidian artifacts, the Sample Group 3 assemblage represents approximately 6% of the South Intermediate Sector obsidian total (Figure 17). Roughly 85% of this assemblage was recovered from Structure 162. The breakdown of the Structure 162 assemblage includes 14 blades along with 2 other pieces, specifically 1 chip and 1 core. The remaining 15% of the Group 3 total was recovered from Structure 166 which includes 2 blades and a single point. None of the Sample Group 3 obsidian artifacts are associated with any special deposits.

Sample Group 4: *Structure 189*

The Sample Group 4 obsidian assemblage is characterized by a total of 42 artifacts (Figure 17) which represent approximately 13% of the South Intermediate Sector obsidian total. With a mixture of both tools and non-tools, the assemblage is split into blades (n=32; 76%) and points (n=5; 12%) in the tool category while the non-tools include obsidian chips (n=5; 12%).

Sample Group 5: *Structures 213, 214, 215, and 216*

The obsidian from the four buildings in Sample Group 5 combined, accounts for approximately 45% of the South Intermediate Sector obsidian assemblage. The assemblage consists of 146 artifacts (Figure 17) with 123 (84%) classified as tools and 23 (16%) classified as non-tools. Just over 60% of the obsidian in this group was recovered in association with Structure 216 and includes a total of 72 (78%) blades, 5 (5%) points and 15 (16%) flakes. Excavations at Structure 213 yielded 15% of the Group 5 total which includes 16 (73%) blades, 1 (5%) point, 3 (14%) chips and 2 (9%) cores. Representing just 10% of the Group 5 total obsidian, a total of 16 obsidian artifacts was recovered from each of Structures 214 and 215. The Structure 214 obsidian assemblage comprises blades (n=10), points (n=3) and chips (n=3) while the Structure 215 assemblage includes blades (n=14) and points (n=2).

While none of the Sample Group 5 obsidian were recovered in association with any special deposits, the range of obsidian artifacts recovered suggests that the residents in this group may have been engaged in the production of obsidian blades.

Sample Group 6: *Structures 183 and 218*

With a total of 116 artifacts (Figure 17), the Sample Group 6 assemblage accounts for approximately 36% of the South Intermediate Sector obsidian and 21% of the overall obsidian in this study. Of the two buildings in this group, the highest percentage (81%) of obsidian was recovered from Structure 218 whereas 23% was recovered from Structure 183. The Structure 218 obsidian assemblage comprises 94 artifacts and includes blades (n=82; 87%), points (n=1; 1%), and cores (n=1; 1%) as well as flakes (n=8; 9%) and chips (n=2; 2%).

The Structure 183 obsidian assemblage, representing approximately 21% of the Sample Group 6 total, includes blades (n=20; 91%), a point (n=1; 5%), and a flake (n=1; 5%) representing just under 20% of the Group 6 total.

Similar to the Sample Group 5 obsidian assemblage, there were no obsidian artifacts recovered from Sample Group 6 that were associated with any special deposits. The range of obsidian artifacts within the assemblage, however, suggests that manufacturing of obsidian blades may have occurred at this location. Taking into account that Structure 218 has been identified as a chert manufacturing locale (Chase and Chase 1988:54; Marino 2014:49), it is probable that the residents would have incorporated obsidian blade manufacture in their operation.

6.3 Ground Stone Artifacts

Artifacts fashioned from ground stone, typically of basalt, granite or limestone, are common implements of ancient and modern Maya households. This material is typically associated with the kitchen and food preparation implements as ground stone is used for manufacturing the numerous *manos* and *metates* used for grinding foods such as corn, cacao and

spices (Duffy 2011:1). After analysis of the Santa Rita ground stone, Jaeger (1988:106) and Duffy (2011:24) indicate that a large portion of the Santa Rita ground stone artifacts are fashioned from limestone. Jaeger further explains that the limestone was locally sourced while the granite, quartz, and gneiss items were sourced from the Maya Mountains and those of basalt were from the Guatemalan Highlands. There was no evidence indicating whether the ground stone implements themselves were imported into the site or whether it was the raw material which was important (Jaeger 1988:106). Jaeger's (1988:99) analysis of the Santa Rita ground stone implements indicate that *metates* appear in three different types: flat (and flat with legs), concave (and footed concave) and trough-shaped (see Jaeger 1988:99 Fig. 53). It is also stated that flat metates were the predominant form and these were produced from the non-local materials while the trough *metates* appeared to be local (Jaeger 1988:107-109). Jaeger (1988:110) adds that the variation in metate forms and raw material types is probably related to the shape required for different substances (e.g., corn vs. spices) and for different activities (e.g., daily food preparation vs. ritual related).

With regards to the *manos*, these appear in a much more diverse range of shapes including oval, circular, circular/oval, plano-convex, ovate-rectangular, triangular, rectangular, square, square-rectangular, pentagonal, and overhang (see Jaeger 1988:103 Fig. 54). The oval, plano-convex, and rectangular-shaped *manos* are the predominant *mano* shapes utilized during the Postclassic Period (Jaeger 1988:109). The raw material of at least 91% of the *manos* were produced from locally sourced limestone (Jaeger 1988:107; D. Chase 1982:516).

Approximately 65% of the ground stone artifact assemblage included in this study is recovered during excavations are in fact *manos* and *metates*. While 15% of the ground stone artifacts is comprised of raw material in the form of chunks and other miscellaneous fragments

there is a further 20% which comprises other ground stone tools and implements which include figurines, bark beaters and net weights as well as other probable ritual related implements such as altars, beads, celts, rings and palettes. Table 6 provides an inventory of ground stone artifacts recovered from selected Late Postclassic buildings at Santa Rita Corozal included within this study.

Table 6. Inventory of the ground stone artifacts recovered in association with selected buildings from Santa Rita Corozal included within this study.

Ground Stone Artifacts Inventory	
<i>Total Ground Stone Artifacts</i>	343
Tools/Implements	
<i>Altar</i>	2
<i>Bark Beater</i>	7
<i>Bead</i>	6
<i>Celt</i>	2
<i>Crescent</i>	1
<i>Figurine</i>	1
<i>Hammer Stone</i>	5
<i>Mano</i>	128
<i>Metate</i>	95
<i>Mortar</i>	2
<i>Net Weight</i>	4
<i>Palette</i>	3
<i>Pestle</i>	2
<i>Polishing Stone</i>	1
<i>Potlid</i>	30
<i>Pounding Stone</i>	2
<i>Ring</i>	1
<i>Rounded Stone</i>	1
Non-Tools	
<i>Chunk</i>	3
<i>Fragment</i>	43
<i>Knob-shaped object</i>	1
<i>Pebble</i>	3

Ground Stone Artifact Types

A variety of artifacts were crafted from ground stone, typically limestone, granite and basalt, using a grinding technique, hence the name “ground stone artifacts”. These artifacts include tools such as the *mano* and *metate* for food processing and non-tools such as chunks which are by-products of the manufacturing process. Fragments are a significant portion of the non-tool category. These could be as a result of the manufacturing process but can also appear when a previously used complete object is broken beyond repair. The two most common ground stone implements are the *mano* and *metate*, both associated with food processing as these implements are used for grinding maize kernels as well as other spices and herbs used in food preparation.

Mano

The *mano* is the handheld device used to crush the maize kernels and other substances against the surface of the *metate*. The *mano* varies in sizes and shapes but are generally designed to be used either with only one or both hands (Duffy 2011:35). The predominant shapes of the Postclassic Santa Rita *manos* are oval, plano-convex or rectangular (Jaeger 1988:109), although they may appear in other shapes including triangular, square and circular (D. Chase 1982:516).

Metate

The *metate* is the large surface on which maize and other spices are placed to be ground. These implements vary in sizes and shapes, but the predominant forms observed in the Santa Rita assemblage are flat, concave or trough shaped (Jaeger 1988:99). Duffy (2011:37) suggests

that both flat and trough *metates* are used for grinding maize given the larger surface area associated with those shapes while smaller grinding surfaces, such as a concave or bowl shapes, are likely to be used with one handed *manos* for the grinding of spices and herbs.

Potlids

Based on the information on the CPP catalog cards, limestone circular discs average around 11-12 cm in diameter. Referred to as ‘potlids’, these discs are also known as ‘panuchos’ in modern Maya communities (Imre et al. 2010:45). The use of these artifacts for plugging the end of hollow logs that served to house beehives has been previously noted in Postclassic northern Belize (e.g., Sidrys 1983:298). More recently, Paris et al. (2018:8) and Imre et al. (2010:43) suggest that these discs are used to seal the hollowed logs in which bees were kept protecting both the bees and the honey from predators and inclement weather (Paris et al. 2018:4). Modern Maya beekeepers are observed to use a similar implement, except made of wood (Paris et al. 2018:3).

Bark beater

These rectangular-ovate objects are described as having rounded corners displaying a groove mid-section to which a wooden handle or grip could be attached and typically exhibit parallel grooved ridges or scoring on the larger flat sides (Glaab and Valdez, Jr. 2000:121). It is suggested that wider-spaced ridges are used for coarse processing while a more refined processing would require more closely placed ridges (Glaab and Valdez, Jr. 2000:121). D. Chase (1982:517) states that the Postclassic bark beater examples at Santa Rita are more rounded than rectangular with only one large flat side being scored with cross hatching rather than the

parallel ridges. Seven bark beater specimens are recovered from the selected buildings included within this study.

6.3.1 Distribution of Ground Stone Artifacts

Northeast Sector

Excavations reveal that approximately 47% of all ground stone artifacts were located within the Northeast Sector. This is a diverse assemblage of ground stone artifacts which includes both food preparation implements as well as other utilitarian and ritual-related artifacts. The highest percentage of ground stone artifacts are the *mano* and *metate*, which account for 68% of ground stone in the Northeast Sector. Almost every building in the Northeast Sector contained multiple *manos* and at least a single *metate*, except for Structure 78 which had no ground stone artifacts and Structure 80 from which no *metates* were recovered. There are several ground stone implements in the assemblage which appear only within the Northeast Sector such as celts, figurines, crescents, polished and rounded stones, and palettes as well as several fragments such as ground stone chunks and a knob-shaped fragment. Most of these implements were randomly recovered within the assemblages of the buildings in the Northeast Sector. Of the individual buildings in the Northeast Sector, the highest percentage (34%) of ground stone artifacts were associated with the Structure 81 assemblage. Another area of interest within the Northeast Sector assemblage is the presence of possible ritual-related ground stone (limestone) artifacts. These are possible altar stones or altar figures which were recovered in association with Platform 2 and Structures 77 and 79 (discussed below).

Sample Group 1: *Platform 2 Group*

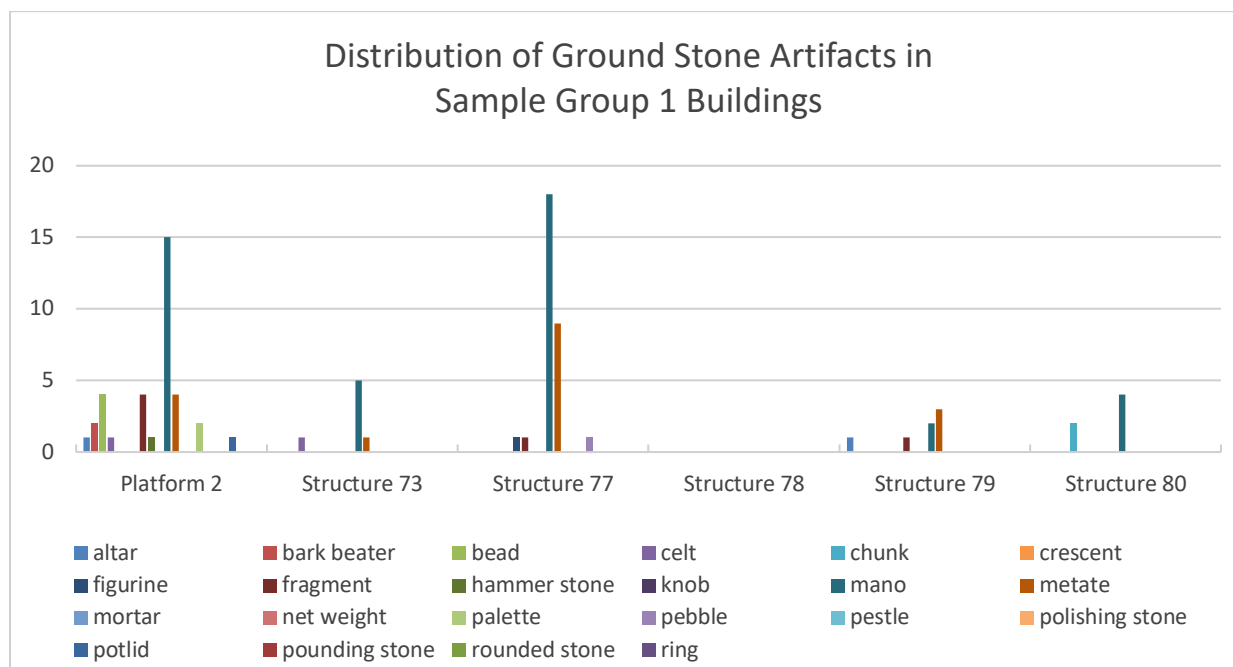


Figure 18. Distribution of ground stone artifacts recovered in association with Sample Group 1 in the Northeast Sector at Santa Rita Corozal.

Combined, a total of 85 ground stone artifacts representing 52% of the total ground stone assemblage in the Northeast Sector and 25% of the total ground stone in this study were recovered in association with the Sample Group 1 buildings (see Figure 18).

Platform 2 is associated with the highest percentage (41%) of ground stone artifacts. There are some interesting points regarding the Platform 2 assemblage. Firstly, it is the only construction in Sample Group 1 where ground stone palettes were found and in fact, a total of two palettes representing 100% of this artifact type was recovered here. A single celt representing 50% of the Sample Group 1 total forms part of the Platform 2 ground stone assemblage. Of the Sample Group 1 assemblage, 100% of ground stone beads (n=4), bark

beaters (n=2), and hammer stones (n=1) were also recovered in association with Platform 2. Also included in this assemblage are 34% (n=15) and 24% (n=4) *manos* and *metates*, respectively. A single potlid (100%) and four (67%) unspecified fragments complete the Platform 2 assemblage. Another feature of the Platform 2 ground stone assemblage is the presence of three stones which were recovered above a burial (SDP6E-1) comprising at least five sub-adult individuals. Chase (1982:323) and Chase and Chase (1988:26) suggest that these three aligned stones possibly functioned as an altar at Platform 2. One special deposit associated with Platform 2 included any ground stone artifacts. One burial (SDP6E-1) contained a single ground stone bead (Chase 1982:323-325).

The ground stone artifacts recovered in association with Structures 73, 79 and 80 represent approximately 24% of the Sample Group 1 assemblage with a total of 20 artifacts. There are two ground stone artifact types in the Structure 80 assemblage, three types in the Structure 73 assemblage, and four in the Structure 79 assemblage. The ground stone recovered in association with Structure 80 include *manos* (n=4; 67%), representing 9% of the Sample Group 1 *mano* assemblage, and ground stone chunks (n=2; 33%). Excavations at Structure 73 yielded *manos* (n=5; 71%), *metates* (n=1; 14%) and a ground stone celt (n=1; 14%). The Structure 79 ground stone assemblage comprises *manos* (n=2; 29%) and *metates* (n=3; 43%), a single ground stone fragment (n=1; 14%) as well as fragments of an altar stone. Chase (1982:397-398) states that at least 11 pieces of a stone altar was recovered from the summit of Structure 79. It is suggested that the pieces fit together along with several others recovered elsewhere in the building. Chase (1982:398) adds that the altar was likely formed by having all the fragments mortared together and covered with plaster.

The ground stone assemblage recovered in association with Structure 77 represents 35% of the Sample Group 1 assemblage and includes a total of 30 ground stone artifacts. This assemblage consists of *manos* (n=18; 60%), *metates* (n=9; 30%), a ground stone pebble (n=1; 3%), a single unspecified fragment (n=1; 3%), and a carved limestone turtle “altar figure” (n=1; 3%). Chase (1982:377; see also Chase and Chase 1988:Fig. 9) indicates that similar figures have been recovered at Mayapán in the Yucatan and are referred to as ‘altar figures’ since they are considered as ritual objects as they usually found in association with altars and shrines.

Sample Group 2: *Structures 74 and 81*

With a total of 77 pieces as shown in Figure 19, the Sample Group 2 ground stone artifacts represent 48% of the Northeast Sector assemblage and 22% of the ground stone included in this study. The ground stone assemblage recovered in association with Structure 74 comprises 23 artifacts. These include 5 each of *manos* and *metates* representing 7% and 25% of the Sample Group 2 total, respectively. There were also ground stone potlids (n=6; 100%), a hammerstone (n=1; 33%), a ground stone bead (n=1; 100%) and a bark beater (n=1; 100%). Further, a polishing stone (n=1; 100%) and unspecified ground stone fragments (n=3; 30%) complete this assemblage. None of the Structure 74 ground stone artifacts were recovered in association with any special deposits.

The Structure 81 ground stone assemblage is considered diverse having included at least 10 of the total 23 different ground stone artifact types within its assemblage. The Structure 81 assemblage includes a total of 54 items representing 70% of the Sample Group 2 ground stone assemblage and 34% of the Northeast Sector total ground stone. There are 24 *manos* and 15 *metates* which account for 83% and 75% of the Sample Group 2 *manos* and *metates*. There is

also a single ground stone crescent, a knob-shaped and a rounded ground stone fragment each representing 100% of these specific artifact types in both the Sample Group 2 and the Northeast Sector ground stone assemblages. Additionally, there are seven (70%) unspecified fragments in the assemblage. Finally, a ground stone palette (n=1; 100%) and two hammer stones (n=2; 67%) form the remainder of the Structure 81 ground stone assemblage. None of the Structure 81 ground stone artifacts were recovered in association with any special deposits.

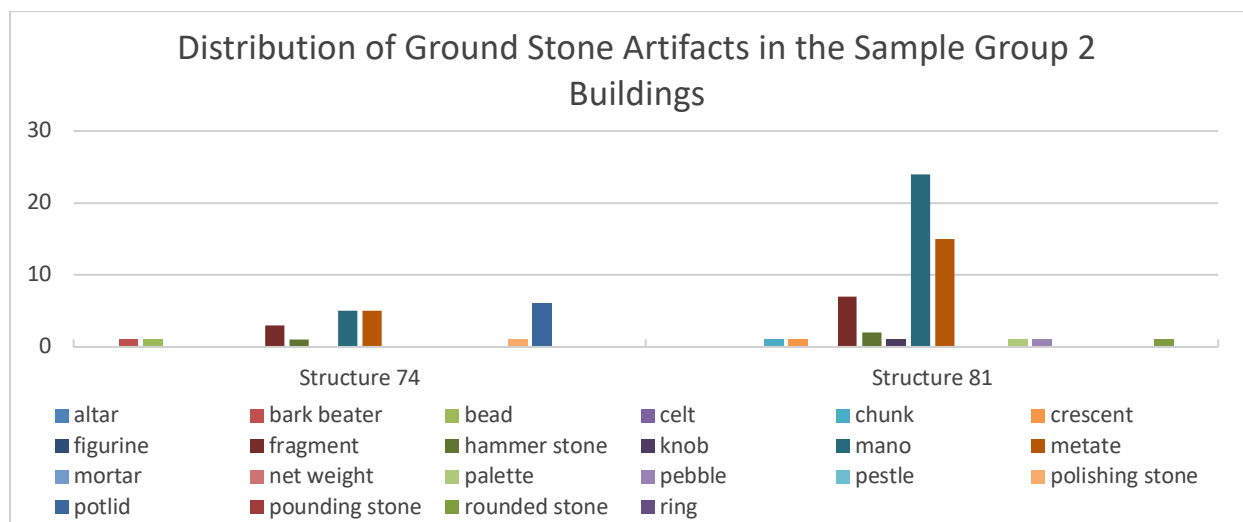


Figure 19. The distribution of ground stone artifacts recovered in association with the Sample Group 2 buildings in the Northeast Sector at Santa Rita Corozal.

South Intermediate Sector

The ground stone assemblage recovered from the South Intermediate Sector represents just over half (n=182; 53%) the ground stone included within this study. Ground stone was recovered in association with all nine buildings in the South Intermediate Sector. Approximately 50% of all *manos* (n=55) and *metates* (n=58) included in this study were recovered from the buildings in the South Intermediate Sector.

There are four buildings which contained over 20 pieces of ground stone artifacts which account for just over 70% of the South Intermediate assemblage. These include Structures 189, 213, 216 and 218. With a total of 80 ground stone artifacts, however, Sample Group 5 has the highest percentage of ground stone representing just over 44% of the total ground stone in the South Intermediate Sector. The assemblage is as diverse (see Figure 20) as those recorded from the Northeast Sector and features additional ground stone types such as pestles and a ground stone ring.

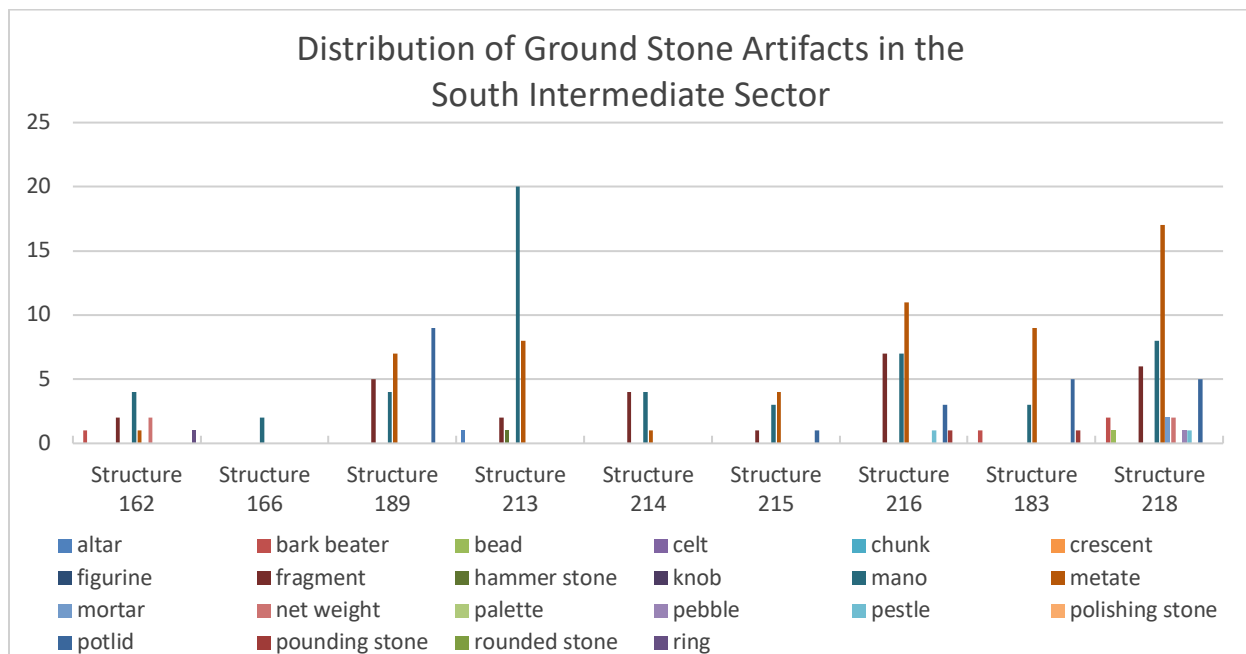


Figure 20. Ground stone artifact distribution in the South Intermediate Sector at Santa Rita Corozal.

Sample Group 3: Structures 162 and 166

Sample Group 3 had only a total of 13 ground stone artifacts (Figure 20). This total represents approximately 7% of the South Intermediate Sector ground stone assemblage and 4% of the total ground stone artifacts included within this study. Structure 162 had the larger

assemblage (n=11; 85%) which includes bark beaters (n=1; 9%), *manos* (n=4; 36%), *metates* (n=1; 9%), and net weights (n=2; 18%). Additionally, a spherical, convex ground stone ring (n=1; 9%) fragment and two other indeterminate ground stone fragments (n=2; 18%) completes this assemblage. This ground stone ring is the only one of this type included within this study.

The only other building in this group, Structure 166, had only two ground stone artifacts, namely two *manos*, representing 15% of the Sample Group 3 assemblage, in its assemblage. One mano fragments was recovered along with a burial (SDP23B-2) comprising three individuals placed to the front of Structure 166 (Chase and Chase 1988:43). The burial was noted as having been disturbed by looters prior to excavation by the CPP.

Sample Group 4: *Structure 189*

The Sample Group 4, or Structure 189, assemblage comprises a total of 29 ground stone artifacts of which there are four different types represented (Figure 20). This represents approximately 14% of the South Intermediate Sector assemblage and 7% of the overall ground stone included within this study. Forty-four percent of this assemblage comprises *manos* (n=4) and *metates* (n=7). The remainder of the assemblage is made up of ground stone fragments (n=5; 20%) and ground stone potlids (n=9; 36%). This is the largest number of potlids associated with any of the selected buildings in this study and these represent approximately 30% of all potlids included within this study. None of the Structure 189 ground stone artifacts were associated with any special deposits.

Sample Group 5: Structures 213, 214, 215, and 216

The ground stone artifacts (n=80) recovered from the four buildings in Sample Group 5 (Figure 20) represent 44% of the ground stone assemblage within the South Intermediate Sector and 23% of the overall assemblage in this study. Structure 213 had the highest percentage (48%) of ground stone implements, comprising 20 *manos* and 8 *metates*. The assemblage also includes a hammer stone (n=1; 3%) and two indeterminate ground stone fragments (n=2; 6%). One of the *metate* fragments (P26B/16-2) was recovered in association with a burial (SDP26B-1). A single human skull was placed above a *metate* fragment which served to seal another burial (SDP26B-2) below which consisted of five individuals located in the stoop of Structure 213 (Chase and Chase 1988:51-52).

Comprising just about 23% of the Sample Group 5 ground stone assemblage are 18 artifacts recovered from Structures 214 and 215. Each of these structures contained 9 (11%) ground stone artifacts. The Structure 214 assemblage included *manos* (n=4; 44%), *metates* (n=1; 11%) and several indeterminate ground stone fragments (n=4; 44%). The Structure 215 assemblage included *manos* (n=3; 33%), *metates* (n=4; 44%), a potlid (n=1; 11%) and an indeterminate fragment (n=1; 11%).

The ground stone assemblage at Structure 216 comprised a total of 30 items representing approximately 38% of the Sample Group 5 total and 17% of the South Intermediate Sector ground stone. The assemblage is defined by six different ground stone artifact types. These include *manos* (n=7; 23%), *metates* (n=11; 37%), potlids (n=3; 10%), pestles (n=1; 3%), pounding stones (n=1; 3%), and several indeterminate fragments (n=7; 23%). The pestle and the pounding stone recovered in association with Structure 216 represents 100% of these types in the

Sample Group 5 assemblage and 50% each of the total pestle and pounding stone categories included within this study.

Sample Group 6: *Structure 183 and 218*

The ground stone artifacts recovered in association with Structures 183 (n=19) and 218 (n=45) represent approximately 35% of the ground stone in the South Intermediate Sector and 19% of the total ground stone included in this study. The ground stone assemblage recovered in association with Structure 183 includes a bark beater (n=1; 5%), manos (n=3; 16%), metates (n=9; 47%), potlids (n=5; 26%), and a pounding stone (n=1, 5%). The ground stone recovered in association with Structure 218 includes bark beaters (n=2; 5%), a bead (n=1; 2%), manos (n=8; 18%), metates (n=17; 38%), mortars (n=2; 5%), net weights (n=2; 5%), a pebble (n=1; 2%), a pestle (n=1; 2%), potlids (n=5; 11%), and several indeterminate fragments (n=6; 13%). Combined, these assemblages comprise 20% of *manos* (n=11) and 45% of *metates* (n=26) recovered within the South Intermediate Sector. Additionally, the 10 potlids account for 33% of the overall potlids in this sample and the 3 bark beaters represent 43% of all bark beaters in this study. Further, the Structure 183 assemblage includes a pounding stone which represents 50% of this ground stone artifact type in this sample. Approximately 70% of the ground stone within the Sample Group 6 assemblage was recovered in association with Structure 218. None of the Sample Group 6 ground stone artifacts was recovered in association with any special deposits.

6.4 Ceramic Artifacts

Ceramics are the most commonly recovered artifact type at any ancient Maya site. Santa Rita Corozal is no exception as numerous ceramic vessels and other ceramic artifacts have been

excavated here. As the analysis of the ceramic vessels from Santa Rita Corozal have largely been the subject of discussions in previous studies (Chase 1982; Chase and Chase 1988), the ceramic artifacts under investigation within this particular study are those intentionally made ceramic objects and reworked objects fashioned from ceramic fragments (not sherd material, *per se*). It is important to note, however, that some ceramics classified as censerware (also referred to as *incensarios*) and vessels included in this study are those recovered in association with the seventeen selected buildings and are associated with specific Postclassic dated special deposit features. It is expected that the distribution of these specific ceramic items and their association with specific buildings will be useful for determining the functions of these buildings. Table 7 provides a breakdown of the specific ceramic types and their quantities included within this study.

Table 7. Inventory of ceramic artifacts from selected buildings at Santa Rita Corozal included within this study.

Ceramics Inventory	
<i>Total Ceramic Artifacts</i>	1120
<i>Ball</i>	1
<i>Bead</i>	657
<i>Censerware*</i>	27
<i>Figurine</i>	71
<i>Marker</i>	1
<i>Net Weight</i>	265
<i>Spindle Whorl</i>	9
<i>Stopper</i>	2
<i>Vessel*</i>	68
<i>Granule</i>	19

Ceramic Artifact Types

Ceramics are one of the most common artifact classes recovered at ancient Maya sites. Analysis of ceramics is usually limited to sherd material as well as whole and reconstructable vessels and diagnostic sherds; this analysis does not include the sherd material and is only concerned with those vessels associated with special deposits. Besides ceramic vessels, there are other intentionally made ceramic objects, for instance beads and net weights, which are largely utilitarian in nature and represent the often-overlooked ceramic artifacts utilized in everyday household and subsistence activities that form part of the household assemblage. A brief description of the more numerous ceramic artifact types recovered at Santa Rita Corozal are provided below.

Bead

Ceramic beads are identified based on the presence of a central hole from which they are meant to be suspended (Taschek 1994:198). These objects are typically small, regular sub-spherical shape, and with a central perforation or drill hole made either by being punched through the clay or being fired with twine strung through the clay (Taschek 1994:198). The beads within the Santa Rita assemblage included in this study are undecorated and unmodified with plain surfaces which are often eroded. The ceramic beads are suggested to have functioned as net sinkers or net weights (Chase 1982:378-379; 522; also see discussion below on *Net Weights*). Examples of a variety of ceramic beads are found in Appendix Figures 2D (P38/27-6b-d; h-i; Structure 218) and 2E (P62/1-11; Platform 2).

*Censerware**

This specific vessel type is identified based on its form, typically a highly decorated vessel produced using elaborate modeled techniques to form anthropomorphic shaped vessels (Sidrys 1983:238-257). Censerware or incense burners, referred to also as *incensarios*, are associated with ritual and ceremonial activities. Censerwares were widely distributed during the Postclassic period. Censerware included within this analysis are limited to those associated with special deposits recovered from excavations within any of the buildings selected for inclusion within this study (for examples see Chase and Chase 1988:Fig. 26).

Figurine

Figurines consist of both anthropomorphic and zoomorphic forms. Figurines appear to be hand-formed by pinching together the different parts with a slight smoothing of the junctures (Taschek 1994:204). The surfaces of the Santa Rita Postclassic figurines are not painted, smoothed or slipped, rather, they appear crudely formed and plain (for examples see Chase and Chase 1988:Fig. 24; Fig. 25; Fig. 33).

Net Weight

The ceramic net weight assemblage recovered from the Santa Rita excavations include some purposefully made net weights and others which were fashioned into net weights by reworking sherds from previously utilized ceramic vessels (also referred to as “notched sherds”) (Chase 1982:521-522). The net weights are mostly sub-rectangular to sub-oval shaped sherds which are recognized by a single notch cut into each short side of the sherd. The edges and

surfaces are often crude but smoothed. These artifacts are associated with fishing activity as they are thought to function as weights when attached to the edges of nets in order to keep it underwater (Masson 2000:117).

Chase (1982:378-379; 522) explains that the net weights (or “notched sherds”) and ceramic beads recovered from excavations at Santa Rita may have had similar functions as net sinkers. Chase (1982:378-379) further explains that based on the dates associated with these two artifact types, it appears that they were being utilized in different time periods as the notched sherds appear in excavations dated earlier in time than the ceramic beads, although there may have been some overlap in their use. Examples of net weights (or notched sherds) can be found in Appendix Figures 2A (P26B/12-5a-e; Structure 216); 2B (P6E/3-2; Platform 2); and 2C (P6E/6-2; Platform 2).

Spindle Whorl

These objects are circular in outline and plano-convex in cross-section with one flattened surface and a central perforation (Taschek 1994:215). The raised surface is formed by concentric rings which may usually, but not always, feature incised decorations on the surfaces. The spindle whorls in this Santa Rita assemblage are typically plain and undecorated. Appendix Figure 2F (P6F/8-1; Structure 77) is an example of a spindle whorl.

Granule

Spherical shaped objects with smoothed but eroded surfaces. The examples in the Santa Rita assemblage included within this study are undecorated and range from 2.4-4.2 cm in width

and 0.6-0.8 cm in thickness. These granules may have served several functions including as possible rattles inside vessel legs (Taschek 1994:216).

Sherds

Although not included within this study, the largest percentage of the artifact assemblage recovered from excavations at Santa Rita Corozal, like at most other archaeological excavations, are ceramic sherds. These are the broken remains or fragments of previously utilized vessels.

An interesting feature with the Santa Rita sherds is that several of them are further classified as being “crack-laced” which suggests that there were several vessels, likely rare vessels, which were repaired using drilled holes from which it could be fastened together, in order to prolong its use (Chase 1982:523).

Another note is that some of the net weights (referred to as “notched sherd”) recovered from excavations appear to be made from sherds (see *Net Weights* above; Chase 1982:521).

*Vessels**

Ceramic vessels included within this analysis are limited to those associated with special deposits recovered from excavations within any of the buildings selected for inclusion within this study. These ceramics are considered as complete or reconstructable vessels or vessel fragments. This research is primarily focused with the distribution of these vessels within the selected household sample groups. For details on the type analysis of these vessels see Diane Chase’s 1982 PhD dissertation and her 1984 *Cerámica de Cultura Maya* article on the Late Postclassic Pottery of Santa Rita.

6.4.1 Distribution of Ceramic Artifacts

Northeast Sector

Overall, the ceramic artifacts recovered from the two groups in the Northeast Sector account for approximately 26% of all the ceramics included within this study. Ceramic artifacts were recovered in association with all the buildings in the Northeast Sector with the exception of Structure 78 from which none were recovered (due to limited excavations conducted there). The ceramic assemblage being considered within this study includes a combination of vessels, ritual-related censerware and figurines, ceramic ornaments, other small utilitarian artifacts (such as beads and net weights) and other fragmentary ceramic artifacts. The ceramic artifacts recovered from Sample Group 1 accounts for approximately 63% of the Northeast Sector ceramic total while those recovered from Sample Group 2 represent 37% of the Northeast Sector total.

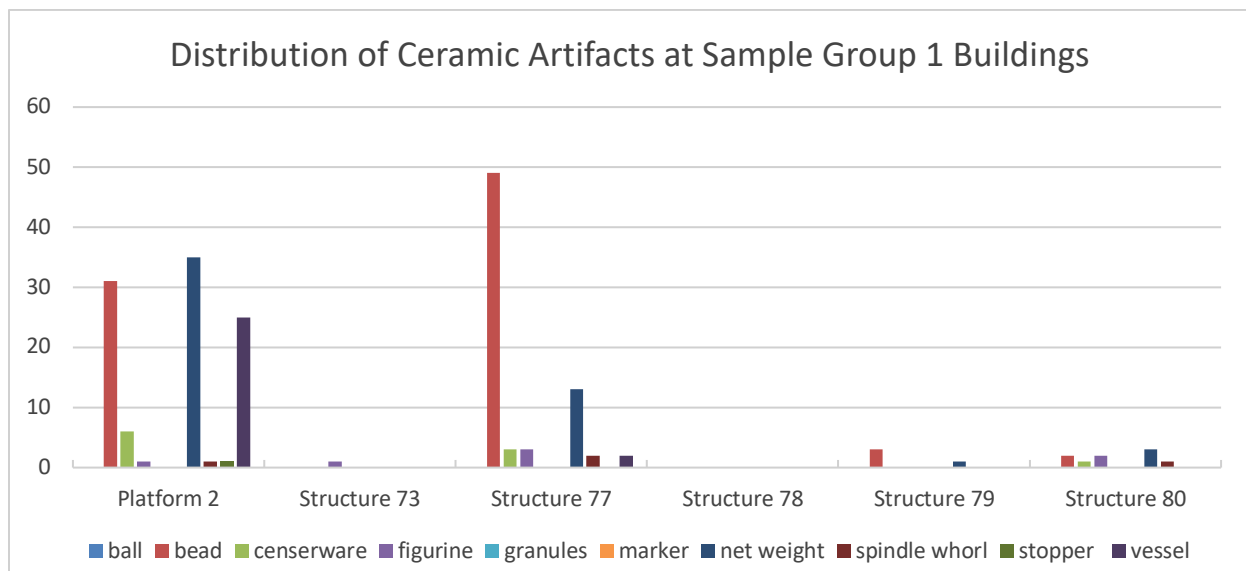


Figure 21. Distribution of ceramic artifacts from the Sample Group 1 structures in the Northeast Sector at Santa Rita Corozal.

Sample Group 1: *Platform 2 Group*

The ceramic artifacts from Sample Group 1 are limited to only 7 different ceramic types including beads, censerware, figurines, net weights, spindle whorls, stoppers, and vessels (see Figure 21). Of the six buildings in Sample Group 1, only Structure 78 had no ceramics in its artifact assemblage. Platform 2 and Structure 77 have the most diverse ceramic assemblages which represents approximately 92% of the total Sample Group 1 ceramic assemblage. Combined, these two assemblages contained 100% of all vessels (n=27) and stoppers (n=1) in Sample Group 1. They also had 75% of all spindle whorls (n=3), 57% of figurines (n=4), and approximately 94% of beads (n=80), 90% of censerware (n=10) and roughly 92% of net weights (n=48).

Structure 73 has a very limited ceramic assemblage, representing only 1% of the sample group's total, that includes a single figurine. Three beads and a single net weight, representing 3% of the group total, is the extent of ceramic assemblage recovered from Structure 79. The assemblage from Structure 80 is a bit more extensive, being approximately 6% of the group's ceramics, and consisting of beads (n=2), censerware (n=1), figurines (n=2), net weights (n=3), and a spindle whorl (n=1).

Several special deposits recovered from Structure 77 included ceramic vessels and censerware. A deposit of three censers were found centrally placed between two burials (SDP6F-1 and SDP6F-2). Chase (1982:371) suggests that the censers may have been associated with either of the two burials. Other interesting ritual-related finds discussed by Chase (1982:380) includes the recovery of a large *tinajera*, a modeled decorated ceramic vessel of ceremonial function, thought to be associated with a nearby recovered carved limestone turtle

(P6F/7-1), possibly an 'altar figure' (Chase and Chase 1988:31). A single ceramic effigy vessel (PDP6F-1), in the form of a hollow bird with a missing head, was also recovered in association with Structure 77 (Chase 1982:375).

All the ceramic vessels included within the Platform 2 ceramic assemblage were recovered in association with special deposits. Ceramic vessels were recovered in association with three Postclassic dated burials and one cache as well as a refuse deposit to the south of the Platform. Chase (1982:323-325) explains that the first burial (SDP6E-1) contained 5 individuals who were located beneath three stones, possibly an altar, and placed within the front part of the Platform 2 construction and was accompanied by 4 ceramic vessels along with a host of other grave goods including a ceramic bead and the only ceramic stopper recovered in both Sample Group 1 and the Northeast Sector. A second burial (SDP6E-6) containing a single adult female individual was accompanied by 5 ceramic vessels and the foot of an effigy censer (Chase 1982:330-334). A third burial (SDP6E-12) of another single adult female individual was accompanied by a modeled vessel and a censer fragment (Chase 1982:335-336). In terms of caches, the only Postclassic dated cache (SDP6E-3) recovered in association with Platform 2 contained three effigy face cups (Chase 1982:328-329). Chase (1982:337) also notes that several vessel fragments, including some censerware, were recovered in association with a refuse deposit to the south of the Platform. This deposit is located in an area which appears to have been used for the interment of women and children and is believed to be of some ritual or ceremonial significance.

Sample Group 2: *Structures 74 and 81*

The ceramic artifacts recovered in association with the Sample Group 2 buildings represents 37% of the Northeast Sector ceramics and approximately 10% of the entire ceramic assemblage included within this study.

The Structure 74 ceramic assemblage represents 36% of the Sample Group 2 ceramics and 13% of the Northeast Sector ceramics. This assemblage features artifacts of five different ceramic types (see Figure 22) including beads (n=13), censerware (n=4), figurines (n=2), granules (n=17), and net weights (n=3). The 13 beads within this assemblage represents 87% of all beads associated with buildings in Sample Group 2. None of the ceramic artifacts recovered in association with Structure 74 are associated with any special deposits.

The ceramic assemblage recovered in association with Structure 81 is diverse, containing artifacts in six of the categories used in this study (see Figure 22). These ceramic artifacts combine to form 64% of the Sample Group 2 ceramic assemblage and 23% of the ceramics excavated from the Northeast Sector. Forty-six percent of this assemblage consists of ceramic vessels (n=32). These represent 54% of all vessels recovered from the Northeast Sector and 47% of all vessels included in this study. The Structure 81 ceramic assemblage also includes figurines (n=6; 9%), net weights (n=22; 32%), beads (n=2; 3%), granules (n=2; 3%), and censerware (n=5; 7%).

All ceramic vessels in the Structure 81 ceramic assemblage are associated with special deposits. A first cache (SDP8C-3) was placed in the inner back wall of the shrine room and comprised of a unique double spouted black bird effigy vessel which is thought to have been a

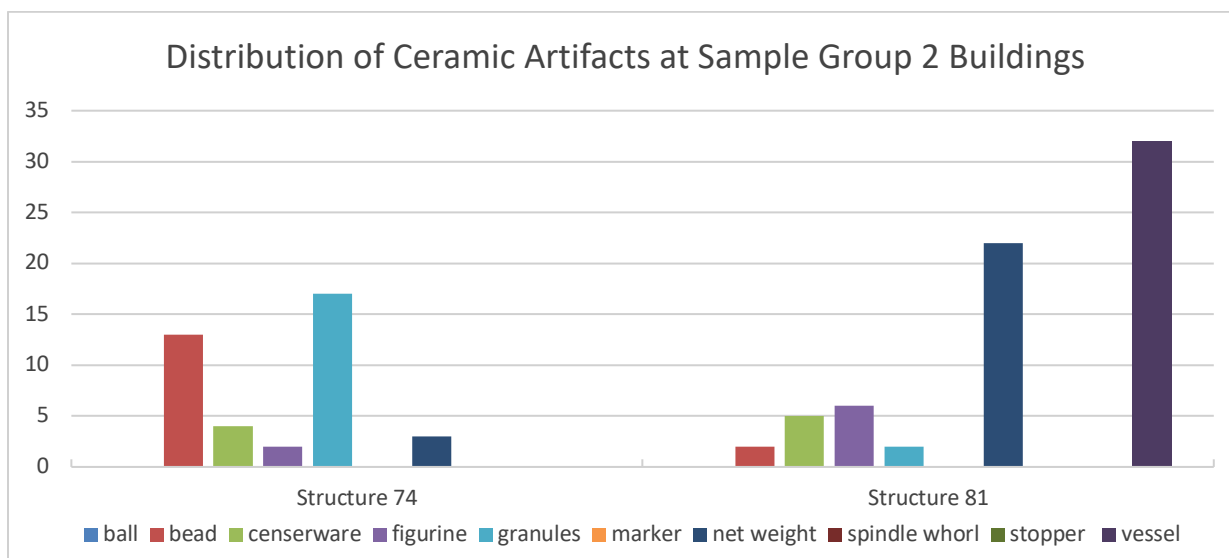


Figure 22. Distribution of ceramic artifacts recovered in association with the buildings in Sample Group 2 in the Northeast Sector.

trade item from South America (Chase 1982:256-259; Chase and Chase 1988:19). A second cache (SDP8C-2) was placed in a pit directly in front of the altar in the shrine room and featured a set of lip-to-lip vessels which contained a modeled and painted figurine effigy vessel (Chase 1982:289-295; Chase and Chase 1988:19). The effigy vessel was that of a human head protruding from the mouth of a jaguar. Inside the effigy vessel itself was placed a mosaic jadeite piece, a jadeite bead, three tubular *Spondylus* beads, one large *Spondylus* bead, and a flattened gold metal fragment or *tumbaga*. Finally, a third special deposit associated with Structure 81 was an interment (SDP8C-1) placed within the altar of the shrine room which featured one young human adult and one adult male individual who were buried along with 8 ceramic vessels (Chase 1982:259-261; Chase and Chase 1988:19). There were also an additional twenty other ceramic vessels recovered scattered on the floor of the shrine room in Structure 81. Several of

these vessel fragments fit those found in the SDP8C-1 burial suggesting that they were “killed” or broken as part of the ritual practices prior to being placed within the burial (Chase 1982:300).

The South Intermediate Sector

The ceramic artifacts excavated from the four groups in the South Intermediate Sector combine to account for 74% of all the ceramics included within this study. The most common ceramic types within the assemblage are beads and net weights as evidenced by all buildings containing these ceramic types (see Figure 23). Approximately 85% of all beads and just over 70% of all net weights included within this study were recovered from the South Intermediate Sector. Four buildings in the South Intermediate Sector had no vessels recorded as being in association. Figurines were recovered from four locations, these being Structures 166, 213, 216, and 183. The figurines associated with Structures 213 and 183 were recovered from caches while those associated with 166 and 216 were fragments recovered from within construction fill of the buildings. Other ceramic types were present in the South Intermediate Sector assemblage and not in the Northeast Sector; these include a ceramic ball, a marker, and a ceramic ring. Overall, Sample Group 6 which comprises Structures 183 and 218 account for the highest percentage (43%) of ceramic artifacts in the South Intermediate Sector.

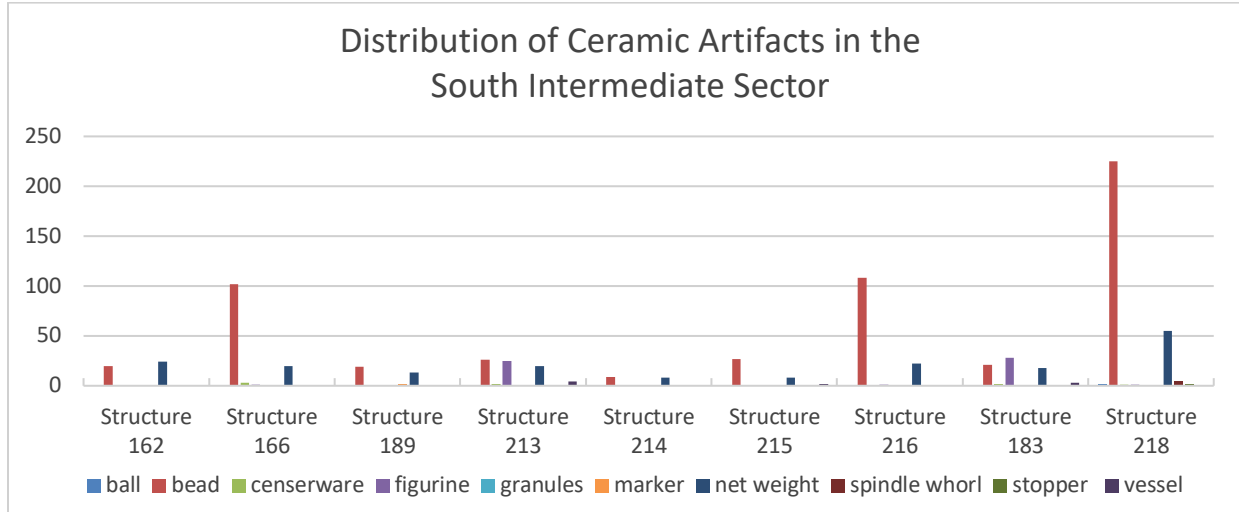


Figure 23. Distribution of ceramic artifacts recovered in association with buildings in the South Intermediate Sector at Santa Rita Corozal.

