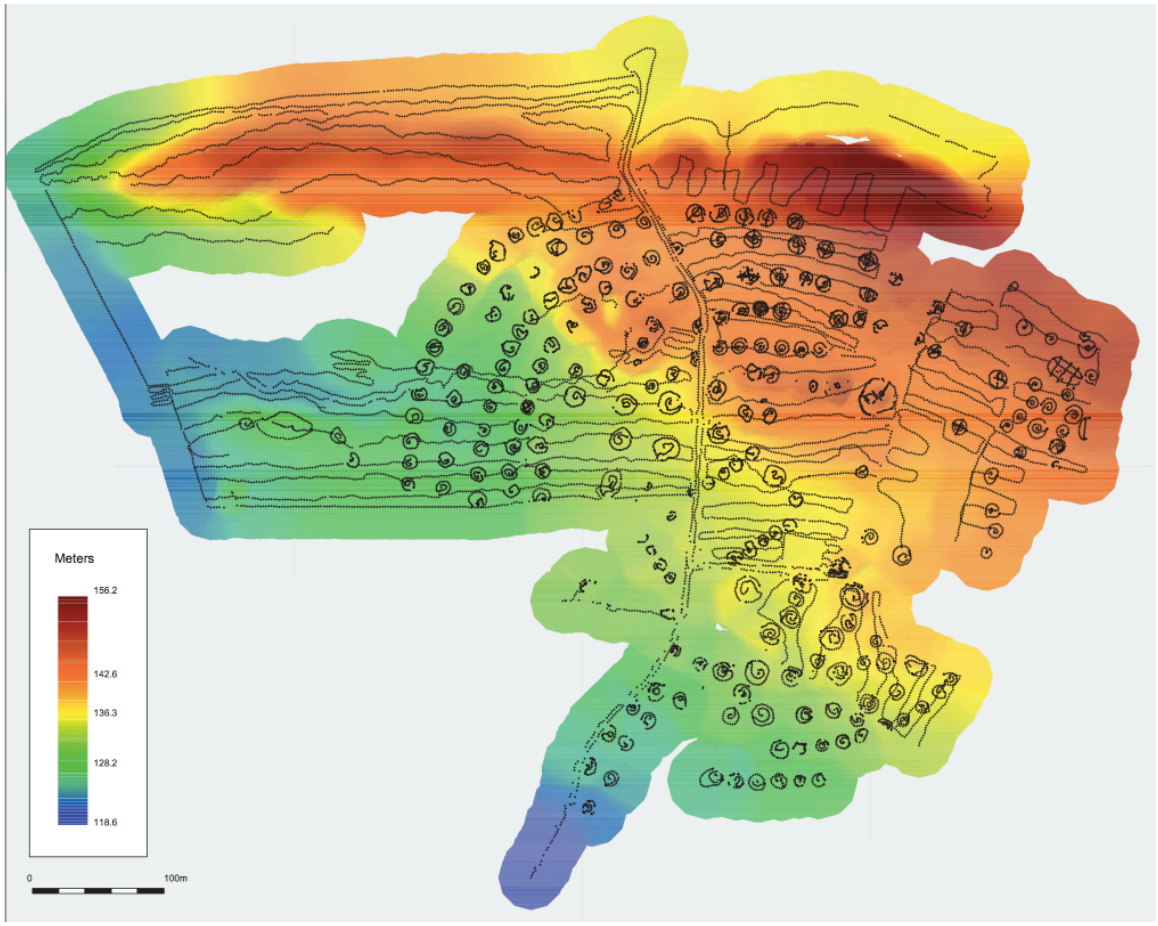
# Patterns on the Surface and Below

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Cover image: Digital Elevation Model of the Aguas Buenas site.

# Patterns on the surface and below.
# A revision of archaeological interpretations of Prehispanic Chontales, Nicaragua.

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# Preface

As with all archaeological research, this thesis could not have been written without the help and support of several people. Most importantly, this research would not have been possible without Dr. Geurds. Besides facilitating the fieldwork that I participated in for the last three years at Aguas Buenas, he also encouraged and provided the contacts necessary for my own fieldwork in June 2013. While this fieldwork was instrumental for shaping my thoughts on Chontales archaeology, I also want to thank him for being a Supervisor with a capital S overall. I should really get you that t-shirt.

Fieldwork and thesis supervision are very important, but some thoughts and ideas need more help to take shape. Therefore I would like to thank several people that have been instrumental for that process. First of all, Prof. Dr. Jansen for providing a productive working environment and for always being open to discuss my ideas. Secondly, on the other side of the pond Prof. Dr. McCafferty was always available for online discussion, relieving many a confused thought on all these strange ceramic types. Thirdly, Drs. Richard Jansen provided the much needed discussions on mounds and methodologies. Several of my friends at the university were also extensively used for their listening and debating skills, which often pointed out the flaws in my reasoning. And furthermore, I can't thank Mark enough for editing this thesis in record time.

Lastly, visiting all the sites would not have been possible without Carlos Villanueva and his motorcycle, his knowledge on all things Chontales and ability to keep up my morale never seizes to amaze me.

# I. Introduction

In the 19th century, European travelers remarked on the high density of Prehispanic earthen and stone mounds present in the current-day Central Nicaraguan department of Chontales. However, 20th century archaeological research in this region focused predominantly on the polychrome ceramics found in the region and classified them into typologies and establishing a chronological sequence. Temporal control of the sequences relied primarily on the presence of these polychrome types from the Greater Nicoya cultural area. These types were subsequently interpreted as signifying the presence people from the Greater Nicoya region living in Chontales, which was supported by historical linguistic research. However, recent research in both areas indicates that these interpretations are founded solely on de-contextualized data. Therefore, a reconsideration of the archaeological data from Chontales is presented in this thesis, based on a theoretical framework that considers a new definition of ethnic identity; which sees the interaction between material culture and population groups as dynamic and responsive, rather than casual.


**Figure 1 - Map of Nicaragua, with the red dot locating the research area (**

## 1.1 The research area

The department of Chontales lies on the eastern side of Lake Nicaragua (figure 1). This freshwater lake is the largest of its kind in Central America, and provided a wide array of subsistence goods for the Prehispanic population. The

shape of this lake creates an isthmus on the western side of Nicaragua, where the Spanish first encountered Nahuatl speaking people, the Nicarao. On the eastern side of the lake, a large mountain range forms the Central Nicaraguan region that separates the Atlantic coast from the Pacific coast of the country. This tripartite division was already noticed by the colonizers in the 16th century, who did not only documented the different environmental conditions between the regions, but also the differences in lifeways, languages, and material culture of the people already living there. The Nicarao and Chorotega from the Pacific coastal region of Nicaragua were related to Mesoamerican cultures by their language and material culture, while the Central and Atlantic Nicaragua indigenous peoples were described by the Spanish as more resembling of the Caribbean peoples, even though they did not establish control of the Central region until the 18th century. The accompanying contemporary perceptions of social structure and ideology within these descriptions, continue to be influence interpretations in 21st century archaeological studies.

Archaeological research in Chontales depended for a significant period of time on correlations between the material culture of the Pacific region, which has subsequently received more attention from archaeologists. This is exemplified by the Chontales ceramic sequence established by Gorin (1989), which heavily relied on the occurrence of Greater Nicoya ceramic types in Chontales for its chronology. Consequently, later interpretation of the established phases focused on these ceramic types as evidence for the presence of people from the Greater Nicoyan region in Chontales. Historical research of early colonial religious and secular sources seems to further corroborate the presence of Nicarao in Chontales. However, recent archaeological investigations have revealed that the ceramic styles associated with the Nicarao already existed in Pacific Nicaragua before the proposed dates of the migrations, drawing into question the relation between ceramic style and ethnic identity (McCafferty and Steinbrenner 2005). As existing archaeological interpretations of the material culture of Prehispanic Chontales do not incorporate this new information, a revision of these earlier interpretations and their original dataset is necessitated.

## 1.2 Theoretical framework and methodology

In contemporary globalizing society, ethnic identity is an important yet difficult and sensitive subject to address (Insoll 2007, 1). This is no less apparent in

archaeological research, where the construction of ethnic identities of people in the past are studied academically, but the inferences and assumptions can play a role in current discussions surrounding indigenous and national identities (ibid.). As postcolonial studies have recently shown, identities in a non-Western context are constructed in a different manner, and so archaeological research into ethnics identities should adapt accordingly (Jones 2007; Loomba 2005). It is argued in this thesis, that Prehispanic identities can become more realistically identified through the study of their entire social and material cultural context, and not solely through rigidly established ceramic typologies, following Jones (2007).

A methodology for a reconsideration of the Chontales archaeological dataset is proposed on the basis of this new approach, which relies on the idea that lifeways, or *habitus* (after Bourdieu 1977), is more indicative of a shared ethnic identity than material culture or language alone. It proposes to study the material culture as encountered at each individual site as a specific and possibly unique assemblage, that is, only representative of each particular location. This is done by creating site-complexes, in which the material remains encountered at the surface and through excavation are described, instead of solely focusing on the ceramics encountered. The similarities and differences between the various sites can then be analyzed, in order to recognize patterns that can possibly indicate a shared ethnic identity between groups. Besides this, the incorporation of linguistic and historical data particular to this region can provide insights into the differences and similarities as seen from an outsiders perspective.