Sample Group 3: *Structures 162 and 166*

The Sample Group 3 ceramic assemblage is limited to four different ceramic artifact types including beads, censerware fragments, a figurine fragment, and net weights (see Figure 23). The ceramic assemblage from Structure 162 represents 26% of the Sample Group 3 ceramics and includes two ceramic types: beads (n=20; 45%) and net weights (n=24; 55%). The ceramic assemblage recovered in association with Structure 166 represents 74% of the Sample Group 3 ceramics and includes beads (n=102; 81%), censerware (n=3; 2%), net weights (n=20; 16%), and a figurine fragment (n=1; <1%). Of interest is a deposit which contained 88% of the Structure 166 ceramic assemblage and included 99 beads and 12 net weights. Combined, the Sample Group 3 ceramics represent approximately 20% of the South Intermediate Sector assemblage.

Sample Group 4: *Structure 189*

The ceramic assemblage from Structure 189 consists of a total of 33 items represents 5% of the ceramics in the South Intermediate Sector (Figure 23). The assemblage comprises beads (n=19; 58%), net weights (n=13; 39%), and a marker (n=1; 3%). The complete, circular ceramic marker, recovered in construction fill of the building, is the only of its kind included within this study. None of the ceramic artifacts in this assemblage were associated with any special deposits in Structure 189.

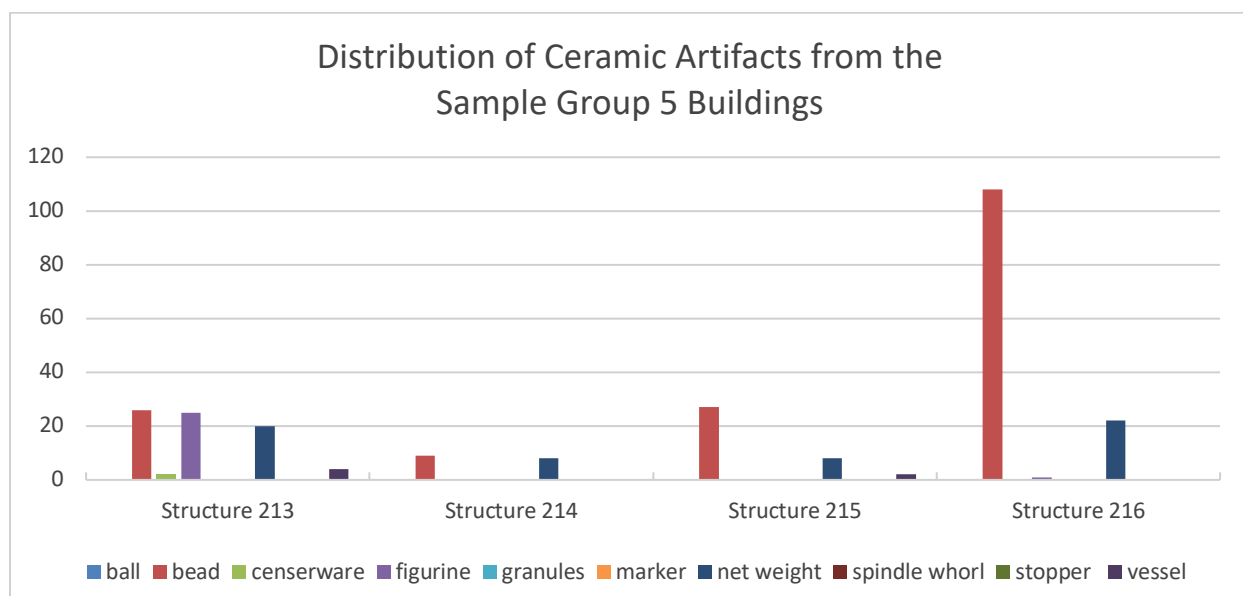


Figure 24. Distribution of ceramic artifact types recovered in association with the Sample Group 5 buildings in the South Intermediate Sector at Santa Rita Corozal.

Sample Group 5: *Structures 213, 214, 215, and 216*

Together the ceramics from all four buildings in Sample Group 5 represent approximately 32% of the ceramic artifacts in the South Intermediate Sector. Of the four buildings, Structure 216 has the highest percentage (50%) of ceramics in the group (see Figure 24). Included within

the Structure 216 assemblage is a total of 131 ceramic artifacts representing three different ceramic types: beads (n=108; 82%), net weights (n=22; 18%), and a figurine fragment (n=1; <1%). Of this assemblage, five (5%) ceramic beads were associated with a single burial feature (SDP33D-1) within Structure 216.

At approximately 29% of the Sample Group 5 total, the ceramics from Structure 213 consists of beads (n=26; 34%), net weights (n=20; 26%), vessels (n=4; 5%), censerware (n=2; 3%) and figurines (n=25; 33%) (see Figure 24). The figurines recovered from Structure 213 account for 96% of all figurines within Sample Group 5 and approximately 35% of the total figurines in the study. Excavations revealed that approximately 40% of the Structure 213 ceramic assemblage was recovered in association with three caches and one burial. The first cache (SDP26B-3) was recovered from within the building core. It contained a total of 25 figurines placed around and inside a lidded urn (Chase and Chase 1988:48-51). The figurines included a mixture of 12 zoomorphic figurines and 4 anthropomorphic figurines surrounding a central lidded urn; the lid of the urn was fashioned from a possible censer fragment. A collection of 4 zoomorphic and 5 anthropomorphic figurines along with a jadeite fragment and four shells were placed within the urn. A second cache (SDP26B-5) placed into the plaza fill to the front of Structure 213 consisted of a single effigy turtle vessel, which itself contained two small jadeite beads (Chase and Chase 1988:52). The final cache (SDP26B-4) was also placed to the front of Structure 213. This cache consisted of an inverted bowl placed into the neck of an urn (Chase and Chase 1988:52). Several items were recovered inside the urn including the remains of a turtle along with one jadeite bead and one *Spondylus* bead. A single Postclassic dated burial (SDP26B-2) was associated with Structure 213. This burial was placed within the stoop of the

building and included the remains of five individuals (Chase and Chase 1988:52). Fragments of two effigy censers and five jadeite beads accompanied the individuals.

With a total of 17 and 37 ceramic artifacts, respectively, Structures 214 and 215 account for the remaining 21% of ceramics in Sample Group 5. Both buildings have similar ceramic types within their assemblages. The assemblage associated with Structure 214 consists of beads (n=9; 53%) and net weights (n=8; 47%). Those associated with Structure 215 includes beads (n=27; 73%), net weights (n=8; 22%), vessels (n=2; 5%). A cache (SDP29B-1) was placed within the mid-point of the building and contained a single, small ceramic footed cup which was covered by a large sherd (as a lid) (Chase and Chase 1988:53; see also Fig 22d).

Sample Group 6: *Structures 183 and 218*

Accounting for almost half (44%) of the ceramic assemblage in the South Intermediate Sector, Sample Group 6 assemblage includes a total of 361 ceramic artifacts (Figure 25). Of this total, 68% is made up of ceramic beads (n=246). 225 or 92% of the Sample Group 6 beads were recovered in association with Structure 218. In addition, 55 or 75% of the Sample Group 6 net weights were also recovered in association with Structure 218. Completing the Structure 218 assemblage are spindle whorls (n=5; 2%), a censerware fragment (n=1; <1%), a ceramic ball (n=1; <1%), and a stopper (n=1; <1%). The spindle whorls, ball, and stopper from this assemblage are the only artifacts of these specific types recovered in association with the South Intermediate Sector. A cache (SDP38B-2) placed in the core of the eastern section of Structure 218 consisted of a single effigy vessel (Chase and Chase 1988:60). The vessel consisted of a hollow shell within which a human face protruded and was encircled by the paws of a jaguar figure which sits atop the shell (see Chase and Chase 1988: Fig 35). Chase and Chase (1988:60)

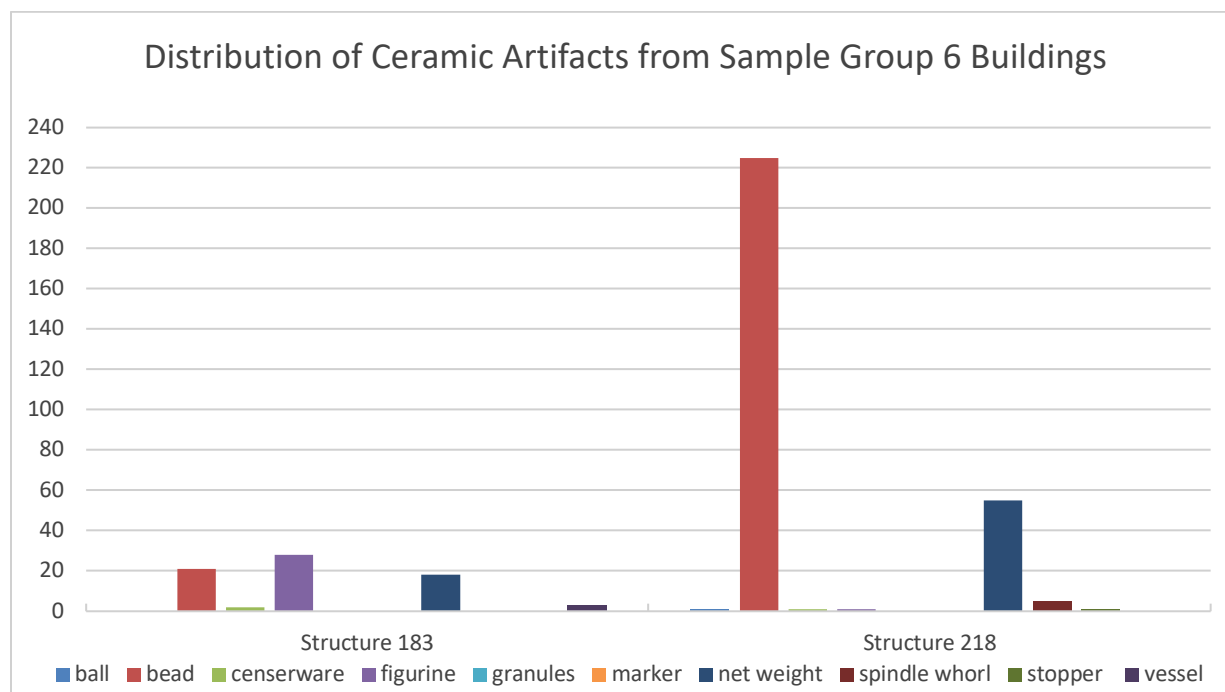


Figure 25. Distribution of ceramic artifact types recovered in association with Sample Group 6 buildings in the South Intermediate Sector at Santa Rita Corozal.

also note that several Late Postclassic dated ceramic vessel fragments were recovered in association with this building.

The ceramic assemblage of Structure 183 represents approximately 20% of the Sample Group 6 total and approximately 6% of the overall ceramic assemblage included in this study. This assemblage includes beads (n=21; 29%), censerware (n=2; 3%), figurines (n=28; 39%), net weights (n=18; 25%), and vessels (n=3; 4%). The figurines (n=28) recovered in association with Structure 183 represents 50% of all figurines recovered from the South Intermediate Sector and approximately 40% of all figurines included within this study. A Late Postclassic dated cache (SDP37A-1) was placed directly in front of the rear altar associated with Structure 183. The cache included 28 figurines placed with a lidded urn (Chase and Chase 1988:58; Figs. 32 and 33). Similar to the Structure 213 cache, these were a combination of both anthropomorphic and

zoomorphic figurines. A single ceramic vessel was also recovered from an interment (SDP37A-2) placed beneath the central doorway of Structure 183. The vessel was placed directly above the human remains of three individuals (Chase and Chase 1988:58). Chase and Chase (1988:57) state that fragments of two effigy censers were also recovered from within the fill in the rear room of Structure 183.

6.5 Metal Artifacts

Metal objects generally do not appear in ancient Maya contexts until the Postclassic Period (ca. CE 900/950-1542) (Hosler and MacFarlane 1996:1819; Simmons et al. 2009:57). The presence of an expanding trade network during the Postclassic allowed access to new products such as metal (Hosler and MacFarlane 1996:1823). Given their strategic sitting near rivers and along the coast, both Lamanai and Santa Rita were positioned in prime locations for access to and experimenting with the use of this exotic item.

Metal artifacts, particularly in the form of copper bells, have been recovered from several Postclassic occupied sites in northern Belize including Lamanai in the Orange Walk District (Simmons, Pendergast, and Graham 2009) and Santa Rita in the Corozal District (Chase and Chase 1988), and Laguna de On (Masson 2015). Hosler and MacFarlane (1996:1822) have conducted lead isotope analysis on several copper artifacts, including on a sample of 20 copper bells from Lamanai, and have indicated that the metal was sourced from the West Mexico region which is known as one of the most important mineral ores for the ancient Mesoamerican region. These items were largely transported to the Yucatan and southern lowlands by merchants traversing the region. Hosler and MacFarlane (1996:1823) point out that metals such as copper

and gold were prized as luxury items by the ancient Maya and that access to these long-distance exotic items were seen as being a display of power by the owner.

Based on the associated artifact assemblages, it was observed that selected household groups at the Late Postclassic community of Santa Rita Corozal were utilizing metals such as copper, gold, and silver in the form of personal adornments such as bells and rings. Table 8 (below) provides an inventory of the metal artifact assemblage recovered in association with selected Late Postclassic Period buildings included within this study.

Table 8. Inventory of metal artifacts recovered in association with the selected buildings at Santa Rita Corozal included in this study.

Metal Artifacts Inventory	
<i>Total Metal Artifacts</i>	25
Copper	
<i>Bell</i>	3
<i>Clasp</i>	2
<i>Needle</i>	1
<i>Ring</i>	2
<i>Sheet disc</i>	7
<i>Snake head object</i>	1
Gold	
<i>Bell</i>	5
<i>Ear flare</i>	2
<i>Foil Fragment</i>	1
Silver	
<i>Bell</i>	1

A total of 25 metallic artifacts were recovered in association with five of the selected buildings included within this study from the Late Postclassic Santa Rita Corozal community. The assemblage can be classified into several categories including objects of personal adornment

(such as ear flares, bells, and rings) and utilitarian objects (such as clasps and needles). Others are shaped objects fashioned from copper sheet fragments. The assemblage includes 20% gold bells, 12% copper bells, and 4% silver bells and 8% each of copper rings, copper clasps, and gold and turquoise ear flares. Just over 28% of the assemblage consists of copper sheet discs while the other 12% of the assemblage is in the form of a copper needle, a copper snake head object, and a gold foil fragment. Approximately 64% of entire metal artifact assemblage was recovered in association with a special deposit feature such as a burial or a cache deposit. The other 36% was recovered from within construction fill or trash deposits associated with structures. Of the seventeen buildings selected for this study, only five were associated with the recovery of metal artifacts: two from the Northeast Sector and three from the South Intermediate Sector.

Personal Adornment Metal Artifacts

Bells

The bells in this assemblage vary in shapes with some having an elongated pyriform shape and others a globular shape (for Santa Rita examples see Chase and Chase 1988: Fig. 30 and 36; for Lamanai examples see Pendergast 1962:Fig. 5). The bells also have suspension loops present on the narrower top end from which they were hung. The total assemblage in this study includes three bells made of copper, five made of gold, and one of silver. Although the bells differ in material type, they were of similar styles.

Rings

Two copper rings are part of the metal assemblage included in this study. Both were recovered from a female burial associated with Platform 2 (Chase and Chase 1988:26). One ring (P6E/82-2) is a simple, undecorated, thin band of copper. It measures approximately 2 cm in height and is a very thin but wide band with a central opening for placing on a finger. The second ring (P6E/82-3) is much more elaborately decorated and similar to filigree copper ring recovered at Lamanai (Simmons, Pendergast, and Graham 2009:62; Fig. 3). The top and bottom sections of the ring are formed by a plain, double-band and are connected by three horizontally placed scroll motif designs. Appendix Figure 4D and E provide photos and illustrations of the two copper rings (P6E/82-3 and P6E/82-3) recovered in association with burial SDP6E-7 excavated in association with Platform 2 in the Northeast Sector at Santa Rita.

Ear flare

A pair of gold and turquoise ear flares were recovered accompanying a male individual inside a burial within Structure 216 (Chase and Chase 1988:56; see also Fig. 30). These elaborate ear flares feature a filigreed gold frame set around an obsidian ear plug and decorated with turquoise mosaic inlays, of varying shapes and sizes, placed inside the gold frame. They each feature six small rounded turquoise inlays at the bottom end of each ear flare. Below these are attachments from which six bells originally were hung (Chase and Chase 1988:56). Unlike the individual bells recovered from other locations, these bells have a more globular shaped bottom attached to elaborately decorated stems from which a decorated suspension loop is attached to connect it to the upper part of the ear flare.

Utilitarian Metal Artifacts

Clasp

Two copper items identified as clasps were found in association with a burial. The position in which they were placed suggests that they were functioning as a clasp, perhaps to hold together a cloth wrapping around the individual (Chase and Chase 1988:56). The clasps are pyriform in shape being wider on one end and narrower on the other (see Chase and Chase 1988:Fig. 30). Their surfaces are not otherwise decorated.

Needle

The copper needle in this assemblage is also associated with a burial feature (Chase and Chase 1988:56). The needle is almost 14 cm in length and tapers to a blunt point on one end with the wider perforated with a small opening through which it would have been threaded (Chase and Chase 1988:56; Fig.30).

Shaped Copper Fragments

Several fragments are associated with the metal assemblage included in this study. The CPP catalog card (for Platform 2 in Sample Group 1; OpP6E) lists an irregular copper object in the form of a snake head fashioned from a thin copper sheet fragment as well as several thin disc-shaped copper fragments. Another metal fragment associated with Sample Group 2 is described as an extremely thin, flat piece of metal, likely *tumbaga*, bent nearly in half, formed a shape with at least two rounded elements (D. Chase 1982:295; Chase and Chase 1988:19). It is suggested that this item was likely made of gold, and not copper, as it did not appear to be green nor discolored as other copper items recovered within the Santa Rita assemblage (D. Chase

1982:295). This fragment was found inside the ceramic effigy cache vessel placed in Structure 81 in pit directly in front of the altar in the shrine room (Chase and Chase 1988:19).

6.5.1 Distribution of Metal Artifacts

Northeast Sector

Those metal artifacts in the Northeast sector account for approximately 44% of the metal artifacts included in this study. Metal artifacts were recovered from both Sample Groups 1 and 2 in the Northeast Sector (Figure 26). Of the six Sample Group 1 structures, only the Platform 2 construction was associated with the recovery of ten metal artifacts. A single metal artifact was recovered in association with Structure 81 in Sample Group 2.

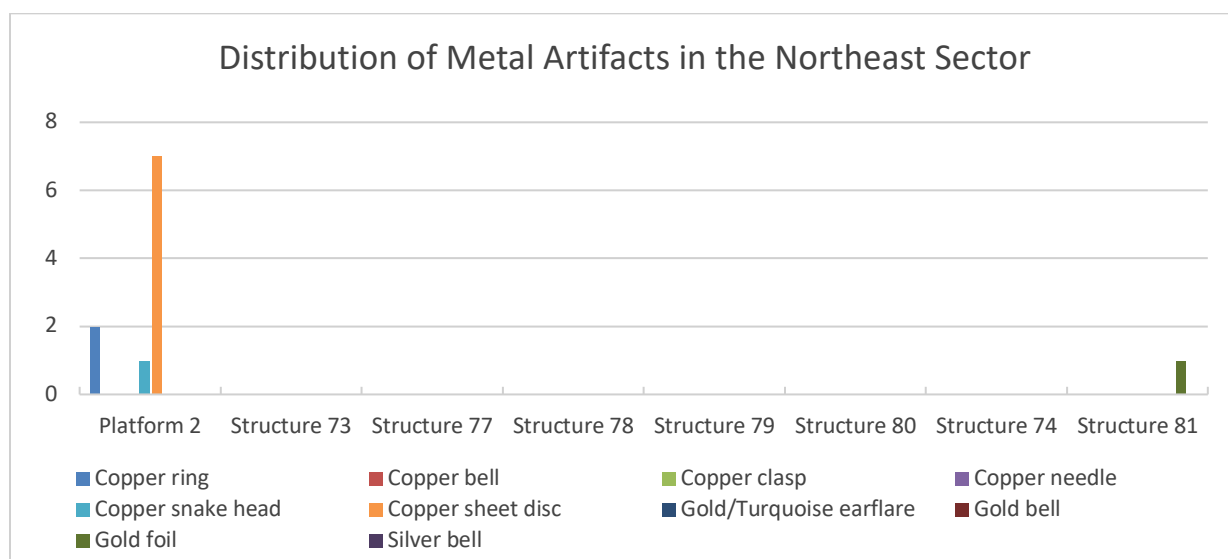


Figure 26. Distribution of metal artifacts associated with selected buildings in the Northeast Sector at Santa Rita Corozal.

Sample Group 1: *Platform 2 Group*

A total of 10 metal artifacts, representing 91% of the Northeast Sector assemblage, was recovered from excavations within Platform 2. Two copper rings were recovered from within a burial (P6E-7) of a single female adult. A plain copper band was placed on the left hand of the individual while a copper scroll designed ring was on the right hand (see D. Chase 1982:325-326). The two copper rings were found in association with a female interment recovered from the area immediately south of Platform 2 that also contained the burials of six individuals, thought to be either women or sub-adults (see D. Chase 1986: Fig. 10.3 for a plan of this area). These two rings represent 100% of copper rings in this study and 20% of the Platform 2 metal artifact assemblage. The other 80% of this assemblage comprises several objects fashioned from thin copper sheet fragments. One is in the form of a snake head while the other 7 fragments are plain, circular or disc-shaped objects. The snake head shaped object was recovered from excavations within the humus layer above Platform 2 while the disc-shaped fragments were recovered from excavations of the fill material within Platform 2.

Sample Group 2: *Structures 74 and 81*

Only Structure 81 in Sample Group 2 had any metal artifacts within its artifact assemblage. A single fragment, representing 9% of the Northeast Sector metal assemblage, was recovered from within an effigy vessel placed inside a cache. It is described as an extremely thin, flat piece of gold foil, likely *tumbaga*, bent nearly in half, formed a shape with at least two rounded elements (D. Chase 1982:295). The fragment is believed to have been made of gold as it did not appear to be green nor discolored as other copper items recovered. This fragment was

found inside the ceramic effigy cache vessel placed in Structure 81 in pit directly in front of the altar in the shrine room (Chase and Chase 1988:19).

South Intermediate Sector

The 14 metal artifacts recovered in the South Intermediate Sector represent 56% of all the metals included in this study. Metal artifacts were recovered from three of the nine buildings in the South Intermediate Sector (see Figure 27). The assemblage includes 100% of the copper bells, clasps, and needles as well as 100% of gold and turquoise ear flares, gold bells, and silver bells included within this study. The metal objects were recovered in association with three buildings from three different groups in the South Intermediate Sector. These are Structure 189 (Sample Group 4), Structure 216 (Sample Group 5), and Structure 218 (Sample Group 6).

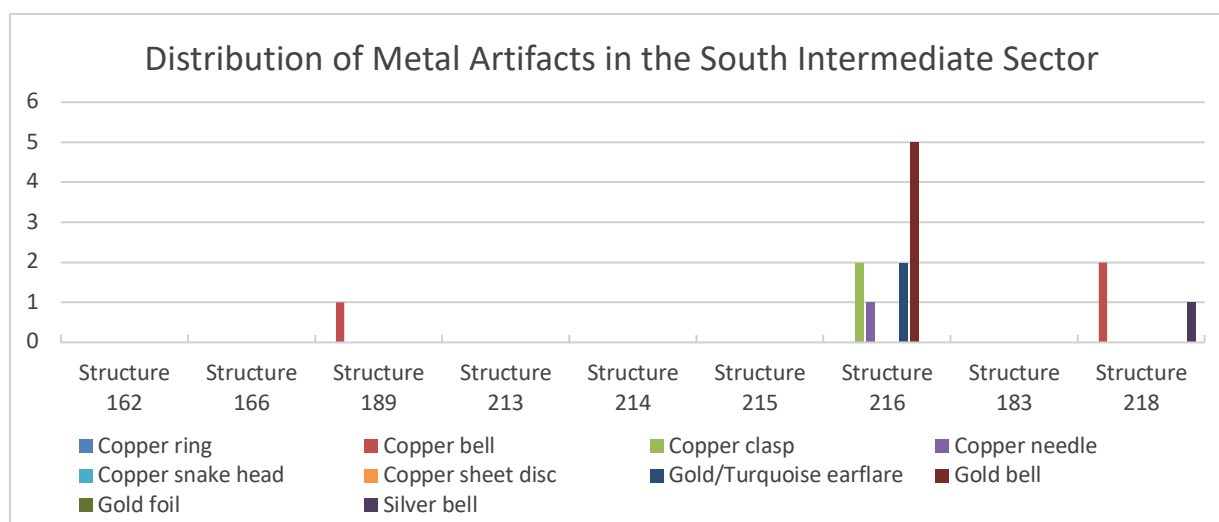


Figure 27. Distribution of the metal artifacts associated with selected buildings in the South Intermediate Sector at Santa Rita Corozal.

Sample Group 4: *Structure 189*

Structure 189 is an isolated structure located in the South Intermediate sector. A single copper bell, representing approximately 33% of all copper bells in this study and 7% of the South Intermediate Sector metal assemblage, was recovered in association with Structure 189. This bell was excavated from within debris material associated with the structure (Chase and Chase 1988:61).

Sample Group 5: *Structures 213, 214, 215, and 216*

Structure 216, the western building in Sample Group 5, is the location associated with the largest number of metal artifacts in this study. A total of 10 metal artifacts, representing approximately 72% of the South Intermediate Sector metal artifact assemblage, was recovered from this location. The Structure 216 assemblage includes 2 copper clasps, 1 copper needle, 5 gold bells, and 2 gold and turquoise ear flares, to which the bells were attached (see Chase and Chase 1988: Figure 30). All these items were found included in a single burial (SDP33D-1) recovered in the central part of the building (Chase and Chase 1988:56). Two adult male individuals were interred within this single burial. The southern individual was perforated with the copper needle and a series of stingray spines. A copper clasp is also associated with this individual. The second individual was positioned further north and is believed to be the primary individual of the two. This individual was buried with a host of artifacts including a pair of gold and turquoise ear flares set on obsidian backs and with five gold bells. A single copper clasp was also associated with this individual. It is suggested that that the clasps functioned in securing a wrap or bundle placed around each individual (Chase and Chase 1988:56).

Sample Group 6: *Structures 183 and 218*

Representing 21% of the South Intermediate Sector metal assemblage are two copper bells and one silver bell recovered in association with Structure 218. The bells accompanied a single female who was interred in the front section of Structure 218 (Chase and Chase 1988:60). The two copper bells represent approximately 67% of all copper bells in this study while the single silver bell is the only representative of its type in this study.

A note of interest is that a single iron horse spur along with a single majolica ceramic fragment were recovered on the ground surface in the vicinity of Structure 218 (Chase and Chase 1988:60). It is suggested that these particular artifacts provide evidence indicating that the use of this area may have extended into the Contact Period.

6.6 Jadeite Artifacts

This green colored stone is considered a valuable item to the ancient Maya since it is prominently featured in Maya artwork and carved pieces were often included within burials and cache deposits (Taube 2005). The presence of this item within an assemblage is also a testament to the wide and far-reaching abilities of the ancient Maya trade network. During the Postclassic period, the trade network was thought to have flourished with the growth and development of the mid-level merchant class within the society (see Sabloff and Rathje 1975). It comes as no surprise that inhabitants of Santa Rita Corozal, a Late Postclassic Maya capital city, would have had access to this precious stone given their fortuitous position along the trade route.

A review of the CPP catalog cards, D. Chase's 1982 Phd Dissertation, and the Santa Rita Excavations Monograph (Chase and Chase 1988) indicate that the jadeite assemblage under investigation in this study is limited to 17 items recovered in association with seven of the

seventeen selected Santa Rita Corozal Late Postclassic buildings included within this study. The jadeite assemblage includes various forms, such as beads, a celt, and a mosaic inlay fragment along with three other undetermined jadeite fragments. Below, Table 9 provides the inventory of the full jadeite assemblage associated with the buildings selected for inclusion in this research.

Table 9. Jadeite artifact inventory recovered from selected buildings at Santa Rita Corozal included in this study.

Jadeite Artifact Inventory	
<i>Total Jadeite Artifacts</i>	17
<i>Bead</i>	12
<i>Celt</i>	1
<i>Mosaic Inlay</i>	1
<i>Miscellaneous Fragment</i>	3

Jadeite Artifact Forms

Beads

There are total of 12 beads included within this assemblage. All 12 jadeite beads are recovered from within special deposit features (burials: SDP6E-4, SDP26B-2, SDP33D-1; caches: SDP8C-2, SDP26B-4, SDP26B-5) (D. Chase 1982:294,329; Chase and Chase 1988:51, 52, 56). The beads vary in shapes with the most common being oval and round. There are three of each of these shapes within the assemblage. Additionally, there are two cylindrical-shaped, one triangular, one rectangular and two square-shaped beads. As described on the CPP catalog cards, the beads in this assemblage are perforated with a single, central drill hole from where it was hung or attached to some backing material. The beads size ranges from 1.88 – 0.50 cm in

length and 1.80 – 0.49 cm in width. The thickness of the beads ranges from 1.05 cm to approximately 0.30 cm.

Mosaic Inlay Fragment

There is a single mosaic inlay fragment in the assemblage (D. Chase 1982:19; Chase and Chase 1988:19). The description on the CPP catalog card states that the inlay fragment is pentagonal-shaped and measures 1.10 cm in length and 0.81 cm in width. The mosaic fragment is not only very small but also very thin measuring only 0.11 cm in thickness.

Celt

A single jadeite celt is the only of its type included within this assemblage recovered in association with Structure 166 (Chase and Chase 1988:43). The CPP catalog card described the rectangular shaped celt as being 1.35 cm thick and broken along the edge in one corner. According to Sidrys (1983:302), green stone celts such as this specimen are regarded as wood working implements. However, given that this celt was part of a special deposit feature it is unlikely that it was utilized for any utilitarian purpose.

Miscellaneous Fragments

The final three artifacts in the jadeite assemblage are miscellaneous fragments which vary in sizes and shapes. The two irregular-shaped fragments were listed on the associated CPP catalog card as being recovered from fill material within Structures 74 and 162. These fragments range in sizes between 2.40 cm – 0.60 cm in length and 1.5 cm – 0.60 cm in width and being 0.50 cm – 0.20 cm in thickness. The larger of these irregular-shaped fragments is also noted as

having an unpolished surface. The third fragment is triangular-shaped and was recovered in association with a cache (SDP26B-3) (Chase and Chase 1988:51). This fragment is recorded on its associated CPP catalog card as measuring 2.08 cm (*l*) by 1.65 cm (*w*) and 0.80 cm (*th*).

6.6.1 Distribution of Jadeite Artifacts

Northeast Sector

The Northeast Sector is characterized by very few jadeite artifacts. As shown in Figure 30, there was a total of four jadeite artifacts in the Northeast Sector accounting for approximately 24% of the total jadeite assemblage. Both sample groups in the Northeast Sector are noted as having the presence of any jadeite artifacts. Jadeite was recovered from one location in Sample Group 1 and from two different locations in Sample Group 2. As Figure 28 illustrates, the total Northeast Sector assemblage consists of two beads (50%), a mosaic inlay fragment (25%), and a single miscellaneous fragment (25%).

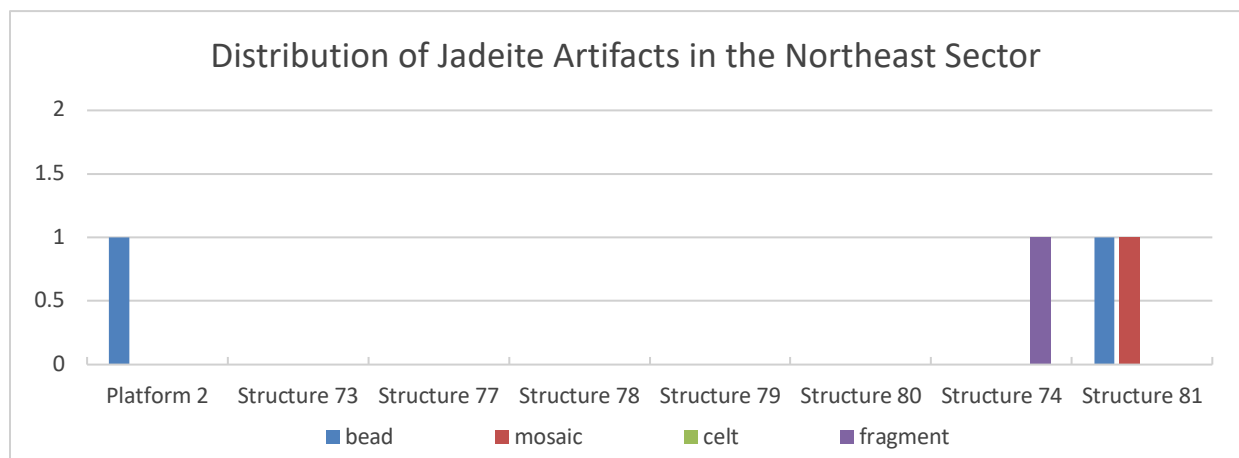


Figure 28. Distribution of jadeite artifacts recovered in association with selected buildings in the Northeast Sector at Santa Rita Corozal.

Sample Group 1: *Platform 2 Group*

The single jadeite bead associated with Sample Group 1 (Figure 28) was recovered from an area to the south of Platform 2 where multiple burials of females and subadults were located (Chase and Chase 1988:26). The single jadeite bead was recovered in association with the burial (SDP6E-4) of a subadult (see D. Chase 1982:329; 1986: Figure 10.3). This bead represents 100% of the Sample Group 1 jadeite assemblage and 25% of the Northeast Sector jadeite assemblage. It also represents just under 6% of the overall jadeite assemblage and 8% of all jadeite beads included in this study.

Sample Group 2: *Structures 74 and 81*

There is a single jadeite artifact recovered in fill material in association with excavations at Structure 74 (Figure 28). The CPP catalog card describes the jadeite fragment as unpolished and irregular-shaped measuring 2.40 cm x 1.50cm was recovered from excavations in the humus layer above Structure 74. This fragment represents 100% of jadeite fragments recovered in the Northeast Sector and approximately 25% of the overall Northeast Sector jadeite assemblage. The fragment also represents just under 6% of the overall jadeite included within this study.

The other two jadeite artifacts in Sample Group 2 were recovered from excavations in association with Structure 81 (Figure 28) and represent 50% of the overall Northeast Sector assemblage. The assemblage includes a complete, cylindrical jadeite bead and a single pentagonal-shaped mosaic inlay fragment. The associated CPP catalog card indicates that the bead measures approximately 0.64 cm by 0.5 cm with a central drilled hole. It represents 50% of jadeite beads in the Northeast Sector and approximately 8% of total beads included in this study. According to the catalog card, the tiny mosaic inlay fragment measures approximately 1.10 cm x

0.81 cm. It represents 100% of the inlay fragments both in the Northeast Sector and in the total jadeite assemblage. Together the two represent just over 12% of the total jadeite in this study. Both bead and mosaic inlay were recovered in association with a cache (SDP8C-2) excavated from within a pit in front of the altar in Structure 81. The bead and the mosaic inlay were among several other small artifacts recovered from inside the modeled effigy figurine vessel placed in the center of this cache (D. Chase 1982:294-295; Chase and Chase 1988:19).

South Intermediate Sector

Representing just over 76% of the total jadeite in this study, the South Intermediate Sector assemblage consists of 13 jadeite artifacts (see Figure 29): 10 beads, a single celt, and two miscellaneous fragments. Nine of these objects were recovered from within special deposits and 1 fragment from within construction fill. Jadeite was recovered in association with four different buildings representing only two of the groups within the South Intermediate, these being Sample Groups 3 and 5. The total 10 beads represent 83% of the overall jadeite beads in this study. The celt is the only example of this artifact type and thus represent 100% of jadeite celts within this study. The two miscellaneous fragments represent 67% of jadeite fragments in this study.

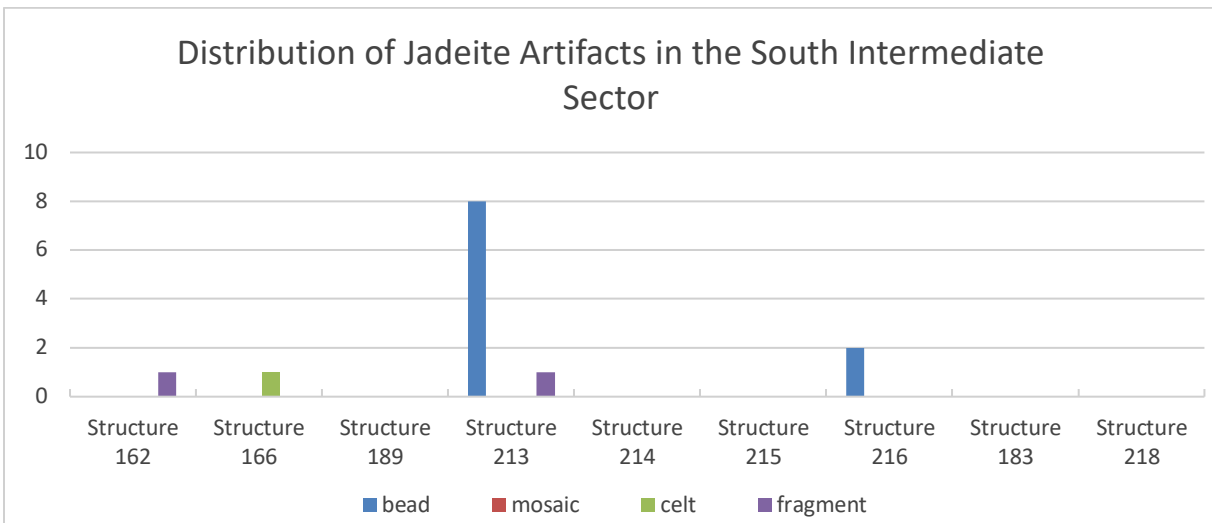


Figure 29. Distribution of jadeite artifacts recovered in association with selected buildings in the South Intermediate Sector at Santa Rita Corozal.

Sample Group 3: *Structure 162 and 166*

Both buildings in Sample Group 3 each contained a single jadeite artifact (see Figure 29). These two artifacts represent approximately 15% of the South Intermediate Sector jadeite assemblage and approximately 12% of the overall jadeite in this study. An irregular-shaped jadeite fragment was recovered in association with Structure 162. The CPP catalog card describes the tiny fragment as measuring approximately 0.60 cm in length by 0.60 cm in width and just 0.20 cm in thickness. This fragment was excavated from within the fill material at Structure 162.

A single rectangular-shaped jadeite celt recovered in association with a burial is the extent of the jadeite assemblage from Structure 166. The associated catalog card indicates that the celt is broken in one of the corners and the only measurement associated with this celt is its thickness, which is recorded at 1.35 cm. Chase and Chase (1988:43) note that the celt was recovered in association with a burial (SDP23B-1) comprising four individuals placed beneath

the rear wall of Structure 166. Several chert tools were recovered in the burial along with the celt.

Sample Group 5: *Structures 213, 214, 215, and 216*

The Sample Group 5 jadeite assemblage represents approximately 85% of the South Intermediate Sector jadeite assemblage and just under 65% of the overall jadeite in this study. The 11 jadeite artifacts recovered in association with Sample Group 5 (Figure 29) are associated with only two buildings in the group, namely Structures 213 and 216.

A total of 9 jadeite artifacts (82% of the Sample Group 5 total) are associated with Structure 213. These include 8 beads and 1 fragment. The eight beads vary in shapes and sizes and includes one cylindrical-shaped, two round, one triangular-shaped, two squared, one rectangular, and two oval-shaped. Despite their variation in shapes, the beads all have a center drilled hole from which they could be strung. All eight beads in this assemblage are associated with special deposits placed in Structure 213. The associated CPP catalog card indicates that the beads range in size between 0.55 cm – 1.88 cm in length, 0.70 cm – 1.80 cm in width, and 0.35 cm – 1.05 cm in thickness. A set of five beads were recovered from within a burial (SDP26B-2) of five individuals placed within the stoop of the building. It is suggested that perhaps a bead was placed for each individual (Chase and Chase 1988:51). A single rectangular bead was recovered from with a lip-to-lip cache (SDP26B-4) which was placed in the front section of the building. The jadeite bead was accompanied by a single Spondylus bead and the remains of turtles, thought to have been alive at the time of placement, inside an urn covered by a bowl (Chase and Chase 1988:52). The last two beads in this assemblage were recovered from another cache (SDP26B-5) which was placed into the plaza fill to the front of Structure 213. This cache

consisted of an effigy turtle vessel into which the two jadeite beads were placed (Chase and Chase 1988:52). The recovery of the triangular jadeite fragment was associated with a third cache (SDP26B-3) placed into the core of Structure 213. Chase and Chase (1988:48-51) report that this deposit contained a total of 25 figurines – a mixture of zoomorphic and anthropomorphic shapes; 16 of these figurines were placed surrounding a lidded urn which contained the remaining 9 figurines. The singular jadeite fragment was found beneath a seated figurine placed inside the urn. The catalog card describes the fragment as measuring 2.08 cm in length by 1.65 cm in width and is 0.80 cm thick.

The remaining two jadeite artifacts in this assemblage were recovered in association with Structure 216. These two beads represent 18% of the Sample Group 5 jadeite assemblage and approximately 12% of the overall jadeite in this study. Both beads were recovered in association with a single burial (SDP33D-1). The burial was placed beneath a central shrine in Structure 216. The burial comprised two adult male individuals along with a host of mortuary artifacts (Chase and Chase 1988:56). The two jadeite beads formed the central elements of an otherwise *Spondylus* bead necklace (see Chase and Chase 1988: Figure 30) which was found placed around the neck of the northern individual. The two jadeite beads vary in shape and size with one being round and the other being oval in shape. The associated CPP catalog card indicates that the round bead is 0.60 cm thick and is approximately 1.50 cm in diameter while the oval bead measures 0.50 cm in length, 0.70 cm in width, and is roughly 0.30 cm thick. Both beads are described as being centrally perforated.

6.7 Coral Artifacts

The excavations at Santa Rita demonstrated that the Postclassic Maya community was utilizing corals, the limestone material sourced from the nearby reefs. The entire coastline of Belize is protected by limestone coral reef which provides protection for the coastline environment from the threat of natural disasters such as hurricanes and from erosion. The ancient Maya had great regard for the sea as it played a prominent role in their worldview (Chase and Chase 1989:22; Simmons et al. 2018:329); it was the place where the sun renewed itself each day and served as an important source of dietary necessities such as salt, fish and other seafood (McKillop 2015:97; Simmons et al. 2018:329). The recovery of remains of a wooden canoe paddle from southern Belize (McKillop 2006) provides the evidence indicating that the ancient Maya were indeed venturing out into the ocean. McKinnon (1990:75) argues that the presence of numerous Late Postclassic artifacts at several offshore islands confirms that the Maya were traversing these sea routes primarily for trading. This also serves as evidence that the ancient Maya, including the inhabitants of Late Postclassic Santa Rita Corozal were venturing out to sea harvesting marine resources including corals. It could also be possible, however, that the presence of coral at Santa Rita Corozal indicates that inhabitants were actively participating in the coastal trade network. Simmons et al. (2018:331) suggest that coral fragments were used in building construction particularly at coastal sites and referred to this material as ‘reefstone.’ The assemblage within this study is likely not the ‘reefstone’ referred to by Simmons and his colleagues (2018), as a review of the CPP catalog cards indicate that the Santa Rita assemblage are rather smaller pieces of actual coral. Alternatively, it is hypothesized that this material may have served as a limestone source, for use in stucco production or in limestone tool and craft production activities.

Based on a review of the CPP catalog cards, the coral fragments included in this study were all recovered from within construction fill or in trash deposits associated with the selected buildings included in this study. An assemblage comprising only 68 miscellaneous fragments form the coral assemblage included in this analysis (Table 10).

Table 10. Coral artifact assemblage recovered from selected buildings included within this study at Santa Rita Corozal.

Coral Artifact Inventory	
Total Coral Artifacts	68
<i>Miscellaneous Fragment</i>	68

Coral Miscellaneous Fragments

A review of the descriptions provided by the CPP catalog cards indicate that all 68 pieces of coral, recovered in association with excavations at selected buildings from Santa Rita Corozal, have been classified as miscellaneous fragments as there are no indications of any intentional modifications. The catalog cards further indicate that the fragments are irregular shaped without any additional features to provide further classification between the fragments. The sizes range from 13.60 cm to 0.80 cm in length and 11.20 cm to 1.17 cm in width. The weights of these coral fragments were also recorded and ranged between 610 g to 0.80 g.

6.7.1 Distribution of Coral Fragments

Northeast Sector

Based on the very limited numbers recovered at this locale, it appears that the Northeast Sector buildings were not utilizing coral as much as in the South Intermediate Sector. Of the

total assemblage (n=68), only 5 fragments were recovered from this location (see Figure 30).

Sample Group 1 contained 4 fragments combined from two locations (Structure 73 and Platform 2) while a single fragment was recovered in association with one location (Structure 81) from Sample Group 2. The 5 fragments represent just over 7% of the site total.

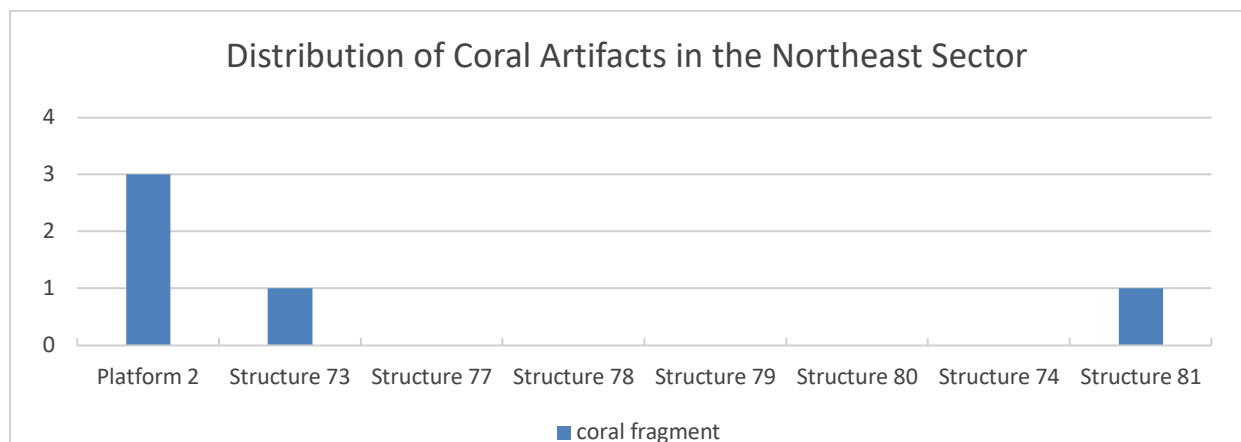


Figure 30. Distribution of coral fragments recovered in association with selected buildings in the Northeast Sector at Santa Rita Corozal.

Sample Group 1: *Platform 2 Group*

An assessment of the associated CPP catalog cards indicate that a total of 4 coral fragments were recovered in association with Sample Group 1 (Figure 30). Three pieces were recovered from excavations associated with Platform 2 and a single fragment was recovered in association with Structure 73. Combined, these four fragments represent 80% of the total coral artifacts in the Northeast Sector.

Sample Group 2: Structures 74 and 81

The CPP catalog cards indicate that a single coral fragment was recovered in association with the excavations conducted at Structure 81 (Figure 30). This single fragment represents 20% of the Northeast Sector coral assemblage.

South Intermediate Sector

Based on an evaluation of the CPP catalog cards associated with the selected buildings in this study, the highest percentage (93%) of coral fragments were recovered in association with the South Intermediate Sector at Santa Rita Corozal. The South Intermediate Sector assemblage consists of a total of 63 fragments (see Figure 31). Every building in the South Intermediate Sector had at least one coral fragment within its assemblage. The assemblage recovered from the Sample Group 5 buildings represents approximately 60% of the total coral in the South Intermediate Sector. The Sample Group 3 and 4 totals combine to represent the approximately 35% of the total while Sample Group 6 contains the least with just under 5% of the total corals.

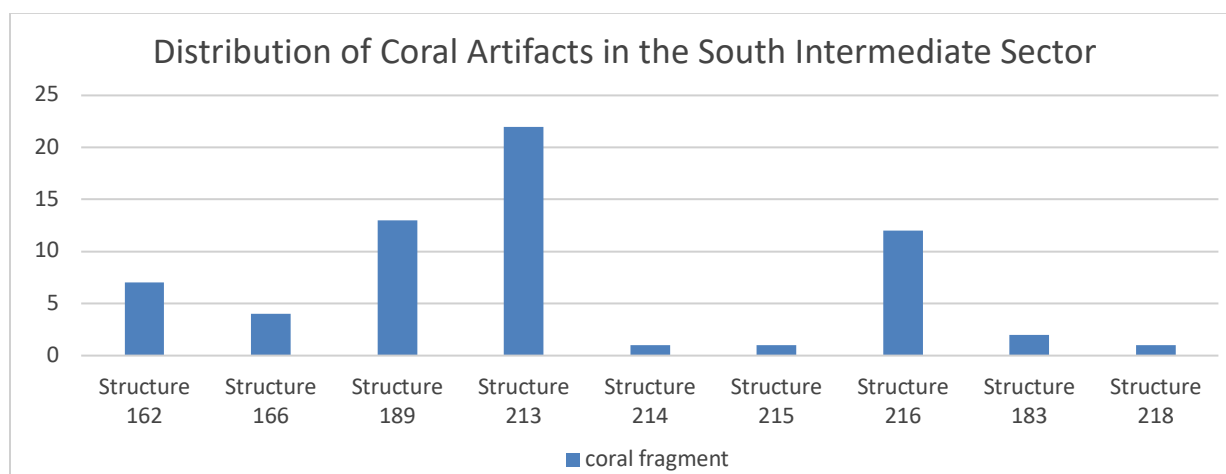


Figure 31. Distribution of coral fragments recovered in association with selected buildings in the South Intermediate Sector at Santa Rita Corozal.

Sample Group 3: *Structures 162 and 166*

The CPP catalog cards record a total of 11 coral fragments found in association with the Sample Group 3 buildings (Figure 30). Seven of these were recovered from Structure 162 and 4 from Structure 166. Together these 11 fragments represent almost 18% of the total coral in the South Intermediate Sector and approximately 16% of the site total.

Sample Group 4: *Structure 189*

Representing roughly 20% of the South Intermediate Sector and about 19% of the total in this study, the catalog cards indicate a total of 13 coral fragments were recovered from the excavations conducted at Structure 189 (Figure 30).

Sample Group 5: *Structures 213, 214, 215, and 216*

A review of the catalog cards for the buildings in Sample Group 5 indicate that a total of 36 coral fragments, representing almost 60% of the South Intermediate Sector total and 53% of the site total, was recovered from excavations conducted in association with Sample Group 5 buildings (Figure 30). Structure 213 contained 22 pieces (32% of the group), Structure 216 had 12 pieces (18%) while Structures 214 and 215 each contained a single coral fragment (approximately 2% each).

Sample Group 6: *Structures 183 and 218*

Sample Group 6 contained the smallest portion of the coral fragments with only 3 pieces recovered here (Figure 30). The catalog cards record two fragments were recovered from

excavations conducted in association with Structure 183 and a single fragment recovered from Structure 218. Together these three fragments represent approximately 5% of the South Intermediate Sector coral and just over 4% of the site total.

6.8 Stucco Artifacts

Ancient Maya structures were at one point elaborately adorned with decorations made of stucco which is a lime-based plaster. Sharer and Traxler (2006:263) states that the use of stucco to adorn surfaces of the ancient Maya structures date back to as early as the Preclassic period (2000BC – AD250) at sites such as Lamanai and Cerro Maya in Belize. This practice continued through to the Classic period (AD 250-900) where the decorations became even more sophisticated. Seligson et al. (2019:200) states that the Maya Lowlands are located in predominantly karst environment composed of limestone which provided the Maya with relatively easy access to the raw material. The heating and then subsequent addition of water to the limestone creates burnt lime which can then be used for any number of applications including for architectural, dietary, agricultural and even sanitary purposes (Seligson et al. 2019:220). The use of burnt lime in architecture to enhance the structural value of buildings allowed for the expansion and explosion of construction activity in the Classic Period (Coe and Houston 2015:81). Stucco applications were often painted and modeled into intricate patterns on the surface of buildings. After being covered over by forest and soil for an extended period as buildings were abandoned, however, the deterioration of the stucco is inevitable (Demas 1994:1). Demas (1994:1) explains that once excavated and exposed, the limestone becomes extremely vulnerable especially in humid tropical environments, where constant exposure of sun and rain,

cause the stucco decorations to become particularly affected as they become very dry and crumble over time.

A review of the CPP catalog card was conducted to document the recovery of stucco from excavations at the selected buildings within this study. This data was used to develop the inventory and analysis of the assemblage (Table 11) from those selected buildings at Santa Rita Corozal included within this study.

Table 11. Inventory of stucco artifacts recovered from selected buildings included within this study at Santa Rita Corozal.

Stucco Artifact Inventory	
<i>Total Stucco</i>	<i>150</i>
Painted	
<i>Modeled fragment</i>	21
<i>Fragment</i>	61
Unpainted	
<i>Modeled fragment</i>	50
<i>Fragment</i>	18

Stucco Fragments

As noted in Table 11, the stucco fragments in this study are separated based on the presence or absence of modeled designs on the surfaces of the fragments. Based on the data from the catalog cards, there are almost equal amounts of modeled (n=71; 47%) and non-modeled stucco fragments (n=79; 53%). The stucco fragments are also divided based on the presence or absence of paint on the surfaces. The data reveals that there are slightly more painted (n=82; 55%) than non-painted (n=68; 45%) fragments within the assemblage. In terms of modeled designs, there was no additional information provided on the catalog data cards beyond recording the presence of a modeled design on the surface of the fragments. There were

a few catalog cards that did indicate that the pigment observed on some of the surface(s) of the fragments was of a red color.

6.8.1 Distribution of Stucco Fragments

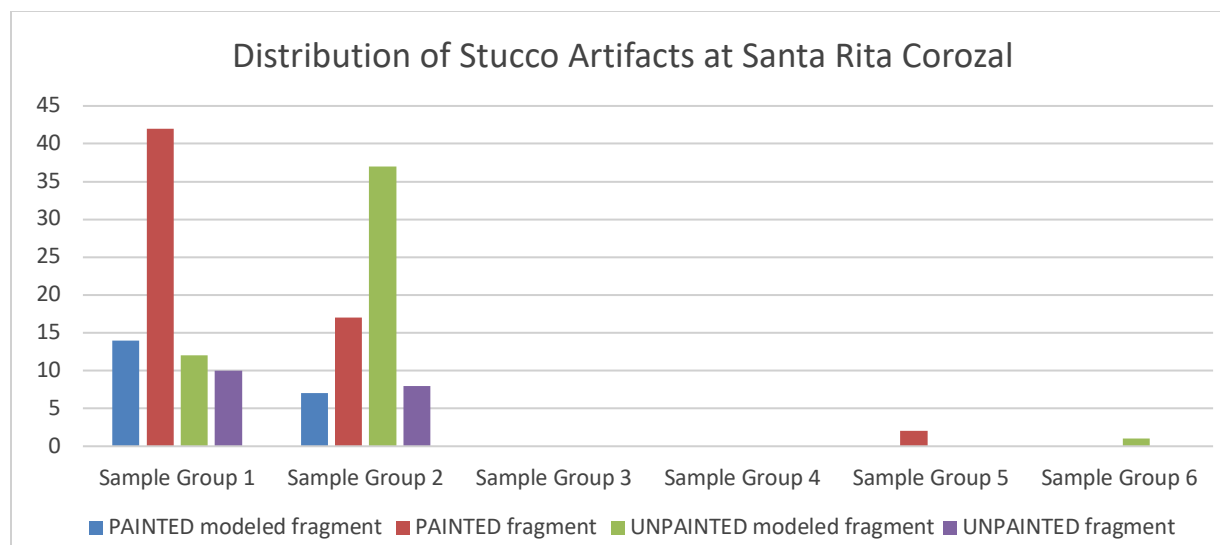


Figure 32. Distribution of stucco fragments recovered in association with selected buildings at Santa Rita Corozal.

As illustrated in Figure 32, the distribution of stucco fragments was almost exclusively restricted to the buildings in the Northeast Sector. Stucco was recovered in association with only two groups in the South Intermediate Sector and in only very small quantities.

Northeast Sector

Given the numbers of stucco fragments associated with the Northeast Sector, it is obvious that the buildings in this sector of the community were decorated (see Figure 33). The presence of modeled as well as painted stucco remains are evidence that at least three buildings in the Northeast Sector were elaborately decorated during their occupation in the Late Postclassic

period. Considering the differences in the numbers of painted versus unpainted fragments recovered from Sample Groups 1 and 2, it seems very likely that the buildings at both groups were decorated with modeled stucco, but the Sample Group 1 buildings (Structures 77 and 80) had more painted surfaces than at Sample Group 2 (Structure 81).

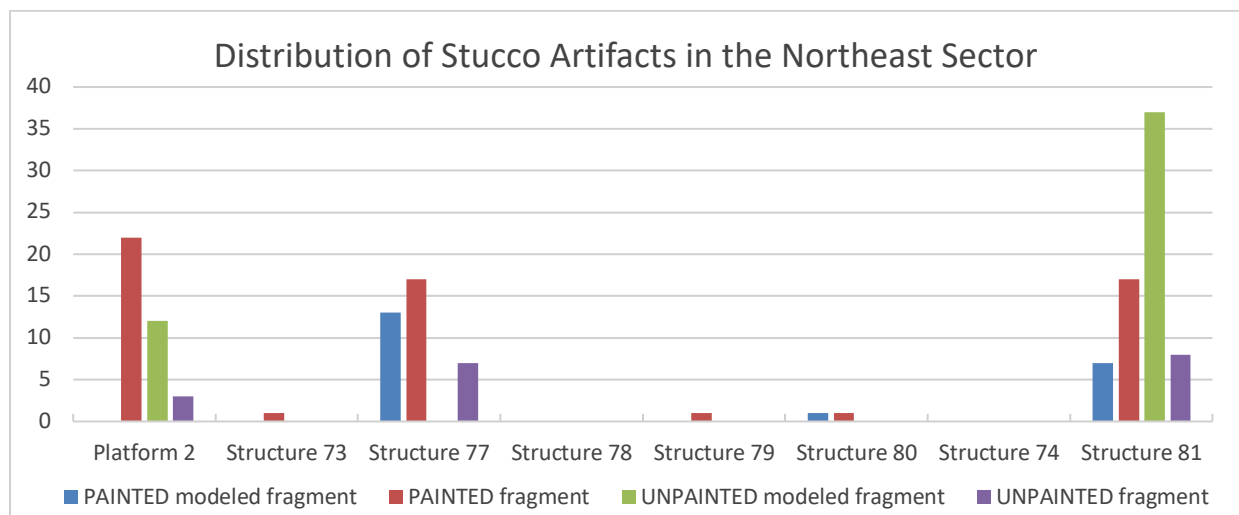


Figure 33. Distribution of stucco fragments recovered in association with selected buildings in the Northeast Sector at Santa Rita Corozal.

Sample Group 1: *Platform 2 Group*

Approximately 53% (n=78) of all stucco was recovered at Sample Group 1 (Figure 33). Stucco fragments were found in association with every building in Sample Group 1 with the exception of Structure 78. In terms of Structure 78, this building was never fully excavated due to time restraints faced by the CCP therefore it is uncertain whether any stucco fragments would have been recovered here.

Platform 2 itself is where a concentration of almost 40% (n=22) of the painted fragments in Sample Group 1 was located. Approximately 40% (n=15) of unpainted fragments were also

located here. Of this amount, at least 80% (n=12) was unpainted modeled fragments. It would therefore appear that the Platform was largely decorated with painted, unmodeled stucco along with some unpainted, modeled stucco.

Structure 77 also contained a concentration of stucco fragments. Almost opposite of Platform 2, its assemblage primarily consists of approximately 90% (n=30) of painted fragments, both modeled (n=13) and non-modeled (n=17). Additionally, there are 7 unpainted fragments in this assemblage. Based on these amounts, it is probable that Structure 77 was covered with painted stucco involving modeled decorative elements. The presence of painted stucco in combination with a complex artifactual assemblage, including several ritual related items such as a stone turtle and a large *tinajera*, suggests that Structure 77 may have served a ceremonial function (D. Chase 1982:382).

The three remaining buildings in this group each had at least one painted stucco fragment. A single painted stucco fragment was recovered from both Structures 73 and 79 while one painted modeled fragment and one painted non-modeled fragment was recovered from Structure 80.

Sample Group 2: *Structures 74 and 81*

There were no stucco fragments recovered from excavations at the Structure 74 loci (Figure 33). This is in direct contrast to the only other building in Sample Group 2, Structure 81, where almost 50% of the stucco assemblage in this study was recovered.

A total of 69 fragments, representing 47% of all stucco in this study, was recovered in association with Structure 81 (Figure 33). There were 24 (35%) painted fragments, including both modeled and non-modeled and 45 (65%) unpainted pieces, again including both modeled

and non-modeled fragments. Because of the presence of many more unpainted fragments, and in comparison with the buildings in Sample Group 1, it is probable that Structure 81 was an elaborate stucco decorated structure; including with modeled elements. However, it was likely not painted and remained the natural color of the stucco which is typically white to cream in color.

South Intermediate Sector

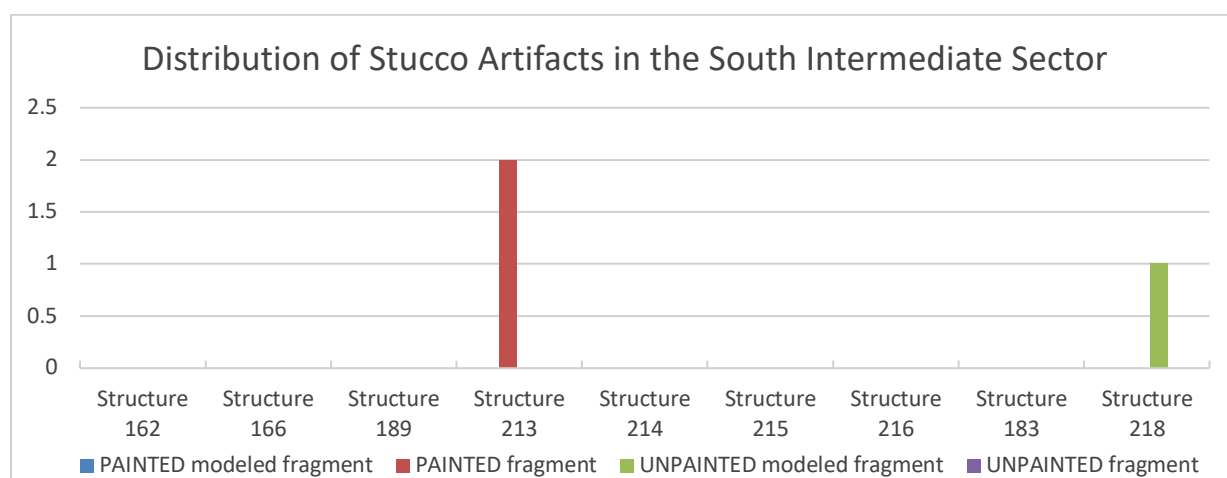


Figure 34. Distribution of stucco artifacts recovered from selected buildings in the South Intermediate Sector at Santa Rita Corozal.

Excavations in the South Intermediate Sector recovered a total of 3 stucco fragments recovered from only two buildings (Figure 34). This represents 2% of all stucco included in this study. Interestingly, painted stucco was recovered from one location whereas unpainted stucco was associated with the other location. Nonetheless, the limited stucco assemblages associated with these buildings is sufficient to confirm that the buildings in the South Intermediate Sector were not elaborately decorated.

Sample Group 5: *Structures 213, 214, 215, and 216*

This limited assemblage consists of only 2 painted stucco fragments (Figure 34). They were both recovered at Structure 213. They represent 66% of the South Intermediate Sector total and just over 1% of the overall stucco.

Sample Group 6: *Structures 183 and 218*

A single unpainted modeled fragment is the extent of the Structure 218 stucco assemblage (Figure 34). This fragment represents approximately 33% of the stucco in the South Intermediate Sector and less than 1% of the stucco included within this study.

6.9 Bone Artifacts

Research has shown that the ancient Maya revered their dead. In so doing, they kept them close by burying them within their houses or within special buildings where they repeatedly made offerings to them. It is no surprise, therefore, that human remains would be part of an assemblage recovered during archaeological excavations. At Santa Rita Corozal, this practice is no different. Discussions by D. Chase (1982, 1986) and Chase and Chase (1988, 2004, 2008) provide the details of the numerous interments recovered in association with the various buildings at the site and particularly with those that are part of this study.

In addition to the human remains, the skeletal remains of a variety of animals are encountered as they form part of the funerary offerings in burials or they are the remains of animals which provided food for the inhabitants of the Late Postclassic community. The Maya would have access to land mammals in the surrounding jungle and the presence of lithic points

suggests that they would have the ability to hunt for these animals. Morton (1988:118-122) has provided some analysis for the faunal remains at Santa Rita. Her analysis, however, is restricted to the remains from only three buildings included within this study, these are Structures 74, 183 and 218. This current analysis combines the assemblages of these three buildings along with the assemblages recovered from the additional 14 structures (Structures 73, 77, 78, 79, 80, 81, 162, 166, 189, 213, 214, 215, 216, and Platform 2) included within this study. Morton (1988:120) observes that the faunal remains largely consists of mammals, reptiles, birds, and fish. The overall faunal assemblage also includes several worked pieces such as bone beads and a spindle whorl, a few of which have been recovered in association with special deposits, along with a few miscellaneous worked bone fragments.

Chase, Chase, and Teeter (2004:14) advise that some archaeological settings, such as the tropical environment, are not conducive to the preservation of fragile faunal remains. The fluctuations in the tropical humid environment has detrimental effects on both human and faunal remains making the recovery of well-preserved bone a very difficult task. Skeletal material considered to be in good condition is often limited to those recovered in association with architectural features such as tombs or inside cache vessels placed within stone buildings (Chase, Chase, and Teeter 2004:14). Given the issue that this Late Postclassic period Santa Rita Cosozal community consisted largely of low buildings making them virtually invisible on the ground surface (D. Chase 1990:199), it is no surprise that a large portion has been classified as indeterminate as it is almost impossible to clearly identify species due to the poorly preserved condition of the bone assemblage. An inventory of all the faunal remains as well as a separate list of human remains from the seventeen buildings selected for this study at Santa Rita Corozal is presented in Table 12.

Table 12. Inventory of faunal and human remains recovered in association with selected buildings included within this study at Santa Rita Corozal.

Bone Artifact Inventory		
Faunal Remains		1994
	<i>Beak</i>	6
	<i>Claw</i>	1
	<i>Deer Antler</i>	9
	<i>Fish Vertebra</i>	2
	<i>Long Bone</i>	37
	<i>Mandible</i>	2
	<i>Phalange</i>	1
	<i>Rat fragment</i>	1
	<i>Sea Urchin Spine</i>	1
	<i>Stingray Spine</i>	22
	<i>Toe</i>	1
	<i>Tooth</i>	40
	<i>Turtle Fragment</i>	53
	<i>Vertebra</i>	2
	<i>Miscellaneous Fragment</i>	1804
Worked Items		
	<i>Bead</i>	10
	<i>Spindle Whorl</i>	1
	<i>Burnt Fragment</i>	1
Human Remains		
	<i>Number of Burials</i>	25
	<i>Number of Individuals</i>	50
Miscellaneous Human Remains		
	<i>Teeth</i>	19
	<i>Skull (fragment)</i>	1
	<i>Miscellaneous Fragment</i>	1

Human Remains

Associated with the seventeen buildings selected for inclusion within this study, the Corozal Postclassic Project recovered and identified a total of 25 Late Postclassic dated burials, accounting for a total of fifty (50) individuals, that will be discussed in more detail further in this section. As previously mentioned, the tropical environment from which these remains were

recovered did not provide the best conditions for the preservation of bones. As a result of the poor preservation, the quality of the bone recovered did not allow for excavators to easily quantify. As such, referencing the CPP catalog cards for purposes of this current study proved rather difficult as the remains were often quantified as simply “numerous” rather than actual numbers. Due to their fragile and fragmented conditions, the descriptions provided on the CPP catalog cards for the human remains were limited to teeth, skull, and vertebra and most of the assemblage were classified as either skeletal or fragments and set aside for future analysis (e.g., Tetlow 2010). In order to provide more details on the burials associated with the selected buildings in this study, references have been made to Diane Chase’s PhD Dissertation (1982) and to Chase and Chase’s (1988) monograph publication on the excavations at Santa Rita Corozal.

For the purposes of this analysis, the presence of human remains will be discussed separately from the faunal and indeterminate bones. For comparison purposes between the buildings in this study, both the number of burials recovered and the number of individuals (within the burial) will be recorded. The presence of burials within a building is an indication of the ritual function of the particular structure. Below, Table 13 provides details of the Late Postclassic burials recovered in association with the buildings selected for this study. Detailed discussion on these remains will follow later in this section.

Table 13. Inventory of the Late Postclassic Period burials and other miscellaneous human remains associated with selected buildings at Santa Rita Corozal included within this study.

Building	Burial	Number of Individuals	Sex	Age	Miscellaneous Human Remains (not in a burial)
Platform 2	SDP6E-1	5	undetermined	undetermined	
	SDP6E-4	1	undetermined	sub-adult	
	SDP6E-5	1	Female	adult	
	SDP6E-6	1	Female	adult	
	SDP6E-7	1	Female	adult	
	SDP6E-8	1	undetermined	infant	
	SDP6E-11	1	undetermined	sub-adult	
	SDP6E-12	1	Female	adult	
Structure 73	SDP6E-9	4	1 Female; 3 undetermined	adult	
	SDP6E-10	1	undetermined	undetermined	
Structure 77	SDP6F-1	2	undetermined	undetermined	1 fragment (P6F/2-7)
	SDP6F-2	1	undetermined	undetermined	1 fragment, skull (P6F/12-2)
Structure 81	SDP8C-1	2	1 undetermined; 1 Male	1 young adult; 1 adult	12 teeth, molars (P8C/1-3)
Structure 166	SDP23B-1	4	undetermined	undetermined	
	SDP23B-2	3	undetermined	undetermined	
Structure 189	SDP30D-1	1	undetermined	undetermined	
Structure 213	SDP26B-1	1	undetermined	undetermined	7 teeth (P26B/3-7)
	SDP26B-2	5	undetermined	undetermined	
Structure 215	SDP29B-2	2	1 Male; 1 Male	undetermined	
	SDP29B-3	2	1 Male; 1 Female	undetermined	
	SDP29B-4	1	undetermined	undetermined	
Structure 216	SPD33D-1	2	1 Male; 1 Male	undetermined	
Structure 183	SDP37A-2	3	1 Female; 2 undetermined	undetermined	
Structure 218	SDP38B-1	1	Female	undetermined	
	SDP38B-3	3	undetermined	undetermined	
Total		50			

*Details on these burials provided through reference to the Corozal Postclassic Project Lot/Catalog Cards, D. Chase (1982, 1986) and Chase and Chase (1988).

Faunal Bone

As illustrated in Table 12, there is a significant faunal assemblage associated with the seventeen buildings included in this study. The faunal assemblage includes a variety of skeletal remains from both land and marine animals. Those bones which were in fairly good condition and were analyzed by Morton (1988:120) permitted the identification of some faunal species. The land mammals represented include: White-tailed deer (*Odocoileus virginianus*), Red Brocket deer (*Mazama americana*), dog (*Canis* sp.), opossum (*Didelphidae*), armadillo (*Dasypodidae*), jaguar (*Felis onca*), tapir (*Tapirus bairdii*), and peccary (*Tayassuidae*). There were two types of reptiles identified including turtles (*Testudines*) and crocodiles (*Crocodylus* sp.). Two species of birds were also part of the assemblage. These include the Scarlet Macaw (*Ara macao*) and turkeys (*Meleagrididae*). Amphibian bones were recognized but the limited sample did not allow for specie identification. With regards to marine animals, the assemblage includes remains of Barracuda (*Sphyraena barracuda*), salt water and freshwater Catfish (both *Ictalurus* and *Ariidae*), Grouper (*Serranidae*), Stingrays (*Rajiformes*) and Sea Urchins (*Echinoidae*).

Morton (1988:120) contends that the animals in this assemblage are food sources for the household groups. Morton's (1980:119) analysis of the Santa Rita Corozal Late Postclassic faunal assemblage indicate that reptiles, particularly the turtle and crocodile, was the largest class represented within the assemblage. The most common mammalian species identified within the Santa Rita assemblage include the white-tailed deer, peccary, and the dog (Morton 1988:120).

The recovery of faunal remains is associated with from the general excavation of buildings, however, there were several elements of the faunal assemblage that were recovered in association with several burials and caches placed inside these structures. Several faunal

fragments (n=12) were recovered in association with a cache while teeth (n=2), sting ray spines (n=18), a mandible (n=1), and a miscellaneous fragment (n=1) were all recovered in association with burial contexts. Discussion on the details of these remains will follow later in this section.

Due to the difficulties of the preservation of the bone within this assemblage, it is not difficult to understand why a large majority would remain indeterminate. The combination of poor preservation and any treatment that the bone may have received prior to entry into the archaeological record would undoubtedly affect their state of preservation (Chase, Chase, and Teeter 2004:14). The indeterminate bone is considered part of the overall faunal assemblage that could not be identified due to poor preservation or handling of the material prior to reaching the faunal analyst (Morton 1988:121). Several worked bone items pieces, in the form of beads (n=4) and a spindle whorl (n=1), were recovered in association with special deposits including both burials and caches. The recovery of worked bone items is suggestive of either craftsmanship at the local household group or evidence of the community participation in the wider trade networks.

6.9.1 Distribution of Bone

Bone was recovered in association with 14 of the 17 buildings included within this study; 5 buildings located in the Northeast Sector and all 9 buildings in the South Intermediate Sector (Table 14). In terms of human remains included within this study, Late Postclassic burials were recovered in association with 50% (n=4) of the buildings in the Northeast Sector; specifically, Structures 73 and 77 as well as Platform 2 in Sample Group 1 and Structure 81 in Sample Group 2. Although human remains are associated with only these four buildings in the Northeast Sector, the assemblage includes a total of 13 burials and 22 individuals representing 52% of all

burials and 44% of the individuals recovered from with these burials included within this study (see Table 13). In the South Intermediate Sector, approximately 80% (n=7) of the buildings contained human remains within their assemblages; these are Structure 166 in Sample Group 3, Structure 189 in Sample Group 4, Structures 213, 215, and 216 in Sample Group 5, and Structures 183 and 218 in Sample Group 6. A total of 12 burials and 28 individuals were recovered in association with these seven different structures (see Table 13). This represents 48% of all the burials in this study and 56% of the individuals recovered in association with these burials included in this study.

Additionally, faunal remains were recovered in association with 50% (n=4) of the buildings in the Northeast Sector and with 100% (n=9) of the buildings in the South Intermediate Sector. Those buildings in the Northeast Sector having faunal remains within their assemblages include the eastern building, Structure 77 and the central platform, Platform 2 in Sample Group 1 as well as both the northern and southern buildings in Sample Group 2, Structures 81 and 74. In the South Intermediate Sector, the assemblages of all nine buildings included in this study contained faunal remains.

Table 14. Distribution of human and faunal remains within the artifact assemblages of selected buildings at Santa Rita Corozal included within this study. Reference was made to the Corozal Postclassic Project Lot/Catalog Cards, D. Chase (1982, 1986) and Chase and Chase (1988) for details on the bone assemblage at Santa Rita Corozal.

BUILDING	HUMAN	FAUNAL
Platform 2	X	X
Structure 73	X	
Structure 77	X	X
Structure 78		
Structure 79		
Structure 80		
Structure 74		X
Structure 81	X	X
Structure 162		X
Structure 166	X	X
Structure 189	X	X
Structure 213	X	X
Structure 214		X
Structure 215	X	X
Structure 216	X	X
Structure 183	X	X
Structure 218	X	X

Human Remains: Northeast Sector

The human remains assemblage recovered in association with the Northeast Sector represents 52% of the total number of burials and 44% of the number of individuals recovered in association with the seventeen buildings included within this study (Figure 35). Human remains were recovered in association with only four buildings in the Northeast Sector: three in Sample

Group 1 (Structures 73, 77 and Platform 2) and one in Sample Group 2 (Structure 81). The burials recovered in association with Sample Group 1 accounts for approximately 92% of the total burials and 91% of the individuals recovered in association with the Northeast Sector. The burials recovered in association with Sample Group 2 accounts for approximately 8% of the total burials and 9% of the individuals recovered in association with the Northeast Sector.

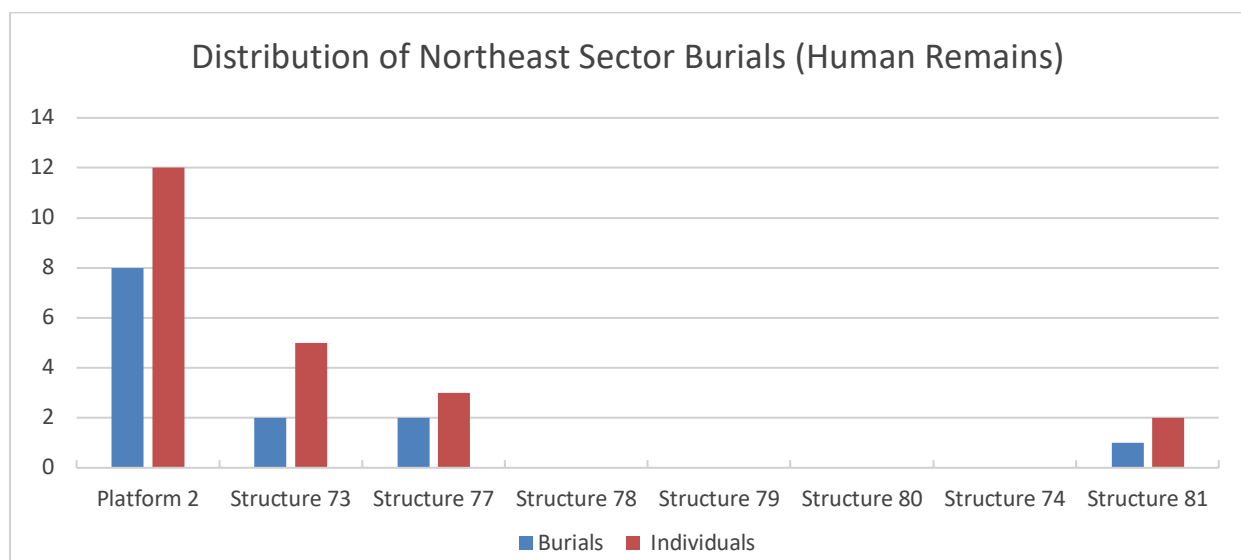


Figure 35. Distribution of burials and associated individuals recovered in association with selected buildings in the Northeast Sector at Santa Rita Corozal.

Sample Group 1: *Platform 2 Group*

Human remains were recovered in association with three different locations in Sample Group 1 (see Figure 35). These include the central platform, Platform 2, the northern building, Structure 73, and the eastern building, Structure 77.

There are a total of eight different Late Postclassic burials, accounting for twelve individuals, associated with Platform 2 (see Figure 35). The first burial (SDP6E-1) was

recovered from the front portion of the central platform and was placed beneath three large stones which was likely an altar. SDP6E-1 comprised of a concentration of the partially disarticulated remains of five individuals which were accompanied by a series of grave goods including ceramic vessels, obsidian blade fragments, shell and ceramic beads, and several chert fragments (D. Chase 1982:323-325). A series of burials and a refuse deposit were located to the south of the platform. Chase (1982:338) states that the area seems to have been used exclusively for the interment of women and children (see D. Chase 1986:Fig. 10.3 for an illustration of the burials in this area). The first of these burials (SDP6E-7) comprising one female individual. She was accompanied by two copper rings and two *Spondylus* beads (D. Chase 1982:325-326; Chase and Chase 1988:26). A third burial (SDP6E-4) comprised a single adult who was accompanied by a single stone bead (D. Chase 1982:329). SDP6E-5 also comprised a single individual, in this case, an adult female (D. Chase 1982:329-330). Another single adult female was recovered from SDP6E-6. She was accompanied by five reconstructable ceramic vessels and a fragment of a censer (D. Chase 1982:330-334). Another burial (SDP6E-8) was that of an infant (D. Chase 1982:334). A single sub-adult (SDP6E-11) was accompanied by two beads: one a *Spondylus* shell bead and the other, a ceramic bead (D. Chase 1982:334-335). The final interment (SDP6E-12) was that of an adult female who was accompanied by an incomplete censer and another partial ceramic vessel (D. Chase 1982:335-336).

Two Late Postclassic burials, accounting for five individuals, were recovered in association with Structure 73 (see Figure 35). The first of these burials was located in the southern part of the building. The burial (SDP6E-9) comprised of the disarticulated remains of four individuals (D. Chase 1982:352-353). The second burial (SDP6E-10) was recovered in the northern section of the building and included the remains of a single individual which had been

placed into a small pit (D.Chase 1982:353). Neither of these burials contained any accompanying grave goods.

Two Late Classic burials, accounting for three individuals, were recovered in association with Structure 77. The first burial (SDP6F-1) consisted of 2 poorly preserved individuals (D. Chase 1982:370). The second burial (SDPF6-2) consisted of a single individual. This burial was located to the west of and at a lower elevation than SDP6F-1 (D.Chase 1988:370-371). Three reconstructable censers (P6F/51-4, -5, -6) were recovered in between these two burials and it is suggested that they may have likely been placed in association with either of these interments (D. Chase 1988:371). In addition to the burials, several other fragments of human remains were recovered in association with excavations at this location. These include 12 molars (P8C/1-3), a skull fragment (P6F/12-2) and a single miscellaneous fragment (P6F/2-7).

Sample Group 2: *Structures 74 and 81*

Human remains were recovered in association with only one building in Sample Group 2, at Structure 81 (see Figure 35). Two individuals were recovered in association with a single burial (SDP8C-1). The skeletal remains were placed in a burial pit placed within the altar in the shrine (interior) room of Structure 81. Individual 1 represents a young human adult while Individual 2 was found to be an adult male. Chase (1982:259-288) discusses the details of the burial in which several pieces of ceramic vessels placed with and above Individual 1 were also found above on the floor of the shrine room in which the burial was placed. This is an indication that the smashing of these vessels on the floor likely took place at the time of interment.

Human Remains: South Intermediate Sector

The human remains assemblage recovered in association with the South Intermediate Sector represents 48% of the total number of burials and 56% of the number of individuals recovered in association with these burials included within this study (Figure 36). Human remains were recovered in association with seven buildings in the South Intermediate Sector: one in Sample Group 3 (Structure 166), one in Sample Group 4 (Structure 189), three in Sample Group 5 (Structures 213, 215, and 216) and two in Sample Group 6 (Structures 183 and 218). The burials recovered in association with the three buildings in Sample Group 5 account for approximately 50% of the total burials (n=6) and 46% of the individuals (n=13) recovered in association with the South Intermediate Sector.

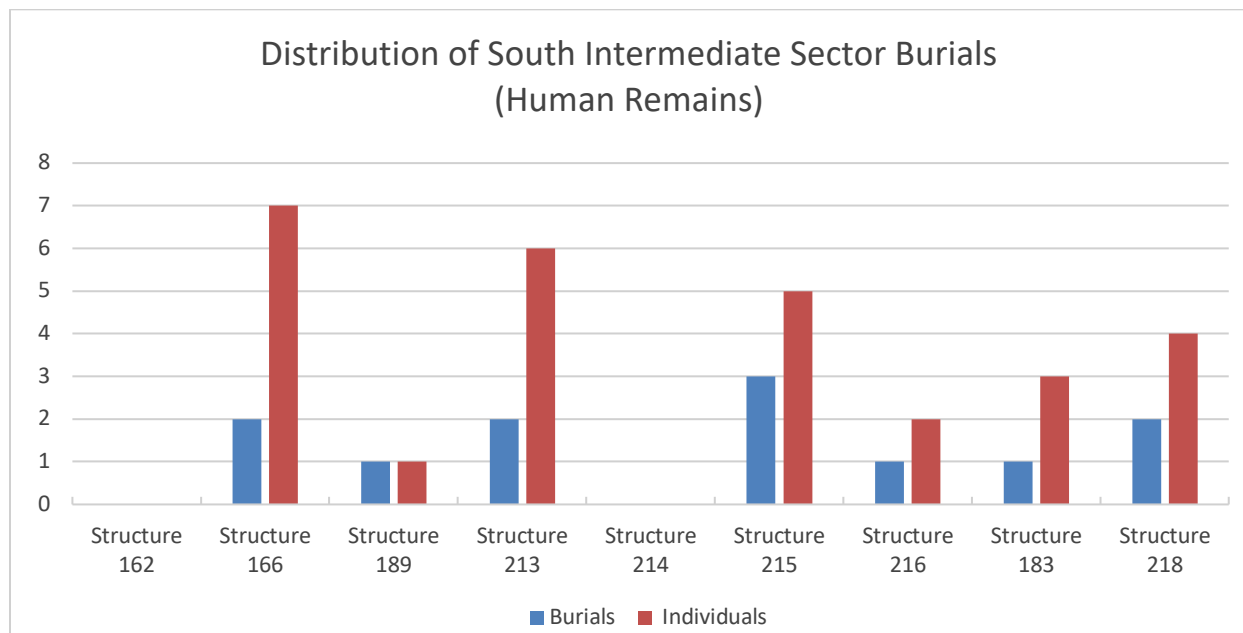


Figure 36. Distribution of burials and associated individuals recovered in association with selected buildings in the South Intermediate Sector at Santa Rita Corozal.

Sample Group 3: *Structures 162 and 166*

All the human remains associated with Sample Group 3 were excavated in association with Structure 166 (see Figure 36). Two separate Late Postclassic burials were recovered within the core of Structure 166. The first was placed beneath the rear wall of the building (SDP23B-1) and comprised 4 individuals accompanied by a jadeite celt and a several chert tools (Chase and Chase 1988:43). The second burial (SDP23B-2) was placed near the front of the structure. This burial comprised three individuals along with a mano fragment and displayed evidence of having been previously disturbed by looters (Chase and Chase 1988:43). These two burials represent 17% of all burials and 25% (n=7) of the individuals recovered in the South Intermediate Sector.

Sample Group 4: *Structure 189*

A single Late Postclassic burial was excavated in association with Structure 189 which represents 8% of the burials recovered in the South Intermediate (see Figure 36). This burial accounts for the recovery of a single individual, representing 4% of all individuals recovered in the South Intermediate Sector. A single individual was recovered from the burial (SDP30D-1) which was placed within the stair balk in the front section of Structure 189 (Chase and Chase 1988:61). There was no mention of any associated grave goods with this burial.

Sample Group 5: *Structures 213, 214, 215, and 216*

Three buildings in Sample Group 5 contained human remains; these are Structures 213, 215 and 216. No human remains were recovered in association with Structure 214. The burials recovered in association with the three buildings in Sample Group 5 account for approximately

50% of the total burials (n=6) and 46% of the individuals (n=13) recovered in association with the South Intermediate Sector (see Figure 36).

At Structure 213, the only Late Postclassic burial was excavated from within the stoop of the building. The burial (SDP26B-2) consisted of five individuals who were accompanied by five jadeite beads; likely one for each individual (Chase and Chase 1988:51). Two partial ceramic censer vessels were placed near the top and portions were mixed in with the bones of this burial. The entire deposit was sealed by rocks slabs upon which sat a single human skull (Chase and Chase 1988:52).

The Late Postclassic burials (n=3) recovered in association with Structure 215 account for 5 individuals. All three burials were located to the rear of the building. Two burials were located in the core of the structure. One burial (SDP29B-3) consisted of the remains of 1 male and 1 female accompanied by a single indeterminate bone bead (Chase and Chase 54). A second burial (SDP29B-2) placed within the core of the building consisted of two male individuals (Chase and Chase 1988:54). A third burial (SDP29B-4) was of a single individual who had been placed in sterile matrix beneath the building (Chase and Chase 1988:53).

A single Late Postclassic burial (SDP33D-1) was placed within the core of Structure 216, beneath the central shrine (Chase and Chase 1988:56). The burial consisted of two adult males. The southern individual, thought to be elderly and sick, was perforated by a series of stingray spines and a copper needle. The northern individual had a single stingray spine in the pelvis area. He was also accompanied with a host of grave goods (see Chase and Chase 1988: Fig. 30) and thought to be the primary individual within this burial. Both males were each found with a single copper clasp. It is suggested that this clasp may have been used to secure a cloth bundling each individual (Chase and Chase 1988:56).

Sample Group 6: *Structures 183 and 218*

The three Late Postclassic burials associated with Sample Group 6 represent 25% of the burials recovered in the South Intermediate Sector. These three burials account for seven individuals representing 25% of all individuals recovered within burials in the South Intermediate Sector. A single burial is associated with Structure 183 while the other two are associated with Structure 218 (see Figure 36).

At Structure 183, the single burial (SDP37A-2) recovered was placed beneath the central doorway of the building and just above bedrock (Chase and Chase 1988:58). There were 3 individuals included, one female and two unidentified individuals. They were accompanied by three bone (indeterminate) spindle whorls and a single ceramic vessel (Chase and Chase 1988:58).

The human remains recovered in association with Structure 218 were included in two separate Late Postclassic burials placed within the front section of the building (Chase and Chase 1988:60). The first interment (SDP38B-1) was a single female individual accompanied by a peccary mandible (from the faunal assemblage) and one silver and two copper bells (Chase and Chase 1988:60). A second interment (SDP38B-3) was placed directly beneath this burial. It comprised of three individuals and there were no grave goods accompanying them (Chase and Chase 1988:61).

Faunal Remains: Northeast Sector

Approximately 85% of the faunal remains included in this study were recovered in association with the Northeast Sector. Faunal remains were part of the assemblages recovered

from buildings in both Sample Groups 1 and 2 (see Figure 37). Only two locations in Sample Group 1 had any faunal remains within their assemblages, these include the central platform, Platform 2 and the eastern structure, Structure 77. Although recovered in limited quantities, the assemblages from both buildings in Sample Group 2, Structures 74 and 81, include some faunal remains.

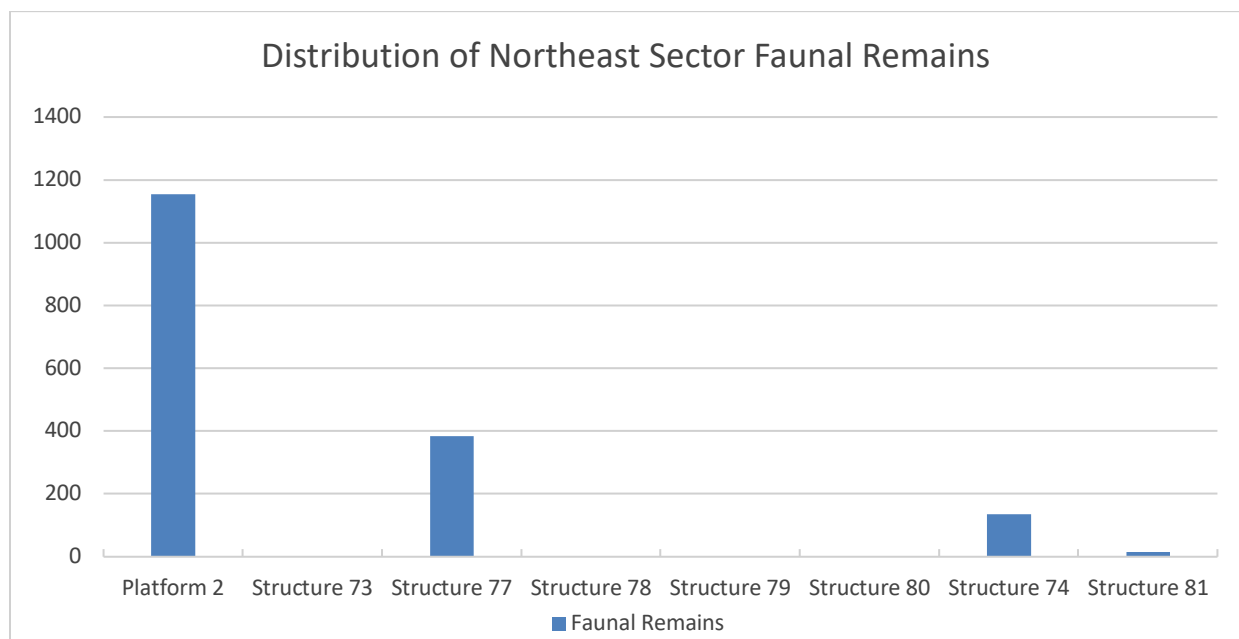


Figure 37. Distribution of faunal remains recovered in association with selected buildings in the Northeast Sector at Santa Rita Corozal.

Sample Group 1: *Platform 2 Group*

Excavations at Sample Group 1 recovered approximately 91% (n=1537) of the Northeast Sector faunal remains in association with only two locations, Structure 77 and Platform 2 (see Figure 37).

The faunal remains recovered in association with Structure 77 represents 25% (n=383) of the Sample Group 1 faunal assemblage and includes remains such as bird beaks (n=6), a claw (n=1), long bones (n=27), several teeth (n=5), a rodent fragment (n=1), a phalange bone (n=1) and numerous miscellaneous fragments (n=86). Approximately 67% of the Structure 77 faunal assemblage consists of indeterminate remains (n=256). These remains include bone beads (n=2), teeth (n=13), a long bone (n=1), a phalange (n=1) and other miscellaneous fragments (n=239). None of the Structure 77 faunal remains were recovered in association with any special deposits.

The faunal remains recovered in association with Platform 2 accounts for approximately 75% (n=1154) of the Sample Group 1 faunal remains assemblage. This assemblage includes turtle remains (n=50), several teeth (n=8), and numerous miscellaneous fragments (n=867). Approximately 20% of the Platform 2 faunal assemblage consists of indeterminate fragments (n=229) which include long bones (n=8) and miscellaneous fragments (n=207). As indicated on the CPP lot card, several miscellaneous fragments (n=9) and a tooth (n=1) are associated with the recovery of the SDPP6E-1 burial at this location.

Sample Group 2: *Structures 74 and 81*

Both buildings in Sample Group 2 contained faunal remains within their assemblages. The faunal remains assemblage recovered from both Structures 74 and 81 in Sample Group 2 represents 9% (n=151) of the Northeast Sector faunal assemblage (see Figure 37).

Representing approximately 90% of the faunal remains associated with the Sample Group 2, the total faunal assemblage at Structure 74 includes all miscellaneous fragments (n=136). Of this amount, approximately 89% (n=121) are indeterminate fragments. As there

were no burials or caches recovered from Structure 74, none of the faunal remains were part of any special deposits.

The Structure 81 faunal remains represent approximately 10% (n=15) of the Sample Group 2 faunal assemblage. The faunal remains include several miscellaneous fragments (n=11) as well as several indeterminate fragments (n=2) and bone beads (n=2). None of the faunal remains in the Structure 81 assemblage were included within any special deposits recovered from this location.

Faunal Remains: South Intermediate Sector

The South Intermediate Sector faunal assemblage comprises 15% faunal remains (n=306) of the faunal assemblage included in this study. Both faunal remains were recovered in association with all nine buildings in the South Intermediate Sector (see Figure 38). The highest percentage (59%) of faunal remains were recovered in association with the four buildings comprising Sample Group 5.

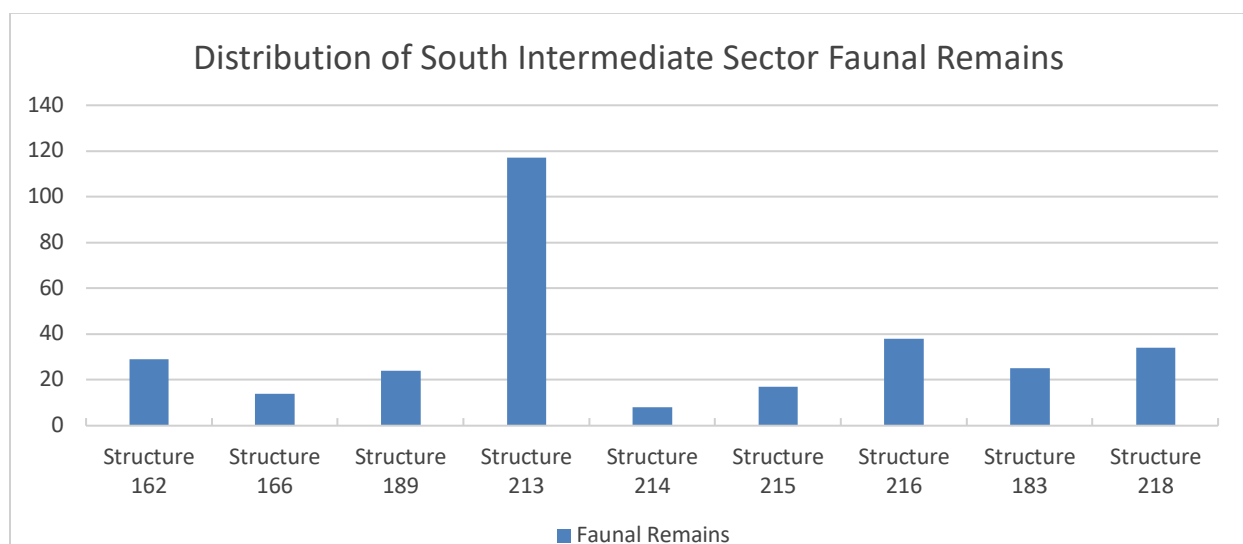


Figure 38. Distribution of faunal remains recovered in association with selected buildings in the South Intermediate Sector at Santa Rita Corozal.