## 1.3 The data

The department of Chontales has never been subject to extensive archaeological investigations. Sadly, the visibility of the archaeological remains and the enthusiasm with which European and North American travelers in the 19th century excavated the mounds and their contents has led to the looting of many sites by the local population. Since the 1980s, several surveys have been executed along the major rivers while some of the largest sites near the departmental capital of Juigalpa were known by the local population for quite some time. Observations made during these surveys and a recent survey by the author are discussed below, in order to understand the diversity of Prehispanic sites in Chontales from the surface level. Several sites have been the subject of more extensive research, either by Richard Magnus in the 1970s, Franck Gorin and Dominique Rigat in the 1980s, or

Alexander Geurds in the most recent years, and those will be described in the site-complexes (see Chapter IV).

## 1.4 Expected results

A revision of the current interpretations of the archaeological record of Chontales according to new insights on ethnic identities in Prehistory will ensure a more contextualized understanding of the Prehispanic past in this region. Due to the range in the data available from each site, the interpretations outlined below are preliminary; this reconsideration of the Chontales ceramic sequence suggests that the understanding of cultural developments in this region is currently very poor. However, by studying both material culture and *habitus,* patterns emerge that indicate the construction of distinct identities on a local scale through the constant interaction of groups of people from different regions. By incorporating both of these lines of argumentation, the current interpretation questions the presence of people from Greater Nicoya in Chontales, based on the occurrence of specific ceramic types alone.

# II. The Research Area: Geography and history of research

## 2.1 Geography of Chontales

The area investigated in this study lies in the department of Chontales, on the east side of Lake Nicaragua, a department that is characterized by its geomorphological diversity, incorporating the lake-coast in the west to the mountain ranges in the east. The research area proper lies within a depression that runs parallel to the lake, bordered by the Cordillera Amerrique in the northeast and the Hato Grande range in the west, an area that could have geographically facilitated human movement. All sites studied are concentrated around the departmental capital of Juigalpa, with a maximum diameter of 20 kilometers . A detailed geological and geomorphological investigation of the entire department can be found in Rigat (1992), who mentions that the geological processes that shape the landscape here were formed in the late Oligocene, 25 million years ago, wicausingth the formation of the cordillera range in the northern part. The most recent major changes occurred during the Quaternary with alluvial and colluvial deposits in the lower lying areas (Rigat 1992, 11-15). The mountainous regions contain columnar basalt and several types of lithic material (e.g. chalcedony and quartz), that form the basic materials for tools and other artifacts, such as the sculptures that are encountered in archaeological contexts throughout this region. Geomorphologically, the research area is a mix between "undulating mountains" and "valley and erosion plains" (Rigat 1992, 16-18), which is clearly shown in the dramatic ridges (*quebradas*) and lonely hills in the landscape (fig …). The climate falls into the Aw' Köppen classification with a dry summer between November and May (Lange 1984, 46), and rain in the other months. This means that during the months of April and May, the landscape is bare and dry, and from June onwards the vegetation grows rapidly. These climatological conditions are assumed to have remained fairly stable over the last millennia (c.f. Cooke 2005), influencing everyday life as well as the archaeological research in the area, predominantly the visibility of surface material. There are several rivers running through the region, including the Mayales which is the largest in the area and connects to the lake. It is fed by several tributaries, amongst which are the Río Cuapa, and the Río Cuisalá. The Mayales and Cuapa possess the largest flow of water and maintain higher levels throughout the year, while the greater majority of local rivers are almost dry during the months April and May.

Additionally, the geography of this area creates a bounded valley, in which discrete sites are often visible to each other (see figures 2 and 3). The viewpoints

from the hills protruding from the relatively flat valley floor are also archaeologically interesting for archaeology, as they provide an overview of almost the entire valley. This means that the Prehispanic sites would have been visible from many locations, and that regular contact between them should be assumed for this region.

**Figure 2 - View from Cerro de Aguas Buenas towards Cerro de la Cruz.**

**Figure 3 - View from the site of Piedras Grandes II towards Cerro de Aguas Buenas.**

## 2.2 History of research in Chontales

Since the Spanish colonization, the Chontales region has received visitors from various backgrounds. The religious and secular documents from the Spanish are the earliest historical sources, together with chronicles comparable to those written about the Mesoamerican and Andean regions (c.f. Oviedo y Valdez 1959; Foster 1950; Fowler 1989). Following the country's in the early 19th century, European and North American travelers started to explore Nicaragua, collecting their observations in travel journals and early scientific studies. Continuing from the early 20th century on archaeological research in Chontales developed on a limited scale, with the first work by David Sequiera in the 1930s, followed by Richard Magnus in the 1970s, Frank Gorin and Dominique Rigat in the 1980s, and concluding with the studies done in the 21st century by Laura Van Broekhoven and Alexander Geurds.

However, several things must be considered when using these various sources for archaeological purposes. Due to their focus on the conversion of the indigenous population, many Spanish sources are rich with biased ideological convictions that influenced their view on the indigenous lifeways (Van Broekhoven 2002, 32). This is a serious issue that occurs in all writings dating to the colonial period, and the subsequent results still influence archaeological interpretations today. A more specific problem when considering Nicaraguan sources is the confusion about the exact locations indicated by traveling Spaniards (Van Broekhoven 2002, 80). Also, as they often travelled along the Pacific coast, these sources only deal with the interior population by how they are described by the Nicarao. The documents written by the 19th century travelers have similar problems, and they cannot be assumed to be unbiased accounts of what was encountered. However, due to the contemporary developments in European society regarding scientific method, the descriptions by the travelers can be considered more accurate than the previous ones of the Spanish (Van Broekhoven 2002, 46). The earliest archaeological research has different complications, as most research remains unpublished and therefore the interpretations of encountered materials are absent. A further issue with earlier archaeological research is the dominance of a research paradigm focused on finding direct connections between the Nicaraguan Prehispanic peoples and the peoples from Meso- and South America; this approach left little room for studying local developments. As will be shown in this thesis, this paradigm is evident in the most recent interpretations of the archaeological materials, and its origins can be directly traced to the first Spanish documents.

While these considerations may paint a negative picture about the state of Central Nicaraguan archaeology, what remains is a plentiful corpus of data described in various levels of detail. The main sources that provide the data and their interpretations of it will be discussed in detail, followed by a definition of the research problem that follows from this current that of research.

### *2.2.1 16th to early 19th century: the Spanish conquest*

The conquest of Nicaragua proved to be a much longer process than that of Mexico and the Andes, possibly due to the absence of a unifying indigenous leader (Van Broekhoven 2002). The three major geographical zones of Nicaragua were subjugated at different speeds, as the Spanish arrived on the Pacific Coast of Nicaragua and established the cities of Granada and León Viejo. From these cities they attempted to control the rest of the country. On the Atlantic watershed side, the English were attempting to counteract Spanish colonial efforts by occupying the "forgotten" territories (Ibarra 2011, 81). The Central region in between however was not subject to direct Spanish control until the 17th century (Newson 1987, 16-17; Van Broekhoven 2002, 9).

The earliest sources during this time are legal documents from secular sources that deal with issues of required tribute, census taking, and the appointing of lands. These documents provide substantial information regarding the languages spoken and certain socio-cultural phenomenon of Prehispanic Nicaragua, but these continue to remain virtually unstudied (Van Broekhoven 2002, 32). Besides the secular sources, several Spanish chronicles exist that describe the Nicaraguan Pacific coast, of which the most detailed and most studied is by Gonzalo Fernández de Oviedo y Valdés (Steinbrenner 2010, 11-13; also Abel-Vidor 1980; Newson 1987; Incer 1993; Fowler 1981, 1989). These Chroniclers described the peoples of Central America by their similarities and differences to the Mexican and Peruvian peoples, describing the indigenous populations of Lower Central America as 'more primitive'. Additionally, the Spanish attributed names and identities to the indigenous populations of Central America that resulted from descriptions by neighboring peoples. The current name for the Chontales department is a direct result of this, as '*Chontal*' is a Nahuatl word meaning "those who speak bad" (Van Broekhoven 2002, 37). This example also demonstrates that during the conquest there was a linguistic difference between the groups that the Spanish encountered on the Pacific coast and those on the other side of the lake. However, the extent of this difference beyond

language, for example regarding material culture and ethnicity, is unclear from the contemporary sources.

What predominates in the analyses of the secular and religious sources is the lack of control the Spaniards had on the indigenous population in Central Nicaragua. This lasted until until the second half of the 17th century, when they established some form of control in the region, and many sources mention that the indigenous peoples fled into the mountains in order to escape the Spanish (Newson 1987, 16-17; Van Broekhoven 2002, 9). Nowadays, most of the inhabitants in Pacific and Central Nicaragua are *mestizo,* or of mixed European descent, a direct result of Nicaragua's central position as a source for the slave trade (Newson 1987, 91-109).

### *2.2.2 19th century travelers: first scientific interest*

When Nicaragua gained its independent in 1821, its borders were opened to foreigners for the first time since the conquest (Van Broekhoven 2002, 12). While most travelers visited the easier accessible Pacific coastal region, some also visited the Central area. An extensive summary of these sources can be found in Van Broekhoven (2002, 46-7, 71-88). Besides descriptions of archaeological remains, Brinton (1895) carried out the first linguistic analyses in Chontales. While exact locations of the places visited by the travelers are unknown, the descriptions of the materials encountered are certainly useful to form comparisons with recent archaeological excavations.