Sample Group 3: *Structures 162 and 166*

The faunal assemblage recovered from Sample Group 3 represents approximately 14% (n=43) of the overall South Intermediate Sector faunal assemblage. The Structure 162 faunal remains represent 67% (n=29) of the Sample Group 3 assemblage (see Figure 38). The faunal remains consist largely of miscellaneous fragments (n=12) but also includes deer antlers fragments (n=9), a single fish vertebra (n=1) along with several indeterminate fragments (n=6) and a bone spindle whorl (n=1).

The faunal remains recovered in association with Structure 166 represents 33% (n=14) of the Sample Group 3 assemblage. The faunal assemblage recovered at this location consist of a single miscellaneous fragment (n=1) along with a dozen indeterminate fragments (n=12) and a burnt bone fragment (n=1). As indicated on the CPP lot card, this burnt bone fragment was recovered in association with a concentration of ceramic beads and net weights excavated at Structure 166 (Chase and Chase 1988:43).

Sample Group 4: *Structure 189*

The faunal remains recovered in association with Structure 189 represents 8% (n=24) of the South Intermediate Sector assemblage (see Figure 38). The Structure 189 faunal assemblage consists of teeth (n=2), vertebra (n=1), stingray spines (n=2), several miscellaneous fragments (n=16), and several indeterminate fragments (n=3). None of the faunal remains recovered from excavations at Structure 189 were part of any special deposits.

Sample Group 5: *Structures 213, 214, 215, and 216*

All four buildings (namely Structures 213, 214, 215, and 216) comprising Sample Group 5 in the South Intermediate Sector contained faunal remains (n=180) within their artifact assemblages (see Figure 38). The Sample Group 5 faunal assemblage represents 59% of the South Intermediate Sector assemblage.

The Structure 213 faunal assemblage represents 65% (n=117) of the Sample Group 4 assemblage (see Figure 38). This includes a mandible fragment (n=1), teeth (n=2), a single vertebra (n=1), and numerous miscellaneous fragments (n=60) as well as some indeterminate fragments (n=53). Several of the faunal fragments in this assemblage were recovered in association with a cache (SDP26B-4) placed to the front of the building. These fragments are suspected to have been the remains of live turtles which were placed inside an urn capped with an inverted bowl and were accompanied by a jadeite and a *Spondylus* sp. shell bead (Chase and Chase 1988:52).

The faunal remains recovered at Structure 214 represents approximately 5% (n=8) of the Sample Group 5 total (see Figure 38). This assemblage includes several miscellaneous fragments (n=6) and a single long bone (n=1) as well as an indeterminate fragment (n=1).

The Structure 215 faunal remains represent approximately 9% (n=17) of the Sample Group 5 assemblage (see Figure 38). The assemblage consists of several miscellaneous fragments (n=11) as well as four indeterminate fragments (n=4) and two indeterminate, worked bone beads (n=2). One of these bone beads ((P29B/27-2) accompanied the two individuals (a male and a female) included in a burial (SDP29B-3) recovered from within the core of Structure 215 (Chase and Chase 1988:53-54).

Representing approximately 21% of the Sample Group 5 faunal assemblage (see Figure 38), the Structure 216 faunal remains include teeth (n=2), a sea urchin spine (n=1), numerous miscellaneous fragments (n=17), and stingray spines (n=18). All 18 stingray spines are associated with a single burial (SDP33D-1) of two male individuals recovered in association with Structure 216. Several spines perforated the elderly, southern male individual while a single stingray spine was set within the pelvis of the northern individual (Chase and Chase 1988:56).

Sample Group 6: *Structures 183 and 218*

Combined, the faunal assemblage from Structures 183 and 218, comprising Sample Group 6, represent approximately 19% of the Southern Intermediate Sector faunal assemblage (see Figure 38). The Structure 183 faunal assemblage represents 42% (n=25) of the Sample Group 6 faunal assemblage while the Structure 218 assemblage represents 58% (n=34).

The Structure 183 faunal assemblage comprises only 25 items and includes teeth (n=2), several miscellaneous fragments (n=53), one indeterminate fragment (n=1), and three spindle whorls (n=3). These three bone spindle whorls (P37A/33-2a-c) were recovered in association with the human remains found in the Late Postclassic burial (SDP37A-2) excavated beneath the central doorway of Structure 183 (Chase and Chase 1988:58).

The Structure 218 faunal assemblage represents 58% of the Sample Group 6 assemblage. The faunal assemblage includes a complete peccary mandible (n=1), a fish vertebra (n=1), some turtle remains (n=3), stingray spines (n=3), and numerous miscellaneous fragments (n=24). In addition, the assemblage includes a bead (n=1) and two indeterminate fragments (n=2). The

peccary mandible (P38B/45-9) accompanied a single female individual (SDP38B-1) who was interred within the front section of the building (Chase and Chase 1988:60).

6.10 Shell Artifacts

Marine shells have been used by the ancient Maya for many different purposes including for subsistence purposes as a source of edible meat, as body ornamentation and jewelry, and even as fill material in building construction, or crushed for use as temper in pottery making (Hamilton 1988:123-124). Marine shell artifacts have been recovered from numerous excavations and in association with many ritual or burial deposits across the entire Maya region (Chase and Chase 1988; Garber 1981; Moholy-Nagy 1997; Taschek 1994; Emery and Aoyama 2007). The prevalence of shells and shell artifacts in special deposits indicates that the ancient Maya may have had a special relationship with the sea; as shells are considered linked to the underworld since they are sourced from underwater (Chase and Chase 1989:22). There would have been tremendous efforts in obtaining and transporting these items to inland locations where they are often found in association other trade and prestige items like obsidian and jade (Hohmann 2002:3). Hohmann (2002:3-4) suggests that marine shells were considered prestige items by the ancient Maya since these carved items would typically be included within elaborate elite burials and cache offerings and are often in association with other long-distance trade items such as polychrome pottery, chert and obsidian eccentrics, and jadeite artifacts. Spenard et al. (2013) suggest that the inclusion of shell artifacts within a burial is a display of a person's unrestricted access to prestige trade goods thus indicative of one's social status. Masson (2000:168) concurs that finished shell ornaments are the most diagnostic shell objects from which to evaluate the relative wealth of an individual.

Aizpurúa and McAnany (1999:117) state that shell is one of the most common materials used to make personal adornments as it is relatively easy to work. In the Maya Lowlands there is evidence which indicates that there were specialized craft production workshops in place at various sites. The identification of such craft production workshops can be seen in cities such as at Tikal, where Moholy-Nagy (1997) has recovered significant debitage middens reflective of this specialized activity. Excavations at K'axob have also identified middens which are thought to be specialized shell craft production areas (Aizpurúa and McAnany 1999:121). Other production areas are also noted by Spenard et al. (2013:148) at Pacbitun and by Cobos (1994:141) at Caracol. At Santa Rita Corozal, excavations have recovered numerous marine shell artifacts ranging from numerous, irregular shaped fragments to pendants and carved or painted fragments to complete necklaces and bracelets comprising numerous shell beads (Hamilton 1988:123-125). The regular appearance of shells and other marine-derived artifacts such as stingray spines, the presence of turtles, and even representations of gods associated with the sea within specialized contexts (such as burials) allude to the value and ritual significance imbued upon these artifacts (Chase and Chase 1989:27).

Table 15 below is a breakdown of the shells recovered in association with the seventeen selected buildings included in this study. The shell inventory was compiled using the data provided from the associated CPP catalog cards and supplemented with the findings of Rachel Hamilton's shell analysis (1988:123-125). Additionally, reference was made to Jennifer Taschek's 1994 report on the *Artifacts of Dzibilchaltun* on the classification and descriptions of various shell artifact types.

Table 15. Inventory of the shells and shell artifacts recovered from selected buildings included in this study at Santa Rita Corozal. Table includes data courtesy of Hamilton (1988:123-125).

Shell Artifacts Inventory						
Total Shell Artifacts						1349
Worked Shell						
Complete	Bead	Disc	Hook	Pendant	Ring	Whole Shell
<i>Oliva sayana</i> (Olivella)	0	0	0	3	0	2
<i>Spondylus</i> sp. (Atlantic Thorny Oyster)	46	0	0	2	0	0
<i>Strombus gigas</i> (Queen conch)	0	0	1	2	0	0
<i>Turbinella angulata</i> (West Indian Chank)	0	0	0	3	0	1
Indeterminate	8	2	0	1	1	0
Fragment						
<i>Codakia orbicularis</i> (Tiger Lucine)	1					
<i>Lucina pectinata</i> (bivalve)	1					
<i>Pomacea flagellata</i> (snail)	1					
<i>Strombus gigas</i> (Queen conch)	3					
<i>Turbinella angulata</i> (West Indian Chank)	4					
Unidentified bivalve	1					
Indeterminate	9					
Unworked Shell						
Marine species	Fragment	Complete				
<i>Argopecten gibbus</i> (Atlantic Calico)	47	3				
<i>Cittarium pica</i> (West Indian Top/Whelk)	12	1				
<i>Codakia orbicularis</i> (Tiger Lucine)	28	1				
<i>Dosina elegans</i> (bivalve)	1	0				
<i>Fasciolaria tulipa</i> (Tulip)	5	1				
<i>Haliotis</i> sp. (Abalone)	1	0				
<i>Lopha frons</i> (bivalve)	33	2				
<i>Lucina pectinata</i> (bivalve)	7	0				
<i>Melongena melongena</i> (Caribbean Crown Conch)	23	5				
<i>Nerita tessellata</i> (snail)	0	1				
<i>Ostrea</i> sp. (bivalve)	2	0				
<i>Pseudochama radians</i> (Atlantic jewelbox)	1	0				
<i>Spondylus</i> sp. (Atlantic Thorny Oyster)	2	0				
<i>Strombus gigas</i> (Queen conch)	220	8				
<i>Turbinella angulata</i> (West Indian Chank)	174	3				
Freshwater species						
<i>Pachichilus</i> sp. (Jute snail)	6	9				
<i>Pomacea flagellata</i> (snail)	31	2				
Terrestrial species						
<i>Drymaeus tropicalis</i> (snail)	1	0				
<i>Euglandina cylindracea</i> (snail)	9	6				
<i>Neocyclotus dysoni</i> (snail)	27	57				
<i>Orthalicus princeps</i> (snail)	36	56				
Unidentified species						
Bivalve	8	0				
Gastropod	26	6				
Snail	13	20				
Indeterminate	274	89				

Shell Artifact Types

The worked shell assemblage represents only 7% of the overall shell and is comprised of 92 artifacts. Of this amount, almost 75% represents artifacts fashioned for personal adornment in the form of beads, rings, pendants, and a couple discs. The remaining worked shell comprises whole shells, a hook, and several worked fragments.

Beads

Beads make up the largest percentage of this collection accounting for approximately 60% (n=54) of the worked shell category included within this assemblage. These shell beads range in shapes and sizes. Some are discoidal (that is, thin and flat) (as defined by Taschek 1994:20) with a central perforation form which they were intended to be strung (see Appendix Figure 3A:P6E/1-26 and Appendix 3B:P6E/7-8). Others are cylindrical shaped (as defined by Taschek 1994:22), in which the length is greater than the diameter. These have a perforation which runs longitudinal (see Appendix Figure 3F:P33D/7-17 and Appendix Figure 3G:P29B/20-8) from which they could be strung. Others are tabular shaped (as defined by Taschek 1994:23), in which the length is greater than the width or the thickness. Examples of these include Appendix Figure 3C:P33D/7-16 and Appendix Figure 3D:P6E/7-9. Even with all the variation in shapes and sizes, the edges of all the beads appear round and surfaces smoothed. One *Spondylus* sp. bead (see Appendix Figure 3E:P26B/43-3) recovered from a burial feature within Structure 213 is an example of a grooved-decorated bead (as defined by Taschek 1994:24). The surface of the bead is decorated with a single radial groove and is smoothed. The opposite surface retains the original texture of the bead and may have deteriorated prior to excavation.

Rings

A single ring (see Appendix Figure 4A:P38B/41-16) recovered from Structure 218 is the only shell ring (100%; n=1) included within this shell assemblage. The ring is a narrow, thin, circular band which is almost perfectly circular in shape with a large central perforation the appropriate diameter for placement of a finger (as defined by Taschek 1994:56). Surfaces are smoothed and polished. The edges have been ground and smoothed. The ring is otherwise undecorated with no grooves or carvings and retains the original color of the shell from which it is fashioned.

Pendants

Pendants account for 12% (n=11) of the worked shell artifacts within the Santa Rita shell assemblage included in this study. The pendants vary in size and shape and have at least one perforation from where it could be hung. One example of a pendant within this collection is a *Spondylus* sp. pendant (see Appendix Figure 4B:P33B/15-10) recovered in association with Structure 216. The pendant is almost circular in shape with somewhat eroded surfaces but retains the characteristic pink color of the *Spondylus* shell on one surface. The pendant features one central perforation from where it could hang. It also features two pseudo-perforations, neither of which protrude through both surfaces. These could have also been the location of inlays on the surface of the pendant. There are no other visible decorative elements on the surfaces of the pendant.

Discs

There are two discs, accounting for 2% of the worked shell, recovered in association with the selected buildings included within this study. One is larger but only half of a circle (P33B/44-1) as it appears to have been snapped in two pieces recovered from excavations at Structure 216 (Sample Group 5). This larger disc had a small central perforation. A second perforation, slightly off center, now punctures the half circle, and appears to have been added to accommodate it being worn as a pendant. The disc is concavo-convex in section as it retains the original curvature of the shell from which it was made. The surfaces and edges are all smoothed. The second specimen is small but a complete disc (see Appendix Figure 4C:P8A/3-15) recovered in association with Structure 81 (Sample Group 2). It is flat on one surface but decorated with a grooved ridge along the circumference, making the central interior portion of the disc slightly thinner than that outer grooved edge. The edges and surfaces are smoothed and there are no other decorative elements present.

Miscellaneous Worked Shell

The remaining elements of the worked shell assemblage includes a hook fashioned from *Strombus gigas* (Queen conch). The hook was recovered from Structure 216 (Sample Group 5). Hamilton (1988:124) associates the hook with fishing as she considers the implement to be a fishhook.

Three percent (n=3) of the worked assemblage in this study constitutes whole shells. There are three whole shells which are represented by only two marine species *Oliva sayana* (Olivella) and *Turbinella angulata* (West Indian Chank). The remaining 21% (n=20) of the worked shell category comprises irregular shaped worked fragments.

6.10.1 Distribution of Shell and Shell Artifacts

The shell assemblage is roughly divided into approximately 60% from the South Intermediate sector and 40% from the Northeast Sector. Both sectors have a diverse collection including both worked and unworked shell artifacts (see Table 14). Overall, approximately 93% of the shell is unworked material and only 7% comprises worked shell. The unworked fragments comprise the largest portion of the unworked shell representing approximately 79% (n=987) of the unworked category while unworked complete shells account for roughly 21% (n=270). The worked shell material accounts for approximately 7% of the overall shell included in this study and is a combination of complete worked shell artifacts (78%; n=72) and worked shell fragments (22%; n=20).

The shell is further sub-divided by their origin with the highest percentage being marine shell which account for 48% (n=647) of the assemblage. Only 4% (n=49) of the shell is from freshwater sources while 14% (n=192) are terrestrial shells. Approximately 34% (n=461) of the assemblage are unknown as these shells have not been identified. In terms of the worked shell, there are only 76% (n=70) marine shells, 1% (n=1) freshwater and 23% (n=21) of indeterminate origin. There are no worked terrestrial shells within the assemblage included in this study.

Worked Shell

The worked shell assemblage includes a total of 92 items. The majority (78%; n=72) of these are complete worked shell items and 22% (n=20) are fragmented worked shells. The complete worked shell artifacts consist of a total of 72 items and includes beads (75%; n=54), pendants (15%; n=11), discs (3%; n=2), a hook (1%; n=1), a ring (1%; n=1), and several whole

shells (4%; n=3). Of these 72 artifacts, 83% (n=60) are marine shells and are primarily made from species such as *Oliva sayana* (Olivella) (8%; n=5), *Spondylus sp.* (80%; n=48), *Strombus gigas* (Queen conch) (5%; n=3), and *Turbinella angulata* (West Indian Chank) (7%; n=4). The other 17% (n=12) complete worked shell artifacts are all indeterminate therefore their origin is unknown. These indeterminate shell artifacts include beads (n=8), discs (n=2), a pendant (n=1), and a ring (n=1).

A total of 20 (22%) shell fragments completes the worked shell category. Of these, 10 (50%) are marine sourced shells including *Codakia orbicularis* (Tiger Lucine) (10%; n=1), *Lucina pectinate* (bivalve) (10%; n=1), *Strombus gigas* (Queen conch) (30%; n=3), *Turbinella angulata* (West Indian Chank) (40%; n=4) and an unidentified bivalve specie (10%; n=1). The remaining 50% (n=10) of the worked shell is comprised of fragments which include a worked *Pomacea* fragment (10%; n=1), the only freshwater derived worked shell, and 9 (90%) other unidentified fragments.

Unworked Shell

The unworked shell category consists of a total of 1257 (93%) shells and includes both complete shells and shell fragments. The unworked shell is characterized by marine shell species, freshwater species, terrestrial species, and several undetermined species. The marine species largely consists of bivalves and gastropods whereas the freshwater and terrestrial species consists mainly of varying snail species. There are also 436 undetermined fragments included within the assemblage whose origins are unknown since their species remain unidentified.

Table 16 below provides a breakdown of the different species and their respective quantities in both the unworked complete and the unworked fragments categories. The

unworked complete shell assemblage (21%; n=270) consists of 9% (n=25) marine species, 4% (n=11) freshwater species, 44% (n=119) terrestrial species and 43% (n=115) indeterminate complete unworked shell fragments. The unworked fragmented shell assemblage comprises 987 (79%) unworked shell fragments. This is further sub-divided into marine species (56%; n=556), freshwater species (4%; n=37), and terrestrial species (7%; n=73) as well 321 (33%) unidentified unworked shell fragments.

Table 16. Detailed inventory of the Santa Rita Corozal shell assemblage recovered from selected buildings included in this study.

SANTA RITA SHELL	Northeast				South Intermediate				TOTAL	TOTAL (Source)	TOTAL % (Source)
	Worked		Unworked		Worked		Unworked				
	C*	F*	C	F	C	F	C	F			
Marine	C*	F*	C	F	C	F	C	F			
Argopecten gibbus (Atlantic Calico)	0	0	1	6	0	0	2	41	50	652	48.26
Cittarium pica (West Indian Top/Whelk)	0	0	0	3	0	0	1	9	13		
Codakia orbicularis (Tiger Lucine)	0	0	0	1	0	1	1	27	30		
Dosina elegans (Bivalve)	0	0	0	1	0	0	0	0	1		
Fasciolaria tulipa (Tulip)	0	0	1	0	0	0	0	5	6		
Haliotis sp. (Abalone)	0	0	0	0	0	0	0	1	1		
Lopha frons (Bivalve)	0	0	0	1	0	0	2	32	35		
Lucina pectinata (Bivalve)	0	0	0	1	0	1	0	6	8		
Melongena melongena (Caribbean Crown Conch)	0	0	4	7	0	0	1	16	28		
Nerita tessellata (Snail)	0	0	0	0	0	0	1	0	1		
Oliva sayana (Olivella)	0	0	0	0	5	0	0	0	5		
Ostrea sp. (Bivalve)	0	0	0	0	0	0	0	2	2		
Pseudochama radians (Atlantic jewelbox)	0	0	0	0	0	0	0	1	1		
Spondylus sp. (Atlantic Thorny Oyster)	8	0	0	0	42	0	0	2	52		
Strombus gigas (Queen conch)	0	2	7	96	3	1	1	124	234		
Turbinella angulate (West Indian Chank)	1	1	2	4	3	3	1	170	185		
Freshwater											
Pachychilus sp. (Jute snail)	0	0	0	3	0	0	9	3	15	49	3.63
Pomacea flagellata (Snail)	0	1	1	7	0	0	1	24	34		
Terrestrial											
Drymaeus tropicalis (Snail)	0	0	0	0	0	0	0	1	1	192	14.21
Euglandina cylindracea (Snail)	0	0	3	8	0	0	3	1	15		
Neocyclotus dysoni (Snail)	0	0	54	14	0	0	3	13	84		
Orthalicus princeps (Snail)	0	0	49	30	0	0	7	6	92		
Unidentified											
Bivalve	0	0	0	1	0	1	0	7	9	458	33.90
Gastropod	0	0	0	6	0	0	6	20	32		
Snail	0	0	14	9	0	0	6	4	33		
Indeterminate	6	5	82	108	6	4	7	166	384		
TOTAL	15	9	218	306	59	11	52	681	1351		

*C: complete shells; F: fragments.

Northeast Sector

Forty percent of the total shell assemblage was recovered from buildings within the Northeast Sector of the site. The assemblage consists of both 4% (n=24) worked shell and 96% (n=524) unworked shells. The Northeast assemblage is further divided into 27% (n=147) marine species, 2% (n=12) freshwater, and 29% (n=158) terrestrial species. Approximately 42% (n=231) of the assemblage is classified as indeterminate therefore the origin of these shells remains unknown. Further, the worked shell is divided into 63% (n=15) being complete shell artifacts and 38% (n=9) being fragments. In terms of unworked shell, approximately 42% (n=218) unworked complete shells and 58% (n=306) unworked fragments were found in the Northeast Sector.

The complete worked shell artifacts (see Figure 39) are limited to two marine species, namely *Spondylus* sp. and *Turbinella angulata* (West Indian Chank), along with several pieces that are classified as being indeterminate. The worked fragments (Figure 40) also include a shell artifact identified as a freshwater species, namely the *Pomacea flagellata* (land snail).

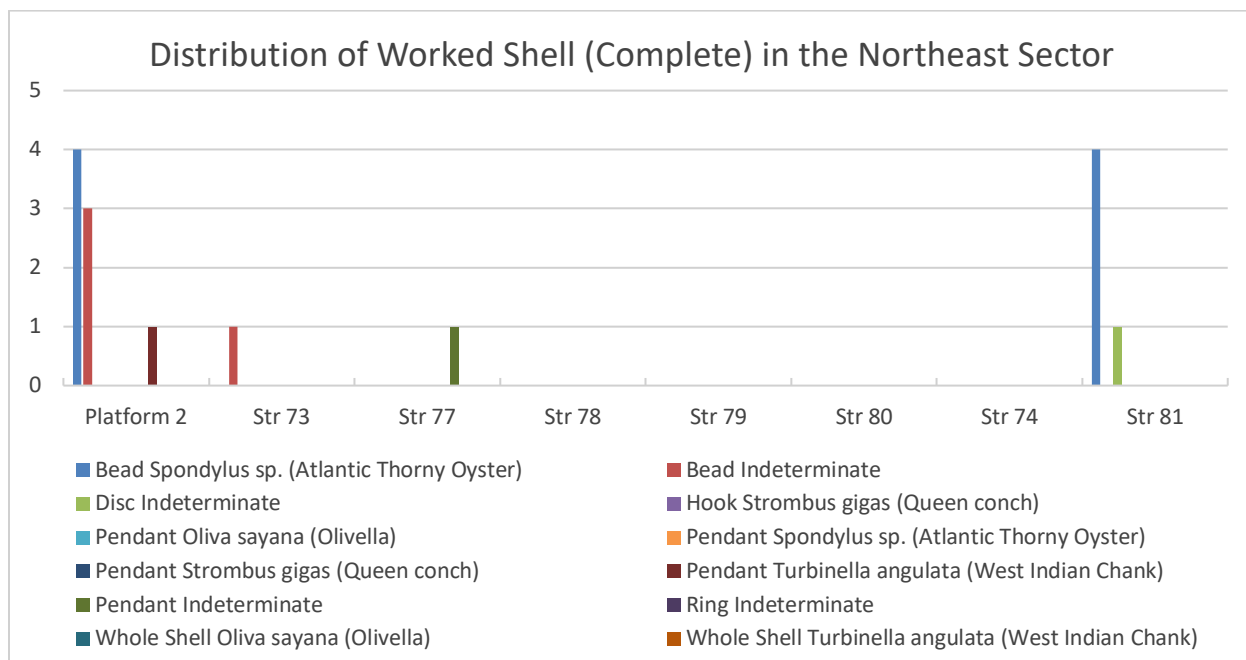


Figure 39. Distribution of Northeast Sector complete worked shell artifacts.

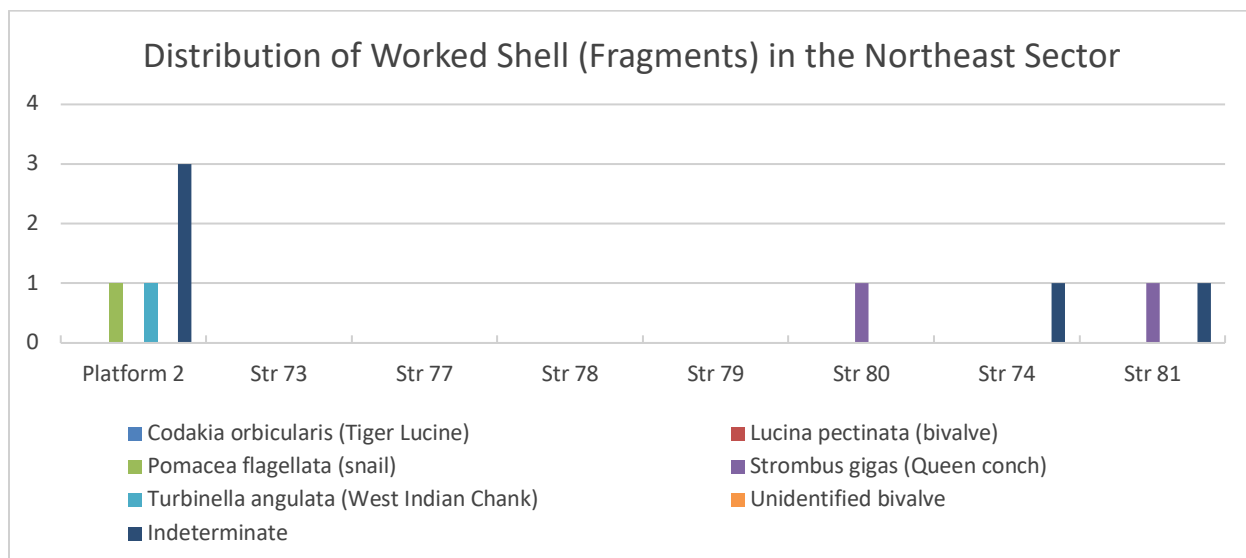


Figure 40. Distribution of Northeast Sector worked shell fragments.

The unworked shell is a much more diverse collection and includes marine, freshwater, and terrestrial species as well as numerous pieces for which their species remain undetermined. The unworked marine shell assemblage (see Figures 41 and 42 below) includes *Dosina elegans* and *Lucina pectinate* (bivalves), two conch species such as *Strombus gigas* (Queen conch), *Melongena melongena* (Caribbean Crown conch), and several other marine shell species including *Argopecten gibbus* (Atlantic Calico), *Fasciolaria tulipa* (Tulip), *Turbinella angulata* (West Indian Chank), *Cittarium pica* (West Indian Top/Whelk), and *Codakia orbicularis* (Tiger Lucine). The unworked freshwater shells include two snail species namely *Pachychilus* sp. (Jute) and *Pomacea flagellata* (snail). The terrestrial shells are composed of multiple land snail species including *Euglandina euglandina*, *Neocyclotus dysoni*, and *Orthalicus princeps*. The remainder of the collection includes numerous undetermined bivalves, snails, and gastropods as well as several others which remain unidentified.

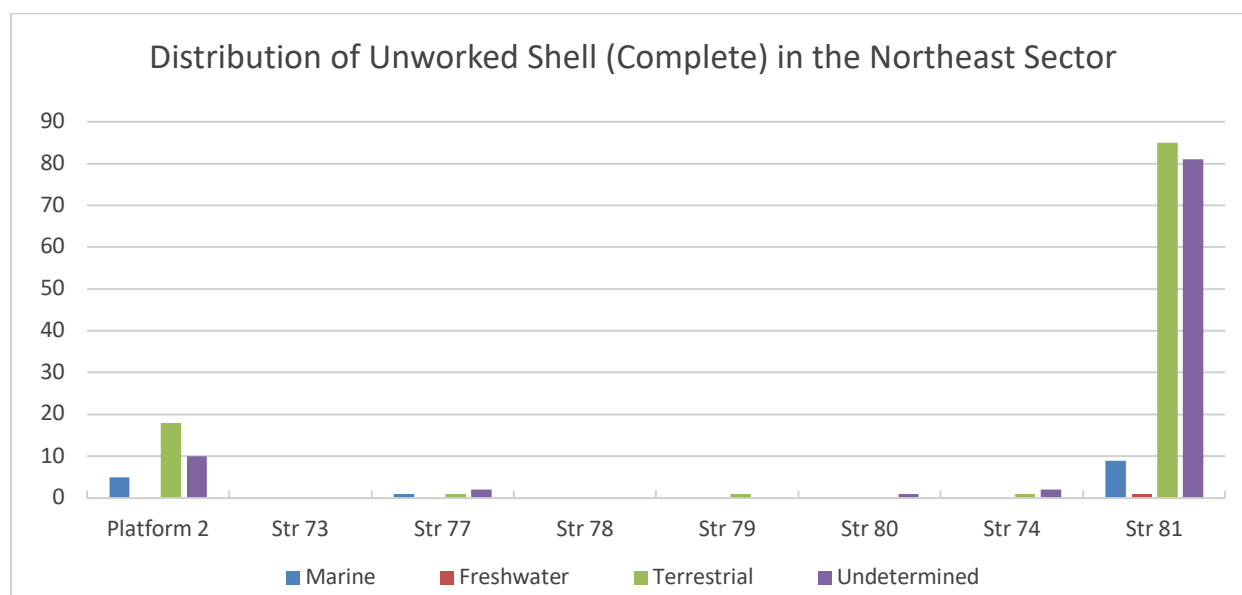


Figure 41. Distribution of complete unworked shell artifacts in the Northeast Sector at Santa Rita Corozal.

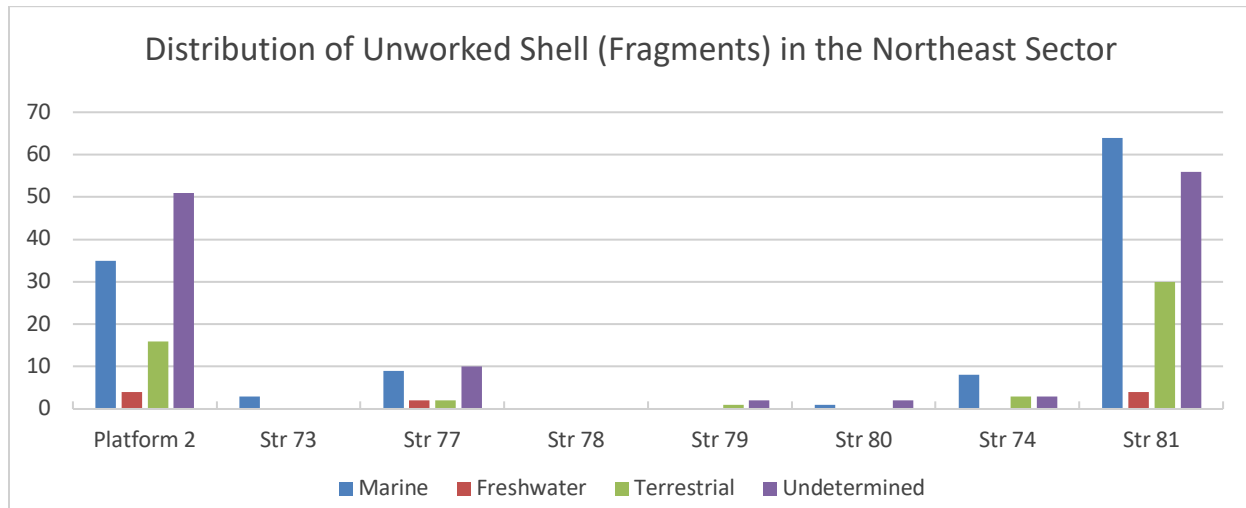


Figure 42. Distribution of unworked shell fragments in the Northeast Sector at Santa Rita Corozal.

Sample Group 1: *Platform 2 Group*

The shells from Sample Group 1 represent approximately 14% of all shell included in this study and 35% of the Northeast Sector shell. The assemblage constitutes 8% worked shells and 92% unworked shells. This is further sub-divided into 32% marine shells, 3% freshwater species, and 20% terrestrial species while 45% of the assemblage remains undetermined.

Approximately 81% of the worked shell in Sample Group 1 was recovered in association with Platform 2 where a total of 12 worked shell artifacts comprise this assemblage. It includes 4 *Spondylus* beads, 3 indeterminate beads, and 1 *Turbinella* pendant. One *Spondylus* bead was recovered in association with a multiple individual interment (SDP6E-1) along with a host of other artifacts including one of the three indeterminate beads in this assemblage (D. Chase 1982:323-325). Two *Spondylus* beads were recovered from the burial of a single female individual (SDP6E-7) who was also wearing a copper ring on each of her hands (D. Chase 1982:

325-326). The final *Spondylus* bead accompanied a sub-adult in another burial (SDP6E-11) (D. Chase 1982:334-335). A single indeterminate bead was also recovered in association with the burial (SDP6E-4) of a single adult individual (D. Chase 1982:329).

In addition to these complete artifacts, 5 worked fragments were also located in association with Platform 2. These include 3 indeterminate fragments, a single *Turbinella* fragment, and a single *Pomacea* fragment. In addition, the Platform 2 assemblage includes 139 unworked shells representing 72% of the unworked shells in Sample Group 1. The unworked shells include 40 marine shells, 4 freshwater shells, 34 terrestrial shells, and 61 shells of undetermined origins. The unworked shell is split into 24% complete shells and 76% fragments.

Three buildings in Sample Group 1, namely Structures 73, 77 and 80, each contained a single worked shell item or 6% each of the total worked shell assemblage associated with Sample Group 1. A single indeterminate bead was recovered from Structure 73 and an indeterminate pendant was recovered in association with Structure 77. A single *Strombus gigas* fragment was recovered from Structure 80. None of these worked items were recovered in association with any special deposits. The assemblage from these buildings also includes unworked shell. 75% of the Structure 73 assemblage is comprised of three *Strombus gigas* (Queen conch) unworked fragments. Four unworked shells (80%) complete the Structure 80 assemblage. These include one complete unidentified shell, two unidentified fragments, and a single *Strombus gigas* (Queen conch) fragment.

No shell material, either worked or unworked, was recovered in association with Structure 78. The shell assemblage from Structure 79 did not include any worked material but did contain a few unworked items. This assemblage includes a single complete terrestrial snail, a single terrestrial snail fragment and 2 undetermined unworked shell fragments.

Sample Group 2: *Structures 74 and 81*

The shells from Sample Group 2 represent approximately 26% of all shell included in this study and 65% of the Northeast Sector shell. The assemblage constitutes 2% worked shells and 98% unworked shells. This is further sub-divided into 24% marine shells, 1% freshwater species, and 34% terrestrial species while 41% of the assemblage remains undetermined.

The Structure 74 shell assemblage includes a total of 18 shell items representing 5% of the Sample Group 2 shell assemblage and just over 3% of the Northeast Sector shell assemblage. The assemblage includes a total of 17 unworked shell fragments (94%); three of these are complete items (Figures 41 and 42). One of these fragments is a complete *Orthalicus princeps* (land snail) along with two complete unidentified shells. The only worked shell artifact in the Structure 74 assemblage is an indeterminate fragment (Figure 40). This represents approximately 6% of the Structure 74 shell assemblage.

A total of 337 shells were recovered from Structure 81. This represents 25% of the total shell. The shell assemblage is divided into 22% marine shell, 2% freshwater, and 34% terrestrial with 42% remaining unidentified. Only 2% of this shell is worked material while the other 98% is unworked shell. The unworked shell fragment is composed of 52% (n=176) complete shells and 46% (n=154) fragments. The worked shell material includes 4 *Spondylus* sp. beads and 1 shell disc of unidentified species (Figure 39). Additionally, the worked assemblage includes a *Strombus gigas* (Queen conch) fragment and one unidentified fragment (Figure 40). All four *Spondylus* beads in this assemblage were included inside a single cache (SDP8C-2). The beads, along with several other small artifacts, were placed inside a modeled figurine which itself had been placed in the center of two other lip-to-lip vessels (Chase and Chase 1988:19).

South Intermediate Sector

Combined, the shell from the four sample groups in the South Intermediate Sector represents approximately 60% of the entire collection. The South Intermediate Sector shell assemblage is further divided into 63% (n=504) being marine-sourced shells, 5% (n=37) freshwater, and 4% (n=34) terrestrial species. Additionally, approximately 28% (n=226) of the shells are classified as indeterminate, meaning that their origin remains unknown.

Approximately 74% (n=68) of all worked shell and 58% (n=733) of unworked shell is located in the South Intermediate Sector. The worked shell is split into 84% (n=57) complete worked shell (see Figure 43) and 16% (n=11) worked shell fragments (see Figure 44). In the unworked category, the South Intermediate Sector assemblage consists of approximately 7% (n=52) complete unworked shells and 93% (n=681) unworked shell fragments.

The South Intermediate Sector worked shell assemblage (see Table 16; Figures 43 and 44) is much more diverse than the Northeast Sector assemblage. The worked shell includes artifacts primarily made from marine shell species (n=58). The beads were crafted from shells classified as *Oliva sayana* and *Spondylus* sp. shells. Pendants were fashioned from *Spondylus* sp., *Strombus gigas*, and *Turbinella angulata*. Several whole worked *Oliva sayana* and *Turbinella angulata* shells are included within this assemblage. A single hook was crafted from *Strombus gigas*. The assemblage also includes worked shell artifacts such as four beads, a disc, and a ring fashioned from shell whose species could not be identified (n=10) and therefore these items are classified as indeterminate.

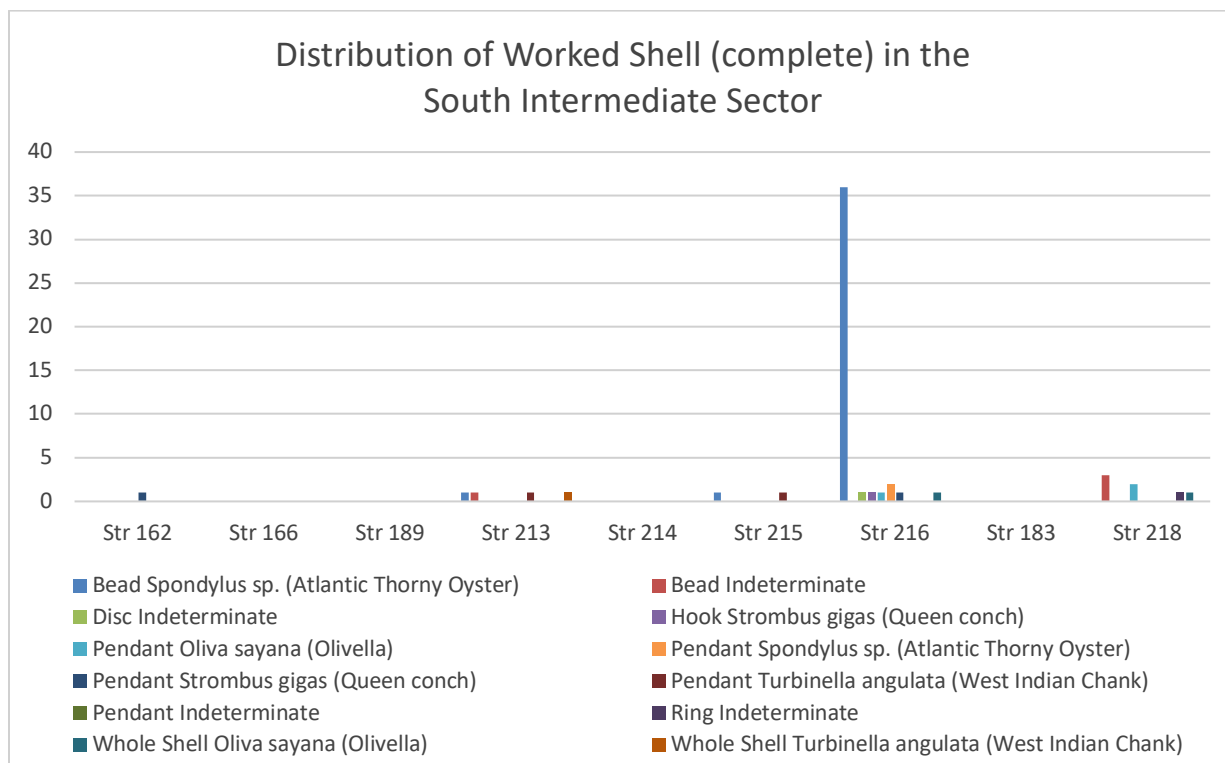


Figure 43. Distribution of complete worked shell artifacts recovered from selected buildings in the South Intermediate Sector at Santa Rita Corozal.

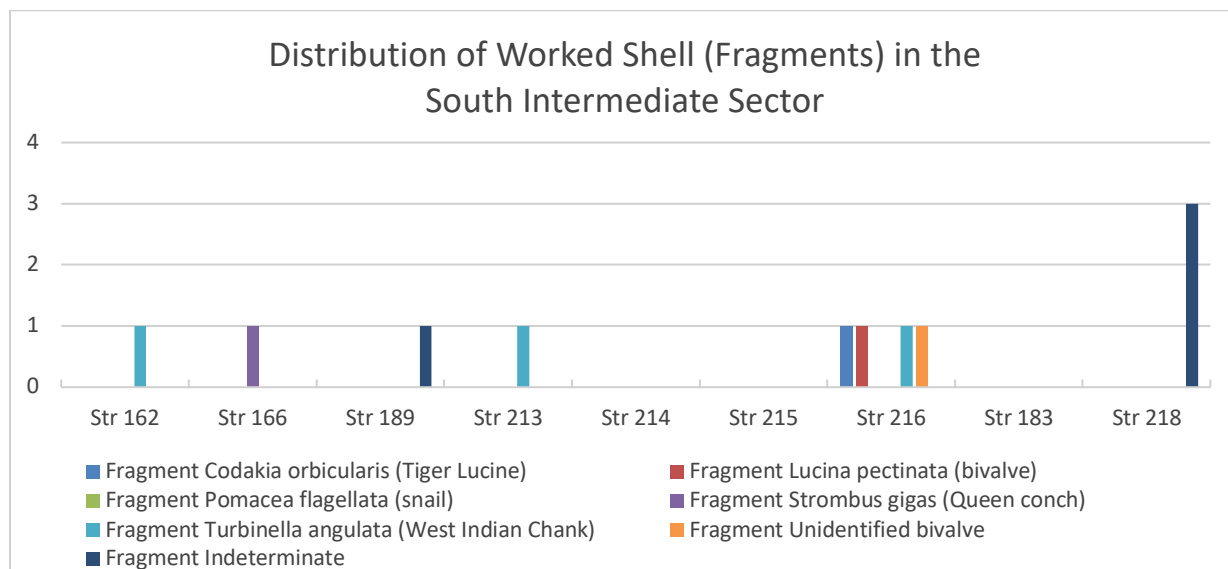


Figure 44. Distribution of worked shell fragments recovered from selected buildings in the South Intermediate Sector at Santa Rita Corozal.

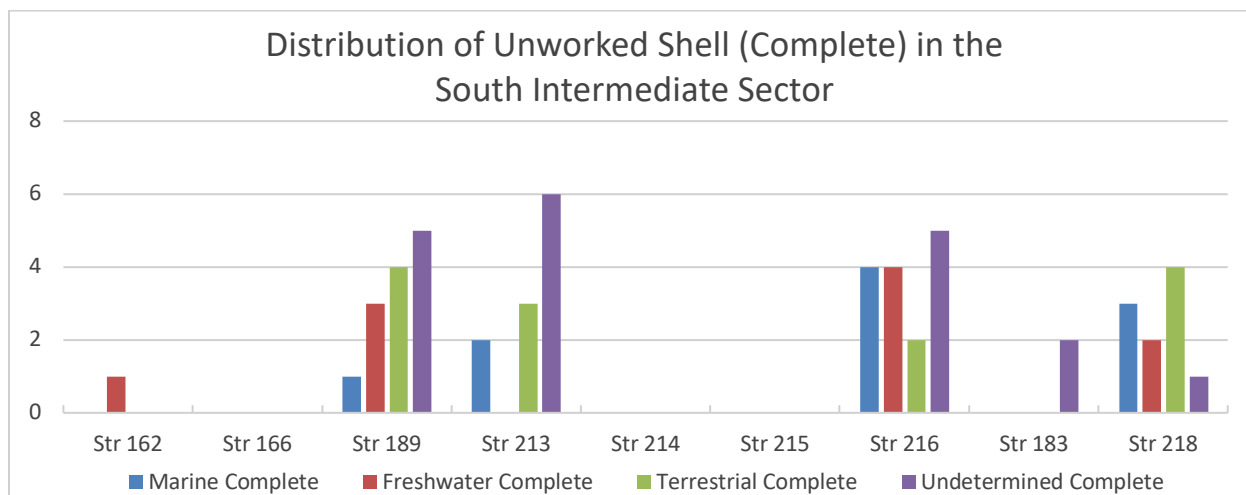


Figure 45. Distribution of the complete unworked shell artifacts recovered from selected buildings in the South Intermediate Sector at Santa Rita Corozal.

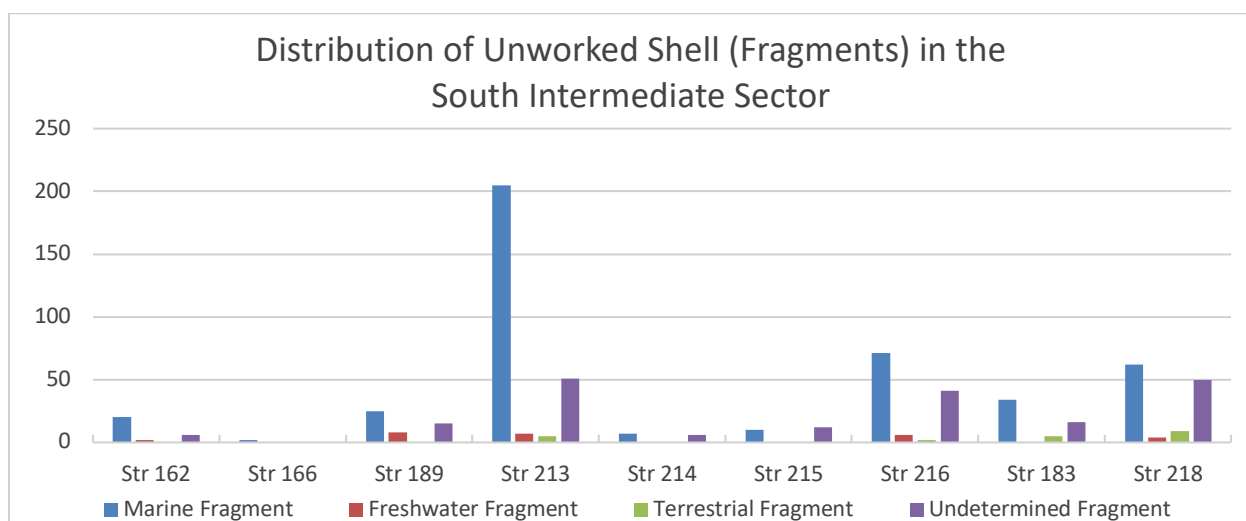


Figure 46. Distribution of unworked shell fragments recovered in association with selected buildings in the South Intermediate Sector at Santa Rita Corozal.

The unworked shell (n=733) is an even more diverse collection than that worked shell category (see details in Table 16; Figures 45 and 46), including 13 species of marine shell, 2 species of freshwater shell, and 4 species of terrestrial shell. The unworked shell assemblage

also includes indeterminate shells such as bivalves, gastropods, and snails which remain unidentified.

Sample Group 3: *Structures 162 and 166*

With a total of 34 shells, the Sample Group 3 shell assemblage represent approximately 4% of the South Intermediate Sector shell and 3% of the total shell in this study. The assemblage is split with 91% being unworked shell items and only 9% representing worked shell. The overall assemblage for this group includes 74% marine shell species, 9% freshwater species and 18% indeterminate species. There are no terrestrial species recovered from Sample Group 3.

Ninety-two percent of the shell artifacts in Sample Group 3 were recovered in association with Structure 162. There are only two worked shell items in the assemblage, representing 6% of the building's total shell (Figures 43 and 44). These include one *Strombus gigas* (Queen conch) pendant along with a single *Turbinella angulata* (West Indian Chank) fragment, both these shells are marine species. The unworked shell includes a total of 29 items (see Figures 45 and 46), representing 94% of the building's total shell. Representing 10% of the building total, the assemblage includes one complete and two fragments of a freshwater shell of the *Pachychilus* species which is the family of snails to which the commonly known Jute snail is a member. There are also 20 (68%) unworked marine shell fragments within the assemblage. Six species are represented in this collection including 5% (n=1) *Melongena melongena*, 9% (n=2) each of *Cittarium pica* (West Indian Top) and *Spondylus* sp., 18% (n=4) *Strombus gigas* (Queen conch), 27% (n=6) *Codakia orbicularis* (Tiger Lucine), and 32% (n=7) *Turbinella angulata* (West Indian Chank).