The main difference between these academic accounts and those of the Spanish lies therefore in the financial backing, as the travelers were no longer solely supported by religious institutes (Van Broekhoven 2002, 46). Predominantly from a European background, the travelers were looking for an "exotic experience", but due to their academic background the descriptions of natural and human occurrences can be regarded as more accurate than those of the Spanish (Van Broekhoven 2002, 47). The travelers were not specifically on the lookout for archaeological remains, instead investigated the geographical, cultural and biological diversity of the New World. In addition to describing the natural world that they saw around them, most also collected archaeological objects that they encountered, and large collections that still exist today were founded in this period (Steinbrenner 2010, 17). This 'collecting' might have stimulated the local population towards lucrative looting, as some of the travellers also describe, and one wonders how much difference there is between looting by the local population and the investigations by the foreign travelers.

The stone and earthen mounds found throughout Chontales were investigated and occasionally excavated by these 19th century visitors. This was predominantly in order to harvest artifacts, as it was assumed that these structures were the remnants of burials of chiefs. The lack of riches in the mounds was interpreted by some of the travelers as evidence of the inferiority of Nicaraguan Prehispanic peoples to the Costa Rican and Honduran ones, where many golden objects had been encountered (Boyle 1866). Instead of riches human remains were encountered in some of the mounds, and consequently the burial practices of the Prehispanic inhabitants of Chontales are described in several sources. Most mention that both inhumation and cremation was practiced, of which the former could be encountered in the mounds while the latter were deposited in urns (Boyle 1866; Belt 1874). The locations and shapes of the mounds that contained burials were also remarked, for example that they were located on plains with rocky soils and good drainage (Pim and Seeman 1869, 126). Small, 'parallelogram' shaped mounds also indicated burials, however, according to Boyle (1866), these were particular to the people on the Atlantic watershed side. A direct observation of the function of stone and earthen mounds is made by Pim and Seeman (1869, 127), mentioning:

> "*The Indians who before the Spanish conquest inhabited Nicaragua did not construct any large temples or other stone buildings, as some of the other natives of Central America have done. From what I saw, it would seem that in three ancient Chontales villages the houses were in the center, and the tombs, placed in circles around, formed the outskirts*"

Descriptions of the rituals surrounding the mounds are also given, but the sources for this information are obscure and are therefore not incorporated here.

Besides the human remains encountered, sculptures were occasionally present inside and outside the mounds. For example, Thomas Belt (1874) mentions that the mounds functioned as burial markers and that the statues on top of them depicted the deceased. Some of the mounds excavated by Boyle (1866) also contained fragments of statues, and he notes that all those mounds had inclined or straight walls, and were altered due to trees growing out of them. The sculptures of this region warrant further mention, as they are the most recognizable artifact category until today for the general public. Predominantly, the stylistic differences between the sculptures of the Chontales region and the Pacific side of Nicaragua are notable. For example, Belt (1874) mentions that the statuary of Chontales is similar to that encountered in the Caribbean, instead of Mesoamerica. This emphasized the differences in Prehispanic inhabitants between the regions, as already perceived by

the Spanish colonizers. Furthermore, the 19th century travelers mention that the local population seem to be predominantly *mestizo*, and had little in common with the Prehispanic population besides their 'primitive' lifeways. This was inferred because in many places the local population did not display respect or fear of the Prehispanic remains, actively looting them for treasure.

Overall, according to the 19th century travelers, the mounds contained relatively few objects, especially those meriting mention to their predominantly European public. Central in the writings are the low regard that the travelers have of the population and the people that created the archaeological remains, especially in comparison with the Mesoamerican and South American archaeology. As to the material remains encountered, the mounds were invariably interpreted as being burial mounds and the sculptures encountered with them as depicting the deceased. The mentions of looting, both by the travelers and the local population, are interesting as this indicates that possibly many Prehispanic remains are no longer encountered in this region as they will have been entirely destroyed. This was not only the case in Nicaragua, but also in its surrounding countries in Central America, and is a practice that unfortunately remains a problem until today.

### *2.2.3 Sequeira and Magnus: first archaeological excavations.*

David Sequeira first excavated in the department of Chontales in the 1930s, however his methods were not very systematic. One publication dating to 1942 describing the sum of his travels and investigations in the entire country mentions that he encountered "only one type of burial" in the surroundings of Juigalpa (Sequeira 1942, 123). This was a mound of stones on top of the remains and artifacts, sometimes covered by earth (ibid.). The circumferences of these mounds were found to vary widely from "a few feet" to as much as 60 meters, and the height measured from surface level to "twenty feet" high (ibid.). The largest mounds he encountered were near the stone of Cuapa, some of which "are large enough to permit as many as five horsemen to travel abreast" (ibid.). Around the area of the *Copelito* site, he mentions encountering a "primitive form of pyramid" that had stone steps cut out, but lacking masonry (Sequeira 1942, 124). This feature was not further investigated due to the unavailability of workforce. Sequiera mentions that the burial mounds are constructed of river stones and are all located near water, and although appearing carelessly constructed, once removed "no human hands could ever replace them" (Sequeira 1942, 124). As to their function he mentions:

> *"often on the side which faces the east (the bodies are buried for the most part lying with the head to the east) there is found a marking stone, a sort of pillar sunken well into the ground so that only a few inches are visible. If there are any fragments of pottery, arrows or flint, or some hatchets near, there is invariably a burial. But many times these cairns contain absolutely nothing but broken pieces of stone and terracotta"* (Sequeira 1942, 123).

A bit further along he also notes:

> *"Without doubt these Indians of Chontales were very primitive in their customs. They buried the bones of their dead directly in the earth and not in large urns like their neighbors to the east. Small terracotta jugs or bowls often appeared filled with ashes or teeth, sometimes with fine beads of green or bluish stones. The bodies always lay full length and in one grave I found several, the skulls placed together and the bodies stretched out in a star-like formation. Most of these bones completely disintegrate as soon as the air touches them. The teeth however are in fine condition and I do not recall having found any with cavities"* (Sequeira 1942, 124).

Some comments are made regarding the customs that produced these burial mounds, but the sources on which they are based are questionable and are not mentioned by Sequeira. In Amerrique, a site in the mountains to the east of Juigalpa, he encountered "enormous and important burials", of better construction and on more imposing locations than the ones "in the plains below" that contained less artifacts (Sequeira 1942, 125). Besides human bones and pottery, Sequeira also encountered small statues inside the mounds, positing a relationship between the amount of statues and burials (ibid.). Decorated metates, arrows, hatchets, "tiny scales for weighing", spindle whorls, stamp rollers, and ornate objects were also encountered "near the skulls of women" (ibid.). Whether these were actually women or if he inferred the sex of the skulls based on the artifacts nearby is uncertain. The ceramics encountered were decorated in yellow, red, and black, and never formed a complete vessel (ibid.). While his descriptions are detailed and extensive and in many ways coincide with those of the 19th century travellers, it is difficult to assess the amount of actual data they are based. As far as is retraceable, Sequeira only excavated on three locations within Chontales and visited several others in Boaco, which does not seem to be sufficient enough to draw such detailed conclusions. His lack of referencing to other sources, predominantly regarding burial customs, also produces doubts about the reliability of his descriptions. Nonetheless, his field notes

provide descriptions of the actual excavations and the objects recovered from them and are therefore useful for the purpose of this investigation.

After Sequeira, the following archaeological investigations of the Central Nicaragua area did not occur until the 1970s. Richard Magnus had written his Ph.D. dissertation on archaeological research in the Atlantic watershed of Nicaragua, where he established several ceramic complexes (Magnus 1974a, b; 1976; 1978). In 1975 he started excavations in the department of Chontales, where he worked on the sites of *Copelito*, *Barilles*, *Gutierrez*, *Morales*, and *Sabana Grande*. A short description of the ceramic complexes that he encounters at the sites of *Copelito* and *Cerna* have been published (Magnus 1975; 1993) and short mentions of the work done at several sites appear in Martinez Somarriba (1977). Besides this, only the lithic evidence encountered at *Sabana Grande* have been further studied as subject of a Masters thesis (Gerstle 1976). Based on the excavations, Magnus concluded that there was not a minimum of ceramic trade between Greater Nicoya, the Atlantic watershed, and Chontales. However, it seems that in the earliest periods there was a wide occurrence of a particular type of ceramics possibly indicating a homogenous cultural zone, though it is not mentioned which ceramics or on which sites (Magnus 1978, 281). Some types that seem to have come from the Atlantic and Pacific regions do occur in the pits, but it is not enough to conclude heavy interaction or even cultural integration of the areas. Instead, Magnus suggests that the Chontales department experienced mostly local developments, and that the ceramics should be studied in that context (ibid.). His field notes have also been made available for study and will be incorporated in the following chapter. Though, due to the early date of his research, the ceramic descriptions are not easily related to types that are now more firmly established, complicating the process of comparisons with other excavated sites.

### *2.2.4 Gorin and Rigat: ceramic chronologies and cultural sub-areas*

Franck Gorin and Dominique Rigat executed several regional surveys and small excavations during the 1980s in the Chontales department. Gorin (1989) focused on the ceramic materials encountered at the sites, while Rigat (1992) studied the stone and lithic artifacts. They employed both systematic and guided surveys, during which they collected surface material and noted the other archaeological remains present at the sites. When they encountered mounds, the site was interpreted as a permanent settlement, while surface scatters without visible architecture were interpreted as temporary camps (Gorin 1989, 136). This

hypothesis was not further explored and there are several reasons to doubt this interpretation (see Chapter IV).