Representing only 9% of the Sample Group 3 shell, the assemblage at Structure 166 is limited to a total of three shell artifacts. All three items have been identified as the marine species *Strombus gigas* (Queen conch). The entire worked shell category includes a single worked fragment while the unworked shell category includes a total of two fragments.

Sample Group 4: *Structure 189*

Excavations at Structure 189 revealed a total of 62 shell artifacts. This represents approximately 8% of the South Intermediate Sector shell and just under 5% of the shell in this study. The assemblage is divided into 2% worked shell and 98% unworked shell. Further, the shells are divided into 42% (n=26) marine species, 18% (n=11) freshwater species, and 6% (n=4) terrestrial species along with 34% (n=21) indeterminate shell species.

A single worked indeterminate fragment (see Figure 44) is the extent of the worked shell category recovered from Structure 189.

The unworked category includes 21% (n=13) complete shells and 48% (n=48) shell fragments (see Figures 45 and 46). The unworked complete shells include 1 marine shell, namely *Melongena melongena*, 3 freshwater species (2 *Pachychilus* sp. and 1 *Pomacea flagellata*), 2 terrestrial species (2 *Euglandina euglandina* and 2 *Orthalicus princeps*), and 5 unidentified shells (2 gastropods, 1 snail specie, and 2 indeterminate shells). The unworked fragments consist of 4 marine species, namely *Codakia orbicularis*, *Melongena melongena*, *Strombus gigas*, and *Turbinella angulata*; a single freshwater specie, *Pomacea flagellata*; and several unidentified shells including gastropods, snails, and other indeterminate shell fragments.

Sample Group 5: *Structures 213, 214, 215, and 216*

The Sample Group 5 shell assemblage is the largest at the site with a total of 505 shell artifacts. This number represents about 63% of the South Intermediate Sector shell and approximately 37% of the shell analyzed in this sample; the highest percentage of shell associated with any sample group included within this study. The assemblage consists of 11% (=56) worked shell artifacts while the unworked shell accounts for 89% (n=449) of the assemblage. The largest percentage of the shell assemblage is identified as marine species (70%; n=353). Freshwater species account for 3% (n=17) of the Sample Group 5 shell while there are 2% (n=12) terrestrial species. Approximately 25% (n=13) of the assemblage remains unidentified and therefore the origin of these shells is unknown.

With a total of 284 artifacts, the shell assemblage recovered from Structure 213 is the most substantial within Sample Group 5 representing more than half of the Sample Group's total at approximately 56%. Even with this large collection, however, only 2% (n=5) are worked shell artifacts. This includes one *Spondylus* sp. bead; three *Turbinella angulata* sp. shell items: a pendant, a whole shell, and a fragment; and one indeterminate bead. The *Spondylus* bead was recovered in association with a cache (SDP26B-4) placed to the front of Structure 213. The single *Spondylus* bead along with a single jadeite bead and some turtle remains were recovered from inside in an urn which had been covered with a bowl (Chase and Chase 1988:52). The Structure 213 unworked shell assemblage comprises 98% of the building's total shell and consists of 4% (n=11) unworked complete shells and 94% (n=268) unworked fragments. Four small shells from this assemblage were recovered in association with a cache (SDP26B-3) placed within the core of Structure 213. The four shells along with a single triangular jadeite fragment

were located beneath a seated figure centrally placed in a collection of 25 figurines placed around and inside a lidded urn (Chase and Chase 1988: 48-51).

The Structure 216 shell assemblage represents 36% of the Sample Group 5 shell and includes a total of 182 shell artifacts. The assemblage is split into 26% (n=47) worked shell and 74% (n=135) unworked shell. The worked shell is further divided into 98% marine shell and 2% indeterminate. The worked shell is a diverse assemblage which includes beads, pendants, a shell disc and a hook, as well as a single whole shell and several fragments (see Table 17). Although diverse in types of shell artifacts, the assemblage is limited to only 7 species: 6 being marine species along with some items of an indeterminate shell type.

Table 17. Worked shell artifacts from Structure 216 at Santa Rita Corozal.

Artifact Type	Shell Specie	Quantity	Percentage
Bead	<i>Spondylus sp.</i>	36	77.55
Pendant	<i>Spondylus sp.</i>	2	4.08
	<i>Oliva sayana</i>	1	2.04
	<i>Strombus gigas</i>	1	2.04
Disc	<i>Indeterminate</i>	1	2.04
Hook	<i>Strombus gigas</i>	1	2.04
Whole Shell	<i>Oliva sayana</i>	1	2.04
Fragment	<i>Codakia orbicularis</i>	1	2.04
	<i>Lucina pectinata</i>	1	2.04
	<i>Turbinella angulata</i>	1	2.04
	<i>Indeterminate</i>	1	2.04

Of all the worked shell, only the *Spondylus* beads were included within a special deposit. All 36 *Spondylus sp.* beads in this assemblage were recovered in association with the only burial (SDP33D-1) in Structure 216. It was located beneath a shrine in the central section of the

building (Chase and Chase 1988:56). Two adult male individuals were part of this burial. The northern, and primary, individual in the burial was found with a variety of personal adornments and other grave goods including a necklace around his neck comprising 30 *Spondylus* shell beads and two jadeite beads. Around his left wrist was a bracelet made of 6 thin, rectangular shaped *Spondylus* shell beads (see Chase and Chase 1988:Fig. 30).

The unworked shell assemblage at Structure 216 consists of 135 shells of which 11% (n=15) are complete shells and 89% (n=120) are shell fragments. The assemblage is further divided into 56% (n=75) marine shells, 7% (n=10) freshwater, and 3% (n=4) terrestrial. A total of 34% (n=46) of the assemblage are indeterminate shells. None of the unworked shells are part of any special deposits.

The shells from both Structures 214 and 215 combined, account for only 8% of the Sample Group 5 shell assemblage. Excavations at Structure 214 recovered a total of 13 unworked shell fragments of which just slightly over half (54%; n=7) are marine species and the other 46% (n=6) are indeterminate shells. None of the shell from Structure 214 are included in any special deposits.

The breakdown of the Structure 215 assemblage is almost identical to that of the Structure 214 assemblage except for the inclusion of a single worked complete *Spondylus* sp. bead. This bead (P29B/20-8) was recovered in association with a burial (SDP29B-2) of two adult male individuals located in the core of the building (Chase and Chase 1988:54).

The unworked category consists of 22 shell fragments, 45% of this total is marine shell and 55% are indeterminate shells. A single *Turbinella angulata* shell fragment (P29B/27-3) was recovered in association with another burial (SDP29B-3) in the core of the building. The two

individuals, a male adult and a female adult, were also accompanied with a single bone bead (Chase and Chase 1988:54).

Sample Group 6: *Structures 183 and 218*

The Sample Group 6 shell assemblage consists of 202 shell artifacts which represents 15% of the shell total that was analyzed and 25% of the South Intermediate Sector shell assemblage. The assemblage is divided into 5% worked shell and 95% unworked shell artifacts. Further, the shells are split into 50% being marine shell species, 3% freshwater species, and 9% terrestrial species along with 38% of the shell being indeterminate.

The shells recovered from Structure 183 constitute approximately 28% (n=57) of the Sample Group 6 total. This assemblage includes no worked shell artifacts, thus all artifacts in this assemblage are classified as unworked shell. Only 4% (n=2) of the assemblage are complete shells while 96% (n=55) are all unworked fragments. The two unworked complete shells are indeterminate therefore their origin is unknown. The unworked fragments are divided into 62% (n=34) marine species, 9% (n=5) terrestrial species, and 29% (n=16) are indeterminate shells.

The Structure 218 shell assemblage consists of 145 shell artifacts. This assemblage represents 72% of the Sample Group 6 shell. It is divided into 7% (n=10) worked shell artifacts and 93% (n=135) unworked shell. The worked shell category constitutes 7 complete artifacts and 3 fragments. The complete artifacts includes three *Oliva sayana* artifacts (2 pendants and 1 whole shell) and four indeterminate artifacts (3 beads and 1 ring). The three worked fragments are all indeterminate shells.

The Structure 218 unworked shell category comprises 7% (n=10) complete unworked shells and 93% (n=125) unworked shell fragments. The complete unworked shells are divided

into 30% (n=3) marine species, 20% (n=2) freshwater species, 40% (n=4) terrestrial, and 10% (n=1) indeterminate shells. The unworked shell fragments are split into 50% (n=62) marine, 3% (n=4) freshwater, 7% (n=9) terrestrial, and 40% (n=50) indeterminate shells.

7.0 Artifact Distribution and Function of Individual Buildings

This section will provide an in-depth analysis of the differences between artifact distribution patterns observed between individual buildings within designated groups and between groups. The artifact assemblage was compiled by the author based on information included within the catalog card database gathered from the archaeological excavations conducted by the Corozal Postclassic Project. Supplementary information on the various excavations and details on the buildings as well as on the artifact assemblages was obtained from a review of several theses and reports which featured the Santa Rita collections.

Table 18. Architectural details of selected buildings at Santa Rita Corozal. These details include location, building type, and specific architectural features of the seventeen selected buildings included within this study.

Sample Group #	Building	Building Type	Location (around plaza)	Additional Features					
						Interior		Altar	
				Cache	Burial	Shrine	Altar	Stone	Figure
1	Platform 2	Raised Platform	Central	X	X			X	
1	Structure 73	Multiroom	North		X				
1	Structure 77	Single Room	East	X	X				X
1	Structure 78	Single Room	West						
1	Structure 79	Single Room	West					X	
1	Structure 80	Single Room	North						
2	Structure 74	Single Room	South						
2	Structure 81	Multiroom	North	X	X	X	X		
3	Structure 162	Undetermined	North						
3	Structure 166	Single Room	Central		X				
4	Structure 189	Single Room	Isolated	X	X				
5	Structure 213	Single Room	North	X	X				
5	Structure 214	Single Room	East						
5	Structure 215	Single Room	South	X	X				
5	Structure 216	Multiroom	West		X	X			
6	Structure 183	Tandem Room	South	X	X		X		
6	Structure 218	Multiroom	West	X	X				

The sample group numbers were assigned by the author for ease of discussion throughout the research (see Table 18). The building types are based on the architectural layout of the buildings as determined through archaeological investigations conducted by the CPP directed by Chase and Chase (1979-1985). Given that these designations provide a basis for categorizing the individual buildings, the same types have been found useful and therefore utilized within this current research.

7.1 Sample Group 1: Platform 2 Group

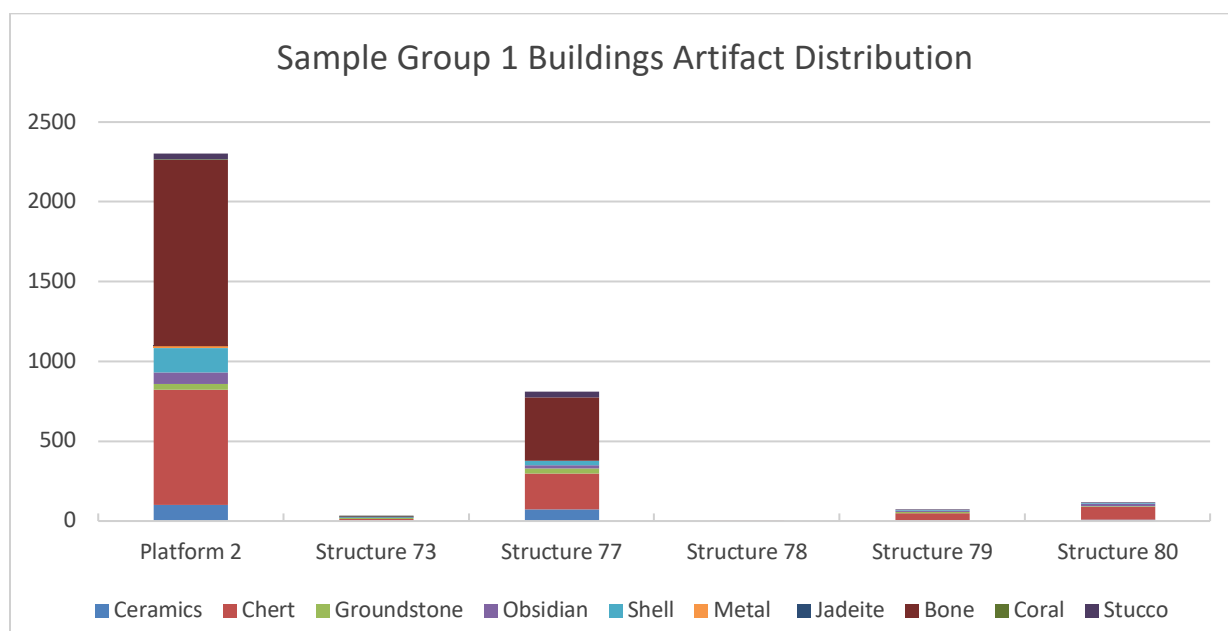


Figure 47. Artifact distributions for the Sample Group 1 buildings in the Northeast Sector at Santa Rita Corozal.

Sample Group 1 is one of two household groups located in the Northeast Sector of Santa Rita Corozal. There are six structures which comprise this group (Figure 47) and includes specifically Structures 73, 77, 78, 79, 80 and the Platform 2 construction. Based on their

architectural layout, four of the six buildings, namely 77, 78, 79, and 80, are categorized as single rooms. While Structure 78 was not fully excavated, mapping conducted by the CPP strongly suggests that it was a single room building. Mapping showed that Structure 73 was comprised of at least two rooms and two separate platform areas confirming it as a multiple room building. The loci of this sample group and upon which these buildings are constructed is the raised platform known as Platform 2.

Structure 78

Due to the limited excavation conducted at this western building, it was difficult to identify its specific architectural layout, but its spatial size strongly suggests that it was a single room building. Because of the limited excavation undertaken at this locus, only a single chert flake was recovered, making it difficult to compare it with the other buildings. This lack of information also makes it difficult to address the issue of building function and the role that this building may have served within the group. Figure 48 illustrates the extent of the artifact assemblage at Structure 78.

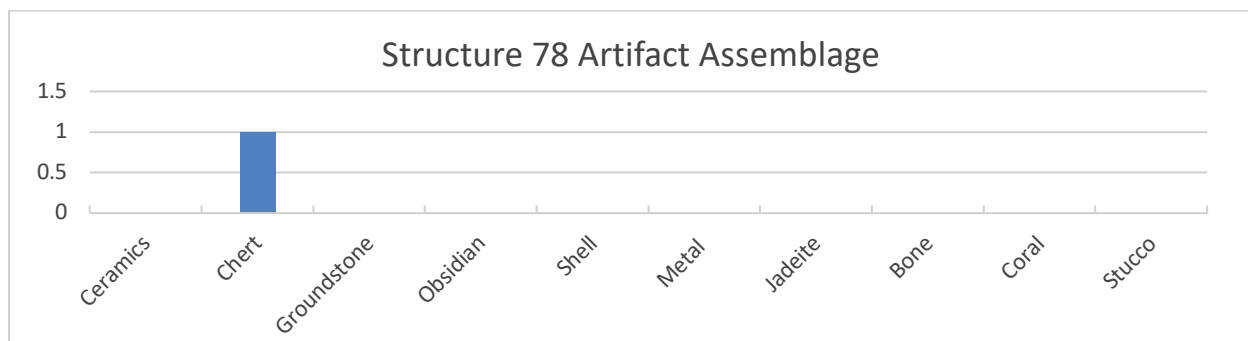


Figure 48. The artifact assemblage recovered in association with Structure 78 in the Northeast Sector at Santa Rita Corozal.

Structure 73

Structure 73 is the only multiroom building within Sample Group 1. The northern building's artifact assemblage is small (n=28) but diverse and contains multiple artifacts from five different artifact classes including bone, ceramic, chert, ground stone, and shell as well as a single artifact from three other artifact classes namely coral, obsidian, and stucco (see Figure 49).

Based on the expectation that a household or building functioning in a domestic capacity would display a diverse collection of artifacts, the assemblage at Structure 73 appears to exhibit just such qualities given the diversity of its artifact assemblage. Particularly in the case of ground stone artifacts, which represent 23% of the assemblage, the presence of 5 *mano* fragments and a *metate* fragment could be taken as an indication of food processing activity; thus, suggesting that Structure 73 may have had some domestic related function. Chert artifacts, in the form of chunks and flakes, account for approximately a third (36%) of the Structure 73 artifact assemblage. However, this small amount of chert items is not sufficient to indicate whether any chert manufacturing may have taken place at this location. The presence of painted stucco suggests that Structure 73 may have been decorated, as were most of the other buildings in the Northeast Sector. Excavation by the CPP indicates that there are two Postclassic dated burials (SDP6E-9 and SDP6E-10) associated with Structure 73 (Chase 1982:352-353). Neither of these burials were accompanied with any other artifacts or grave goods. No cache deposits were recovered in association with Structure 73. The burials and domestic related artifact assemblage associated with Structure 73 may be taken as an indication that the building served a multipurpose function as both a domestic and ritual locale.

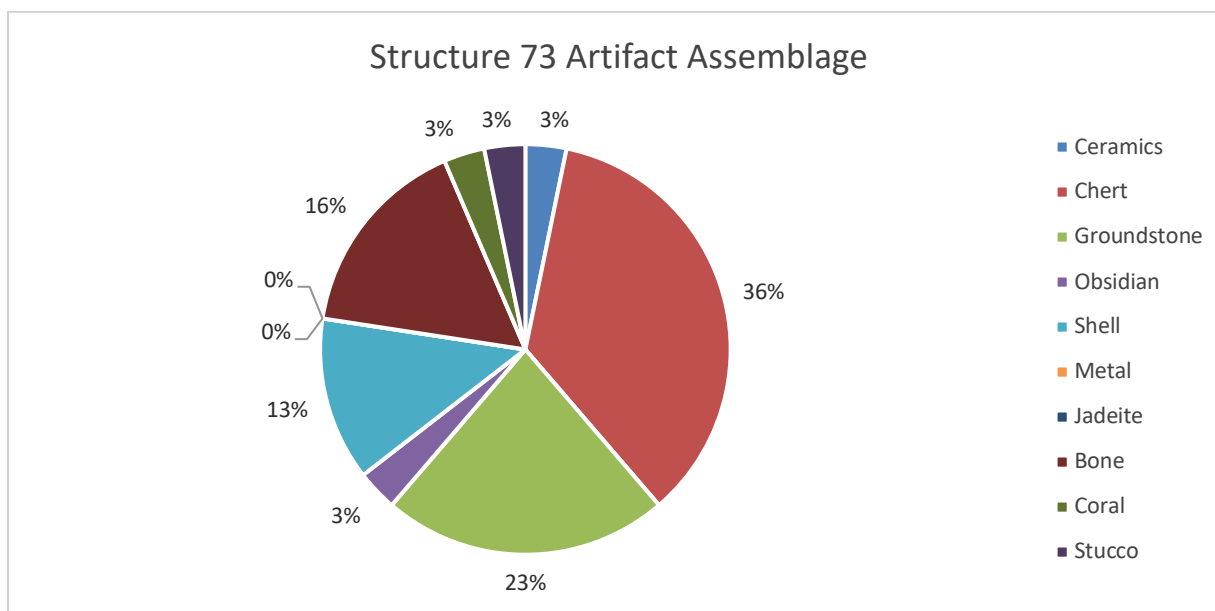


Figure 49. The artifact assemblage recovered in association with Structure 73 in the Northeast Sector at Santa Rita Corozal.

Structure 79

Structure 79 is constructed atop Platform 2 and forms the northwestern border of the small plaza. It is one of four single room structures atop Platform 2 and within Sample Group 1. While the artifact assemblage is limited to only 70 individual artifacts, the assemblage is diverse and includes numerous artifact types and forms associated with domestic functions. Though several fragments of a stone altar were recovered on the surface of the summit on Structure 79 (Chase 1982:398-399), excavations did not reveal any other artifacts or special deposits supporting the possibility that the building was purposefully used for ritual purposes. The absence of other exotic trade items also supports this interpretation. As Figure 50 illustrates, the artifact assemblage did include implements such as *manos* and *metate* fragments which are typically associated with food processing and ceramic beads and net weights which are associated with fishing activities. A few obsidian blades are typical features in any household as

these are used for multiple tasks such as cutting and piercing. The Structure 79 assemblage also includes painted stucco fragments suggesting that this building, like the other buildings in Sample Group 1 and in the Northeast Sector, may have been decorated during the Late Postclassic when the building was occupied and fully functioning.

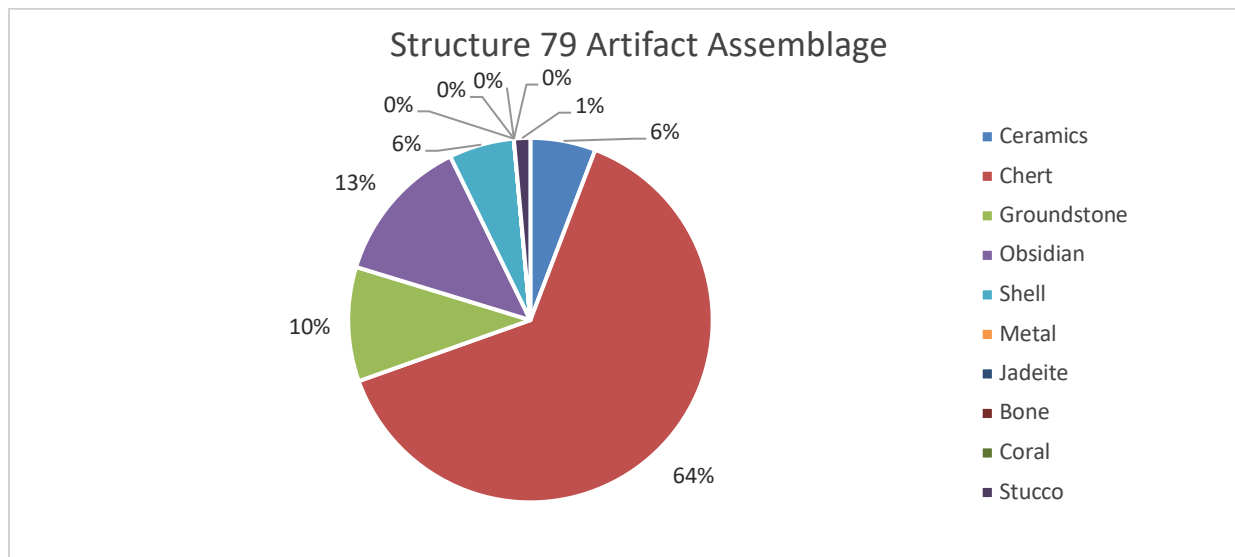


Figure 50. The artifact assemblage recovered in association with Structure 79 in the Northeast Sector at Santa Rita Corozal.

Structure 80

This small single room northern building has an associated artifact assemblage that is almost identical to that observed at Structure 79. However, the Structure 80 assemblage is slightly larger with a total of 122 artifacts. Like Structure 79, the assemblage includes artifact classes that are typical of a Late Postclassic domestic household (see Figure 51); however, the absence of *metates* implies that there was limited or no food preparation taking place at this location. The presence of several chert tools along with some debitage material and multiple

ceramic items, such as beads, net weights, a spindle whorl, a censerware fragment and other “crack-laced” sherds, may indicate that perhaps this building was functioning as a domestic space. The absence of exotic trade items and ritual-related artifacts or deposits suggests that the building was not serving in a ritual or ceremonial function but instead was probably being used in domestic-related activities. That Structure 80 is not directly within the central courtyard area but instead located on the fringe along the north edge of the summit of Platform 2 suggests that this building may have served in a domestic or domestic-related function for the sample group. The presence of painted and modeled stucco fragments suggests that the exterior of this building, like the other Sample Group 1 buildings, was likely decorated in painted stucco.

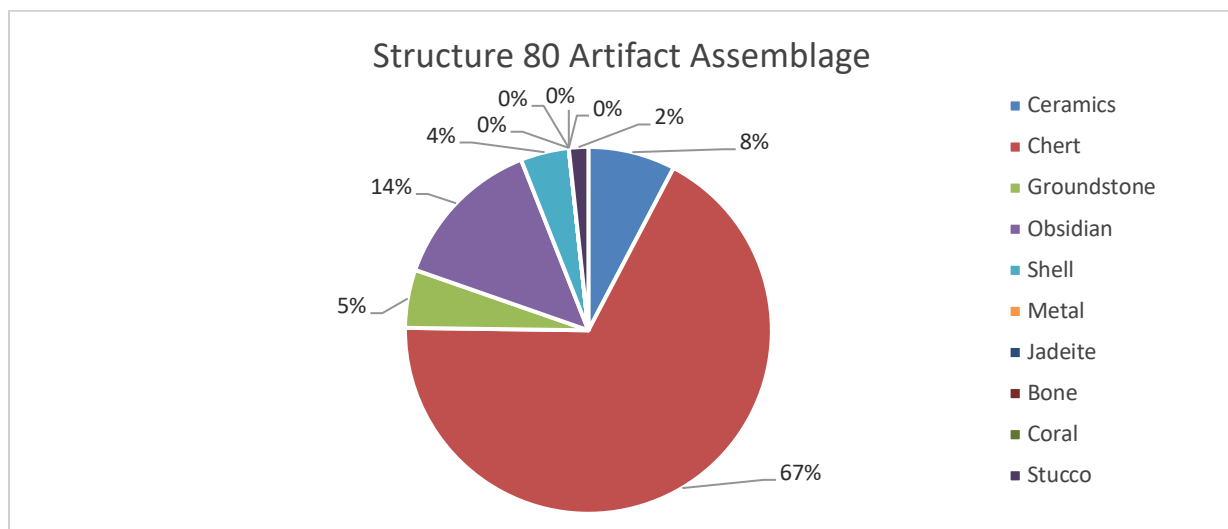


Figure 51. The artifact assemblage recovered in association with Structure 80 in the Northeast Sector at Santa Rita Corozal.

Structure 77

This small single room building forms the southeastern edge of the plaza atop Platform 2. Based on the composition of the artifact assemblage recovered in association with Structure 77

(see Figure 52), it appears that this building may have had a ritual function as well served as a location for food preparation, though perhaps for ritual purposes. The quantity and diversity of the faunal bone along with unworked shell fragments as well as the presence of a large amount of obsidian blades, numerous ground stone *manos* and *metates*, and several chert bifaces, points and scrapers, and large number of net weights and ceramic beads are all indicative of food procurement, processing and preparation activities. The highest percentage (53%) of faunal bone recovered from the buildings in Sample Group 1 was associated with Structure 77. Moreover, none of these faunal remains were recovered in association with any special deposits.

Chase (1982:382) suggests that this building was likely used in a ceremonial function. The recovery of several ritual-related deposits and artifacts associated with Structure 77, including two burials (SDP6F-1 and SDP6F-2), a deposit of two censers, a carved stone turtle ‘altar figure’, a large ceremonial vessel known as a *tinajera* (D. Chase 1982: Fig 4.50a; Chase and Chase 1988: Fig 11q), as well as the recovery of a hollow bird effigy vessel (Chase 1982:375) all support this suggestion. However, given the expanse of the food preparation related artifacts within the assemblage, it is probable that food preparation or perhaps food offerings were important functions associated with this building. Like the other buildings in Sample Group 1, there is evidence which indicates that Structure 77 was also a stucco decorated building.

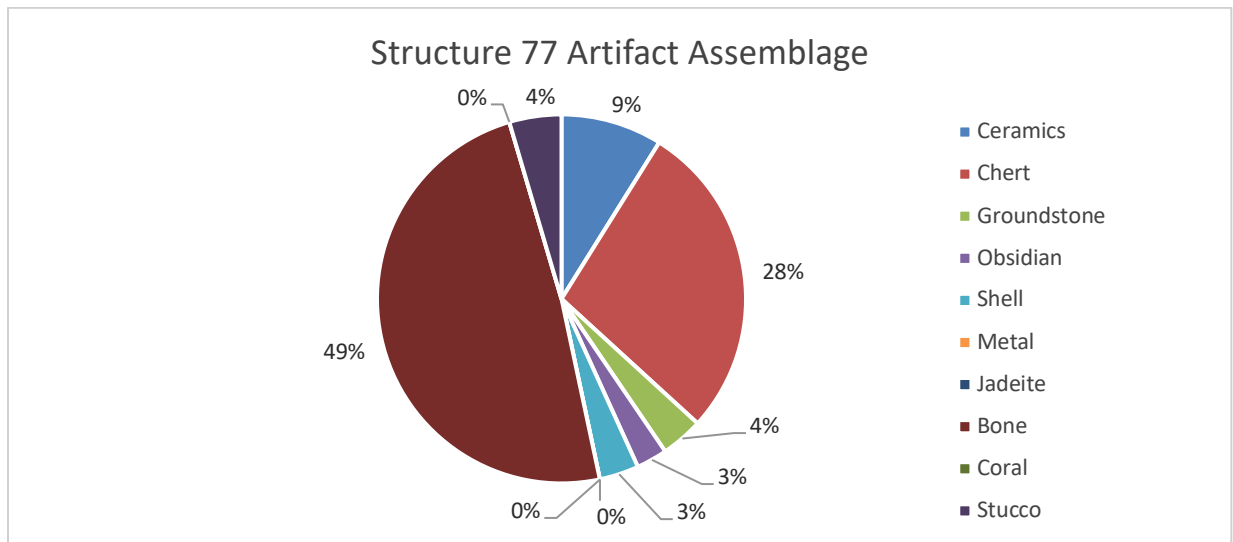


Figure 52. The artifact assemblage recovered in association with Structure 77 in the Northeast Sector at Santa Rita Corozal.

Platform 2

This large, raised platform construction supports all the structures comprising Sample Group 1. The general artifact assemblage recovered in association with this location is extensive and includes objects of all ten artifact classes discussed within this study (see Figure 53). The diverse collection of artifacts suggests that the structures on the platform were multipurpose, serving not only in domestic function but also being an important locus for ritual activity. The presence of eight Postclassic dated burials and one cache not formally associated with specific buildings, more special deposits than are associated with any specific structure in Sample Group 1, emphasizes the ritual functioning of Platform 2. A portion of almost every artifact class in the Platform 2 assemblage including ceramics, chert, shell, obsidian, ground stone, metals and all the human bone as well as a few faunal bone fragments were recovered in association with special deposits excavated at this location. The presence of household related implements such as ground stone *manos* and *metates*, chert blades, hammerstones, and scrapers, ceramic beads and

net weights, obsidian blades and points, along with numerous faunal remains and complete shells and shell fragments are all indications that typical daily household activities such as food procurement, processing and preparation were all occurring at Platform 2. The presence of numerous painted and modeled stucco fragments implies that what stood in this location was a painted and decorated Postclassic edifice.

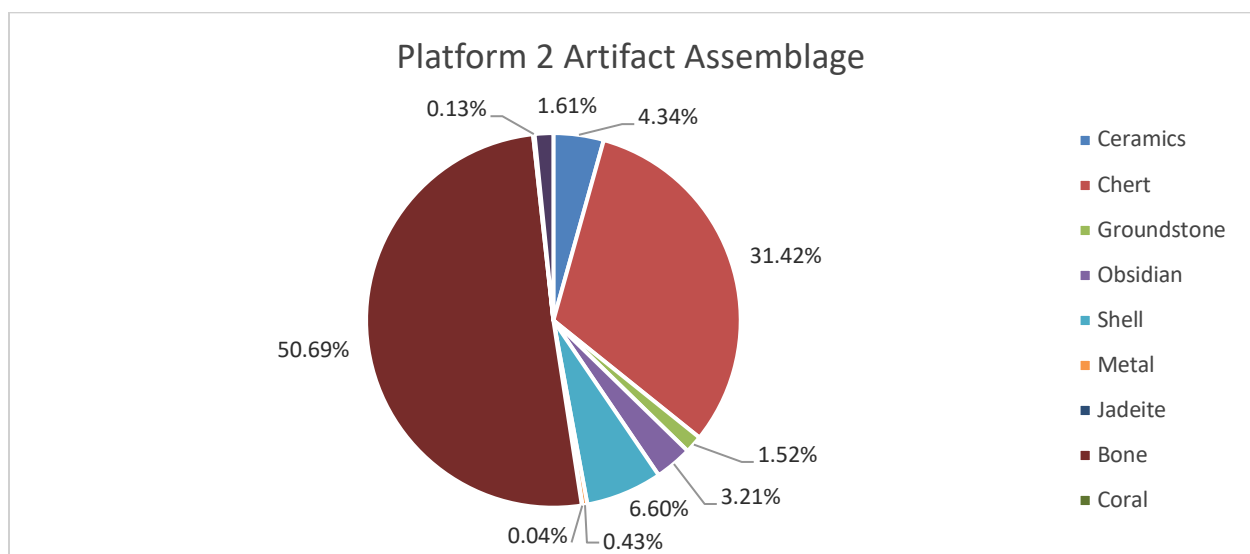


Figure 53. The artifact assemblage recovered in association with Platform 2 in the Northeast Sector at Santa Rita Corozal.

Sample Group 1 Summary

Like Classic period households, it appears that the buildings comprising Sample Group 1 in the Northeast Sector of Santa Rita Corozal functioned as a single household or, minimally, an activity area. At Caracol, Belize, for instance, Chase and Chase (2014:9) state that individual buildings within a household or *plazuela* group may have functioned in varying roles as necessary within the household. Through his research at Tikal, Guatemala, Becker (1982:114-115) also suggests that individual buildings within a group functioned much like a modern house

with varying rooms serving different purposes; he, however, noted that this was not how most Mayanists approached a residential group, arguing that 25 people would have formed an extended family and that, thus, considering the buildings in each residential group as a residence would have no effect on population numbers; Chase and Chase (2014) instead suggest that an extended family consisted of approximately 11 individuals. That a residential group represents an extended family is illustrated by the Sample Group 1 buildings where some served domestic purposes, some for ritual purposes, and others in more domestic auxiliary roles as kitchens or tool manufacturing and craft production locales, suggesting that Late Postclassic households continued operating in much the same manner as their Classic period counterparts.

7.2 Sample Group 2: Structures 74 and 81

There are four buildings comprising Sample Group 2 in the Northeast Sector of the site which is positioned adjacent to Platform 2 (Sample Group 1). There is one multiroom room building, Structure 81, which forms the northern edge of the plaza. The other three buildings include Structure 75 to the east, Structure 84 to the west and Structure 74 to the south. Only Structures 81 and 74 were selected for inclusion within this study (see Figure 54). Structure 84 was not excavated by the CPP and only a brief investigation was conducted at Structure 75.

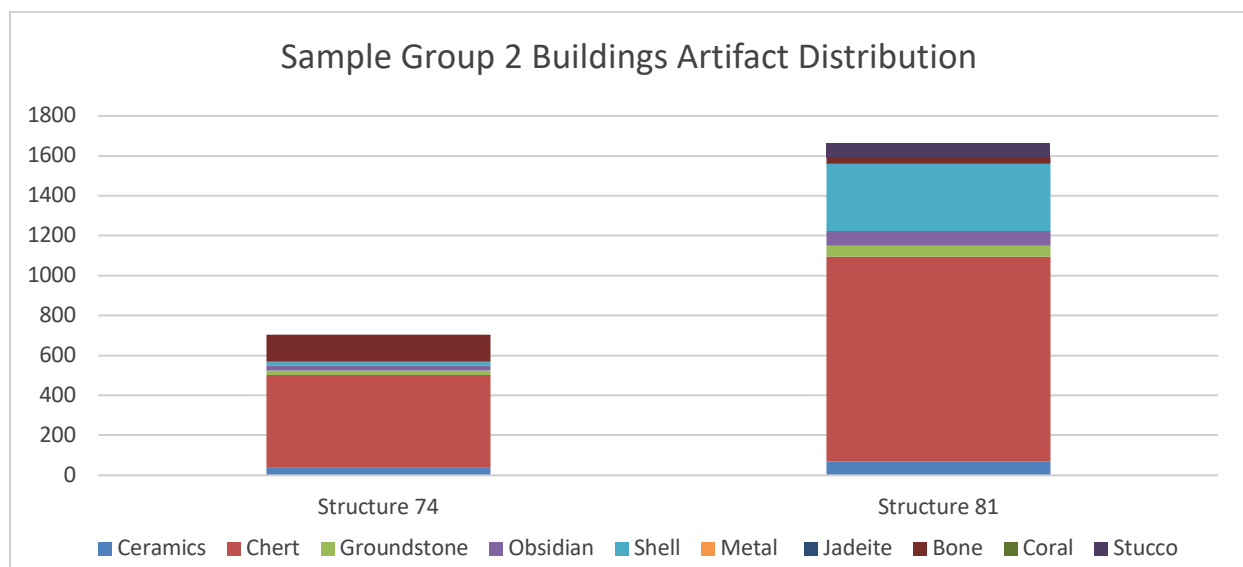


Figure 54. Artifact distributions for the Sample Group 2 buildings in the Northeast Sector at Santa Rita Corozal.

Structure 74

Structure 74 is the southern single room building which forms a part of Sample Group 2 along with Structures 75, 84 and 81. The Structure 74 artifact assemblage is diverse and extensive (see Figure 55). There is a wide variety of chert tools and chert fragments which is indicative of possible chert tool rejuvenation activities at this locale. There are no special deposits associated with Structure 74 therefore the presence of censerware and figurine fragments as well as a jadeite fragment might indicate that these items were possibly being stored or perhaps being manufactured (for local use) or repaired at this location. The high percentage (20%) of faunal remains within the assemblage along with the presence of ground stone *manos* and *metates* is suggestive of food processing or preparation activities. The absence of stucco at Structure 74 indicates that this building, unlike most of the other buildings in the Northeast Sector, was not a stucco decorated structure.

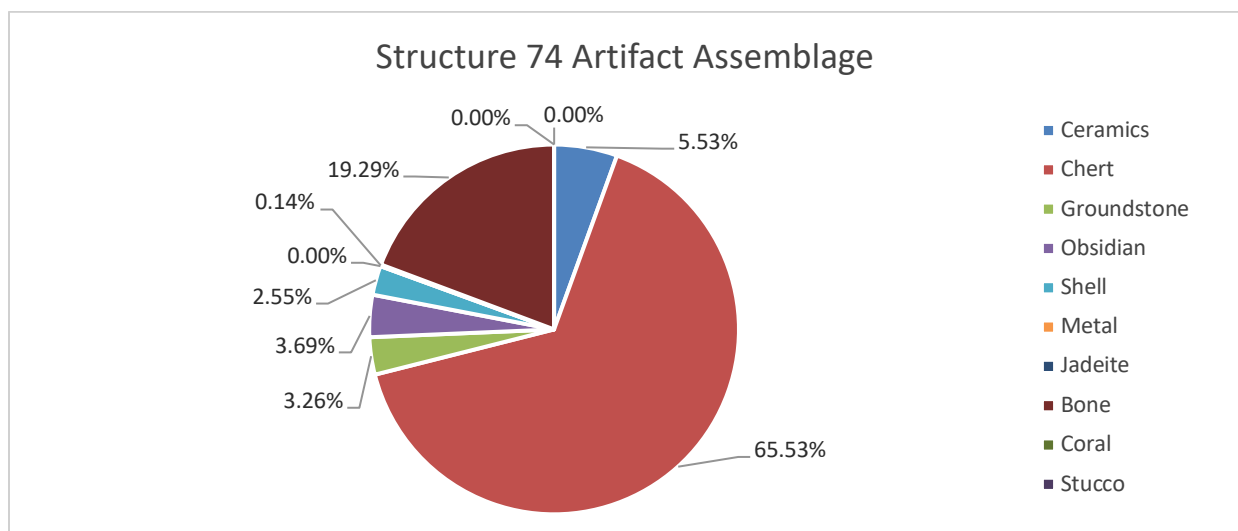


Figure 55. The artifact assemblage recovered in association with Structure 74 in the Northeast Sector at Santa Rita Corozal.

Structure 81

Structure 81 is the northern multiroom building in Sample Group 2. It along with Structure 74 were the only two buildings in Sample Group 2 that were selected for inclusion within this study. The other buildings which form part of Sample Group 2 includes Structures 75 and 84, which were not selected for this study. The building, as described by Chase (1982:297), consists of multiple rooms with a frontal terrace and a central shrine room with an altar, which also features a false back wall and a bench. Structure 81, like most others in the Northeast Sector, was probably a painted and decorated structure given that almost 50% of the stucco recovered at the site in association with Structure 81. The artifact assemblage at Structure 81 (see Figure 56) accounts for almost half of the artifacts in the Northeast Sector indicating that there was much activity centered here. The presence of a shrine room, within which numerous vessels were recovered, suggested to have been placed as offerings, along with a burial (SDP8C-1) below, which included fragments of several vessels from above in the shrine room, provide an

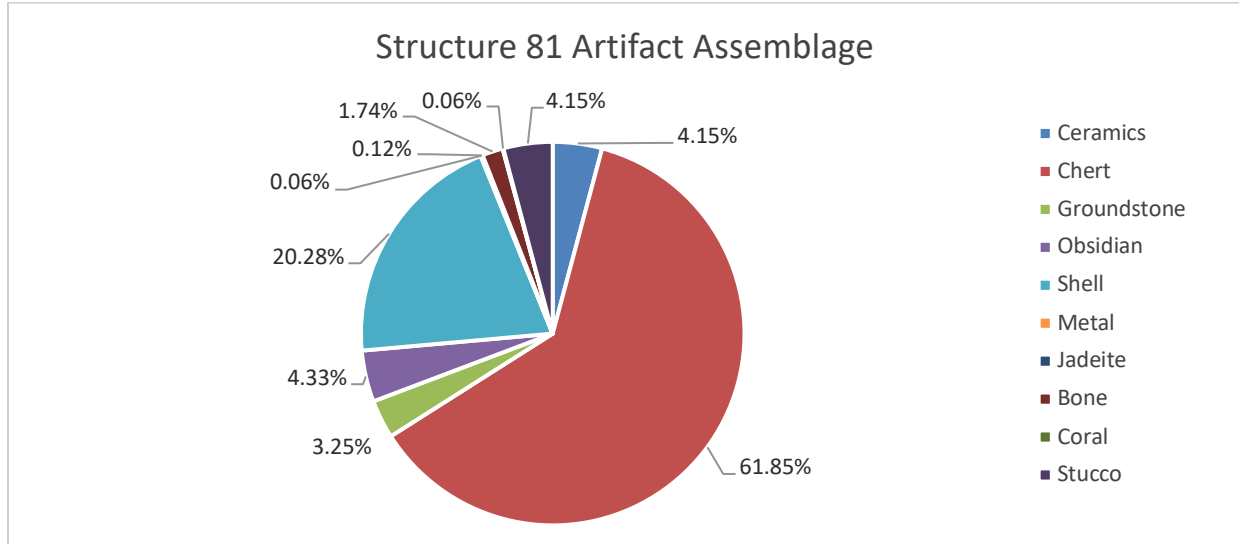


Figure 56. The artifact assemblage recovered in association with Structure 81 in the Northeast Sector at Santa Rita Corozal.

indication of the important ritual function of Structure 81. Additionally, this ritual or ceremonial function is reflected in the extraordinary nature of two separate caches encountered in Structure 81 during excavations; one (SDP8C-2) an elaborately painted and modeled ceramic effigy figurine representing a diving god (Chase 1982:302) and the other (SDP8C-3) an unusual double spouted black bird effigy vessel thought to be of South American origin (Chase 1982:299).

Furthermore, Structure 81 contained just over half of the ceramic vessels in the Northeast Sector. These censers, believed to represent idols, were recovered in the front room of Structure 81 and indicate that this building was likely the residence of a *‘principal’* otherwise known as a lord or ruler (Roys 1972:132). One set of four vessels formed an assemblage that was likely involved in the production of an alcoholic drink (Chase and Chase 2013:60).

The diversity in other artifact classes recovered from Structure 81 also suggest that varying domestic activities were conducted at this locale. Numerous ground stone *manos* and

metates are typical food preparation implements while a ground stone crescent and palette add to the ritual or ceremonial status. An assortment of artifacts such as bifaces, blades, scrapers, and a uniface are examples of utilitarian tools employed for various domestic tasks within the household while cores, chips, chunks and flakes along with a host of worked and unworked shells and shell fragments signify that some manufacturing, or the constant rejuvenation of tools and perhaps some craft production may likely have been some of the activities conducted here.

Based on a combination of its construction, the special deposits associated with this structure, and the quantity and quality of its artifact assemblage, there is no doubt that Structure 81 served multiple functions including that of being a residence for an influential member of the community where both domestic activity and ritual events were conducted.

Sample Group 2 Summary

Analysis of the associated artifacts from the two buildings in Sample Group 2 indicate similar characteristics as that observed at Sample Group 1. The two Sample Group 2 buildings included within this study likely represent an extended family occupying these structures where one building served multiple purposes including for domestic and ritual purposes and perhaps an administrative function as the residence of the principal. The other building served in more auxiliary role as storage space and as a tool manufacturing and craft production locale. Similar to Sample Group 1, the varying functions of the Sample Group 2 buildings suggest that Late Postclassic households constituted multiple buildings and were multi-functional similarly to their Classic period counterparts.

7.3 Sample Group 3: Structures 162 and 166

Sample Group 3 includes two buildings in the South Intermediate Sector of the site. One is a small, southern, single room building (Structure 166) and the other is a larger northern building (Structure 162). Time limitations on the CPP excavations did not allow this area to be properly excavated, as such it is likely that continued excavations would have revealed the presence of additional buildings forming a group along with Structures 162 and 166. D. Chase (1990:201-202) indicates that detailed excavations would often lead to areas with only one mapped structure to be transformed into groups of at least four buildings. The artifact assemblages associated with these buildings are indicative of different functions for each of these structures (Figure 57).

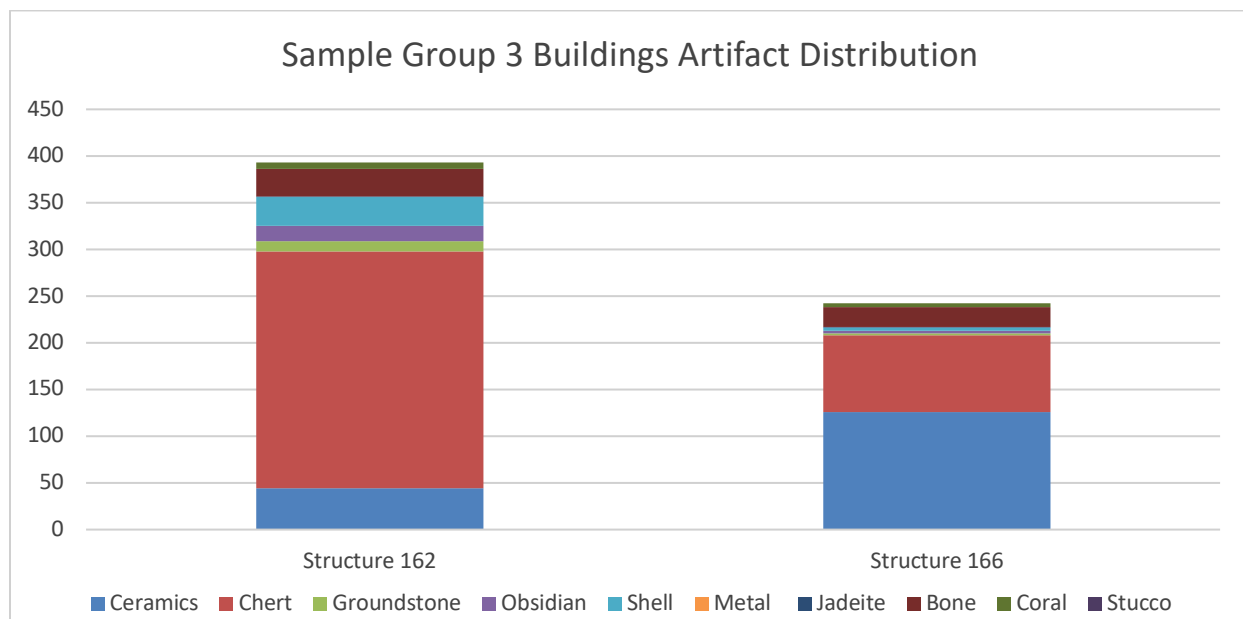


Figure 57. Artifact distribution from the buildings in Sample Group 3 in the South Intermediate Sector at Santa Rita Corozal.

Structure 162

Structure 162 is the northern building in Sample Group 3. This construction is classified as undetermined because it was never fully excavated and thus the building was never fully exposed. Although limited in number, the building's artifact assemblage is inclusive of almost all artifact classes under analysis within this study and is similar to that of several other structures in this study suggesting that it likely had a domestic function (Figure 58). This is based on the presence of ground stone *manos* and *metates*, chert points and scrapers, and ceramic sherds as well as obsidian blades which are all indicative of food processing and preparation activities. The assemblage also includes a variety of tools and a host of debris material typically associated with tool production including a chert hammerstone, several cores, flakes, chunks, an obsidian core and a chip, and several deer antler fragments. Since the building was never fully excavated, exactly how it was used and functioned will remain unknown but based on the associated artifact assemblage it is probable that Structure 162 was serving a domestic function.