A total of 103 new sites were discovered, amongst which 14 were identified as modern and 23 could be dated according to the subsequently established ceramic sequence (Gorin 1989, 223). Many of the sites that could not be dated did have Prehispanic ceramic material at the surface, but it was either non-diagnostic or mixed with modern material. Several other sites were also visited by Gorin and Rigat that were not included in the survey areas, but known by local guides or literature. From this perspective, the sites of *Aguas Buenas*, *Barillas*, *Copelito*, *El Carmen*, and *Las Lajitas* were surveyed and the materials encountered at the surface produced possible dates for each site (Gorin 1989; Rigat 1992, 45). Four other sites, *El Cóbano, La Pachona, El Tamarindo* and *San Jacinto*, were more extensively investigated with shovel tests and excavations. The results from the ceramics encountered in these excavations were assembled to create a chronological sequence consisting of five phases (see table 1). Chronological control of the phases was predominantly obtained by the correlation with the ceramic sequence of the Greater Nicoya area (see table 2), and the interpretations focus on identifying the amount and nature of contact with that area. This underlines the research paradigm that focused on attesting Mesoamerican influences in Central America, that are presupposed on the basis of oral narratives from the Pacific coast as written down by Spanish chroniclers (c.f. Fowler 1989, 32).

| Period | Dates |
|---|---|
| Mayales I and II | 500 B.C. – A.D 400 |
| Cuisalá | A.D. 400 – 800 |
| Potrero | A.D. 800 – 1200 |
| Monota | A.D. 1200 – 1522 |
| Cuapa | A.D. 1400 – 1600 |

Table 1 – The phases of the Chontales ceramic sequence.

| Period | Dates |
|---|---|
| Paleoindian | 10,000 (?) – 8000 B.C. |
| Archaic | 8000 – 2000 B.C. |
| Orosí | 2000 – 500 B.C. |
| Tempisque | 500 B.C. – A.D. 300 |
| Bagaces | A.D. 300 – 800 |
| Sapoá | A.D. 800 – 1350 |
| Ometepe | A.D. 1350 - 1550 |

Table 2 – The Greater Nicoya ceramic sequence, after McCafferty and Steinbrenner (2005, 134).

The most detailed account of this narrative is by Fray Juan de Torquemada, as he described how the Nicarao narrate their origin from Central Mexico, but had to flee their homeland together with the Chorotega due to suppression by other groups, arriving in Nicaragua around AD 1200 (Fowler 1989, 34). However, the Chorotega and the Nicarao had to fight for the land, resulting in their respective territories observed by the Spanish. The Chorotega language is part of the Oto-Manguean language family, which is spoken in Central Mexico (ibid.). This oral narrative subsequently influenced the archaeological research and interpretations, and for several decades the archaeology corroborated the dates given by them. However, recent research is starting to question the dates proposed, as well as the idea that the Mexican groups completely replaced the peoples already living in Nicaragua. Historical linguistic research places the separation of the Chorotega language around AD 600-700 (Fowler 1989, 35), although this is predominantly based on glottochronology and therefore problematic (Heggarty 2007). Later researchers deduced that it was improbable that the two groups travelled together, and that instead there had been two separate migrations, with the Chorotega first ca. AD 800 and in AD 1200 the Nicarao (Fowler 1989, 36). As the original sources of these narratives have been lost, and Torquemada actually never visited Nicaragua, the accuracy of the narrative is drawn into question. Therefore its interpretative value for archaeological research is also uncertain. However, the fact remains that Nahuatl and Oto-Manguean speakers were present in Nicaragua at the time of contact, and many of the later polychrome pottery displays motifs that are similar to those found in Central Mexico (c.f. Stone 1966; Day 1984; McCafferty and Steinbrenner 2005; Steinbrenner 2010). The ceramic types that are related to the

Chorotega (*Papagayo Polychrome*) and Nicarao (*Vallejo Polychrome*) have served as diagnostic for the Sapoá and Ometepe time-periods (but see below; McCafferty and Steinbrenner 2005; Steinbrenner 2010).

The ceramic sequence by Gorin is of vital importance to this thesis, as it remains the only extensive ceramic research undertakenin the Chontales region. This sequence is important not only in order to relate sites on a stylistic and functional level, but also because ceramics still remain the dominant method utilized to interpret the diachronic development of sites. As organic material does not preserve well in this area, the ceramic evidence becomes even more valuable. Therefore the sequence will be described in more detail, focusing on the methodological basis for obtaining the materials and their chronological ordering in a sequence.

*The Chontales ceramic sequence*

The sequence is based on the excavation of eight test pits at the previously mentioned four sites (*El Cóbano, El Tamarindo, La Pachona,* and *San Jactino*). The pits varied greatly in dimension and in amount of recovered. Half of the pits (SS3 at *El Cóbano*, SS1 at *La Pachona*, and SS1 and SE2 at *San Jacinto*) were located in so-called "*zones de décharge"* (Gorin 1989, 237, 239), characterized by a high amount of ceramic material encountered at the surface. Three of the other pits (SS1 and SS2 at *El Cóbano*, and SS2 at *El Tamarindo*) were located on top of mounds, and the remaining one was located between two mounds (SS1 *El Tamarindo*) (Gorin 1989, 239).

These locations present several problems when attempting to establish a chronological sequence (Gorin 1989, 237-40). Firstly, it cannot be guaranteed that the pits located in the *zones de décharges* are suitable for stratigraphic analysis, as it is unknown whether the order of the deposits has been reversed or not (ibid.). For SS1 at *La Pachona*, the stratigraphy seems more certain, as the presence of burial urns in the upper levels indicates that the lower levels pre-date the burials. The three pits that are located on top of several mounds also cannot be guaranteed to have stratigraphic relevance, as Gorin (1989, 239) confusingly illustrates:

> *"[the pits that were placed in the mounds] dont les remblais provenaient de décharges. Si ces contextes avaient des densités moyennes de matériel, ils n'étaient pas susceptibles de rendre fidélement compte de l'évolution de la céramique."*

Whether or not this is the case is not mentioned, nor is the basis for this argument. For example, why do they think that the contents of the mounds consist of material from the *zones de décharges*? And what does *" densités moyennes de matériel*" mean?

While these problems are highlighted, a ceramic sequence was still developed. A total of 44 types and "*un certain nombre*" of modes were defined from the material encountered in the pits, many of which were previously unknown (Gorin 1989, 239). However, in order to create a sequence that fitted all these types, several more selections were made from the source material (see table 3). As can be seen, this lowers the size of the sample collection down to material from three sites, and it excludes a "problematic" level (Gorin 1989, 239-40). This level (level 6 from SS1 *La Pachona*) presents a problem in the current sequence because it mixes ceramic materials from two different phases that according to Gorin (1989) are separated by 800 years. Several pits that did not yield much diagnostic ceramics are also ignored, as was the entire site of the *El Tamarindo* site as it did not yield much material at all (Gorin 1989, 239-40). The sequence that resulted from this analysis therefore seems only to fit the encountered ceramic materials at the selected sites, however problematic cases at other sites less extensively investigated by Gorin are left out. These sites that possibly do not fit the sequence are assumed though, on the basis of the high number of un-datable sites that were encountered during the surveys. Furthermore, this emphasizes that data for the phases in the Chontales ceramic sequence derives from single sites only.

| Phase | Site | Pit | Levels |
|---|---|---|---|
| Mayales | La Pachona | SS1 | 7, 8 and 9 |
| Cuisalá | El Cóbano | SS1 | 3, 4 and 5 |
| | | SS2 | "lower levels" |
| Potrero | El Cóbano | SS1 | 1 and 2 |
| | | SS2 | "upper levels" |
| | | SS3 | all |
| Monota | La Pachona | SS1 | 1, 2, 3, 4, and 5 |
| Cuapa | San Jacinto | all | |

Table 3 – The Chontales sequence phases versus the sites on which they are based, the code names of the pits where the material was encountered, and in which levels (after Gorin 1989).

| Site | Pit | Levels | Carbon-14 dates |
|---|---|---|---|
| La Pachona | SS1 | Level 8 | AD 1190 +/- 135 |
| | | Level 6 | AD 865 +/- 185 |
| | | Level 1 | AD 1485 +/- 140 |
| El Tamarindo | SS2 | Level 2/3 | AD 470 +/- 135 |
| El Cóbano | SS1 | Level 5 | AD 935+/-140 |
| | | Level 2 | AD 810+/- 145 |
| | SS2 | Level 11 | AD 770+/-145 |
| | | Level 7 | AD 685+/-150 |

Table 4 – The carbon-14 samples encountered in the excavations by Gorin and Rigat, at which site they were found, in which excavation pit, and in which level (after Gorin 1989, 259).

Placement in an absolute timeline of the sequence was obtained in two ways. Primarily, the occurrence of ceramic types that could be stylistically correlated with ceramics from other regions of Nicaragua and Costa Rica provided probable dates for four of the six phases. Secondly, nine carbon-14 samples were analyzed, obtained from the sites *El Cóbano, El Tamarindo,* and *La Pachona* (Gorin 1989, 259; see table 4). Of these nine samples, only five were found to be consistent with the established sequence (ibid.). One sample resulted in a modern date and the three remaining samples were interpreted as being intrusive or contaminated due to their inconsistency with the sequence (ibid.). Because there is such a small amount of absolute dates, the Mayales I and II, and the Cuapa phases remain chronologically uncertain.

As mentioned, the phases in the Chontales sequence are chronologically linked to the Greater Nicoya sequence. In the latter, the differences in ceramic assemblages were interpreted as resulting from the Chorotega and Nicarao migrations (Healy 1980; see above). However, the location of the border between Greater Nicoya and the people of Chontales during the different phases remains uncertain. Gorin (1989, 660-71) uses the Greater Nicoyan ceramics found during his research in Chontales in order to research this question, based on the occurrence of *Papagayo* and *Vallejo Polychromes*. As can be seen, the Cuapa phase material

presented a problem because the ceramics are completely different from the Greater Nicoya style ceramics or the other local types associated with Greater Nicoyan ware. Gorin (1989, 668-70) attributed this material to an invasion of people from the Matagalpa area, although the knowledge of their material culture is scarce.

As shown, the foundation of the sequence is methodologically unreliable, the absolute temporal placement of the phases is not very secure, and the phases themselves are based on material from single sites. However, the ceramic assemblages that are described are useful in order to compare sites across the region, the methodology for which will be discussed in Chapter III.

*Conclusions*

Gorin and Rigat vastly expanded the scientific knowledge on the prehistory of Chontales, through their surveys and the detailed descriptions of ceramics and lithic materials. However, due to selective use of available material and locations of the excavations, the subsequent chronological sequence should be reevaluated. This also means that the interpretations made by Gorin considering the ethnic affiliations of the Prehispanic people in Chontales possibly do not depict the actual situation. The direct link that Gorin saw between material culture and ethnic groups is also questionable for two reasons. On one hand, this is based on the issues surrounding the source of this assumption, namely the Nicarao oral narrative. On the other hand, the idea that groups of peoples can be identified in the archaeological record by specific sets of material culture can be questioned. As these considerations are of fundamental importance to the archaeological research in Chontales it forms the theoretical framework of this thesis (see Chapter III).

### *2.2.5 21st century: systematic investigations*

In the 1990s archaeological research primarily occurred in the Greater Nicoya region, and little attention was paid to the Prehispanic remains in Chontales (but see Lange 1996; Hasegawa 1998). The first research since Gorin and Rigat started in the late 1990s, by Laura van Broekhoven (2002). She investigated the Prehispanic cultural affiliations, socio-political organization, and cosmovision in this region by combining historical sources and previous archaeological research. The analysis of these sources revealed that the central Nicaragua area was inhabited by both Nicarao and Matagalpan speakers during the early colonial period (ibid.). The Matagalpa language belongs to the Misumalpan language family, which is closely affiliated with Lower Central American peoples instead of Mesoamerican ones.

Therefore, the interpretations and assumptions it carries with it for the lifeways and ideology of the people that spoke this language are distinct from those of the Nahuatl speakers. The identification of both languages in the historical sources is predominantly based on toponyms and personal names that indicate that the Nahuatl speakers occupied a narrow area along the coast of the lake (Van Broekhoven 2002, 155). However, the scope of this area and the extent and nature of the Nicarao groups are unknown and the possibilities range between colonies of merchants, or even the incorporation of Chontales in the Greater Nicoyan cultural zone (ibid.). In order to further determine this, the archaeological interpretations by Gorin (1989) are used. However, these interpretations do not support or contradict the hypothesis presented by Van Broekhoven (2002, 152), possibly due to the problems concerning these interpretations, as is presented above.

In 2007, a multi-year project in the Chontales region was started by Alexander Geurds (2008; 2009; 2010; 2011). This involved several surveys in the area, before starting excavations at the largest site in Chontales, Aguas Buenas, in 2011. In order to study the development of this site, a sample of its mounds were excavated to understand the chronological development of the site and to relate this development to changes encountered at other sites. The results from a survey executed in 2007 along the Mayales river were outlined in an article focused on the often cited assumption that similar materials signify contact between different groups of people, while differences signify the absence of contact (Geurds and Van Broekhoven 2010). Because of the high diversity of the archaeological remains in the area surveyed in 2007, a closer inspection of this assumption proved fruitful as it seemed improbable that groups living in walking distance of each other would not have had any contact (ibid.).

The investigations at the site of Aguas Buenas remain ongoing, and analyses of the excavated materials are thus not yet available. However, the insights gained from the mound excavations in 2012 and 2013 are indicative that they are not just piles of stones containing archaeological objects. Instead, the placement of objects inside, as well as the construction technique and location of the mound itself are indicative of pre-planning. This indicates that the construction of mounds was of importance to the Prehispanic peoples in this region and it warrants further detailed study. The information gathered from these investigations can then form the basis for comparisons of sites across the Chontales region, for example, in order to corroborate the proposed linguistic division by Van Broekhoven with the archaeological record.

During these limited investigations in the Chontales region, the Pacific side received more attention (c.f. Steinbrenner 2010, 46-70 for an extended summary). As the interpretations of the Greater Nicoya ceramics by Gorin (1989) are based on research that predates the 1990s, some of the recent research regarding these materials will be discussed here. The work of Steinbrenner (2010) will be central to this discussion, as he proposes a new interpretation of the origins of *Papagayo* and *Vallejo Polychromes*. He argues that the origins for *Papagayo Polychrome* lie in Nicaragua itself, as there are several lines of evidence that argue for a continuation of previously occurring pottery traditions (Steinbrenner 2010, 504). This would mean that *Papagayo Polychrome* developed from the people living in Nicaragua before the Central Mexican migrations. It seems that most scholars suggest that this was a Chibchan affiliated culture group, however, the basis for this is tenuous (Steinbrenner 2010, 509). *Papagayo Polychrome* is then assumed to have developed from the local materials as an emulation of similar ceramic types known from Southern Mesoamerica (Steinbrenner 2010, 747). Subsequently, it is argued that *Vallejo Polychrome* represents the first migration of Central Mexican peoples, the Chorotega (Steinbrenner 2010, 871). As the vessel shapes and production techniques of Vallejo are interpreted as a direct development from *Papagayo Polychrome*, Vallejo represents the integration of Mesoamerican iconographical features into a locally established pottery tradition (ibid.). While this is a very enticing hypothesis, and suggested by new carbon-14 dates (c.f. McCafferty and Steinbrenner 2005), there are many 'ifs' and 'buts' that primarily argue *ex silentio* knowledge on the peoples that lived in Nicaragua pre-AD 800.

In conclusion, the research conducted by Van Broekhoven and Geurds form the first contextualized investigations into the archaeology of the Central Nicaragua region. The historical linguistic investigations into the late pre-colonial period in Chontales seem to provide a handhold for interpreting the material culture encountered by archaeologists, however, there are many problems involved with this type of research (Heggarty 2007). Furthermore, recent research on the Pacific coast of Nicaragua is starting to question long held assumptions on the correlations between ceramic typologies and ethnic identities. The relations between material culture, language and ethnicity will be further explored (see Chapter III).

### *2.2.6 Conclusions: ceramics, linguistics, and mounds*

Geographically, the Chontales region creates the illusion of a bounded area where contact must have been the rule, rather than the exception. The amount of

archaeological remains documented since the 19th century also suggests that the area was densely settled, although the time depth of the remains is uncertain. When the Spanish arrived on the Pacific coast in the 16th century, they did not focus on controlling the Central region, which sources indicate that missionaries were the only non-indigenous people until the late 17th century. The written sources from this time only indirectly mention the indigenous people that lived on the east side of the lake, by their Nahuatl denomination of *Chontalli*, meaning 'those who speak bad'. Legal sources indicate that they spoke the Matagalpan language, which is related to Lower Central American languages. This difference in language seemed to be substantiated by the archaeological remains, as there are noticeable differences between the Pacific and Central regions in style of statuary and ceramics. However, as some overlap occurs in the ceramic types encountered in the Chontales, the question of whether this area was a part of the Greater Nicoya cultural region and therefore subject to influences from Mesoamerican peoples has been a dominant paradigm in archaeological research. Investigations in the 1980s by Gorin and Rigat resulted in the ceramic sequence of the Chontales region, and the phases of this sequence were subsequently interpreted as being the result of increased contact with the Nicarao, or an invasion of Matagalpan speakers. However, in this chapter it is argued that both the sequence and its interpretations are not reliable in their depiction of Prehispanic cultural development in this region. This is predominantly due to the small sample of sites and excavations that the analysis is based on, but also due to the methodology applied, which studies the ceramics outside of their context. In order to create a chronological sequence, the material from different levels is separately studied which lead to chronological gaps in individual pits that lasted hundreds of years, with little evidence beyond a change in the ceramic assemblage. Furthermore, recent investigations into the diagnostic types that identify trade and interaction between the Chontales and Greater Nicoyan regions indicate that the relation between these ceramics and the peoples they are thought to represent is not as straightforward as previously assumed.

# III. Theory and Method

The methodological problems and biased interpretations of the archaeological record in Chontales necessitate a new evaluation of the data. However, in order to avoid the same pitfalls as previous research, new insights into ethnic identities in the archaeological record must be considered. The theoretical framework has a threefold structure that includes a discourse on ethnic identities in the archaeological record, the value of considering differences in material culture, and the inclusion of mound structures in the analysis. This forms the basis for a methodological approach that considers the material culture of the Chontales Prehispanic past in its context.