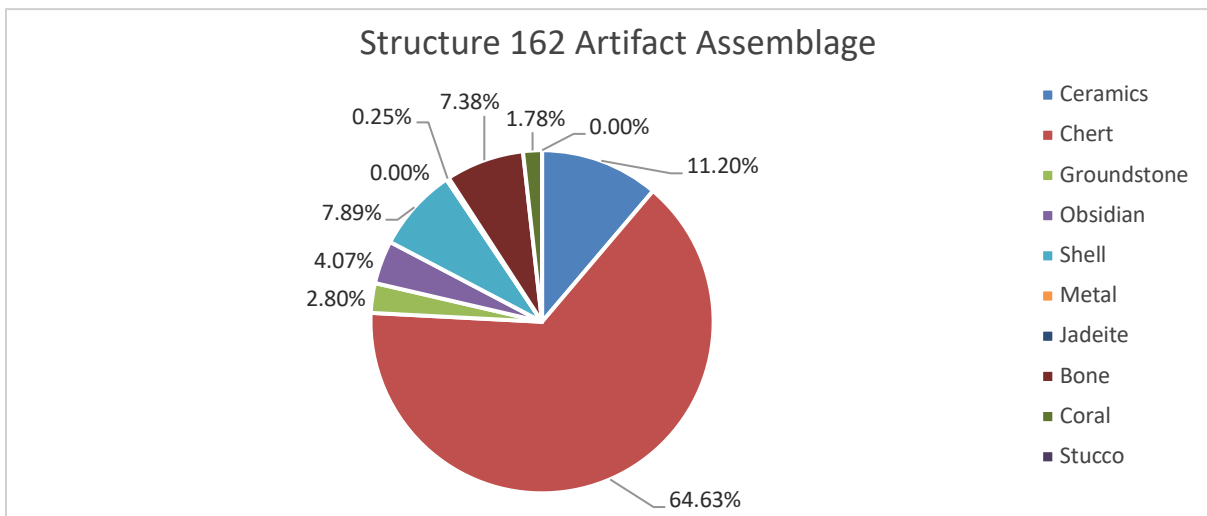


Figure 58. The artifact assemblage recovered in association with Structure 162 in Sample Group 3 in the South Intermediate Sector at Santa Rita Corozal.

Structure 166

This is the smaller of the two buildings in Sample Group 3. It is a single room structure located within the central area of the plaza and to the southwest of Structure 162. Two burials (SDP23B-1 and SDP23B-2) are associated with Structure 166. These burials account for all the human remains recovered in Structure 166. The burials were accompanied by several items including a jadeite celt and chert tools (in the first burial) and a mano fragment (in the second). A deposit of 99 ceramic beads and 12 net weights along with the several censerware fragments and a ceramic effigy mask fragment also indicate a ritual function for Structure 166. This interpretation is supported by the reduced quantities of chert, ground stone, and obsidian artifacts (see Figure 59) as compared to those recovered in association with Structure 162. The absence of any *metates* in the assemblage also suggests that typical domestic activities were not being conducted at this structure. Chase and Chase (1988:43) identify this building as being a “shrine”.

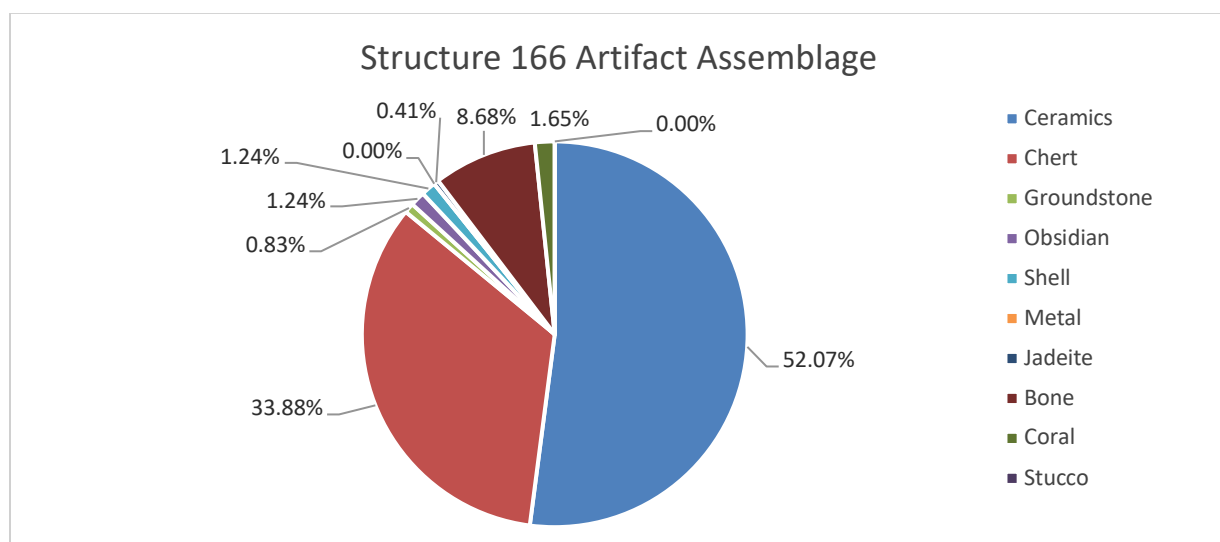


Figure 59. The artifact assemblage recovered in association with Structure 166 in Sample Group 3 in the South Intermediate Sector at Santa Rita Corozal.

Sample Group 3 Summary

The two Sample Group 3 buildings, like Sample Groups 1 and 2, likely also functioned as one unit in the same way as the Classic period households did as suggested by Chase and Chase (2014) and Becker (1982:114-115). Each building in the group served a specific purpose whereby the associated artifact assemblage points to Structure 162 having a domestic function while those associated with Structure 166 indicate a ritual function. It is likely that further excavation in the area to the south of Structures 162 and 166 would have revealed other vacant terrain structures that would have completed a residential group.

7.4 Sample Group 4: Structure 189

This sample group consists of one isolated building, Structure 189. This is a platform that likely held a single room building, standing on its own in the South Intermediate Sector of the site. The composition of the artifact assemblage at Structure 189 (see Figure 60) suggests that this was a multipurpose structure serving both residential and ritual functions along with some chert tool manufacturing. All the human remains recovered from Structure 189 are associated with one Postclassic dated burial (SDP30D-1) recovered beneath the front stair balk of the building. A deposit of two large chert points along with the recovery of a copper bell, an eccentric chert, and green obsidian all suggest a ritual function for Structure 189.

Other chert and ground stone implements such as blades, points, *manos* and *metates*, obsidian blades, and a variety of shell fragments are indications of food preparation and processing activities which allude to household related activity. The presence of numerous ceramic beads and net weights imply that the residents of this household were likely engaged in

fishing activities (Masson 2000:117) while the presence of ground stone potlids allude to an involvement in bee keeping activities (see Sidrys 1983:298; Imre et. Al 2010:43; Paris et. Al 2018:8). Other artifacts within the assemblage such as hammerstones and cores along with a high percentage (79%) of chert material (including chips, chunks, and flakes) is suggestive of chert manufacturing and tool production at this location (Marino 2014:49).

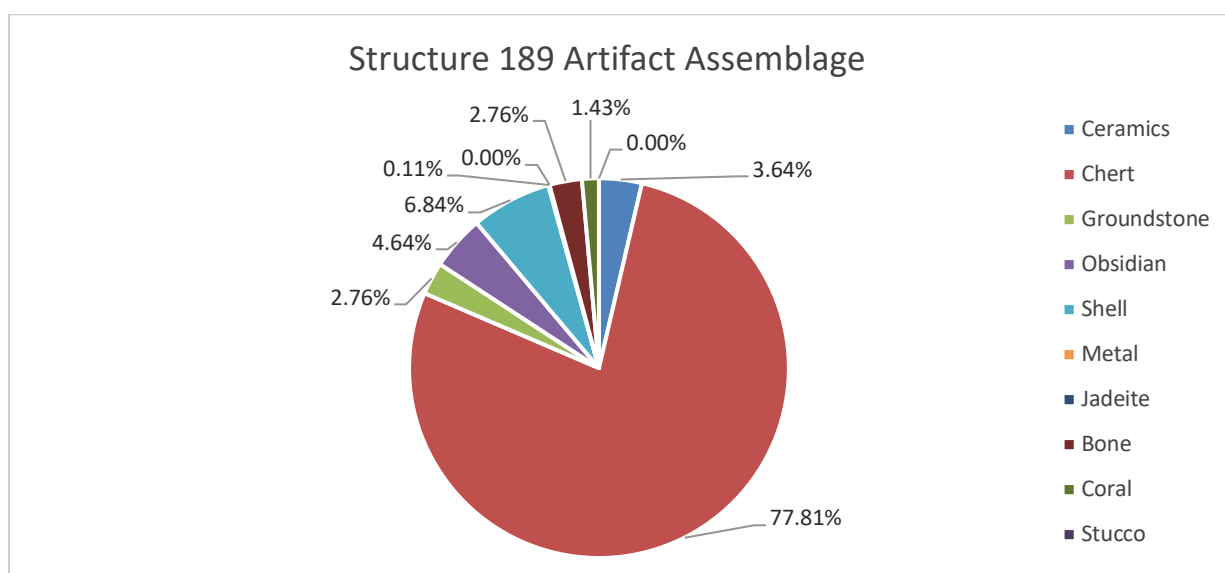


Figure 60. The artifact assemblage recovered in association with Structure 189 (Sample Group 4) in the South Intermediate Sector at Santa Rita Corozal.

7.5 Sample Group 5: Structures 213, 214, 215, and 216

Sample Group 5 is comprised of four buildings, all of which were selected for inclusion within this study. This group includes a western multiroom building and three single room buildings, positioned in the north, south, and the east around a central plaza. As illustrated in Figure 61, the artifact assemblages associated with each of these buildings vary, not only in

quantity but in diversity, which is an indication that these structures likely functioned differently as discussed below.

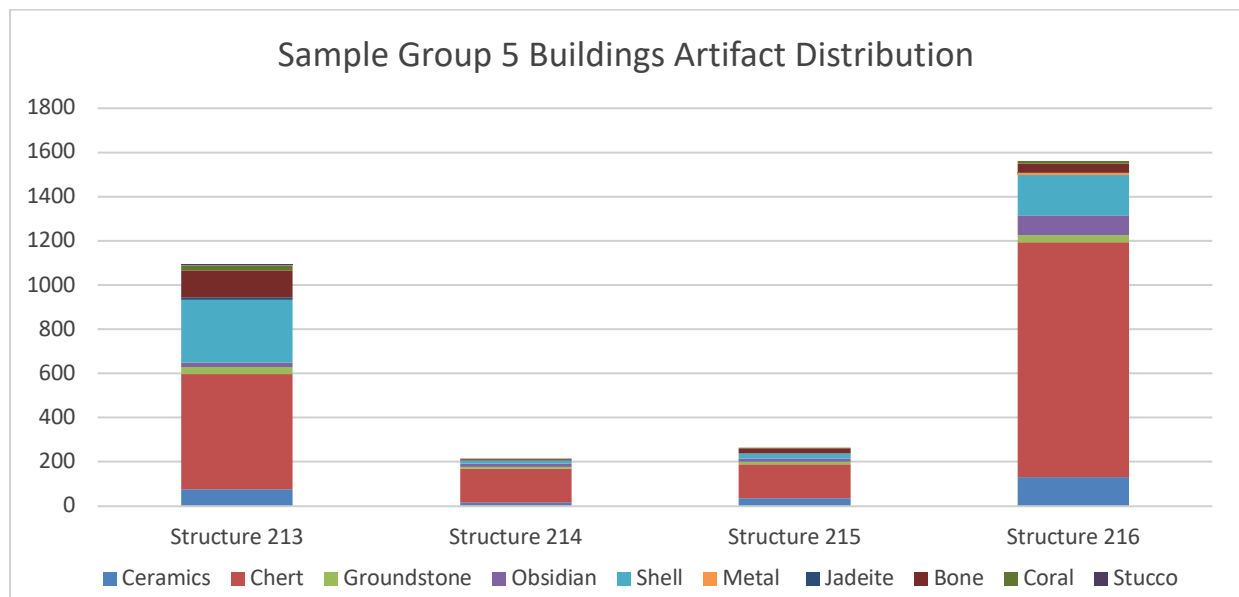


Figure 61. Artifact distribution from the buildings in Sample Group 5 in the South Intermediate Sector at Santa Rita Corozal.

Structure 213

Structure 213 is the northern building in Sample Group 5. It is a single room structure. This is the only building in the South Intermediate sector where stucco was found, but with only one fragment recovered, it is insufficient to suggest that the building's exterior was decorated. The overall artifact assemblage recovered in association with Structure 213 is diverse and encompasses artifacts from nine different artifact classes (Figure 62). There are elements within the assemblage which imply both household and ritual function for Structure 213. The ritual function is primarily established through the presence of elaborate special deposits which consists of a single burial and three caches. The single burial (SDP26B-1) which consisted of

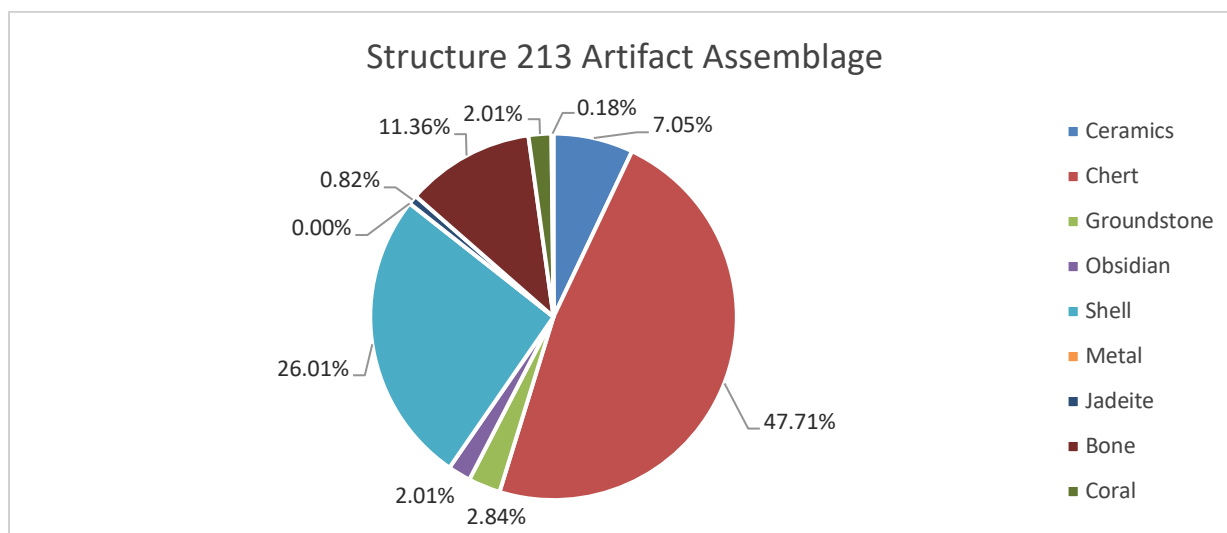


Figure 62. The artifact assemblage recovered in association with Structure 213 (Sample Group 5) in the South Intermediate Sector at Santa Rita Corozal.

five individuals along with a human skull (SDP26B-2) set above rock slabs sealing the burial below it, account for all the Late Postclassic dated human remains recovered in association with Structure 213. Two censerware fragments and five jadeite beads were also recovered in association the first burial (SDP26B-1) placed within the front stoop of the building (Chase and Chase 1988:51). The presence of these deposits confirms the ritual function of this structure. The recovery of three different caches in Structure 213 points to the significance of its ritual function since this building contains the highest number of caches associated with any of the buildings included in this study. The three caches collectively contain all the ceramic vessels (n=4) and figurines (n=25) recovered in association with Structure 213. Three jadeite beads and a single jadeite fragment also form part of the assemblage associated with these caches.

The presence of several chert and obsidian cores, along with numerous flakes and chips within this assemblage suggests that residents in this group were likely engaging in the

rejuvenation of chert and obsidian tools. The assemblage does not provide sufficient evidence indicating manufacturing activity.

A host of other artifacts within the assemblage allude to domestic activity. These include the presence of ground stone *manos* and *metates*, obsidian blades, and chert bifaces, points and unifaces which are all artifact forms associated with food procurement, preparation, and processing. Numerous faunal remains recovered here also support the suggestion that food preparation and processing activities were once conducted in this building. The presence of numerous ceramic beads and net weights also indicate that the household was involved in extraction of marine resources. Interestingly, the artifact assemblage at Structure 213 includes large amounts of chert and shell, including debris material, suggesting that some tool manufacturing or perhaps the rejuvenation of tools and some shell craft production occurred at this location.

Structure 214

Structure 214 is the eastern building within Sample Group 5. It is a small single room structure that likely served a domestic function. This building contains the smallest artifact assemblage (n=215) within Sample Group 5 (see Figure 63). The presence of ground stone *mano* and *metate* fragments along with chert bifaces and points as well as a few obsidian blades substantiate its domestic role. The largest percentage of the chert artifacts are in the form of flakes which is likely an indication that the rejuvenation of chert tools occurred here, however, the assemblage is insufficient for implying any chert manufacturing or production activities associated with Structure 214. The presence of numerous ceramic beads and net weights also provide further evidence of the domestic function of Structure 214 since these indicate that the

residents were probably engaged in fishing activities. The absence of any special deposits signify that this structure did not have any ritual or ceremonial function.

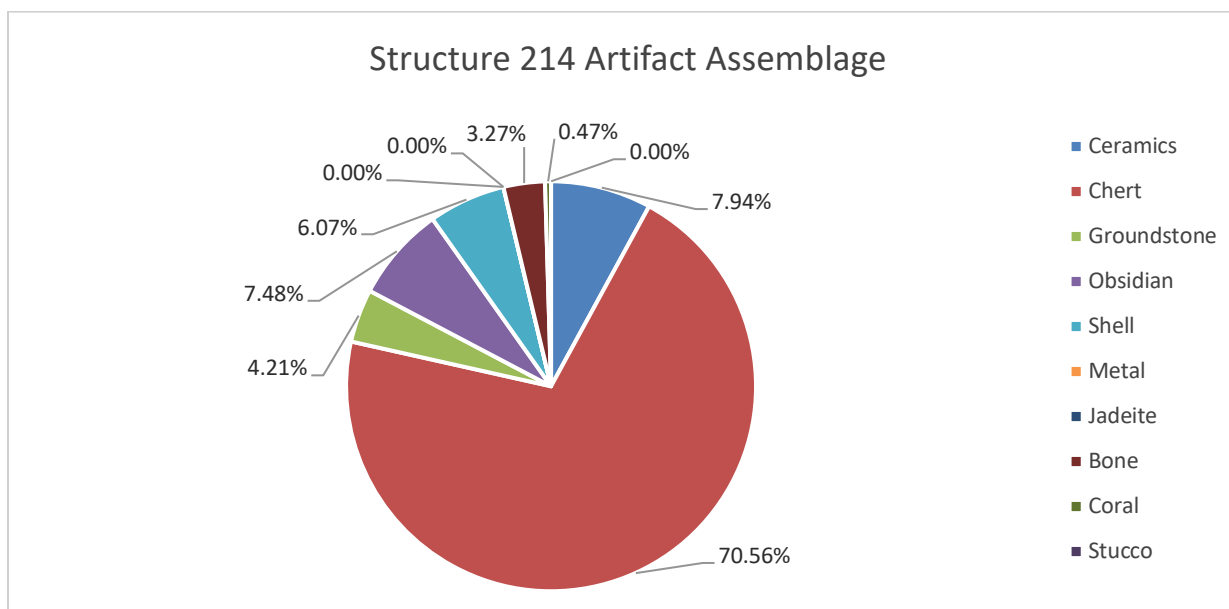


Figure 63. The artifact assemblage recovered in association with Structure 214 (Sample Group 5) in the South Intermediate Sector at Santa Rita Corozal.

Structure 215

Structure 215 is the southern building within Sample Group 5. It is a small single room building and like Structure 214, its artifact assemblage is limited with only seven artifact classes (Figure 64) and contains a total of only 262 artifacts. Although its artifact assemblage is limited in size, several special deposits were recovered in association with Structure 215 which indicate a ritual function for this location. The excavation of three different burials, all placed within the rear of the building, recovered a total of five individuals, accounting for all the human remains recovered at this location. One burial (SDP29B-3) had a single bone bead accompanying the two individuals, a male and a female (Chase and Chase 1988:53-54). The second burial (SDP29B-2)

had no artifacts placed along with the two male individuals (Chase and Chase 1988:54). The third burial (SDP29B-4) was of a single individual with no accompanying grave goods. Excavations revealed that a single cache (SDP29B-1) was placed in the interior of the building that consisted of a small ceramic footed cup and a large sherd that was placed as a lid over the cup (Chase and Chase 1988:53).

Other artifacts in the assemblage, such as obsidian blades, chert bifaces, blades, and points, ground stone manos and metates and a potlid, imply a more typical domestic function for Structure 215. Based on the artifact assemblage and the presence of special deposits, it is probable that Structure 215 was a multipurpose building serving a domestic function as well as being a locus for ritual activity within Sample Group 5.

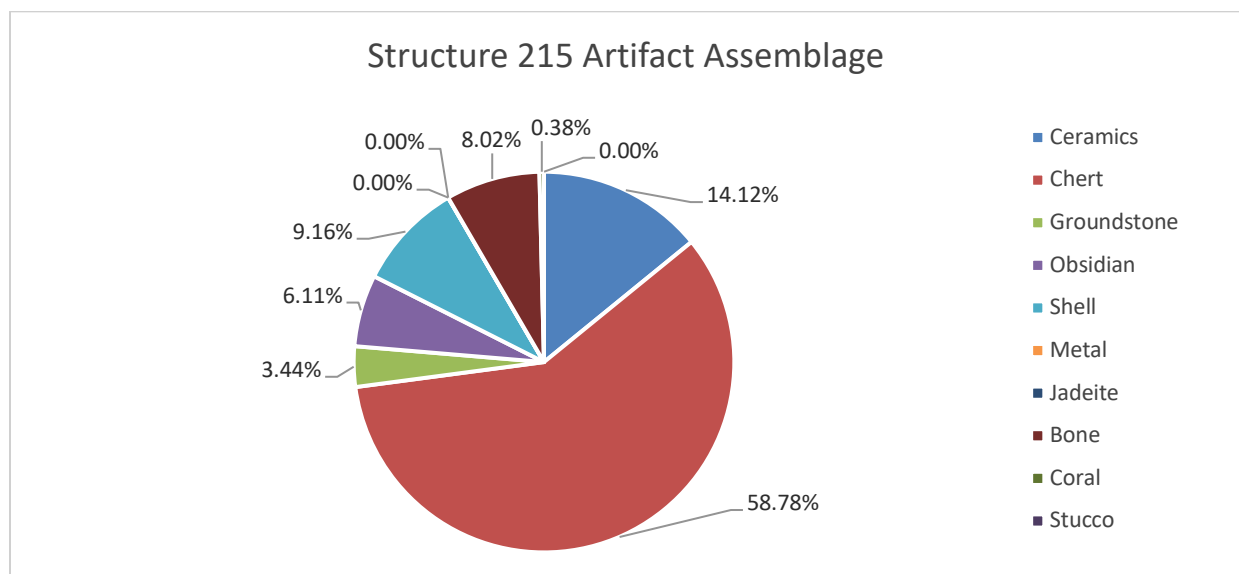


Figure 64. The artifact assemblage recovered in association with Structure 215 (Sample Group 5) in the South Intermediate Sector at Santa Rita Corozal.

Structure 216

Structure 216 is the largest of the four buildings in Sample Group 5. It sits on the western end of the plaza and is classified as a multiroom structure; one of two in the South Intermediate Sector. This building has the largest and most diverse artifact assemblages (Figure 65) in Sample Group 5 and in the South Intermediate Sector. This structure likely functioned in a multipurpose fashion. The presence of a single but very elaborately furnished burial (SDP33D-1) within this structure suggests a ritual function and also speaks to the importance of the inhabitants of this building and perhaps to the household occupying this group of buildings. The burial contained the remains of two adult male individuals who were accompanied by items of jadeite, shell, gold and turquoise, copper, a block of hematite, and several stingray spines.

The presence of numerous ground stone *mano* and *metate* fragments as well as a pestle and some obsidian blades as well numerous ceramic beads and net weights are all indications that food procurement, preparation and processing was conducted within the building which alludes to its domestic function. Several potlids within the assemblage imply that beekeeping was also part of the household activity here.

Additionally, the large number of chert artifacts, approximately 68% of the overall artifact assemblage, consisting of both tools and a large amount of debris material indicates that chert tool manufacturing was taking place at this locale. Chase and Chase (1988:54) state that the southern part of the building appears to have been utilized in flint knapping activities. Marino (2014:49) also suggests that there is a substantial amount of chert material recovered here that would indicate the presence of chert manufacturing. Additionally, Seidita (2015:90-91) states that while there is not enough evidence of an obsidian workshop per se, the recovered obsidian assemblage (6%) indicates that the production of prismatic blades was also likely taking

place at Structure 216. The presence of a large quantity of shells (12%), including both worked and unworked fragments as well as a few whole shells, is also suggestive of some shell craft production occurring at Structure 216.

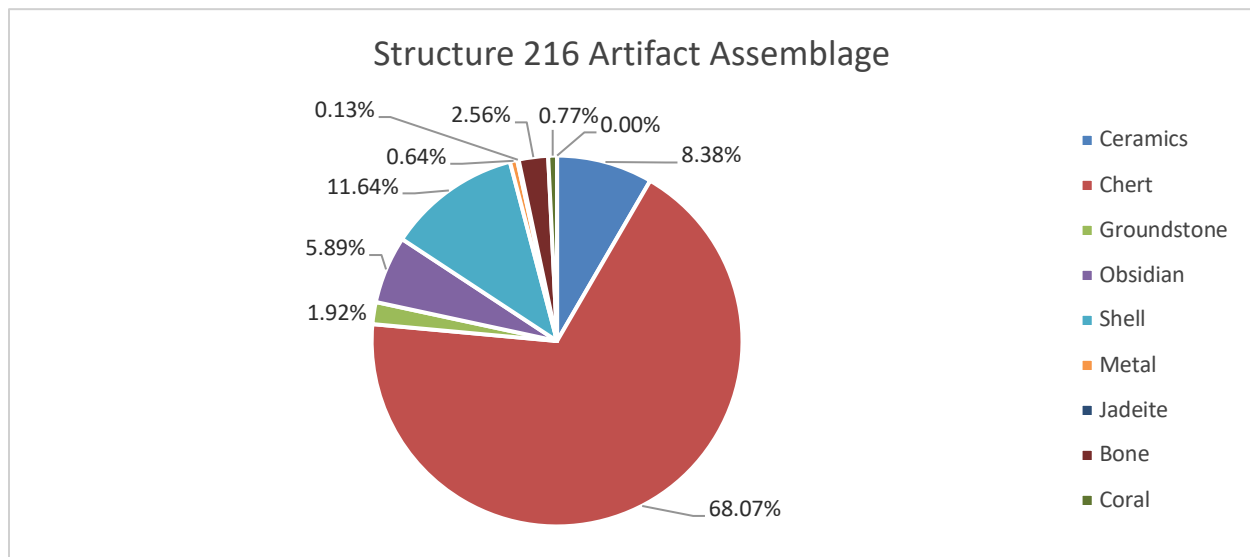


Figure 65. The artifact assemblage recovered in association with Structure 216 (Sample Group 5) in the South Intermediate Sector at Santa Rita Corozal.

Sample Group 5 Summary

As with the other household groups observed within this study, Sample Group 5 is also comprised of several buildings, each functioning in different ways. While all four buildings have evidence that point to domestic activities, the complete artifact assemblages suggest that these were multipurpose buildings. Three buildings (Structures 213, 215, and 216) are associated with special deposits and artifact assemblages that indicate ritual functions. Additionally, one building (Structure 216) is also suggested as being a locale for chert tool manufacturing, the production of obsidian prismatic blades, and perhaps even some shell craft production.

7.6 Sample Group 6: Structures 183 and 218

Sample Group 6 comprises three structures, of which two were selected for inclusion within this study. Structure 218 is the larger, western multiroom building in the group and Structure 183 is a small, tandem room structure which forms the southern end of the plaza. Although the associated artifact assemblages vary in number, the diversity of the assemblage is similar (Figure 66) and indicates that both buildings likely served multipurpose functions.

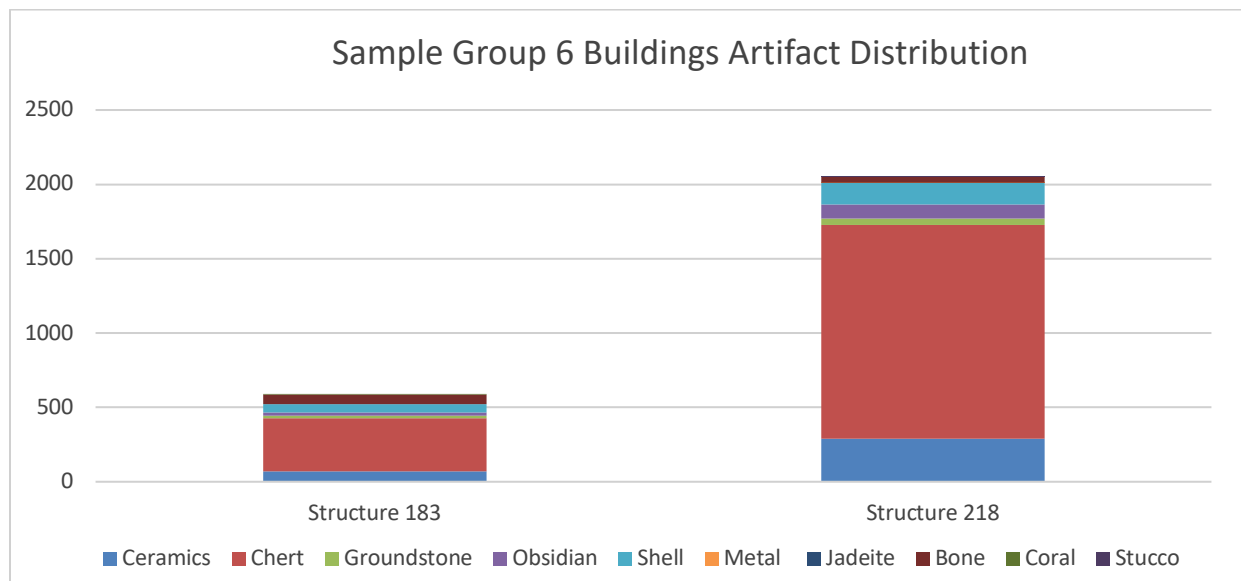


Figure 66. Artifact distribution from the buildings in Sample Group 6 in the South Intermediate Sector at Santa Rita Corozal.

Structure 183

Excavations at Structure 183 revealed a tandem room construction, where one larger front room or platform had a central doorway to a smaller rear room. Structure 183 is the only example of this building type included within this study. This building forms the southern end of

the plaza along with Structure 218 to the west and Structure 217 to the east. The associated artifact assemblage (see Figure 67) is varied and alludes to a multipurpose function. The presence of a burial (SDP37A-2) comprising three individuals accompanied by a ceramic vessel and three bone spindle whorls (Chase and Chase 1988:57-58) and a cache (SDP37A-1) of 28 ceramic figurines placed inside a ceramic lidded urn (Chase and Chase 1988:58) signifies the ritual functioning of Structure 183.

The domestic role of Structure 183 is indicated by the presence of ground stone *mano* and *metate* fragments, obsidian blades, chert bifaces and points and faunal remains within the diverse artifact assemblage. Numerous ceramic beads and net weights within the assemblage also imply a domestic function since these are typical implements used in the extraction of marine resources, such as fishing. Several potlids within the assemblage suggests that the household was engaged in beekeeping activities.

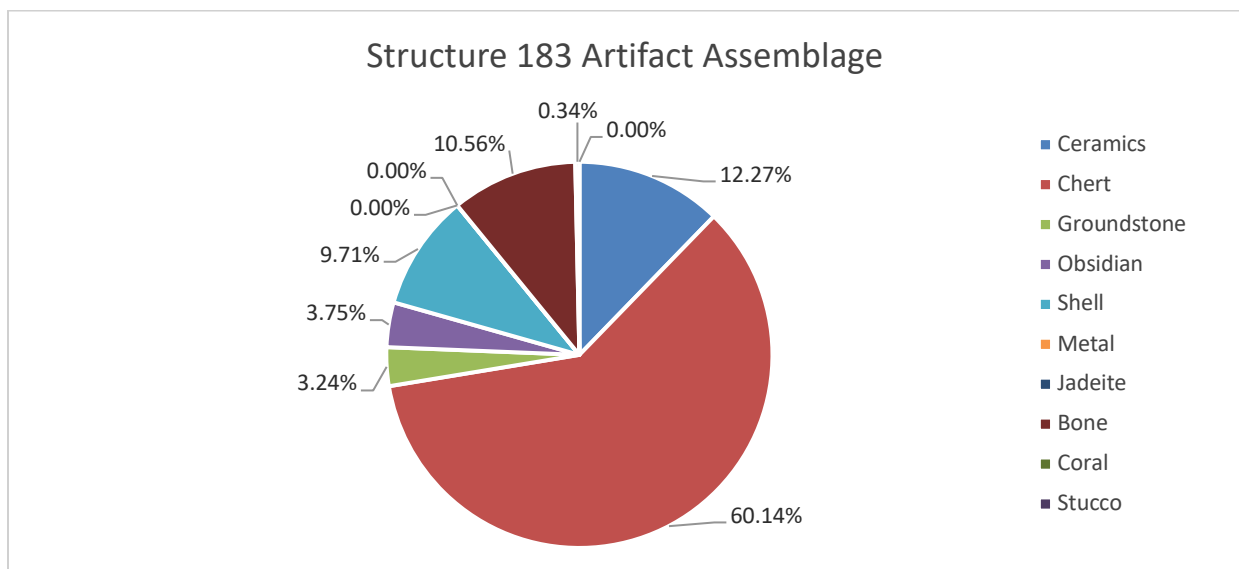


Figure 67. The artifact assemblage recovered in association with Structure 183 (Sample Group 6) in the South Intermediate Sector at Santa Rita Corozal.

Structure 218

Structure 218 is a multiroom building forming the western edge of the plaza of Sample Group 6 where it forms a household group along with Structure 183 to the south and Structure 217 to the east. Structure 218 has the largest artifact assemblage both within Sample Group 6 and in the South Intermediate Sector (Figure 68). Its associated artifact assemblage is diverse and alludes to a multipurpose function of this building. Two burials and a single cache recovered during excavations within this structure indicates a ritual function. The first burial (SDP38B-1) comprises a single female individual accompanied by a complete peccary mandible along with two copper and one silver bells (Chase and Chase 1988:60). The other burial (SDP38B-3) located beneath SDP38B-1 comprised three individuals (Chase and Chase 1988:61). The only cache recovered from Structure 218 comprised an effigy vessel in the form of a human face emerging from a hollowed shell with a jaguar sitting atop the shell and encircling its paws around the human face (Chase and Chase 1988:60).

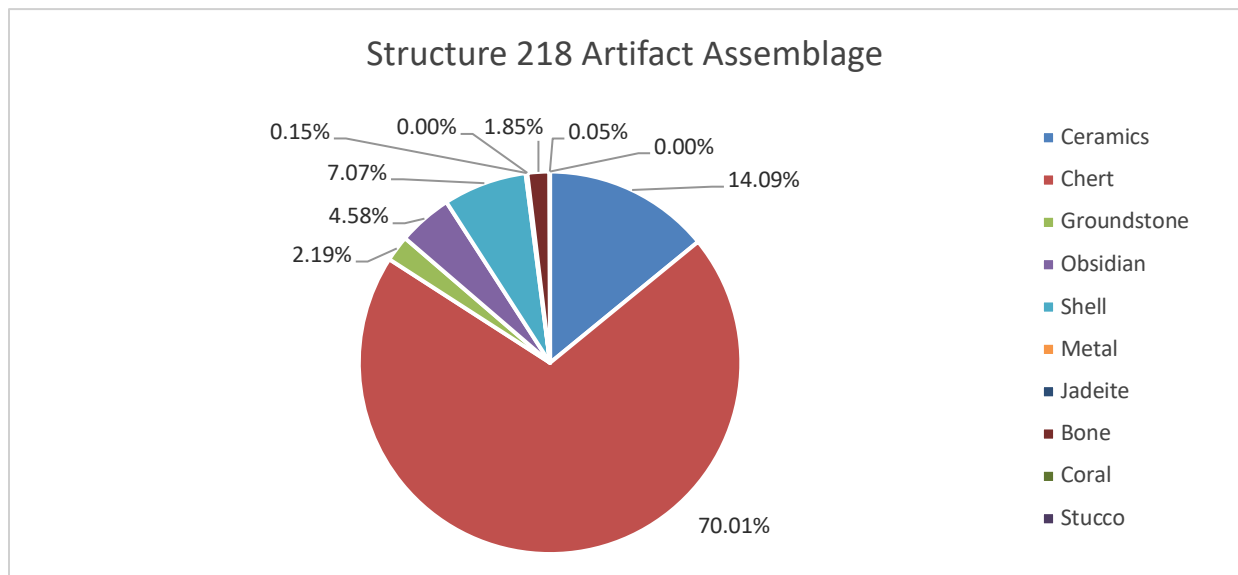


Figure 68. The artifact assemblage recovered in association with Structure 218 (Sample Group 6) in the South Intermediate Sector at Santa Rita Corozal.

The remaining artifact content, however, points to a multitude of additional functions. The presence of artifacts such as ground stone *mano* and *metate* fragments, a pestle, obsidian blades, chert bifaces, blades, and points signify the domestic function of Structure 218. Other domestic activities include the possibility of beekeeping given the presence of several potlids within the artifact assemblage. An abundance of ceramic beads and net weights suggest that fishing activity was also part of the daily household activities.

Like Structure 216 in Sample Group 5, it is also suggested that the recovered chert assemblage (70% of the overall assemblage) provides sufficient evidence supporting the presence of chert tool manufacturing occurring at this location (Marino 2014:49). While the obsidian assemblage (5%) was not definitive in identifying an obsidian workshop, the assemblage did include evidence implying that the occupants of Structure 218 were engaged in the production of obsidian prismatic blades (Seidita 2015: 90-91). The presence of numerous worked and unworked shell artifacts (7%) also allude to the possibility of shell craft production occurring at this locale.

Sample Group 6 Summary

There are only two excavated buildings forming Sample Group 6 and they both exhibit evidence of domestic and ritual activities. Furthermore, the multipurpose status of Structure 218 is confirmed by the expansive chert, obsidian, and shell assemblage, indicating that in addition to ritual and domestic functions, there is evidence of chert tool manufacturing, some obsidian blade production and possibly shell craft production.

8.0 Artifact Distribution and Function associated with Building Type

The above discussed archaeological data provides evidence indicating how individual buildings within Late Postclassic Maya household groups had varied functions yet together they contributed to the overall functioning of the group as a singular unit. Assessing the function of a building based solely on construction form prior to excavation is problematic. As indicated in the preceding section, individual or single room buildings functioned in various capacities ranging from purely domestic to ritual and even in auxiliary functions such as food preparation areas or crafting and tool manufacturing locales. As noted by Chase (1982:601), multiroom buildings such as Structure 81 in the Northeast Sector and Structures 216 and 218 in the South Intermediate Sector at Santa Rita Corozal, provide evidence of multipurpose functioning for these buildings. In the case of these multiroom buildings, the associated artifacts assemblages indicate both domestic and ritual functions and perhaps even manufacturing activities were being conducted within separate areas of the building (Marino 2014:49). The varying functions of individual buildings within groups or individual rooms or spaces within a multiroom structure are consistent with Becker's (1982:114) argument that these groups or clusters of buildings functioned as a whole and that the term 'household' should be applied to these groups of buildings rather than to the individual structures (see also Chase and Chase 2014).

Figure 69 illustrates the results of a comparison between the five different building types found in this study and the associated artifact distribution. A Chi-square test of independence with a 95% level of confidence indicates that there is a failure in accepting the null hypothesis, that there is no relationship between the building types and the artifact classes found within them. The Chi-Square test of independence with a p -value of $2.2\text{e-}16$ ($\chi^2 = 420.91$, $df = 60$,

Cramer's $V=0.0444$) does in fact confirm that there is sufficient evidence warranting a relationship between artifact distribution and the varying building types.

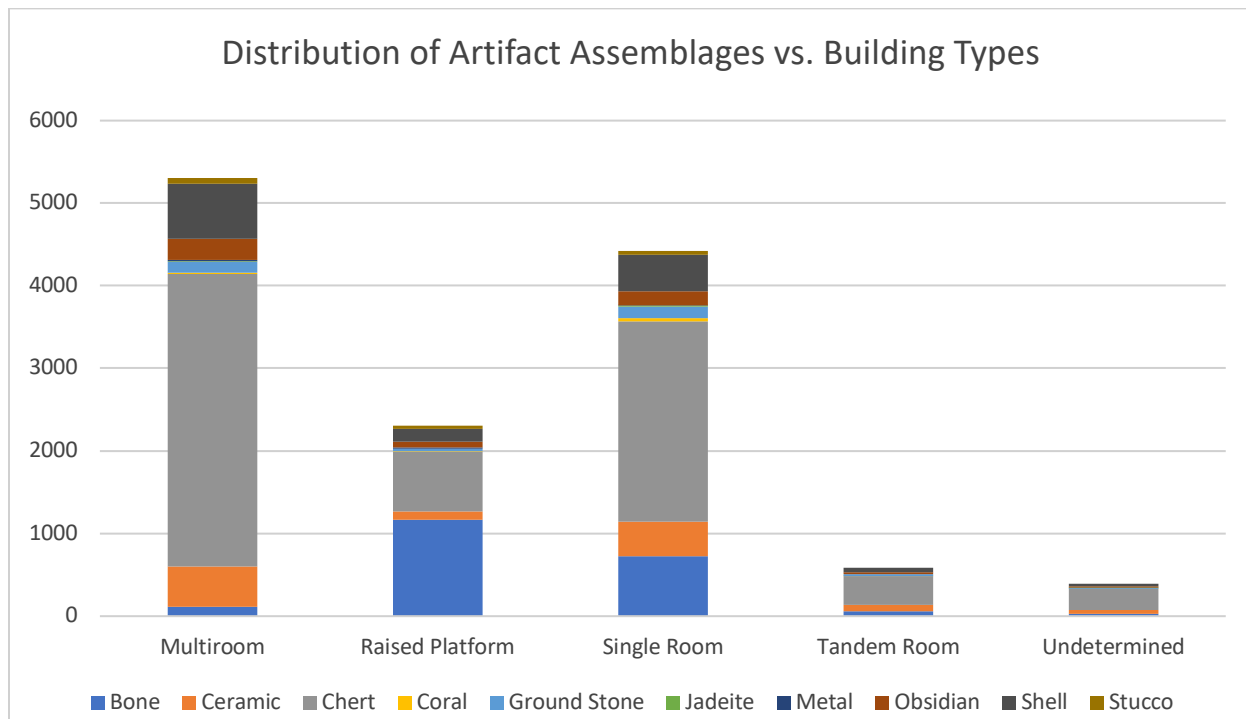


Figure 69. Distribution of artifacts recovered in association with selected buildings versus the different building types at Santa Rita Corozal.

As illustrated in Figure 69, there are similar artifact distributions at both multiroom and single room structures, albeit at a slightly different proportion with the larger assemblage associated with the multiroom structures. It is evident, however, that there is a significant difference between these two building types with regards to the presence of human or faunal bone. The bone assemblage associated with the multiroom structures are related to the numerous burials recovered in association with burials within these structures (see Section 6.9 Bone Artifacts). The bone assemblages associated with the single room structures typically have a

higher percentage of faunal remains which indicates food preparation activity and highlights their domestic function (see Section 6.9 Bone Artifacts). As evidenced by preceding discussions there are at least five single room buildings thought to have a domestic function and likely serving as kitchens or locales for food processing and preparation based on the high percentages of faunal bones within their artifact assemblages. The presence of other artifacts such as ground stone *manos* and *metates*, chert and obsidian blades, ceramic beads and net weights and large amounts of shell fragments are also indicators of this domestic function.

8.1 Single Room Buildings

A further breakdown of only single room structures provides an apparent distinction between the artifact assemblages that alludes to the differences in function within these structures. As noted previously, the prevalence of faunal bone at both Structures 77 and 74 may be indications that these buildings functioned as kitchens or, minimally, as food preparation spaces within Sample Groups 1 and 2 in the Northeast Sector of the site. The absence of burials and caches reinforces the domestic function of Structure 74 (Sample Group 2). The recovery of a turtle altar stone figure, a *tinajera*, a bird effigy vessel and censerware within the artifact assemblage combined with the recovery of two interments associated with Structure 77 (Sample Group 1) indicate that this building may have had a ritually oriented function rather than domestic; therefore, the faunal remains recovered at this location suggests that the food preparation activity may have been for ritual purposes.

Figure 70 also illustrates significant differences between the artifact distributions between Structure 77 and those at Structures 79 and 80 which are also part of Sample Group 1. The limited artifacts present in association with these latter structures are indicative of their basic

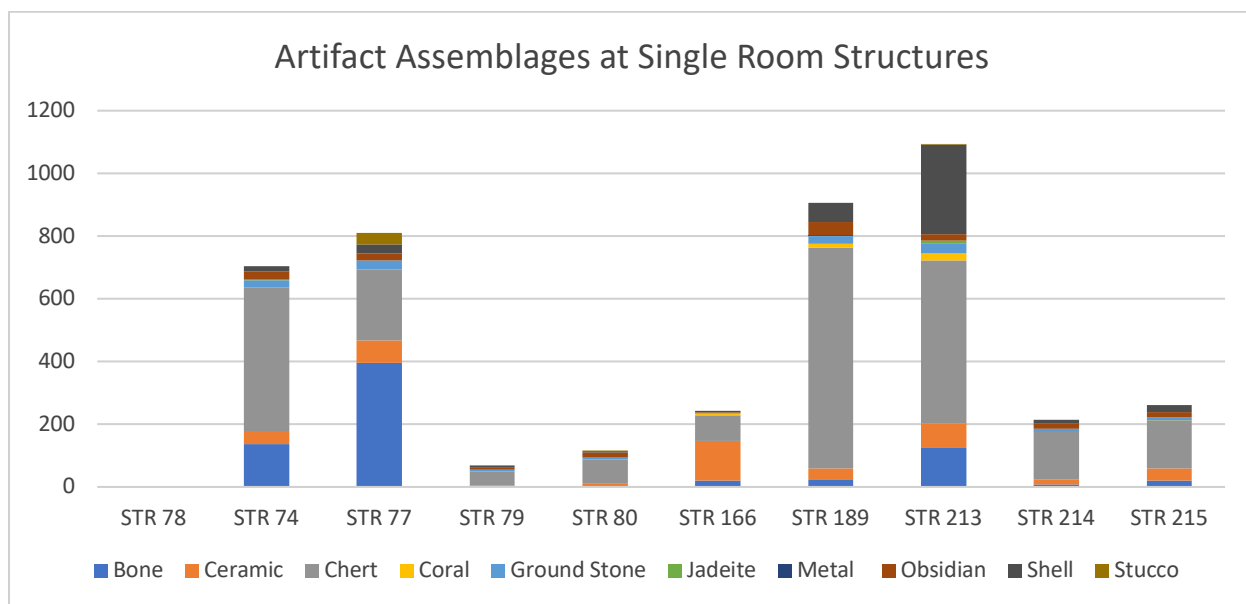


Figure 70. Artifact distributions at selected single room structures in the Northeast and South Intermediate Sectors at Santa Rita Corozal.

domestic functions within the household group. The absence of special deposits and other ritually related artifacts within these structures reinforces their non-ritual function. Their relationship with the other buildings in the Sample Group 1 is solidified by evidence of stucco fragments which suggest that they too were decorated buildings similar to other structures within the Northeast Sector.

The artifact distributions from single room buildings in the South Intermediate Sector portrays a different function for these buildings, particularly in comparison to the single room buildings in the Northeast Sector. For Structure 166, the presence of a much larger ceramic assemblage is an indication of its ritual function. The presence of large quantities of chert within the assemblages of the other four single room structures in the South Intermediate Sector emphasizes chert related activity that was likely associated with these household groups. Investigations by Marino (2014:49) has indicated that there is evidence supporting the presence

of chert tool manufacture in the South Intermediate Sector associated with both Sample Group 5 (Structure 216) and Sample Group 6 (Structure 218).