## 3.1 Threefold theoretical approach

There are three basic problems with the theoretical use of archaeological materials in Chontales to investigate diverse population groups in Prehispanic times. Firstly, the definition of the concept of ethnicity as used by Gorin (1989) supposes a direct correlation between bounded groups of people (i.e. ethnic identities, described by Francis [1947, 397] as the "shared subjective 'we-feeling'") and constant, stylistically similar assemblages of ceramics. Secondly, the role of similarity in material culture for investigations of this ethnic identity is discussed. This view sees similarities in material culture as substantiating contact, while differences indicate that two groups of people did not interact. However, it has recently been suggested for the Chontales region that differences in material culture were actively maintained by social groups (Geurds and Van Broekhoven 2010). Lastly, the investigations into the Prehispanic past in Chontales predominantly focus on ceramics, and have tended to marginalize other archaeological remains. As this approach provides a limited view on lives of the Prehispanic people, it will be suggested to include the mound structures in archaeological investigations. These structures are present at nearly all sites, and therefore ensure that artifacts can be collected from similar contexts. Additionally, the planning associated with their construction signifies that the mounds had an important function in Prehispanic Chontales, which further informs archaeological research on the construction and expression ethnic identities in this region.

### *3.1.1 The concept of ethnicity*

In the late 1960s a new approach to the concept of ethnicity developed in which ethnic groups were no longer defined by their cultural similarities, but by the "categories of ascription and identification by the actors themselves" (Barth 1969, 10). These categories are established during social interactions between groups, and have been traditionally considered in terms of "a consciousness of real or assumed cultural difference *vis-à-vis* others; a 'we'/'they' opposition" (Jones 2007, 47). In other words:

> "*encounters with what lies outside its own boundaries are central to the formation of any culture: the line that separates inside and outside, the 'self' and the 'other', is not fixed but always shifting"* (Loomba 2005, 64).

As discussed above, Gorin's (1989) creation of a ceramic sequence for Chontales focused on evidencing ethnic groups in the archaeological record. However, recent research along the Pacific coast of Nicaragua has revealed that the archaeological record does not easily infer material culture assemblages as stylistically bounded and homogenous, that can be directly linked to ethnic groups (McCafferty and Steinbrenner 2005). In an article by McCafferty and Steinbrenner (2005), a tentative approach is made that establishes ethnic groups not by their material culture but their lifeways is made, while investigating the assumed migration of the Nicarao. New carbon-14 dates indicated that the ceramics that are assumed to be indicative of this migration, *Vallejo Polychrome*, in fact date earlier than the historical sources specify for the migration. Furthermore, there is no indication of a "Mesoamerican lifestyle" associated with those ceramics, and analysis by Steinbrenner (2010) indicates that *Vallejo Polychrome* probably developed from previously present ceramics. Therefore, it seems improbable that they can be linked to the Nicarao arriving around AD 1350 (ibid.).

Besides correlating material culture to ethnic identities, the different languages spoken in Nicaragua at the time of contact can be used in order to understand the interactions between different groups of people. Certain assumptions about ideology and culture accompany these languages, useful to archaeologists when little other information is available about the Prehispanic peoples. However, as both cultures and language are not static but continuously changing in dynamic ways, this correlation is problematic (c.f. Heggarty 2007; Van Broekhoven 2002, 130).

Jones (2007, 49) provides a theoretical framework that utilizes social practices to discern different ethnicities. However, she warns against replacing

material culture or language by the *habitus* (after Bourdieu 1977) as a direct indication of ethnicity, as there is a "break between the structured discontinuities" forming the *habitus* and the material representation of cultural differences (ibid.):

> *"shared habitual dispositions provide the basis for the recognition of commonalities of sentiment and interest, and the basis for the perception and communication of cultural affinities and differences which ethnicity entails. However, social interaction between actors of differing cultural traditions engenders a reflexive mode of perception contributing to a break with forms of knowledge which, in other contexts, constitute subliminal, taken-for-granted modes of behaviour. Such exposure of cultural practices, which had hitherto been taken as self-evident and natural, permits and requires a change "in the level of discourse, so as to rationalize and systematize" the representation of those cultural practices, and, more generally, the representation of cultural tradition itself (Bourdieu 1977: 233). It is at such a discursive level that ethnic categories are produced, reproduced, and transformed through the systematic communication of cultural difference with relation to the cultural practices of particular 'ethnic others'" (Jones 2007, 49).*

For archaeological material this implies that interactions between different groups should be visible in the material culture of each, but not in an homogenous manner, or an equal mixing of styles, as some aspects will change while other remain the same. Instead, these differences are:

> *"a product of the intersection of people's habitus with the social conditions constituting any particular context. These conditions include the prevailing power relations, and the relative distribution of the material and symbolic means necessary for the imposition of dominant regimes of ethnic categorization"* (Jones 2007, 50).

This means that instead of highlighting only the observable similarities and differences in the *habitus*, it is rather the social process in which they emerged that is the determining factor shaping their appearance. Therefore we should not only study the *habitus*, but also form ideas on the shape of the society itself, together with the kind, amount, and nature of social interaction that constituted it. However, for archaeological interpretations this can pose a problem, as the methodology for studying these questions is solely based on interpreting the materials that are encountered. Despite the biases of historical sources and ethnographic analogies, these can provide valuable insights on how societies functioned in a non-European context (c.f. Ravn 2011).

### *3.1.2 Similarities: what do they 'signify'?*

Often in archaeology, similarities in material culture are interpreted as signifying interaction between different sites. However, by solely taking the similarities as evidence of sociopolitical and economic relations between groups causes a large part of available material culture evidence to be ignored. Geurds and Van Broekhoven (2010) propose that differences can also be actively maintained in the face of social interaction, and therefore are just as important to consider in archaeological research (ibid.). This is based on the assumption that the meanings and interpretations of styles of material culture are contingent on their social and historical contexts, and do not solely function as "communicators of coded information"; objects are therefore actively used in social discourse (Geurds and Van Broekhoven 2010, 56). Analysis of stylistic materials in their context then becomes more important to include. However, the basic archaeological classificatory and interpretative frameworks take style to be non-discursive and therefore de-contextualize the material from its cultural context (Geurds and Van Broekhoven 2010, 57). This coincides with Jones's (2007) critique to discard these frameworks as they are based on the presumption that ethnicity can be directly related to a material culture assemblage. She identifies the two central principles that archaeological classification is based on as

> *"(i) […the occurrence of] change in the material culture seen as a gradual and regular process, which occurs in a uniform manner throughout a spatially homogeneous area; (ii) […] the prime cause of variation in design is the date of manufacture" (Jones 2007, 52).*

These principles presuppose a "normative view of culture and produces what is essentially an illusion of bounded uniform cultural entities" (Jones 2007, 53).

A contextual approach to artifact assemblages from site-based perspective is suggested by Jones (2007) as an alternative method, focusing on the analysis of variation between deposits and the "use of material culture in different social domains" (ibid.). The "expressions of ethnicity" can then be found in "non-random distributions of particular styles and forms of material culture in different contexts" (ibid.). As this approach still only focuses on the similarities as encountered in the material culture, and "the similarity trap works at the expense of variability in form and the assertive generation of meaning" (Geurds and Van Broekhoven 2002, 56), an equal focus on the styles and forms that do not follow general trends should be implemented. The complex situation of interweaving similarities and differences in between different sites is not considered by Gorin (1989) in his establishment of the

ceramic sequence. However, regarding the above posited view on ethnic identities, studying both might gain valuable insights into Prehispanic life in this region.

### *3.1.3 Mounds: the missing link?*

The work of McCafferty and Steinbrenner (2005) and Jones (2007, 49) suggest that social practices are more useful to discern different ethnicities, while the latter warns against replacing material culture or language by the *habitus* as a direct indicator for ethnicity. However, previous archaeological studies of Chontales archaeology have tended not only to view material culture as a direct marker for ethnicity, but these also have not considered all available material culture. The previous chapter demonstrated that an ubiquitous feature of Prehispanic sites in this region are earthen and stone mounds of various shapes and sizes, that can provide more information about the Prehispanic peoples that constructed them, beyond their associated ceramics assemblages. To illustrate the merit of studying these structures to inform social practices, as well as to show the diversity of this type of archaeological remains, some examples of these mounds will be discussed below. The examples are ordered by geographical region, and were chosen because they are similar to this research. Most are from the American continents and can therefore be used as informative examples of the diversity of mound building in a non-Western context. However, the region of Northwestern Europe is included because the approach that archaeologists have developed for studying these remains has greatly influenced the current archaeological research in Central Nicaragua. Not only the excavation methodology applied but also the theoretical frameworks concerning landscape archaeology are of value, as these insights are not often applied in Central American archaeology (but see Ashmore and Knapp 1999). Furthermore, barrow mounds are the main subject of archaeological investigations for certain prehistoric periods in Northwestern Europe, as they are the only surviving remains. This is comparable to the situation in Chontales, where the mounds present the only visible remnants of Prehispanic peoples.

*Northwestern Europe*

The most ubiquitous type of mound found in Northwestern Europe are burial mounds, often referred to as 'barrow mounds'. They are densely present throughout the region, numbering in the thousands in the northern and eastern parts of the Netherlands alone, and Denmark has registered up to 86,000 barrow mounds so far (Bourgeois 2013, 3). Due to this widespread presence they have been

part of the earliest investigations into the archaeology of Northwestern Europe. They form the primary source of information for both the Late Neolithic and the Bronze Age periods (roughly between 3000 – 1000 BC) though these mounds also appear later (ibid.). The barrows are often found surrounded by wooden constructions and ditches, and they may also form "barrow landscapes" where the mounds are grouped on several scales, starting from groups of two or three, but reaching extensive cemeteries of several square miles, and can form alignments up to several kilometers in length (ibid.). It is remarkable that not all barrows are encountered in these linear alignments, hundreds of them seem to have no direct spatial relation to their neighbors at all (ibid.). These spatial formations also seem to suggest a wider importance of the barrows for the prehistoric communities of the areas than solely as burial markers, something that can also be seen in their re-use over time and their influence on principles of land-ordering thousands of years later (Fontijn 2010, 12; Bourgeois 2013, 3).