The artifact assemblages in these single room structures also include a large amount of shell material which suggests that the occupants were frequently consuming this easily accessible protein source. The presence of worked shell and high percentages of shell fragments is also an indication that the occupants of Sample Group 5, particularly at Structure 213, may have been engaged in shell craft production. The presence of a ground stone altar and several burials and caches at Structure 213 implies that this building also served a ritual function.

An interesting observation is that these artifact assemblages and functions associated with single room buildings were not in any way related to their geographical positioning within the group. Rather, the location of these single room buildings appears to be random. Single room buildings in groups in both the Northeast and South Intermediate Sectors were positioned in various cardinal locations including the north, south, east, and west, – with one being an isolated structure (Structure 189).

8.2 Multiroom Buildings

Similar artifact assemblages, both in diversity and quantities, are observed at multiroom structures regardless of their locations whether in the Northeast or the South Intermediate Sectors (see Figure 69). An exception to this, however, is observed at Structure 73 where excavation was limited thus producing only a restricted assemblage. Nevertheless, the assemblages associated with multiroom buildings point to the multipurpose functions of these structures. Evidence of ground stone *manos* and *metates*, faunal bone, obsidian blades, ceramic beads and

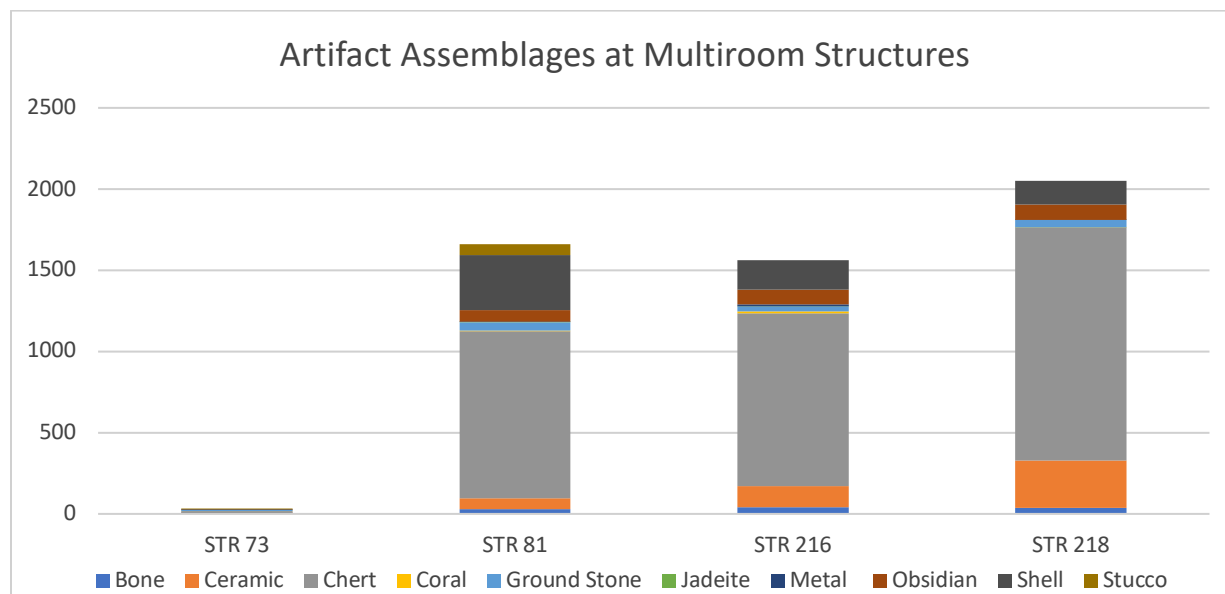


Figure 71. Artifact assemblages recovered in association with selected multiroom buildings at Santa Rita Corozal.

net weights are just some of the assemblages which suggest a domestic function for these structures. The presence of burials and caches placed within and beneath these structures along with the presence of architectural altars and shrines found in Structure 81 (Chase and Chase 1988:25) and in Structure 216 (Chase and Chase 1988:54) allude to the important ritual functions attributed to these buildings. It is also suggested that at least one of these multiroom buildings (Structure 81) may have served as both residence and in administrative purposes of high-status occupants (D. Chase 1986:355). There is evidence recovered from multiroom buildings (Structures 216 and 218) supporting the presence of chert tool manufacturing (Marino 2014:49) and possibly the production of obsidian blades (Seidita 2015:91) at these locales. While not definitive, based on the quantity and types of shell in the artifact assemblages, there is a possibility that the occupants of these buildings may also have been engaged in shell craft production.

All these factors indicate that multiroom buildings, particularly Structure 81 in the Northeast Sector and Structures 216 and 218 in the South Intermediate Sector, were significant locations regardless of their physical locations within the Late Postclassic community at Santa Rita Corozal. These buildings served essentially as centers of activity, whether for ritual or domestic activities, or whether for administrative or manufacturing and crafting purposes.

8.3 Tandem Room and Raised Platform Buildings

One example of each of these building types, the tandem room and the raised platform construction, are included within this study (Figure 72). The tandem room building, Structure 183, is the southern building in Sample Group 6, located in the South Intermediate Sector of the site. The associated artifact assemblage, although limited in quantity, is diverse and includes artifacts from most artifact categories except jadeite, metal, and stucco, thus indicating a multipurpose function for Structure 183. The presence of a burial (SDP37A-2) comprising three individuals accompanied by a ceramic vessel and three bone spindle whorls, a cache (SDP37A-1) consisting of 28 figurines that were placed inside a lidded urn, a deposit of two effigy censers in the construction fill and the presence of an altar in the rear room of the building (Chase and Chase 1988:57-58) all reflect ritual or ceremonial function of Structure 183. Although the other artifacts within the assemblage, including ground stone *manos* and *metates*, chert and obsidian tools, and ceramic beads and net weights, are in limited amounts they are suggestive of a domestic function.

The only raised platform included in this study is Platform 2. This construction supports all the buildings in Sample Group 1 located in the Northeast Sector of the site. Figure 72 illustrates the large and diverse artifact assemblage recovered in association with the raised

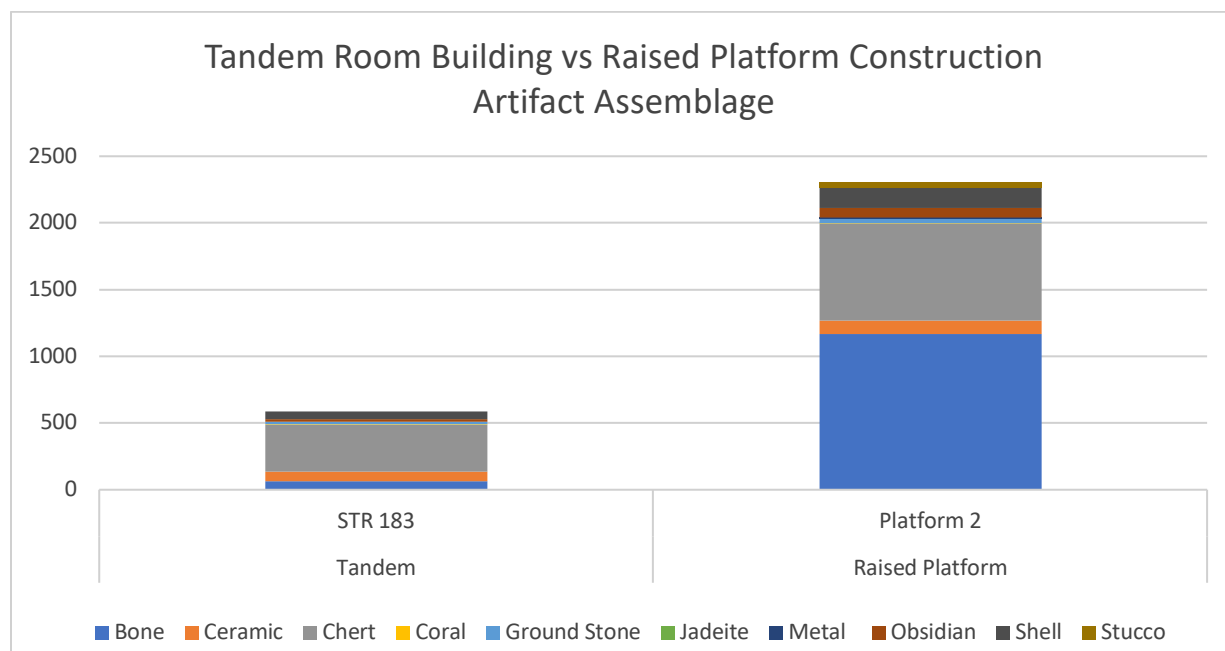


Figure 72. Artifact assemblages associated with a tandem room building (Structure 183 in the South Intermediate Sector) versus the assemblage at a raised platform construction (Platform 2 in the Northeast Sector).

platform which suggests that the platform and the structures atop it were multipurpose, serving not only in domestic function but also being an important locus for ritual activity. The presence of eight Postclassic dated burials, a cache, and even a refuse deposit, where censerware fragments were recovered, are all indicative of this ritual function associated with Platform 2.

All the other artifact classes are represented in the Platform 2 assemblage. The presence of household related implements such as ground stone *manos* and *metates*, chert blades, hammerstones, and scrapers, ceramic beads and net weights, obsidian blades and points, and complete shells and shell fragments are all indications that typical daily household activities such as food procurement, processing and preparation were all occurring at Platform 2. Numerous painted and modeled stucco fragments imply that Platform 2 was a painted and decorated construction.

Although the building type varies and the buildings are located in different sectors of the site, based on their assemblages and the presence of special deposits, both tandem room buildings and raised platform constructions are considered as multipurpose as they served in both ritual and domestic functions.

8.4 Undetermined Building Types

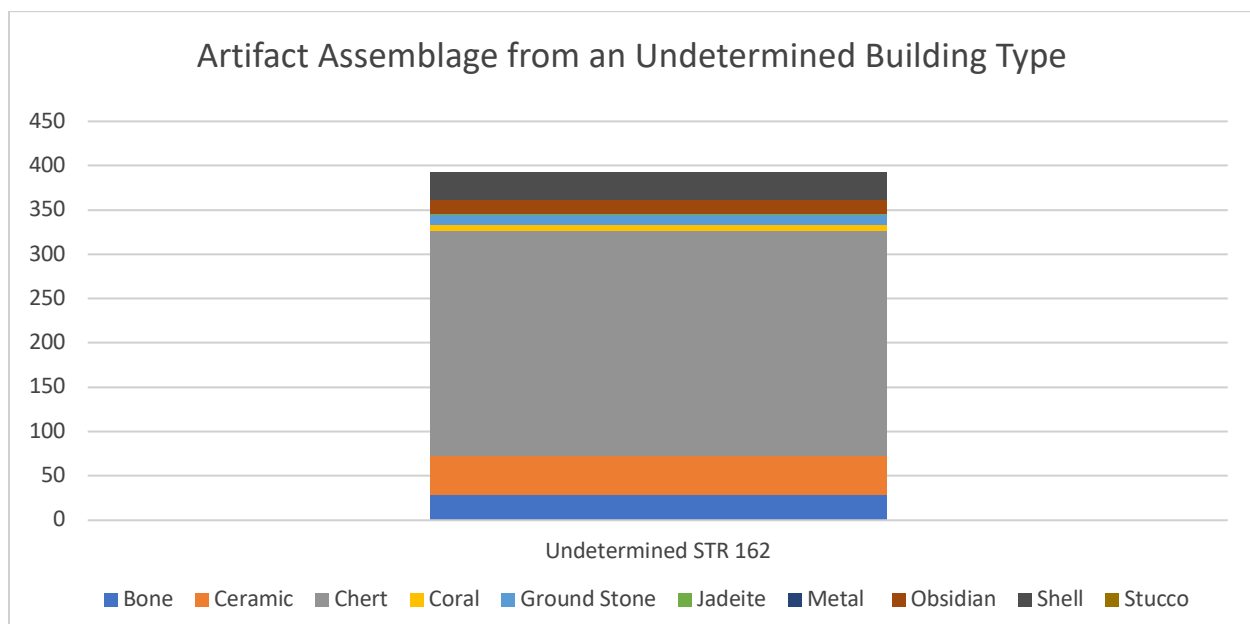


Figure 73. Artifact assemblage recovered from the undetermined building type (Structure 162 in the South Intermediate Sector).

As illustrated in Figure 73, Structure 162 was classified as an Undetermined building type due to time limitations with excavation activities conducted by the Corozal Postclassic Project (Chase and Chase 1988:43). Structure 162 forms the northern extent of the plaza in Sample Group 3 located in the South Intermediate Sector. Although the excavations yielded a limited assemblage, it is as diverse as any of the assemblages associated with other single and

multi-room buildings, thus signifying a domestic-related function. The lack of special deposits at Structure 162 indicates a non-ritual function. This may also be the case since it is associated with Structure 166, which functioned as a shrine (Chase and Chase 1988:43). The quantity of chert debris associated with this building also alludes to the possibility that the residents of Structure 162 may have been engaged in the rejuvenation or manufacturing of chert tools.

Summary

In general, as indicated by the Chi Square test of independence there does appear to be some correlation between building types and artifact distribution. In terms of multiroom structures, the artifact assemblages associated with each of these buildings suggest a multipurpose function. Specifically, with Structures 216 and 218, there is evidence supporting chert tool manufacturing (Marino 2014:49) and perhaps obsidian blade production (Seidita 2015: 91). Metal artifacts (in the form of copper, gold and silver) were also associated with multi-function structures. Within the selected buildings in this study, five multi-function buildings contained metal artifacts within their assemblages. These include two western multiroom buildings (Structures 216 and 218), a northern multiroom building (Structure 81), the multi-functioning raised platform construction (Platform 2) and one single room building (Structure 189). This evidence suggests that the occupants of these multi-function buildings were engaging in long distance trade and/or had access to long-distance trade items. Lead isotope analysis conducted on similar metal artifacts recovered from Northern Belize resulted in establishing their source as being from the West Mexico region (Hosler and MacFarlane 1996:1822). The recovery of a black slipped bird effigy vessel from Structure 81 also reinforces the notion of the

participation in the long-distance trade network since this vessel is suggested to have originated from South America (Chase and Chase 1988:19).

The single room buildings in this study indicate that building function may vary. It is, therefore, important to consider the associated artifact assemblages for demonstrating building function. In cases where several single room structures occur in one household group, each building may serve a different function dependent on the associated artifact assemblage. In most cases, the artifact assemblages analyzed within this study illustrate that single room buildings served a domestic function. Structures 73, 79, and 80 (Sample Group 1) along with Structure 74 (Sample Group 2) and Structure 214 (Sample Group 5) are all suggested to have domestic functions; whereas, in the case of Structure 77 (Sample Group 1), the associated artifact assemblage suggest that this single room building had a ritual function and at Structure 215 (Sample Group 5), the associated artifact assemblage demonstrated a multipurpose function.

The artifact assemblages associated with both the tandem room building and the raised platforms construction suggest a multipurpose function where evidence supports both ritual and domestic functions. The only undetermined building, Structure 162, is associated with a limited assemblage which inhibits an interpretation of its function; however, the evidence suggests that it may have served in a domestic function.

9.0 Artifact Distribution and Function associated with Building Location

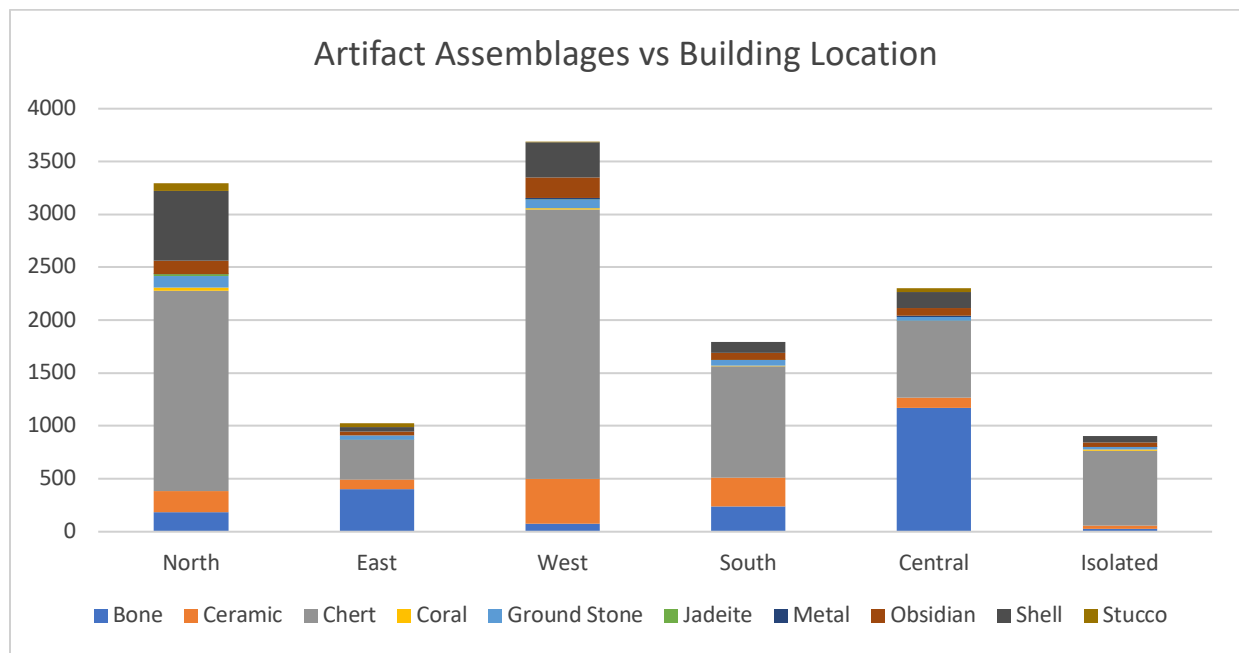


Figure 74. Graph illustrating the relationship between the distribution of artifacts and building location for selected buildings at Santa Rita Corozal.

Building location, or the position of the building within the *plazuela* group, is another aspect to consider in analyzing the functions of the buildings at Santa Rita Corozal. Figure 74 illustrates the results of a comparison between the artifact distributions and the different building locations. A Chi-square test of independence indicates that the null hypothesis, meaning that there is no relationship between the building location and the artifact classes recovered from within them, fails. The Chi-Square test of independence with a p -value of $2.2e-16$ ($\chi^2 = 1320.6$, $df = 150$, Cramer's $V = 0.0498$) does in fact confirm, with a 95% level of confidence, that there is sufficient evidence of a relationship between building locations and associated artifact distributions. The correlation between building location and the artifact assemblages is based on

the size and composition of the assemblage. This is also not dependent on whether they are found in the Northeast or South Intermediate Sectors of the site nor is it dependent on the specific building type.

9.1 West Buildings

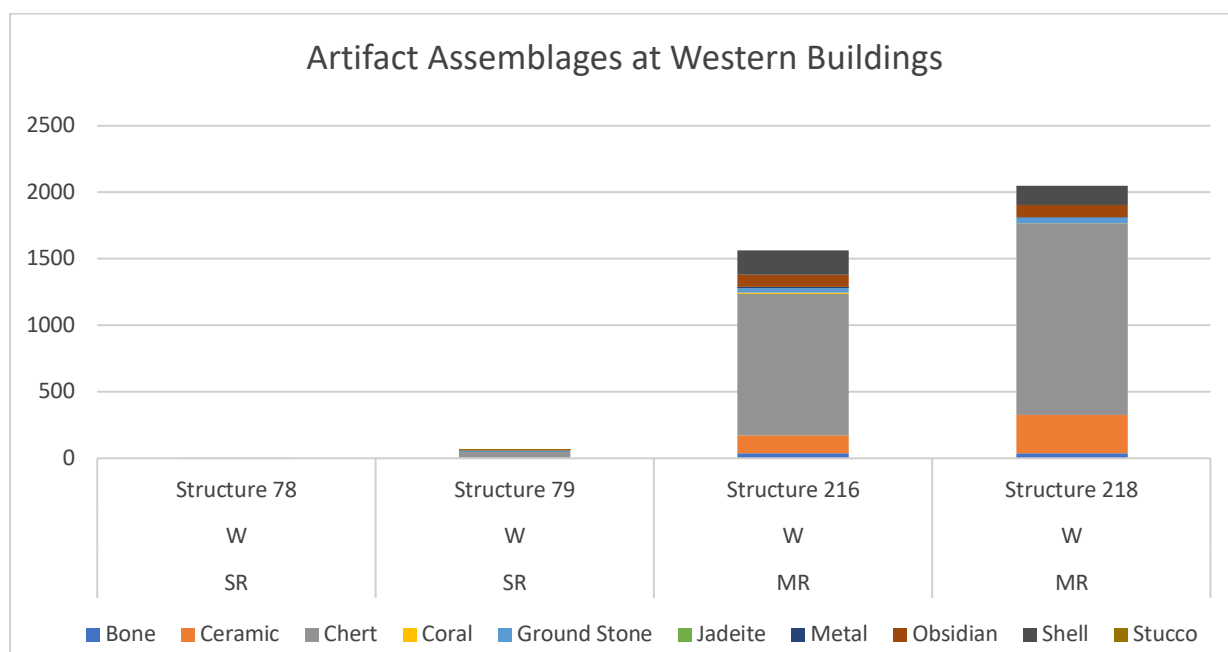


Figure 75. The comparison of artifact assemblages between selected western buildings at Santa Rita Corozal.
*W: Western building; SR: Single Room; MR: Multiroom

As illustrated in Figure 75, those buildings positioned in the west are associated with the largest and most diverse artifact assemblages. Of the four buildings in a westerly position, two are single room structures and the other two are multiroom structures (Figure 75). The two single room western buildings are located within the Northeast Sector while the two multiroom western buildings are located within the South Intermediate Sector. The assemblages associated with the two multiroom western buildings, that is Structures 216 and 218, account for the highest

percentage of artifacts. The assemblages at these two buildings indicate a multipurpose function. The evidence provided by the assemblages supports both domestic and ritual purposes at these locales. There is also an indication that both buildings were locations for chert tool manufacturing and possibly obsidian prismatic blade production. The other two single room western buildings are Structures 78 and 79. The assemblage associated with Structure 79 supports a domestic function. Although the Structure 78 assemblage is limited to a single chert flake, based on its building type and its location within Sample Group 1, it is likely that it had a domestic function.

9.2 North Buildings

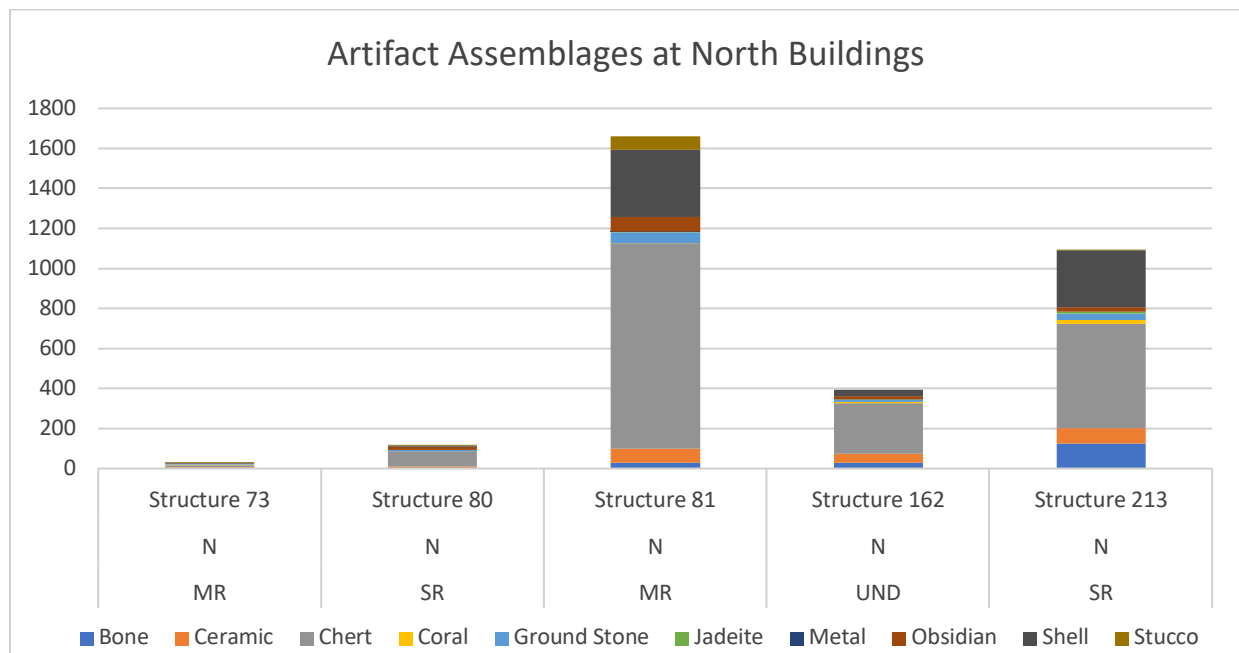


Figure 76. The comparison of artifact assemblages between selected northern buildings at Santa Rita Corozal.
 *N: Northern building; SR: Single Room; MR: Multiroom; UND: Undetermined

There are five structures located in a northerly position (Figure 76). Three of them are located in the Northeast Sector and two in the South Intermediate Sector. Two are multiroom structures, two are single room structures, and one is an undetermined building type. Although there is variation in building types, the artifacts recovered in association with these northern buildings, Structures 73, 80, 162, 213, and 81, supports a domestic function. In the case of Structure 80, it is suggested that it functioned as a domestic support or a domestic auxiliary function as its assemblage is limited to only a few chert and obsidian tools along with minimal fragments and few ceramic and ground stone items. The absence of any ritual-related artifacts or deposits suggests that the building served a non-ritual function. Structure 80 is located on the fringe of Sample Group 1 along the north edge of the summit of Platform 2, away from the central plaza area which also suggests that this building may have served in a domestic or a domestic auxiliary function. While some domestic function is associated with Structures 81 and 213, their extensive and diverse associated artifact assemblage supports a multipurpose function serving as both domestic and ritual locales. The recovery of a burial at each location and multiple caches, 2 at Structure 81 and 3 at Structure 213, assert their ritual function. In addition, the complex multiroom architecture at Structure 81 is suggested as being the residence of a high-status individual and as such may have had an administrative function. Associated ceramics also indicate the preparation of an alcoholic beverage, perhaps for rituals, was occurring at this locale (see Chase and Chase 2013:60).

9.3 East Buildings

There are only two buildings which are in an east position included within this study. Structure 77 is an eastern building in Sample Group 1 in the Northeast Sector and Structure 214

is the other eastern building in Sample Group 5 in the South Intermediate Sector. Both buildings are single room structures. As Figure 77 illustrates, the Structure 214 assemblage is minimal and

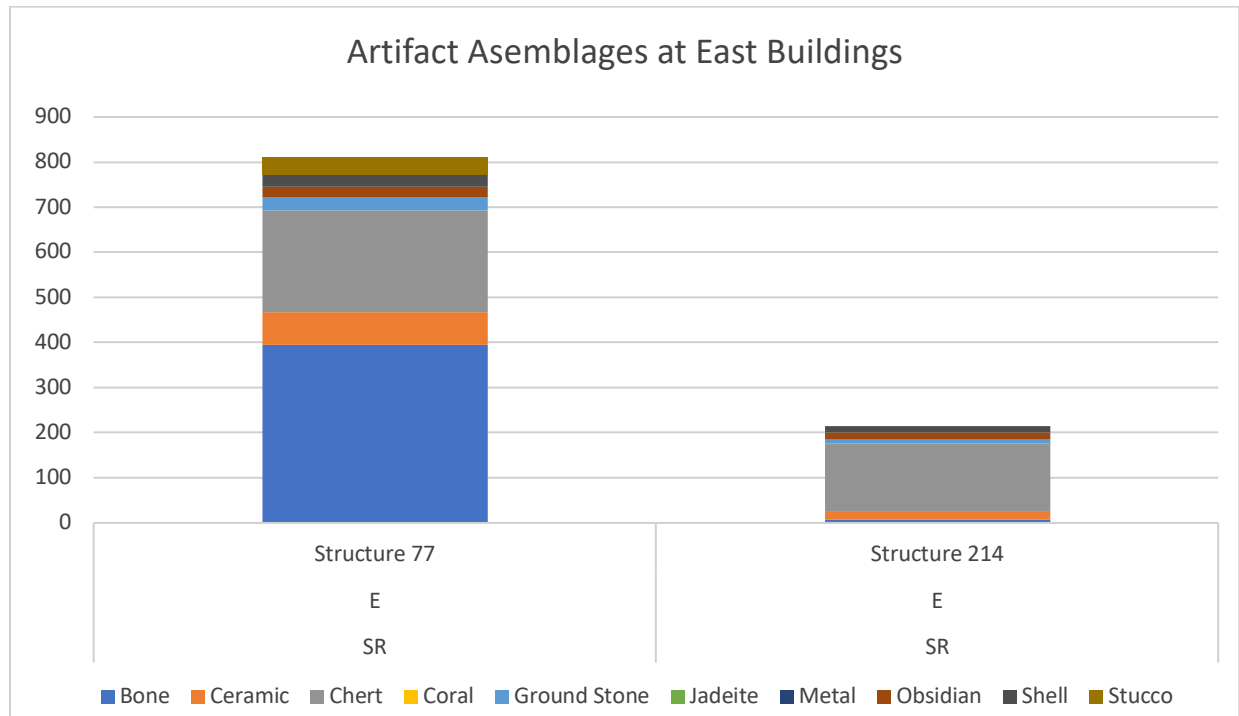


Figure 77. The comparison of artifact assemblages between selected eastern buildings at Santa Rita Corozal.
*E: Eastern building; SR: Single Room

is the smallest artifact assemblage within Sample Group 5. The presence of ground stone *mano* and *metate* fragments along with few chert and obsidian tools asserts its domestic role. The presence of numerous ceramic beads and net weights, typically used for fishing, also provide further evidence of the domestic function of Structure 214. The absence of any special deposits signify that this structure did not have any ritual or ceremonial function.

The composition of the Structure 77 artifact assemblage indicates a multi-function building. While there is evidence indicating food preparation activities at this location, there is

ample support for ritual function suggesting that the food preparation may have been for ritual purposes. The recovery of several ritual-related deposits in the form of two burials and a host of other artifacts including two censers, a carved stone turtle ‘altar figure’, a large *tinajera* and a bird effigy vessel all support the ritual function of Structure 77.

Research indicates that approximately 80% of eastern structures in Classic Period residential groups at Caracol, Belize are largely regarded as ritual buildings (Chase and Chase 2004:139). This is also observed at Tikal, Guatemala where approximately 14% of eastern buildings are regarded as having a ritual function (Becker 1982:112). The artifact assemblage associated with eastern structures at Late Postclassic Period Santa Rita Corozal suggests that at least one eastern building, Structure 77, retains this Classic Period feature. However, the artifact assemblage recovered in association with the only other eastern building included in this study, Structure 214, does not provide evidence supporting this ritual function. This may suggest that the Maya still retained some of their earlier Classic Period practices even into the Postclassic Period.

9.4 South Buildings

There are three southern buildings included in this study (Figure 78). Two are single room structures and one is a tandem room building. One southern building, Structure 74, is part of Sample Group 2 in the Northeast Sector. The other two buildings are located in the South Intermediate Sector; Structure 215 is the southern building in Sample Group 5 and Structure 183 is the southern building in Sample Group 6. The artifact assemblages associated with these buildings indicate a multipurpose function for Structures 215 and 183. The assemblage recovered in association with Structure 74 indicates a domestic or domestic auxiliary function.

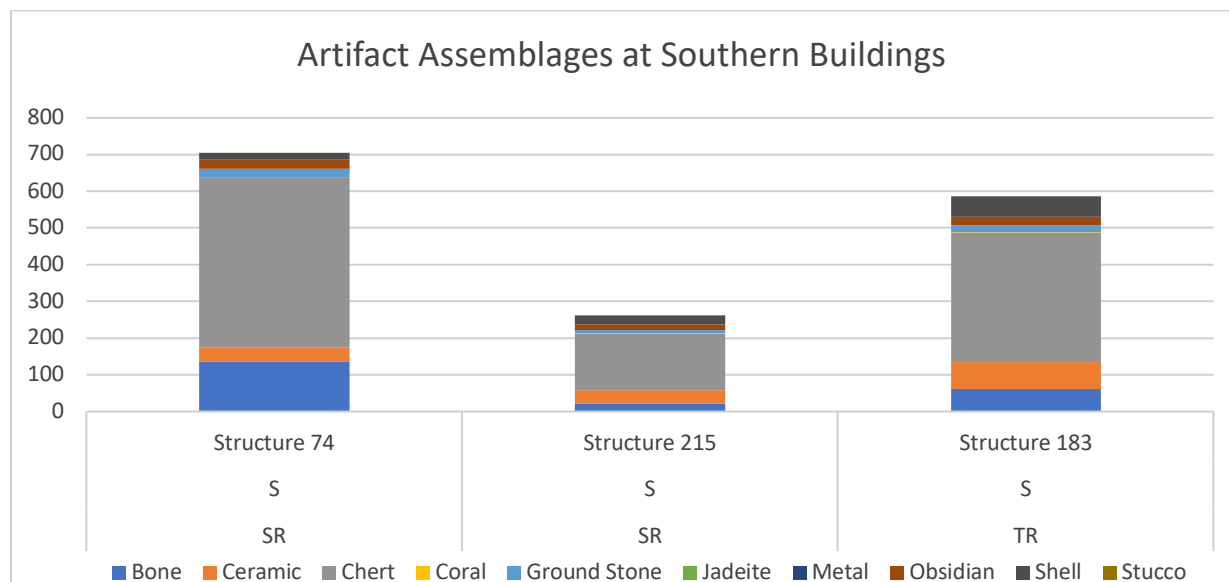


Figure 78. The comparison of artifact assemblages recovered in association with selected southern buildings at Santa Rita Corozal. * S: Southern building; SR: Single Room; TR: Tandem Room

Structure 74 is physically adjacent to Platform 2, but it is the southern building in Sample Group 2, where it forms a group with Structure 81, 84 and 75. Structure 74 is the only non-decorated single room building in the Northeast Sector. The lack of special deposits affirms the non-ritual function of this building. Figure 71 illustrates the high percentage of faunal bone associated with the Structure 74 assemblage. This factor coupled with the chert and obsidian tools as well as ground stone *manos* and *metates* allude to a domestic function, specifically as a kitchen for food processing and preparation. The presence of chert and shell fragments along with a few other random artifacts (such as a jadeite and several censerware fragments) possibly indicates that this space may also have served in a domestic function and perhaps even as a space for craft production and/or repair.

The other two southern buildings are both located in the South Intermediate Sector of the site. Structure 215 is a single room construction and Structure 183 is a tandem room building. Despite being of different construction types, the artifact assemblages at both structures are similar, although in different proportions. The assembly at both buildings support some domestic function, however, there is also a ritual function associated with these structures. Three burials which comprised a total of at least 5 individuals and a cache comprised of a lidded footed cup confirm the ritual function of Structure 215. In addition to the single burial comprised of three individuals and a cache containing 28 figurines inside a lidded urn, the ritual function associated with Structure 183 is affirmed by the presence of an altar in the rear room of the building.

The variation in building function of southern buildings is evident based on the differences of the assemblages observed from these three buildings. Whereas the assemblage at Structure 74 exhibits a domestic function, those of Structures 215 and 183 exhibit a more ritual function. This difference may be attributed to their location within the site since Structure 74 is in the Northeast and Structures 215 and 183 are in the South Intermediate. Further analyses of other southern buildings would be required for confirming this suggestion.

9.5 Central and Isolated Buildings

There are two centrally located constructions included within this study (Figure 79). The first is the raised platform construction, Platform 2, which supports all the buildings in Sample Group 1 in the Northeast Sector of the site. The other is a small construction, Structure 166 which forms part of Sample Group 3 and is located slightly southwest of Structure 162 in the

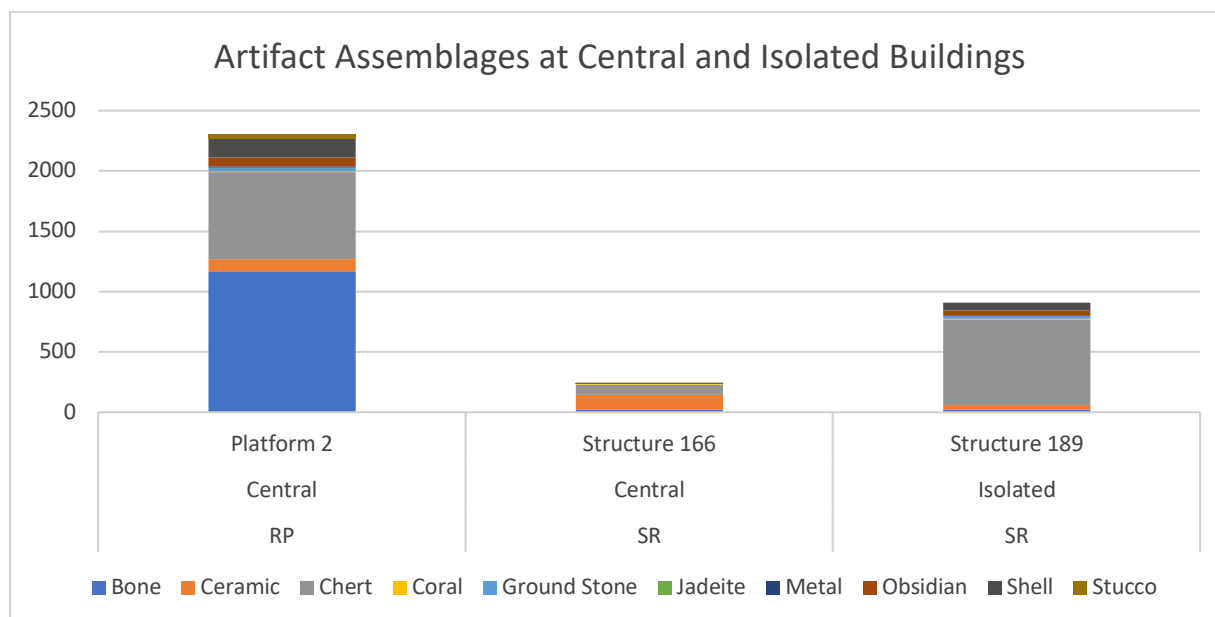


Figure 79. The comparison of artifact assemblages between selected central buildings and an isolated structure at Santa Rita Corozal. *RP: Raised Platform; SR: Single Room

South Intermediate Sector. The only isolated building included in this study, Structure 189, is a single room structure which forms Sample Group 4 in the South Intermediate Sector of the site.

The composition of the artifact assemblage (see Figures 60 and 79) at Structure 189 (Sample Group 4) supports a multipurpose function. The ritual function of Structure 189 is supported through the recovery of human remains of one individual associated with a Postclassic dated burial (SDP30D-1) along with the recovery of two large chert points, a copper bell, an eccentric chert, and green obsidian. Other chert, obsidian, and ground stone implements such as blades, points, *manos* and *metates*, ceramic beads and net weights and a variety of shell fragments are indications of food preparation and processing activities which allude to the domestic function of Structure 189. household related activity. Other chert artifacts such as hammerstones and cores along with a high percentage (79%) of chert debris material (including chips, chunks, and flakes) is suggestive of potential chert tool manufacturing at this location.

The artifact assemblage associated with Structure 166 represents only 38% of the Sample Group 3 assemblage. While it is not a large assemblage, it is very diverse and includes several artifacts that were recovered in association with two separate burials (SDP23B-1 and SDP23B-2) such as a jadeite celt, some chert tools and a mano fragment along with human remains of at least seven individuals. Although not formal deposits, several other artifacts, including censerware fragments, a chert knife, and large number of ceramic beads and net weights, were also recovered in association with Structure 166. This assemblage supports the Chase and Chase (1988:43) designation of Structure 166 as a shrine.

The other central construction in this study is also the location of one of the largest and diverse assemblage in this study, Platform 2 located in the Northeast Sector of the site. Classified as a raised platform, this construction supports all the other five buildings in Sample Group 5. The artifact assemblage recovered in association with Platform 2 suggests that it played an important role in ritual activity as it was the locus for burials in Sample Group 1. A total of eight Postclassic burials which represents at least 12 individuals, who were accompanied by a host of grave goods; a cache of three effigy face cups; and the identification of a refuse deposit associated with numerous ritual-related artifacts all affirm the ritual function of Platform 2. The assemblage also contains chert, obsidian, and ground stone implements such as blades, points, manos and metates, ceramic beads and net weights, and shell and faunal remains which support some domestic activity at this locale.

Summary

Analysis of the artifact assemblages recovered in association with three multiroom buildings indicate that these structures had similar multipurpose functions suggesting both ritual

and domestic activity. Two multiroom buildings were located in the South Intermediate Sector; both are western structures: one in Sample Group 5 (Structure 216) and the other in Sample Group 6 (Structure 218). In addition to ritual and domestic activity, it is suggested that these two structures were locales for some chert tool manufacturing and perhaps some obsidian blade production. The third multiroom building is a northern structure in Sample Group 2 in the Northeast Sector (Structure 81). As observed in Figure 71, the artifact assemblages for all three multiroom buildings were similar, albeit at slightly different proportions. Only one multiroom building had a different function. The assemblage recovered in association with Structure 73, a northern building in Sample Group 1 in the Northeast Sector, suggests a domestic function.

Single room buildings appeared in all groups except Sample Group 6. Two are northern structures, two are eastern structures, two are western, two are southern, one is centrally located and the last is an isolated structure. Of the ten single room structures included in this study, five (50%) are suggested to have had a domestic or domestic-related function. Four of these buildings are in the Northeast Sector: two western buildings (Structures 78 and 79) and one northern building (Structure 80) in Sample Group 1; one southern building (Structure 74) in Sample Group 2. One single room having a domestic function is located in the South Intermediate Sector: an eastern building in Sample Group 5 (Structure 214). The artifact assemblages associated with three other single room buildings indicate a multipurpose function. All three of these multipurpose functioning single room buildings are located in the South Intermediate Sector: a northern building (Structure 213) and a southern building (Structure 215) in Sample Group 5; and an isolated building in Sample Group 4 (Structure 189). The final two single room buildings are associated with artifact assemblages which suggest a ritual function. One is in the Northeast Sector: an eastern structure in Sample Group 1 (Structure 77) and the

other is located in the South Intermediate Sector: a centrally located structure in Sample Group 3 (Structure 166).

The artifact assemblages associated with the tandem room building and the raised platform construction indicate a multipurpose function whereby both ritual and domestic related artifacts were recovered. Structure 183 is the tandem room structure which is the southern building in Sample Group 6 in the South Intermediate Sector while Platform 2 is the raised platform construction which supports all Sample Group 1 buildings in the Northeast Sector.

The final structure is an undetermined building type located in Sample Group 3 in the South Intermediate Sector. The artifact assemblage associated with Structure 162 indicates a domestic function. This building was never fully excavated due to time limitations. Indications are that continued excavations in this area a more complex artifact assemblage would have been revealed.

10.0 Discussion

The focus of this research was an analysis of the composition and distribution of the associated artifact assemblage of six Late Postclassic Period ancient Maya household groups with the intent to assess the function of individual buildings. With permission from the Corozal Postclassic Project, access was provided to the excavation data collection compiled over the seven years of archaeological investigations at the site of Santa Rita Corozal in northern Belize. This study illustrates that a legacy artifact collection has the potential to provide a tremendous amount of information regarding ancient Maya households including the potential to identify the individual building functions within household or *plazuela* groups.

Seventeen buildings at Santa Rita Corozal were selected for inclusion in this analysis. Eight of these are located in the Northeast Sector of the site and nine within the South Intermediate Sector. From these seventeen buildings, a total of 13,010 individual artifacts representing ten different artifact classes formed the basis for this analysis. Similar to most other ancient Maya sites, the Late Postclassic artifact assemblage at Santa Rita Corozal incorporated ceramics (exclusive of ceramic sherds for this analysis), chert, bone (human and faunal remains), coral, ground stone, jadeite, obsidian, shell, stucco, and metals (copper, silver, and gold).

Two groups under investigation are found in the Northeast Sector of the site. Sample Group 1 includes Platform 2 which is a raised platform construction along with six associated buildings arranged around a central plaza atop its summit. These buildings include Structures 77, 78, 79, and 80 which are all single room buildings and Structure 73, a multiroom structure. The construction layout of Structure 78 is not confirmed but was likely a single room building (time limitations did not allow for excavations to fully reveal the extent of this building).

Sample Group 2, located tangent to and immediately northeast of Sample Group 1, is comprised of four buildings, namely Structures 74, 75, 81, and 84, arranged around a central plaza area. Only Structures 74 and 81 were selected for inclusion within this analysis. Structure 74 is the southern building forming the southern boundary of the Group. Structure 81 is the northern building and is a multiroom construction.

The other four sample groups are located in the South Intermediate Sector of the site. These include Sample Group 3 (Structures 162 and 166), Sample Group 4 (Structure 189), Sample Group 5 (Structures 213, 214, 215, and 216), and Sample Group 6 (Structures 183 and 218).

Sample Group 3 features a northern building, Structure 162, and a central single room building, Structure 166. The construction layout of Structure 162 is undetermined as this building was never fully exposed by the Corozal Postclassic Project. It has been suggested that further excavations would not have fully exposed Structure 162 but would have also resulted in the exposure of additional buildings that would have formed a household groups arranged around a central plaza.

Structure 189 is the only building forming Sample Group 4. It is an isolated and single room structure. It is suggested that with more time, excavations would have revealed additional buildings that would have then formed a similar household group formation as soon in the other sample groups.

Sample Group 5 comprises Structures 213, 214, 215, and 216 which form a household group around a central plaza in the South Intermediate Sector. Structure 213 forms the northern border of the group and is a single room structure. Structure 214 is the eastern building and is also a single room structure. Structure 215 is another single room structure forming the southern

border of the group. Structure 216 is a multiroom building which forms the western extent of the group.

Sample Group 6 comprises three buildings, Structures 183, 217, and 218. There were no excavations conducted at Structure 217, therefore this building was not selected for inclusion within this analysis. Structure 183 is the only tandem room building within this analysis. It forms the southern border of the group. Structure 218 is the western building and is a multiroom structure.

The analysis of the artifact assemblage takes into consideration the characteristics of a Late Postclassic period domestic assemblage suggested by Masson (2000:91) as being a mixture of utilitarian ceramics, lithic tools, ground stone implements, shells, faunal remains, net weights, and obsidian blades. In comparison, other specialized functions would be expected to vary from this domestic assemblage such that there would be an elevated quantity of whatever material was related to the specialized activity. For instance, as Masson (2000:87) suggests, a chert tool manufacturing household would be expected to have elevated amounts of chert within the assemblage as well as a greater diversity in chert artifact types ranging from finished chert tools, performs and would also include debitage material within the assemblage.

Like most ancient Maya households, chert is the most prevalent artifact class present in all the assemblages of the selected buildings within this study. In most cases, the chert artifacts include tools such as bifaces, blades and points inferring a domestic function for those associated buildings. However, there are two instances in which the chert assemblage also includes a high percentage of debris material (approximately 93% of the chert assemblage) associated with two buildings in the South Intermediate Sector. Research by Marino (2014:49) indicates that there was sufficient evidence suggesting that the occupants of both western, multiroom buildings in

Sample Groups 5 and 6, specifically Structures 216 and 218, were engaged in chert tool manufacturing activities. Sidrys (1983:292) notes that ready access to raw material for this production could be accessed from Colha in northern Belize. In addition to the Colha sourced chert, Marino, Johnson and Meissner (2014:7) found that over 75% of the chert utilized in the production of chert points at Santa Rita was actually non-Colha chert. They suggest that the chert was being sourced from multiple locations throughout northern Belize, including from Colha.

In addition to the utilitarian chert, there are instances in which several chert artifacts appear in ritual contexts. In the Northeast Sector only Platform 2 had any instances in which chert was included in special deposits. Several chert fragments were recovered in association with a burial (SDP6E-1) and other fragments were recovered in association with a refuse deposit to the south of the platform. There are two instances in which chert was recovered from special deposits in the South Intermediate Sector. At Structure 166, chert tools were also recovered in association with a burial (SDP23B-1). At Structure 189, excavations recovered a deposit of two large chert points (SDP30C-1) as well as an eccentric chert (P30D/11-4) located in debris material associated with this building.

Although obsidian artifacts are present throughout the site and included as part of the assemblage of these selected buildings (except at Structure 78, where only a single chert flake was recovered), there is not enough evidence supporting manufacturing of obsidian tools or the presence of a workshop within any of these Late Postclassic household groups (Seidita 2015:37). However, research by Seidita (2015:38) and Seidita, Chase and Chase (2018:169-170) does indicate that prepared polyhedral obsidian cores were being imported into Santa Rita. Seidita, Chase and Chase (2018:171) state that the presence of obsidian cores within the Santa Rita

assemblage is indicative of local blade production. It is suggested that the limited number of initial-series blades within the assemblage indicates that the cores were prepared prior to being imported into Santa Rita (Seidita, Chase and Chase 2018:174). The presence of high percentages of prismatic blades (approximately 83%) within the assemblage confirms that it is these blades that were being locally produced, likely for local consumption (Meissner 2014:137; Seidita 2015:37). Although chert tool manufacturing was identified at Structures 216 and 218, it is suggested that there is not enough evidence supporting the presence of any formal obsidian workshops at these buildings (Seidita 2015:37). However, the recovered obsidian assemblages associated with Structures 216 and 218 reflect that these buildings may have served as loci for activities requiring large amounts of obsidian (Seidita 2015:91), perhaps including the production of prismatic blades.

Ceramic artifacts, like chert, are ubiquitous to ancient Maya sites. The chert assemblage included within this analysis is limited to only those vessels, figurines, censerware, and spindle whorls recovered in association with special deposits excavated within these six household groups. Additionally, other utilitarian ceramic artifacts such as beads and net weights are also included within this analysis. Ceramic artifacts formed portions of the artifact assemblages associated with sixteen of the seventeen buildings in this study; again, only the Structure 78 assemblage did not include any ceramic items. Special deposits, and any artifacts associated with them, infer a ritual function for any building from where they were recovered. In addition to ceramic vessels associated with special deposits, the presence of additional features such as interior shrines and altars, altar stones or figurines, censerware and effigy figurines also signify a ritual function associated with at least eleven of the seventeen selected buildings within this analysis. The other non-ritual or utilitarian ceramic artifacts of interest distributed across the site

include beads and net weights (or notched sherds). These artifacts aid in inferring a more domestic function since these have been suggested as net sinkers and utilized in the extraction of marine species from the coastal and marine environment surrounding Santa Rita (Chase 1982:378-379; Masson 2000:117). Approximately 80% of ceramic beads and net weights are associated with the buildings in the South Intermediate Sector. Specifically, 50% of ceramic beads and 30% of ceramic net weights were recovered in association with Structures 216 and 218 suggesting that the individuals who used these structures were actively engaged in fishing activities.

Ground stone implements are also abundantly distributed across the site. These appear most commonly in the form of *mano* and *metate* fragments accounting for approximately 65% of all ground stone artifacts. These implements are typically associated with domestic activity since these are known to be utilized in food processing and preparation activities, usually related to the processing of maize (Sidrys 1983:294; Masson 2000:116). Based on her analysis of ground stone *metates*, Duffy (2011:37) suggests that trough- and flat-shaped *metates* are largely associated with the grinding of maize since these have a larger surface area. Duffy (2011:37) further indicates that the smaller surface areas of basin or bowl-shaped *metates* are suited for the grinding of herbs and spices or even pigment used in crafting activities. *Metates* of varying shapes are associated with the selected buildings in this study indicating that most of these buildings were functioning in some domestic fashion. Another interesting ground stone feature is the presence of limestone discs or “potlids” within several assemblages. Imre et al. (2010) and Paris et al. (2018) hypothesize that these discs are used to seal the hollowed logs in which bees were kept. Their presence, particularly in association with the buildings in the South

Intermediate Sector from which approximately 77% of the assemblage was recovered, is an indication that these residents were engaged in beekeeping activity.

Though jadeite is found in the assemblage, its presence is restricted to only seven of the seventeen buildings representing only four of the six *plazuela* groups included in this study. Approximately 88% of all the jadeite artifacts in the assemblage were recovered in association with special deposits implying the ritual functioning of the associated buildings. Roughly 80% of the assemblage is associated with buildings in the South Intermediate Sector. Of this amount, approximately 70%, in the form of eight beads and one fragment, was recovered from with Structure 213. All nine items were recovered in association with special deposits (1 burial and 3 caches) at this locale. The limited jadeite assemblage suggests that while the community had access to the exotic material, it was not universally available to the general population as it may have been restricted to only a few households within the community or available only for specific activities.

Human remains were recovered in association with 11 of the 17 buildings included within this study. Late Postclassic burials were recovered in association with 50% (n=4) of the buildings in the Northeast Sector; specifically, the northern and eastern buildings (Structures 73 and 77) and the central platform (Platform 2) in Sample Group 1 as well as the northern building (Structure 81) in Sample Group 2. The human remains recovered in association with these four buildings represent 52% (n=13) of all burials and 44% (n=22) of the individuals recovered from with these burials included within this study (see Table 13). In the South Intermediate Sector, human remains were recovered in association with 80% (n=7) of the buildings and includes at least one building in each of the four sample groups; specifically, the central building (Structure 166) in Sample Group 3, Structure 189 in Sample Group 4, the northern, southern and western

buildings (Structures 213, 215, and 216) in Sample Group 5, and the southern and western buildings (Structures 183 and 218) in Sample Group 6 (see Table 13). The human remains recovered in the South Intermediate Sector represents 48% (n=12) of all burials and 56% (n=28) of the individuals recovered in association with these burials included within this study.

The Late Postclassic burials recovered in association with Sample Group 1 account for approximately 92% of the total burials and 91% of the individuals recovered in association with the Northeast Sector. The burials recovered in association with Sample Group 2 accounts for approximately 8% of the total burials and 9% of the individuals recovered in association with the Northeast Sector. At Sample Group 1, two burials (SDP6E-9 and SDP6E-10) which comprised at least five individuals were recovered in association with the northern building, Structures 73. From the eastern building, Structure 77, two burials (SDP6F-1 and SDP6F-2) comprising at least 3 individuals were recovered. The central platform of the group, Platform 2, contained eight burials (SDP6E-1, SDP6E-4, SDP6E-5, SDP6E-6, SDP6E-7, SDP6E-8, SDP6E-11, and SDP6E-12) were recovered accounting for at least 12 individuals. From Sample Group 2, human remains were associated only with the northern building, Structure 81, where at least two individuals were recovered from a single burial (SDP8C-1).

In the South Intermediate Sector seven buildings had associated human remains within their assemblages. In Sample Group 3, human remains were encountered in association with the centrally located Structure 166. Two burials (SDP23B-1 and SDP23B-2) were recovered accounting for at least 7 individuals at this location. From Sample Group 4, a single burial (SDP30D-1) was recovered in association with Structure 189. This burial comprised at least one individual. Three buildings in Group 5 had human remains within their assemblages. From the northern building, Structure 213, a single burial (SDP26B-2) consisting of at least five

individuals was recovered along with a single skull (SDP26B-1) which was placed above the burial (SDP26B-2). At Structure 215, the southern building, three burials were recovered (SDP29B-4, SDP29B-3, SDP29B-2) comprising of a total of at least five individuals. Finally, a single burial (SDP33D-1) comprising two individuals was recovered in association with the western building, Structure 216. And lastly, the two buildings comprising Sample Group 6 both contained human remains within their assemblages. A single burial (SDP37A-2) comprising at least three individuals was recovered in association with the southern building, Structure 183 two burials (SDP38B-1 and SDP38B-3) comprising at least four individuals were recovered in association with the western building, Structure 218.

With regards to faunal remains, these were present in the assemblages of all six sample groups included within this study. These include four buildings (50%; n=4) in the Northeast Sector and nine buildings (100%; n=9) in the South Intermediate Sector. Approximately 85% of the recovered faunal remains are associated with the buildings in the Northeast Sector and 15% associated with the buildings in the South Intermediate Sector. Morton (1988:118) states that the faunal remains within this assemblage reflects the use of the surrounding marine and land animals as food sources.

The faunal assemblage associated with Sample Group 1 represents 91% of the Northeast Sector assemblage. Only these eastern building (Structure 77; 25%) and the central platform (Platform 2; 75%) contained faunal remains within their assemblages. The faunal assemblage associated with Sample Group 2 represents 9% of the Northeast Sector. Both buildings, the northern (Structure 81; 10%) and the southern (Structure 74; 90%) had faunal remains within their assemblages.

Approximately 14% of the South Intermediate Sector faunal remains were recovered in association with Sample Group 3. The faunal assemblage associated with the northern building (Structure 162) represents 67% of the Sample Group 3 total. The assemblage associated with the central building (Structure 166) represents 33% of the Sample Group 3 total. The Sample Group 4 faunal assemblage recovered from Structure 189 represents 8% of the South Intermediate faunal assemblage. The faunal remains recovered in association with Sample Group 5 represents the largest faunal assemblage (59%) in the South Intermediate Sector. Faunal remains were recovered from the northern building (Structure 213; 65%), the eastern building (Structure 214; 5%), the southern building (Structure 215; 9%), and from the western building (Structure 216; 21%). Approximately 19% of the South Intermediate Sector faunal remains were recovered in association with Sample Group 6. Faunal remains were recovered in association with the southern building (Structure 183; 42%) and with the western building (Structure 218; 58%).

The data demonstrates that those buildings associated with the recovery of burials served some ritual function. These include buildings in every sample group in both the Northeast and South Intermediate Sectors of Santa Rita: Structures 73, 77, and Platform 2 (Sample Group 1), Structure 81 (Sample Group 2), Structure 166 (Sample Group 3), Structure 189 (Sample Group 4), Structures 213, 215, and 216 (Sample Group 5), and Structures 183 and 218 (Sample Group 6).

The evidence recovered in association with Platform 2 suggests that this locale was an important center for ritual activity in Sample Group 1 and likely served as a community locale for interring family members, with women and children being placed immediately south of the platform (D. Chase 1982:337; 1986:358-359). At Structure 77, the presence of two burials along with a turtle “altar figure”, a large *tinajera*, and a bird effigy vessel all indicate a ritual function

for this eastern building. While faunal remains were also recovered at this location, it is likely an indication that some ritual-related food preparation took place as part of the ritual or ceremonial function of this building. The ritual function associated with Structure 77 also implies that this Late Postclassic community maintained the earlier Classic Period practice of associating ritual activity with eastern structures. At Structure 73, the presence of human remains establishes some ritual function associated with this northern, multiroom building. However, in consideration with the overall assemblage recovered from this location, it is suggested that Structure 73 served a multipurpose function. At Structure 81, the presence of an internal shrine room, an altar, and an interior bench in addition to the burials recovered undoubtedly indicates a ritual function associated with this northern, multiroom building in Sample Group 2. In addition to the ritual-related assemblage, the presence of a diverse utilitarian artifact assemblage supports a domestic function and thus it is suggested that Structure 81 served a multipurpose function. Chase (1986:355) suggests that the artifact assemblage associated with Structure 81 points to a ritual, residential and even administrative role as this building is suggested as the residence of a ‘*principal*’ (Chase and Chase 1988:25).

The human remains recovered in association with two burials accompanied by a host of ritual-related items including a jadeite celt, some chert tools, and ground stone *mano* fragment along with other deposits placed in the building such as censerware fragments, a long-stemmed chert point, and numerous ceramic beads and net weights all indicate that Structure 166, the small, centrally located structure in Sample Group 3, undoubtedly served a ritual function as a ‘shrine’ (Chase and Chase 1988:43). At Structure 189 in Sample Group 4, although a ritual function is elicited based on the recovery of a single burial and a deposit of two large chert points, the additional presence of a diverse assemblage including chert, obsidian, and ground

stone along with some faunal remains is an indication of domestic activity at this locale thus indicating an overall multipurpose function for Structure 189. The only building in Group 5 which did not have any human remains associated with its assemblage is Structure 214, thereby indicating a non-ritual function for this structure. The assemblages recovered in association with Structures 213, 215, and 216 all indicate a multipurpose function. The presence of numerous burials and caches associated with each of these three buildings, including two shrines associated with Structure 216 and an interior constructed bench in Structure 213, indicate a ritual function for all three locales. In addition, the associated faunal assemblages from each of these buildings also supports a domestic function. Finally, it is suggested that the two buildings forming Sample Group 6 also served multipurpose functions. The recovery of a burial, a cache and an interior altar at Structure 183 and two burials and a cache at Structure 218 signify a ritual function for these two Sample Group 6 buildings. The presence of faunal remains within their assemblages and in combination with a diverse utilitarian artifact assemblage at both locales point to some domestic function for both structures.

The stucco assemblage included within this study is largely associated with the buildings in the Northeast Sector, which account for approximately 98% of all the recovered stucco. The evidence suggests that six of the eight buildings within Sample Groups 1 and 2 had exterior modeled stucco decorations and that, in some cases, these were also painted. Only Structures 78 (Sample Group 1) and 74 (Sample Group 2) had no evidence of stucco within their associated artifact assemblages. Structure 78 was never fully excavated by the CPP due to time limitations. Structure 74 likely served as a locale for food processing and preparation as well as a possible storage or chert tool repair and manufacturing location, and given this domestic function, it may not have been necessary to decorate this building. In the South Intermediate Sector, only two

buildings (Structures 213 and 218) had any evidence of stucco. However, the very limited assemblage is not sufficient to indicate that these buildings were indeed decorated.

Given the proximity of the Santa Rita Corozal community, along the coastline, the presence of coral fragments in the artifact assemblages, along with the presence of ceramic beads and net weights, suggested as net sinkers utilized in fishing activity (Chase 1982:378-379; Masson 2000:117), is an indication that these Late Postclassic households were engaged in extracting marine species from the coastal environment. The largest percentage of coral fragments, approximately 93%, was recovered in association with the buildings in the South Intermediate Sector. Three of the nine buildings in the South Intermediate Sector - namely Structures 189, 213, and 216 – are associated with approximately 70% of all the coral fragments. None of the coral appears in special deposits. It is unknown what the exact purpose of the coral fragments was. Simmons et al. (2018:331) suggest that this material was used in building construction particularly at coastal sites and referred to it as “reefstone,” but the Santa Rita Corozal material is actual coral (fragments) and not derived from sedimentary rock.

Marine shells were a valued commodity in ancient Maya society (Sharer and Traxler 2006:656) and marine shell artifacts were considered prestige goods which appeared in numerous ritual and ceremonial purposes (Moholy-Nagy 1995:3) such as seen in the Santa Rita Corozal assemblage where they were recovered in association with burials and were included as personal adornments or as status symbols. Hohmann (2002:5) adds that marine shell objects served many functions including as utilitarian implements, as currency or a medium of exchange, and as a symbol of generalized wealth. However, because Santa Rita Corozal is located adjacent to the coast, the presence of shell is likely not a wealth indicator. Their regular appearance in contexts such as ritual offerings and interments indicate that these items were highly valued and

were imbued with ritual significance. Their inclusion within the assemblages of all seventeen buildings in this study suggests that there was unrestricted access to these items. The highest percentage (59%) of the shell assemblage was recovered in association with the buildings in the South Intermediate Sector. The largest percentage of worked shell artifacts specifically was recovered in association with Sample Group 5 (59%) and specifically with Structure 216 where the highest percentage (52%) of worked shell was recovered. A total of 36 *Spondylus* beads were recovered from the only burial (SDP33D-1) associated with Structure 216. In association with the northern or primary individual in the burial was necklace of shell and jadeite comprising 30 of these beads; around the left wrist were six large rectangular “beads” which formed a *Spondylus* shell bracelet (Chase and Chase 1988:56) that can be taken as an indicator of high status (see Proskouriakoff 1962 for comparative *Spondylus* material from Mayapan, Mexico). The highest percentage (58%) of unworked shell is also associated with Sample Group 5 in the South Intermediate Sector. In the Northeast Sector, the shell assemblage recovered in association with Structure 81 comprised 29% of the worked shell and 63% of the unworked shell. Hohmann (2002:4) and Moholy-Nagy (1995:6) argue that during the Classic period, craft specialists are associated with the elite based on the identification of craft workshops within elite residential areas. At Late Postclassic Santa Rita Corozal, it is interesting that these large amounts of shell artifacts (both worked and unworked material) are associated with two multiroom structures, in which at least one was thought to have served as a residence for high status individuals (Chase 1986:355), which suggests that this community maintained the earlier Classic period tradition of having craft specialists engaged in the production of shell artifacts at these locations.

Metal objects do not appear in Maya contexts until around the Postclassic period (ca. CE 900/950-1542). Hosler and MacFarlane (1996:1823) point out that metals, in the form of copper, silver and gold, were prized as luxury items by the ancient Maya and access to these long-distance exotic items were seen as a display of power by the owner. Given its strategic location near the major northern rivers and along the coast, Santa Rita Corozal was situated in a prime location for access to and experimenting with the use of this exotic item. The metal assemblage is largely in the form of personal adornments made from copper and gold; though there is one silver bell in the assemblage (Chase and Chase 1988: Fig. 36; identified by the University Museum MASCA laboratory). All the metal objects included within this study were recovered in association with special deposits at Santa Rita Corozal. Approximately 44% of the metal assemblage was recovered in the Northeast Sector in association with two different locations; one in each of Sample Groups 1 and 2. Two coppers rings in a burial (SDP6E-7) and several copper sheet fragments were recovered from a refuse deposit in association with and to the south of Platform 2. One gold foil fragment, referred to as *tumbaga*, was included inside an effigy vessel cache (SDP8C-2) recovered at Structure 81. Approximately 56% of the metal assemblage was recovered in the South Intermediate Assemblage in association with three separate buildings (in Sample Groups 4, 5, and 6). A single copper bell was recovered in debris associated with Structure 189. The only burial (SDP33D-1) recovered in association with Structure 216 comprised two male individuals. A pair of gold and turquoise earflares and five gold bells along with a copper clasp were found accompanying the northern individual. A single copper needle and a copper clasp accompanied the southern individual. A single silver bell and two copper bells were recovered in association with a burial (SDP38B-1) comprising a single female individual recovered from Structure 218.

Based on their inclusion within special deposits, it is apparent that metal was a prized adornment for the Late Postclassic Maya. It is also interesting that approximately 60% of the metal assemblage was recovered in association with ritual-related contexts associated with the internment of women and children. The limited quantity of metal artifacts within the assemblage and the absence of any debris or manufacturing implements such as casts and molds does not provide any evidence suggesting that these households were engaged in on-site production of metal objects.

In general, the analysis of the artifact assemblage did not reveal any explicit patterns existing between the varying building types or locations and any specific functions. Although the architectural forms and features were taken into consideration, the analysis reveals that it is critical to include the artifact assemblage in assessing building function. Statistical analysis of the data suggests that there is sufficient evidence to indicate a weak correlation between both building type and building location and the distribution of artifacts which support specific functions. A closer look at these factors indicates that multiroom buildings, for example, present in at least four sample groups and in particular, those buildings positioned on the western edge of their respective *plazuela* groups, are hypothesized as having a multipurpose function. The associated artifact assemblages of such buildings, namely Structures 216 and 218, contain ample evidence supporting both domestic and ritual activity as well as evidence supporting chert tool manufacturing and possibly obsidian blade production as well as some shell craft production.

The artifact assemblages associated with other multiroom buildings, namely Structures 73 and 81, both northern buildings in their respective sample groups, also provide evidence supporting a multipurpose function for these buildings. The assemblages at both Structures 73 and 81 provide sufficient evidence supporting both domestic and ritual activity at these locales.

In addition, the elevated quantity and diversity chert, obsidian and shell artifacts recovered in association with Structure 81 also suggests that occupants of this building were likely engaged in some manufacturing and possible craft production at this locale. Although suggested as a multipurpose building, the limited faunal remains associated with Structure 81 indicates that there was no food preparation activity within this building. Chase and Chase (1988:25) have suggested that the large artifact assemblage associated with Structure 81 implies a combination of ritual and domestic activity, and combined with the architectural complexity of the structure, are all indications that this building may have been the residence of a '*principal*' who is defined as one of the leaders of a Postclassic town (Roys 1972:134).

Although the raised platform construction (Platform 2) nor the tandem room construction (Structure 183) were not formally classified as multiroom structures, both buildings are associated with an artifact assemblage supporting a multipurpose function for both these locales. Each of these structures are associated with a single cache and burials (1 at Structure 183 and 8 at Platform 2) emphasizing a ritual function. The elevated quantities and diversity of utilitarian artifacts within the assemblages also support a domestic-related function at both locations.

In terms of single room structures, these appear to be more varied in function across the site regardless of their position within their respective *plazuela* groups. Three buildings, representing 30% of single room structures, namely Structures 189, 213, and 215, located within the South Intermediate Sector of the site, are associated with extensive artifact assemblages exhibiting a multipurpose function where both domestic and ritual activity transpired. Interestingly, the Structure 215 assemblage contains limited faunal remains indicating that there was no food preparation occurring within this building. This pattern is similar to Structure 82 in Sample Group 2, also a multipurpose building within the sample.

Approximately 40% of single room structures (Structures 79, 80, 74, and 214) exhibited characteristics of a purely domestic or domestic auxiliary function such as kitchens, storage, and manufacturing or repair locations. These domestic functioning single room structures are located across the site in both the Northeast and the South Intermediate Sectors. It is also noted that a domestic function was not limited to buildings specific to any single cardinal location around the plaza but rather are located in varying positions around the plaza within their respective *plazuela* groups. Although Structure 78 was not fully excavated and is associated with only a limited artifact assemblage, it is suggested that it would have likely had a domestic related function, based on the adjacent buildings with similar spatial layouts and similar associated artifacts within Sample Group 1.

Two other single room structures are suggested as having a purely ritual function, namely Structures 166 and 77. Structure 166 is a small, almost square-shaped single room building located slightly south of and centrally placed in the plaza area in front of Structure 162. Based on a plethora of ritual-related artifacts along with a burial recovered in association with this small structure, Chase and Chase (1988:43) suggest that Structure 166 functioned as a shrine. The other single room building with a suggested ritual function is the eastern structure in Sample Group 1, Structure 77. Like Structure 166, its associated assemblage also includes a significant number of ritual-related artifacts as well as two burials.

The indication that this eastern structure had a ritual function is significant given the evidence of earlier Classic period use of eastern structures for ritual purposes. Research at Caracol, Belize demonstrates that an eastern structure functioned as a shrine (for ritual purposes) in approximately 80% of the residential groups (Chase and Chase 2004b:139). These eastern structures are typically used for containing interments (in the form of tombs, crypts, and cists as

well as simple interments) and intentionally placed ritual deposits or caches. This eastern structure-ritual function practice appears widespread in residential groups at Caracol (Chase and Chase 2004b:139-141). Becker (1982:112) states that a common residential arrangement referred to as Plaza Plan 2 can be found at sites across the Maya region, including at Tikal, Guatemala. Plaza Plan 2 is defined as a residential group having a central plaza arrangement with a specialized ritual building in the east, thus indicating that this was the location of the burials within the group. Becker (1982:120) reports that 97 groups identified at Tikal conform to the Plaza Plan 2 definition, representing 14% of the total groups at the site.

One undetermined building type is located in the South Intermediate Sector, namely Structure 162, which forms the northern building in Sample Group 3 along with Structure 166. Due to time limitations, the CPP was unable to fully excavate this structure, thus its undetermined building type. Despite the limited excavations here, the associated assemblage provided sufficient evidence supporting a domestic function for Structure 162.

The analysis of the associated artifact assemblage reveals that individual buildings served varying functions within Late Postclassic period *plazuela* groups. Although individual buildings may have had varying functions, taken together they functioned in performing tasks of a single household. This analysis also corroborates with D. Chase's (1990:202-203) indication that most buildings are associated with some domestic use with only 6.6% indicating ritual or administrative use. In this current study, the artifact assemblage reveals that only 2 of the 17 buildings (or 12%) have a purely ritual function (i.e., Structure 77 in Sample Group 1 and Structure 166 in Sample Group 3), however, the inclusion of the multifunction buildings within this category would add another 9 structures as having a ritual function, albeit not purely ritual.

With these inclusions, approximately 65% of the buildings within this study had some associated ritual function.

The data suggests that multiroom structures typically had a multipurpose function. The associated assemblages indicate that all four multiroom structures included in this analysis (Structures 73, 81, 216, and 218) served as domestic and ritual locales and even as chert manufacturing loci in the case of Structures 216 and 218. A multipurpose function, however, is not limited to only multiroom buildings. The assemblages associated with several other single room buildings (i.e., Structures 213, 215 and 189) also indicate a combination of both ritual and domestic activity. Although some domestic activity is suggested for Structures 81 and 215, both multipurpose buildings, the limited faunal assemblage associated with these locales suggests that food preparation was not part of those activities.

Identifying building function is a key component in the reconstruction of ancient Maya society. Assessing building function could not be possible without incorporating an analysis of the excavation data and the associated artifact assemblage. These are critical elements necessary for recognizing the subtleties of household activity that could not be determined solely utilizing visible architectural forms and features of buildings. As demonstrated by this analysis, the excavation data proved essential in identifying the variation in building function within these selected household groups at Santa Rita Corozal.

11.0 Conclusion

The discussion on ancient Maya households have been divided between ‘settlement’ and ‘household’ archaeology. Both avenues of research pertain to ancient Maya households (e.g., Haviland 1982; Wilk and Rathje 1982; Ashmore and Wilk 1988; Robin 2003; Chase and Chase 2014) but whereas settlement archaeology is involved with examining the relationships either within and between sites and is largely concerned with defining a typical residential or *plazuela* group in terms of population estimations, household archaeology is focused on the social contexts at the micro level (within and between household groups) and with the socio-political relations of those who resided within the household. Chase and Chase (2014:4) argue that despite the efforts of these research areas, the literature has never explicitly defined a household nor provided details on the manner in which ancient Maya residential groups, or the buildings therein, functioned. This current research provided the opportunity to address the issue of building function by analyzing the associated artifact assemblage recovered from individual buildings within six selected household or *plazuela* groups at the thriving Late Postclassic Period community of Santa Rita Corozal. This analysis provides an expansion on the narrative of the Late Postclassic period by filling the gap in our understanding of an ancient Maya household group and by expounding on the variation in building function observed within these sample groups. The analysis also provides a better understanding of ancient Maya households, particularly during the Postclassic Period, once thought to be a time of decadence and decline in ancient Maya civilization.

Previous research (Gann 1900; Green 1973; D. Chase 1982; Sidrys 1983; Chase and Chase 1988) has established that Santa Rita Corozal was a flourishing Late Postclassic capital Maya city. A comprehensive analysis conducted on the extensive database comprising 13,010

artifacts which includes ten different artifact classes recovered from the excavations conducted by the Corozal Postclassic Project (1979-1985) from seventeen selected buildings in the Northeast and South Intermediate Sectors at Santa Rita Corozal. This analysis reinforces the suggestion that Late Postclassic Period Santa Rita was a flourishing community that maintained similar traditions as observed in the Classic Period.

As previously indicated, the assessment of building function could not be done without incorporating an analysis of the associated artifact assemblage. The analysis of the artifact assemblage associated with the selected household groups at Santa Rita Corozal did not reveal any explicit patterns existing between the varying building types or locations and any specific functions. Although there were no definitive patterns observed, the analysis does provide some insight into the particulars of Late Postclassic Period household groups.

The data reveals that Late Postclassic households typically consisted of several buildings arranged around a central plaza area. This was observed among the groups regardless of their location across the site (e.g., at Sample Groups 1 and 2 in the Northeast Sector and at Sample Groups 3, 5, and 6 in the South Intermediate). Almost all the buildings included within this study are considered low-lying or line-of-stone constructions, and many would not have been recovered without employing aerial-type excavations. The horizontal clearing of the ground surface revealed numerous structures that were invisible on the ground surface. With continued excavations, it is suggested that this excavation method would have exposed additional buildings and likely there would have been the typical multi-building household groups at both Sample Groups 3 and 4 in the South Intermediate Sector.

The exception to this low-lying construction is observed at Sample Group 1 where Platform 2 is a raised platform construction atop which several buildings were constructed and

arranged around a central plaza area. The associated assemblage recovered in association with Platform 2 suggests that this central platform had a multipurpose function and is suggested to have been used as a community graveyard as several Late Postclassic burials were recovered at this locale, including several burials recovered just to the south of the platform, where only women and children were interred. This highlights another feature observed during this analysis whereby at least one building within the various groups functioned in a ritual manner. In addition to the presence of burials, other ritual-oriented locales featured interior shrine rooms (such as at Structure 81), censerware and altar stones (Structure 77), or the recovery of several caches and numerous other ritual-related artifacts within the assemblage signifying its function as a shrine (such as at Structure 166) (Chase and Chase 1988:43). The diverse artifact assemblages associated with multiroom buildings, such as Structures 81, 216, and 218, allude to multipurpose functions where, in addition to ritual functions, these structures also served as domestic functions as well as loci for chert tool manufacturing and possibly even some shell craft production. In the case of Structure 81, it is also suggested that this was the home of a ‘*principal*’, therefore some administrative functions were likely at this location (D. Chase 1986:355).

The analysis also revealed that the artifact assemblages associated with single room buildings point to varied functions both within and between the different sample groups. For example, within Sample Group 1, single room buildings functioned as domestic locales (Structures 78, 79 and 80) while others had ritual functions (Structure 77). Other single room buildings with domestic functions include Structure 74 (Sample Group 2) and Structure 214 (Sample Group 5). Furthermore, there are other single room buildings which are associated with diverse assemblages indicating a multipurpose function. These include Structure 213 and 215

(Sample Group 5) and Structure 189 (Sample Group 5). Interestingly, the assemblages associated with the buildings in Sample Group 6 in the South Intermediate Sector indicate that both building types found here (Structure 183, a tandem room building and Structure 218, a multiroom building) are both suggested as having multipurpose functions.

Analysis of the extensive artifact assemblage suggest that residents at Santa Rita generally had a non-restricted access to a diverse range of artifacts including chert, obsidian, ceramics, ground stone, and shell. Based on the limited presence of some exotic artifact types including jadeite and metals, it appears that access to these materials were restricted to those multiroom and/or multifunctioning buildings (e.g., Platform 2, Structure 81, Structure 213, Structure 216, and Structure 218) or with those associated with a purely ritual function (e.g., Structure 166) within the various household groups. The presence of exotic artifacts within the associated artifacts assemblages such as obsidian, jadeite and metals, in particular, are indications that the Late Postclassic Maya participated in an extensive long-distance trading network. Although the presence of exotic items within the assemblage supports the idea of an increased and expanded trade network during the Postclassic Period, Chase and Chase (2004c:23) argue that there is abundant evidence supporting the presence of long-distance trade as early as the Preclassic which evidently continued into the Late Postclassic Period.

One of the biggest transitions observed between the earlier Classic Period communities and the Postclassic is that people had moved away from the large, interior cities and were now residing in smaller towns such as at Santa Rita Corozal which was strategically located along the coast and in close proximity to the major rivers in the area. This facilitated the community's involvement in both long-distance trading and in the exploitation of the resources in the coastal environment.

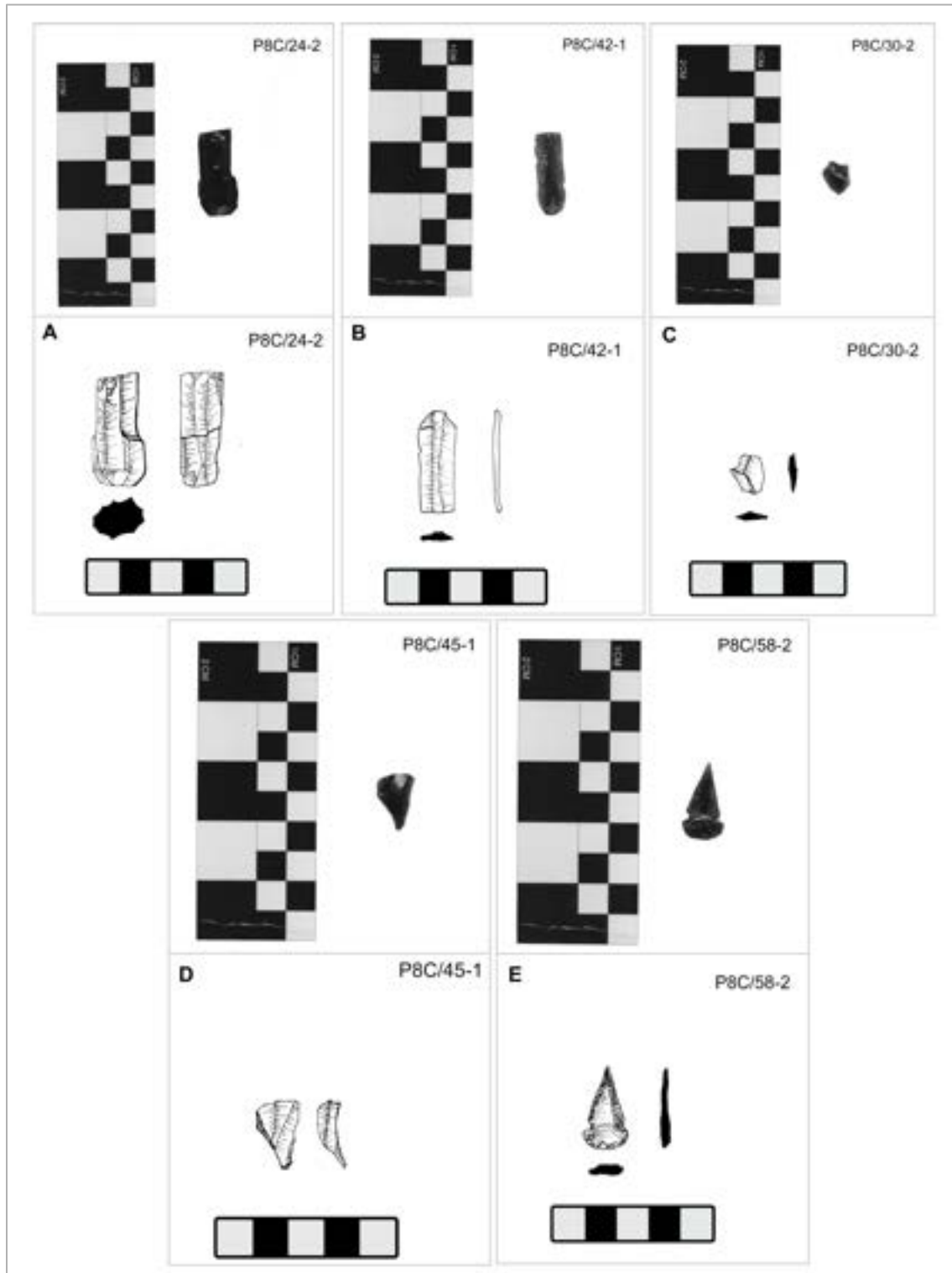
Although the Late Postclassic no longer featured massive stone architecture, the structures maintained a line of stone construction pattern which have been observed in the earlier Classic Period. For example, similar line of stone constructions are noted as being characteristic of residential group structures at Caracol (Chase and Chase 2004c:19).

Much like their Classic Period counterparts discussed by Chase and Chase (2004b; 2014) at Caracol and by Becker (1973; 1982) at Tikal, the *plazuela* groups at Late Postclassic Period Santa Rita Corozal were arranged in similar fashion with buildings arranged around a central plaza with individual buildings having varied functions including as domestic or ritual locales. In several instances buildings are multipurpose, serving both ritual and domestic functions and may also serve as locales for chert tool manufacturing, obsidian blade production and possibly as craft production locales (e.g., at Structures 216 and 218). Although individual buildings may have had varying functions, together the respective household or *plazuela* groups functioned as a single household unit.

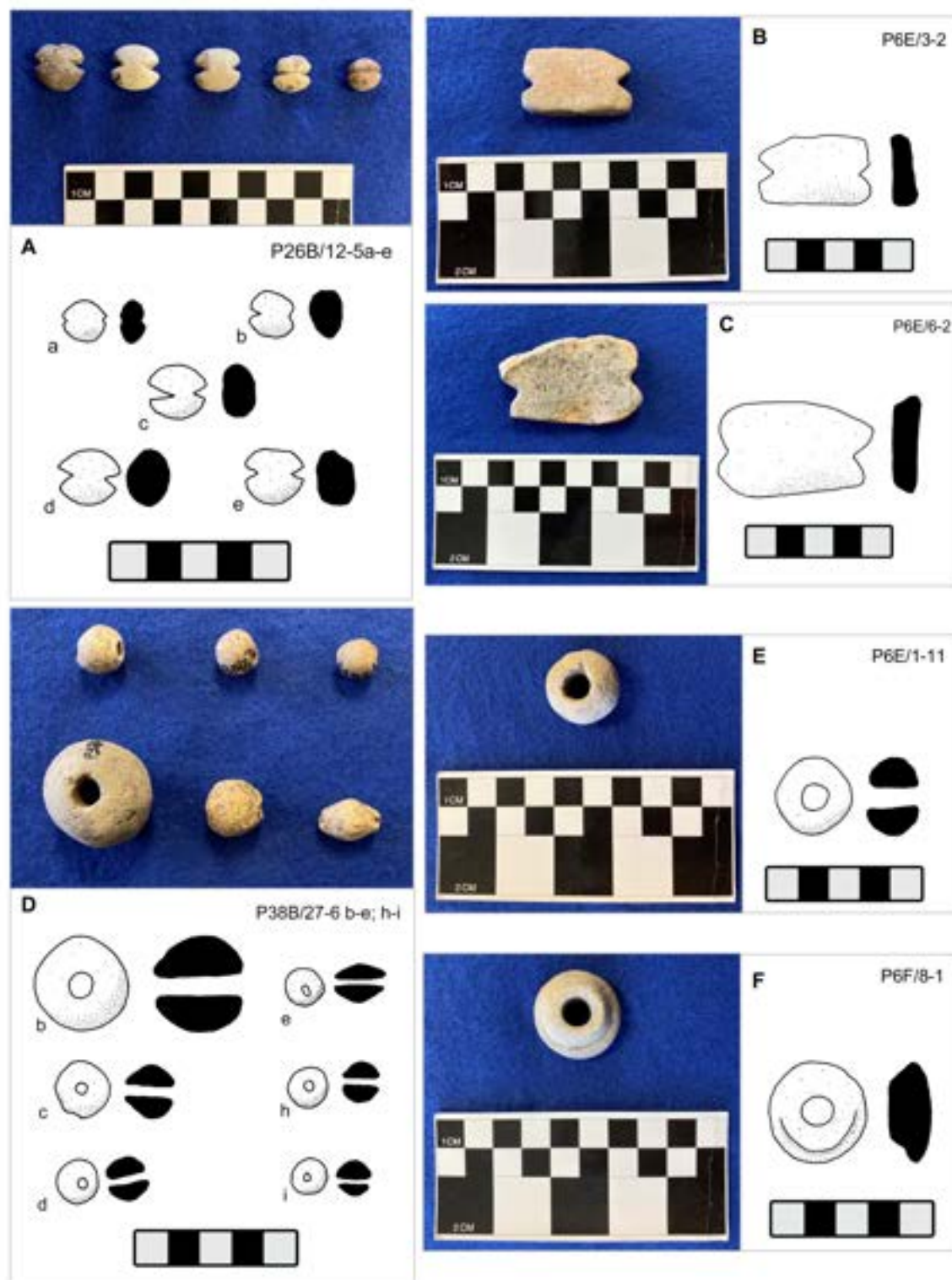
The use of eastern structures for ritual purposes is characteristic of the Classic Period as observed at both Caracol (Chase and Chase 2004b:139) and Tikal (Becker 1982:112). Through this analysis at Late Postclassic Santa Rita, it was observed that one eastern structure (Structure 77 in Sample Group 1) maintained this characteristic. Within the sample, however, ritual function was also associated with northern (e.g., Structures 73 and 81), southern (e.g., Structure 166), and western buildings (e.g., Structures 216 and 218). The use of caches to commemorate special occasions or to signify important dates is another characteristic that predates the Postclassic Period. Chase and Chase (2004c:22) indicate that this practice was common among Classic period Maya sites and was widespread at Late Classic residential groups at Caracol.

As a final point, a critical aspect of this research is that it underscores the importance of conducting archaeological research solely utilizing archival documents rather than conducting any new archaeological excavations. Numerous archaeological projects have accumulated vast quantities of material which have not been exhaustively analyzed. Studies like this one assist in completing the puzzle of reconstructing the ancient Maya society. The analysis of the existing Corozal Postclassic Project excavation data allows for a better understanding and appreciation of the intricacies of the Late Postclassic Maya households of northern Belize.

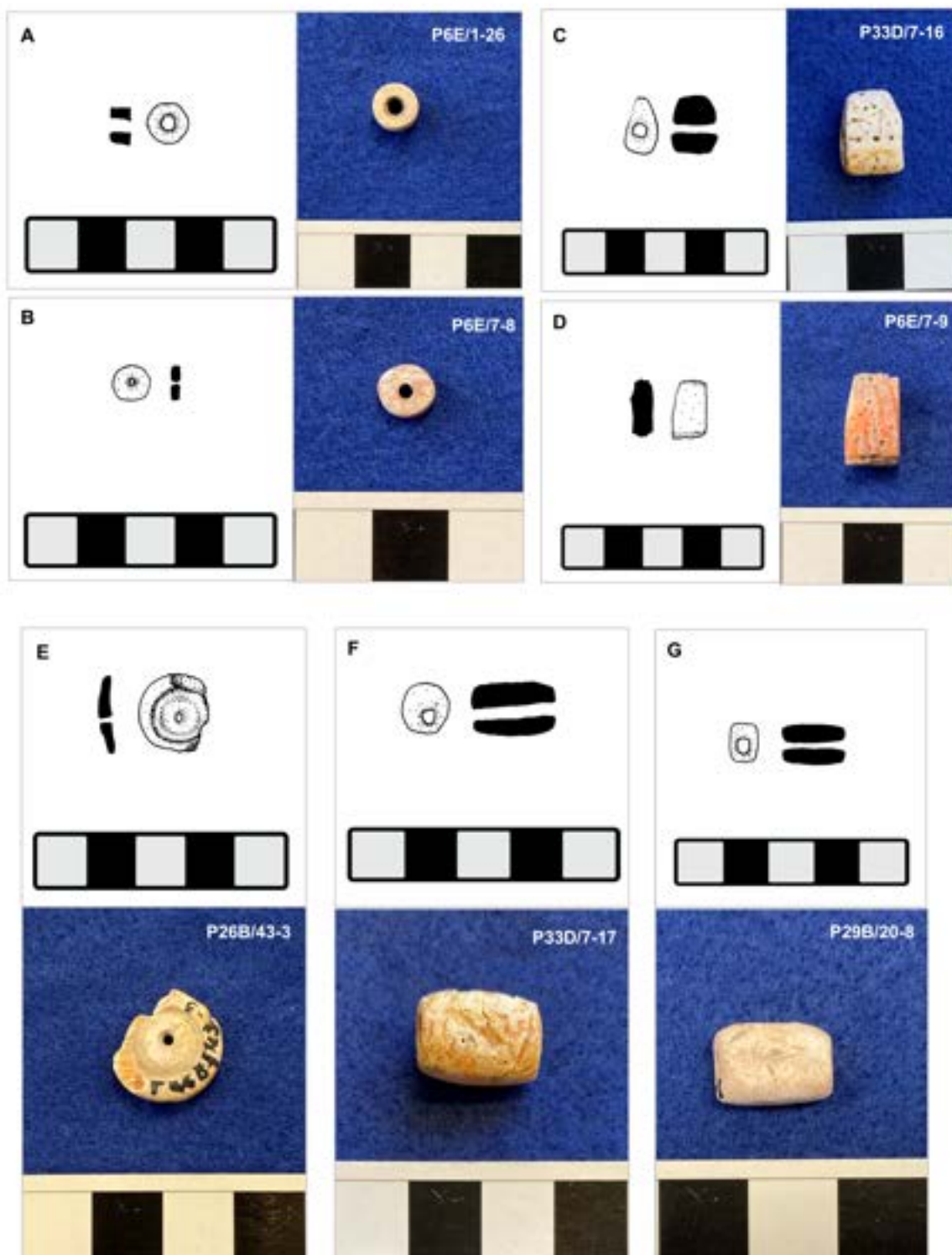
12.0 Appendix: Artifact Images



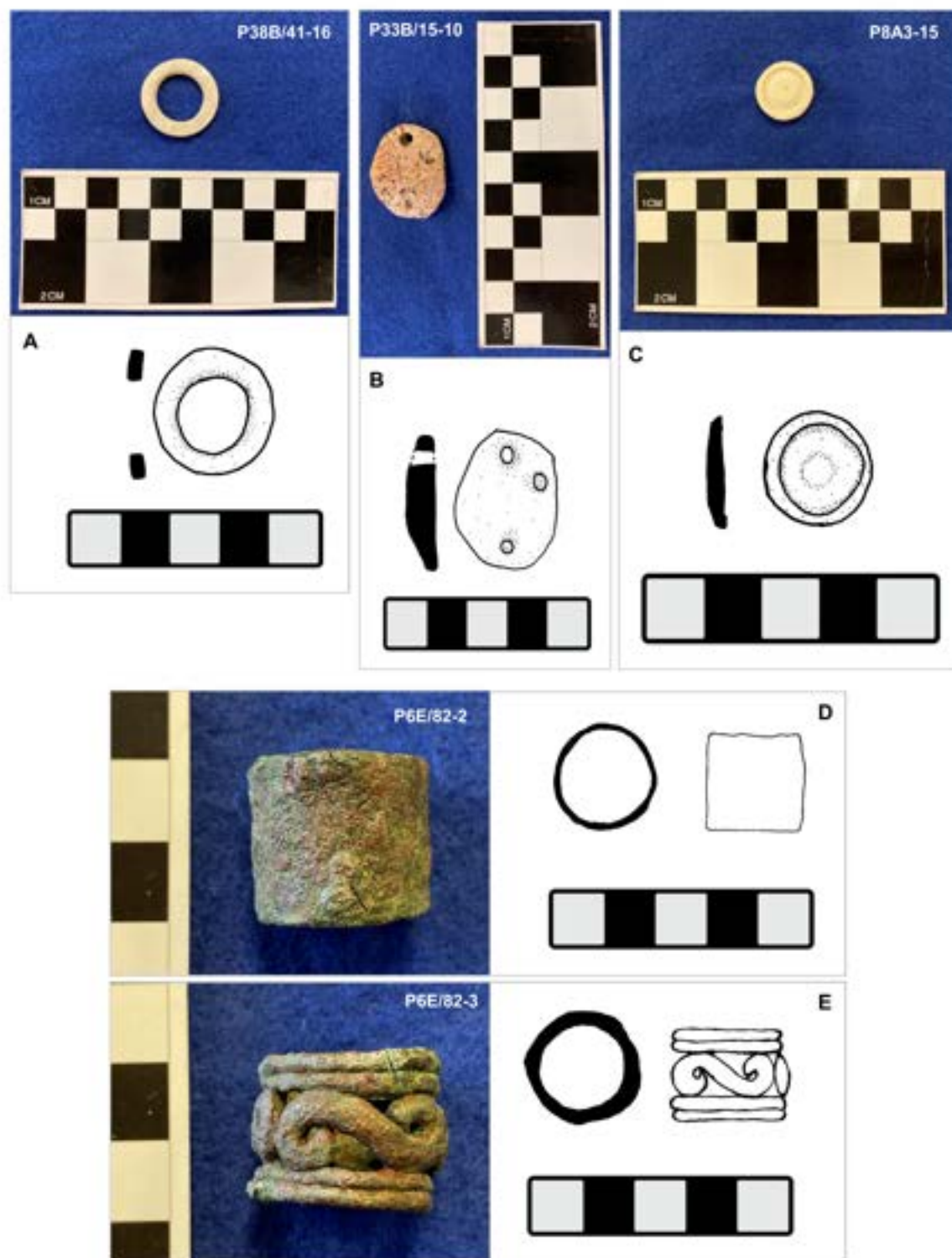
Appendix Figure 1. A selection of obsidian artifacts recovered from CPP excavations in association with Structure 81 (Sample Group 2) in the Northeast Sector at Santa Rita Corozal. A. Core; B. Blade fragment; C. Chip; D. Fragment; E. Point. Photos and illustrations by author.



Appendix Figure 2. A selection of ceramic artifacts recovered in association with CPP excavations at selected buildings at Santa Rita Corozal. A. Net weights from Structure 213 (Sample Group 3); B. and C. Notched sherds (also net weights) from Platform 2 (Sample Group 1); D. Variety of beads recovered from Structure 218 (Sample Group 6); E. Bead from Platform 2 (Sample Group 1); and F. Spindle whorl recovered from Structure 77 (Sample Group 1). Photos and illustrations by author.



Appendix Figure 3. A selection of shell artifacts recovered in association with CPP excavations from selected buildings at Santa Rita Corozal. A. and B. Discoidal beads from Platform 2 (Sample Group 1); C. Tubular bead from Structure 216 (Sample Group 5); D. Tubular bead from Platform 2 (Sample Group 1); E. Groove-decorated bead from Structure 213 (Sample Group 5); F. Cylindrical bead from Structure 216 (Sample Group 5); G. Tubular bead from Structure 215 (Sample Group 5). Photos and illustrations by author.



Appendix Figure 4. A selection of shell artifacts (A-C) and two copper rings (D-E) recovered from CPP excavations associated with selected buildings at Santa Rita Corozal. A. Shell ring recovered from Structure 218 (Sample Group 6); B. Shell pendant recovered from Structure 216 (Sample Group 5); C. Shell disc recovered from Structure 81 (Sample Group 2); D. Plain copper band (ring) recovered from Platform 2 (Sample Group 1); E. Scroll-designed copper ring recovered from Platform 2 (Sample Group 1). Photos and illustrations by author.

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