By studying the landscape context of the mounds in addition to their contents, the complex function of these structures beyond that of burial marker can be understood. This indicates that while in Chontales the function of the mounds as burial locations seems less evident, the incorporation of the wider context can inform on the function of these structures in Prehispanic times.

*North America*

Around 3700 BC (during the Middle Archaic period) the first mounds were constructed in the Mississippi Valley, at the Watson Brake site. Mound building continued in the region for about a thousand years (Saunders 2012, 26), and during this period there is little archaeological evidence for a change in subsistence strategy or social stratigraphy. Therefore, the direct cause for the origin of mound building in this region remains a central question in the archaeology of this period and region (Saunders 2012, 25). While having a residential purpose the mounds are not the result of debris accumulation but consist of one or more discrete construction episodes. Soil formation indicates long periods of use between stages (Saunders 2012, 28). Instead of seeing these mounds as belonging to a specific culture that was present throughout the region, evidence seems to point towards autonomous developments at each site (Saunders 2012, 26, 46). Poverty Point, the largest mound site in the US Southeast and Midwest was constructed a thousand years after the end of the Middle Archaic. While sites during the Poverty Point Period (1700 – 700 BC) share many characteristics that are spread across wide area,

amongst which mound building, the mounds at the Poverty Point site seem to be an autonomous development (Saunders 2012, 25; Kidder 2012). The mounds at the site were made during multiple stages of construction using specific, often multicolored, soils, and contain many artifacts (Kidder 2012, 466). The exact purpose of the site is much debated, as it does not conform to a clear habitation or ceremonial setting and attempts to mold the archaeological remains into one of these interpretations "obscure[s] nuances and variability" in the "social, political, and ritual organization and history" of Poverty Point (Kidder 2012, 469). Most notably, both Watson Brake and Poverty Point were built by hunter-gatherers that lived in permanent settlements, but appear not to have had the social hierarchy often presumed necessary for monumental construction (Burger and Rosenswig 2012, 6; Saunders 2012).

During the subsequent Woodland period (lasting from around 700 BC – AD 1000) it was common practice in the Midwest and Southeast to build mounds (Milner 2004, 56). Regional variations in size and construction method were present, though most mounds were in some way related to burial and were in use for long periods of time during which the burials were added (see for example the Adena mounds in Milner 2004, 2012). Many mounds can be found on existing high points in the landscape, and on locations that had already been occupied for several centuries (Milner 2004, 57). Flat-topped platforms were also constructed using colored clays during this period (Milner 2004, 71-3). Mounds that do not contain burials, called earthworks and also encompasses ditches and embankments and they come in many different shapes, layouts, construction methods and sizes (Milner 2004, 73-4). Embankments seem to have had a ceremonial purpose, as their placement in connection with ditches, wooden fences, mounds, and openings within them are not suitable to have served a defensive purpose (Milner 2004, 80). In northern areas there are so-called 'effigy mounds' that are often animal shaped and seem to have been constructed during the Late Woodland period (AD 700-1000) (Milner 2004, 106-7). These were built in one episode, and contain only a few buried individuals who are sometimes located in the head and heart areas of the animals (ibid.). All burial mounds and earthworks during the Woodland period could have been constructed by a small group of people during several years, and the investigations into earthworks have as of yet not revealed a lot of evidence for discrete construction stages or habitations (Milner 2004, 78). Thus, like the mound building during the previous period, the appearance of monumental structures does not necessarily indicate a highly stratified society (Burger and Rosenswig 2012, 6).

Concluding, while the construction of mounds was widespread throughout the region during this time, it probably had a different local function and origin (see also Anderson 2012, 83). The end of the Woodland period is marked by a decline of mound construction in most regions in the Midwest and Southeast, coinciding with the spread of the bow and arrow, maize cultivation, and hereditary chiefdoms, which form the basis for establishing the Mississippi Period (AD 1000-1600) (Anderson 2012, 84).

Around AD 1050 Cahokia emerged as the first example of the Mississippian culture, and immediately the most complex and sizeable, with Monks Mound being the only mound in this region larger than Poverty Point (Kidder 2012, 462; Anderson 2012, 85). Cahokia arose as a result of different regional groups cooperating, and therefore the "resulting Mississippian culture and society that emerges [was] different from its constituent parts" (Anderson 2012, 85). Many of the sites in the Midwest and Southeast constructed mounds during the Mississippi period, called platform mounds, most of which most were rather small. They supported wooden residential and communal buildings, and surrounded plazas, a defining feature of settlements during this period (Milner 2004, 124-5). Construction was executed in discrete layers of colored clays, more complex than during previous periods, which complicated the building process. This suggests that the building and maintaining of these structures was just as important as the finished product, if not more (Anderson 2012, 91). Again there is evidence that the locations on which the mounds were built had been previously occupied (Milner 2004, 126). Burial mounds are also present but as charnel houses became more important, during this time-period the mounds often contain secondary burials from the emptying of these houses (Milner 2004, 129).

As can be seen, there are many different types of mounds in North America, while their associated terminology is not always consistent. Also, while beyond the scope of this research, shell mounds are a mound-shape known in coastal areas (both east and west) that are not always only the result of layers of debris (Lightfoot and Luby 2012; Sassaman and Randall 2012, 73). Questions regarding the origins of the practice of mound building in general remain unanswered in North American archaeology, as factors such as subsistence and ecology remain the same during the earliest mound building, suggesting that other factors such as ideology would have played a role (Saunders 2012, 46). Besides the unclear development of mound building, it seems that during each subsequent period mound building took on local shapes, which implies that this was not a continuous practice, or one originating

from a central location. As exemplified during the Mississippi period, archaeology suggests that the construction and maintenance of the mounds was just as important as the end product, if not more. Regarding these conclusions several commonalities can be observed that are of use for the investigations in Chontales:

- Origin and development, construction and maintenance: Understanding the origins for mound building and the subsequent development of the practice provides insights into the social interactions taking place in a region. Regarding the origin and the continuation of the practice, construction and maintenance of mounds play a role in those social interactions that is as of yet poorly understood.
- Social structure and sedentism: the lack of evidence for highly stratified societies in correlation to mound construction suggests that this type of society is not necessary for monumental construction. However, a sedentary lifestyle seems to have been ubiquitous in all mound building societies. Regarding the uncertainties surrounding the social strategies in Central Nicaragua is especially pertinent, as recognizing certain sites as 'monumental' does not have to imply that they were created by a stratified society.

*Mesoamerica*

The early mound forms in this region are low and rectangular, that supported residential and/or ceremonial superstructures, predominantly called platforms in the literature. During the Early Formative period (2000 - +/- 1000 B.C.) residential platforms were built in the Soconusco region, of which Paso de la Amada was the largest around 1700 BC (Rosenswig 2012, 114). However, due to their relatively small size, the appearance of the earliest platforms in Mesoamerica is often not studied with the same intensity as the appearance of the first temple pyramids. For example, in the Gulf Coast region near the Early Formative Period Olmec center of San Lorenzo (ca. 1400 BC), the platform is regarded as the earliest form of monumental construction in Mesoamerica. However, residential mounds have been encountered in the surroundings of this site that predate the San Lorenzo platform. These mounds may therefore provide key insights into the investigations of the origins of the construction activities at San Lorenzo (Cyphers and Zurita-Noguera 2012). In the Veracruz region seasonal flooding causes mounds to be a favorable residential location and they often contain several residences (Hall 1994, 32). Excavations show a gradual accumulation of sediments, probably owing to the

fact that heavy rainfall rapidly degrades the earthen structures into "a large, lumpy" mass (Hall 1994, 33). This type of agglomerative mound that develops due to the erosion of house structures are encountered throughout Mesoamerica, as examples can be found in Belize and Guatemala as well (Hall 1994, 35). Many of the platforms in this region contain artifacts and burials, which are often related to the Pan-Mesoamerican importance on ancestor worship identified from archaeological investigations (c.f. Houston *et al* 2006). This is exemplified in the massive temples in Tenochtitlan, where numerous stages of construction are accompanied by caches of artifacts and burials (see for example Sugiyama and Lopez Lújan 2007). In later periods the public/ceremonial centers of these cities are built according to specific plans, demonstrating a high degree of consistency and temporal continuity across a wide region.

In El Salvador and Honduras platform construction did not began until around 1000 BC (Henderson and Hudson 2012; Joyce 2004; Sheets 1984, 110). At the site of Los Naranjos in central Honduras, the earliest traces (around 800 – 400 BC) reveal a deep ditch and 6 meter tall platform that included several interments, spurring associations with Olmec practices (Baudez and Becquelin 1973, 89; Healy 1984, 124). During subsequent periods, platforms developed into pyramids that supported residential or ceremonial/religious structures, and were part of a pyramid-plaza-ball court site layout, like the ones characteristic for the Mesoamerican area (Henderson and Hudson 2012, 486; Sheets 1984, 108; see also Healy 1984, 133 and Baudez and Becquelin 1973). Eastern Honduras is different in two aspects from its western part in that it so far has received less scholarly attention, and secondly it has consistently been noted as "fundamentally non-Mesoamerican" (Begley 1999, 4). Monumental architecture does not appear here until AD 250, and even though there are architectural features that can be linked to the Mesoamerican area, these were probably used by local elites for strategic purposes (Begley 1999, 190). In the southern Pacific area of Honduras between El Salvador and Nicaragua, the earliest remains date to AD 300-550 and consist of oval-shaped mounds that can be 20 meters long and 1 meter high, arranged in concentric rings (Healy 1984, 136, 144).

Overall in the Mesoamerican region mounds are quickly associated with subsistence, habitation, and ceremonial purposes even though evidence of superstructures is often lacking (Hall 1994, 32; Lesure 1997, 220). Burials are present in many platforms, but these are often related to ritual purposes rather than only to the depositing of human remains (but see Grove 1970). This suggests that

even though human remains can be present in the mounds in Chontales, it does not mean that the structures functioned as burial markers like those in Northwestern Europe or North America. Whereas the appearance of large mounds in North America, cannot conclusively be linked to changes in social structure, subsistence strategy, or even settlement patterns, in Mesoamerica the result is often more conclusive (c.f. Estrada-Belli 2012; Rosenswig 2012). Another difference can be found in the temporality of the development between the two regions. For example, in North America thousands of years passed without changes in mound building practice and even experiences a complete absence of construction for a thousand years. And while platforms first occurred later in Mesoamerica, the development from low residential platforms to large conical mounds happened within a thousand years (Rosenswig 2012, 112). This difference shows that even though the first mounds in North American were of a larger scale than those in Mesoamerica, there is evidently no necessary linear development towards vertically large stone faced constructions.

*Lower Central America*

Lower Central America consists of the present-day countries of Nicaragua, Costa Rica, and Panama. Archaeological research in this area has been historically concerned with finding evidence that these present-day countries were at one point under the cultural influential sphere of Mesoamerica or the Andean civilizations (see Chapter II). In Nicaragua, the high concentration of mounds in the department of Chontales has been noted for centuries, and residential mounds resulting from the accretion of house debris are known from the Pacific area (McCafferty and Steinbrenner 2005; Salgado 1996). Square stepped mounds are known from the western edge of the Atlantic watershed, for example at the site of El Gavilán (Geurds 2010), but the function of these structures in this region is as of yet uncertain. Stone architecture appears in Costa Rica, around AD 300-600 at the sites of Guayabo de Turrialba and Las Mercedes (c.f. Aguilar 1972; Hurtado 2004; Quilter 2004). These sites possess large stone mounds with an earthen core with a stone cobble facing, as well as patios, causeways, and even irrigation systems can be found at these sites (Frost and Quilter 2012, 238-40). The mounds probably supported structures, and circular house foundations have also been encountered. Surveys in the Guanacaste region of Costa Rica indicate that mounds with a burial function are also present from ca. 300 BC until AD 500, and they often cover one or multiple burials or tombs (c.f. Norr 1986). In the Diquis/Buenos Aires region in Costa Rica, residential and

burial mounds are also known (Carmack and Salgado 2006, 223). Size and structure of the burial mounds are there related to status differences of the people buried within during the final phase of Prehispanic habitation in this region (ibid.). In Panama, the Barriles site contains a mound dating to AD 600 and its uniqueness in the area is demonstrated by its contents and associated statues (Palumbo 2009, 212). In eastern Costa Rica and western Panama "artificial mounds, representing special funerary constructions, are found [...]. However, they have not been documented well enough to discern any regional patterns" (Hoopes 1996, 37-8).

As can be seen, Lower Central America contains a wide variety of mounds with different functions and characteristics. In contrast to the apparent lack of burial mounds mentioned above in Mesoamerica, in Costa Rica and Panama this type is more prevalent. Furthermore, ceremonial mounds are also known, some with clear indications of superstructures. The construction method seems to be consistent within Costa Rica, where river cobbles were the preferred material, however, so far it is the only region that demonstrates this regularity. All mounds are relatively low, and one of the reasons that direct influence of Mesoamerican cultures has never been conclusively attested in Lower Central America is the absence of the characteristic pyramid-temple mounds (Frost and Quilter 2012, 231). It is often assumed that this means that the area between the Mesoamerican and Andean civilizations is completely devoid of monumental construction, which is accompanied by assumptions on social complexity, agricultural practices, and settlement patterns. However, as has been suggested above, these factors are not of causative for the development of monumental construction (see also Burger and Rosenswig 2012). The difference lies in that monumental constructions of Lower Central American region are of a decisively different character than that of its northern neighbors (see Frost and Quilter 2012). For example, the size of individual sites such as for example the Aguas Buenas site in central Nicaragua that consists of over 500 mounds, as well as sculptures that can measure up to 5 meters in length, would argue that this region is anything but devoid of monumental constructions.

*South America*

Monumental construction in South America is best known from the Inca and other societies in the Andes (c.f. Erickson 2010; Moore 1996). However, in the southern region of South America the Araucanian (or contemporary Mapuche) polity is known both archaeologically and from ethnohistorical contexts to have been mound builders (Dillehay 2007). Archaeological research has indicated that in

the mounds, which can be up to 18 meters in height have been used for diverse purposes, and date between AD 1200 – 1900. Burials were encountered, in addition to residential structures, and ceremonial attributes (Dillehay 2007, 75). Besides this however, ethnographic studies indicate that these mounds are more than repositories for dead bodies, or places to live,

> *"they are not just archaeological sites for study and local places of historical significance and political identity, but anthropomorphic entities that impart permanency and express human feelings and needs"* (Dillehay 2007, 27).

The general categories of platforms with superstructures or mounds with a subsistence function are also present in South America, not only in the Andes but also in Amazonia and Colombia (see Roosevelt et al 2012). The earliest of these mounds date from around 2000 BC on the coast of Peru (Dillehay 2007, 8).

This example in the regional overview again emphasizes that mound function in a society is a complex interaction of several factors. The combination of ethnographic, ethnohistoric, and archaeological research as executed by Dillehay (2007) is an example of the kind of research as suggested by Jones (2007), and reveals those interactions.

*Conclusions*

This regional analysis was presented in order to identify the diversity that is entailed by the term 'mound', and to assess the use of studying these structures for understanding the Prehispanic cultural developments in Chontales. Several things can be learned from the examples given above to be incorporated in this and future research. First of all, social complexity and agriculture are not prerequisites for the construction of monumental works, but sedentism is a highly likely factor. Secondly, monumental construction, such as mound building, did not originate in one location and radiate outward, nor did it entail a linear development from low platforms to high pyramids. Also, the societies in which mounds emerged did not have a similar social structure, subsistence economy, or material culture. Thirdly, the purposes of mounds in societies are diverse and vary from region to region and through time. These three factors combined make it very difficult to understand the origins of this practice, which remains a question in all regions where mound building is present. It is evident that mounds and other types of monumental constructions cannot be viewed separately from the societies that built them, and the developments these populations underwent before their construction.

What is also obvious from the discussion on mounds in the Americas is the large diversity morphology and function of mounds. Often the mounds retain the same outward characteristics between neighboring sites, variations in size being the most common, but the difference between more distant groups is often higher. This argument indicates that the manner of construction and the subsequent use of mounds can be linked to a certain group identity in the archaeological record. Moreover, because a mound is a visible and intentional marking of the landscape, it can be seen as the outward expression of that group identity. This hypothesis needs to be tested, and the region of Chontales provides an interesting case study in this regard due to the high diversity of mounds between sites (see Chapter IV).

### *3.1.4 Conclusions*

In the previous chapter, several theoretical problems with current interpretations of the Chontales archaeological record were noted. Specifically, the assumed direct correlation between groups of people, material culture, and language was questioned. Through establishing a new theoretical framework that does not consider material culture or language to be directly relatable to groups of people, a new method of investigating the social interactions in the Prehispanic past is made possible. This consequently causes a reconsideration of several of the underlying assumptions used in previous theoretical frameworks, specifically the study of similarities and differences of archaeological materials, and the incorporation of all the archaeological remains at a site. Besides this, a literature survey of the value of mound research in archaeology indicates that these structures can be used in order to identify group identities in prehistory. Allthough there is a high degree of uncertainty regarding the interplay of material culture, language, and *habitus* in the creation of ethnic identity, the combination of these three sources of information nevertheless provides a more nuanced view on the Prehispanic past than a singular approach.

## 3.2 Methodology

As described in the previous chapter, the available information on the Chontales ceramic sequence lends itself better to a division based on site-complexes rather than a regional chronological sequence, thus providing a direct context for the encountered sherds. The ceramics then become part of the total archaeological record for a particular location instead of the focal point, with the subsequent

clarification of the provenance of types and their interpretations. Furthermore, in order to investigate the role of mound building in the establishment of ethnic identities, an investigation of discrete site-complexes will facilitate the identification of site function in relation to chronology. This will be done by studying the surface and sub-surface characteristics of the site, in relation to the existing ceramic assemblage.

### *3.2.1 Establishing the site-complex: surface, sub-surface, and ceramic assemblage*

The division between surface and sub-surface characteristics not only enables the identification of site functions, but more importantly the differences in material culture and *habitus* between sites with a similar function. For if mounds can be seen as an outward expression of ethnicity that varies from one location to the next, the archaeological evidence for this can be found in the differences in the expression of function between sites. However, as these differences may also be the result of temporal changes in society, chronological understanding of each site is of the utmost importance. Ceramic styles have been traditionally used to relatively date sites, as they are assumed to have had a similar chronology in the entire area that they are present. However, it cannot be assumed that all variety in ceramic assemblages per site is the result of diachronic change. Alternatively, variations in ceramic assemblages between sites can be seen as being indicative of different ethnic affiliations, visible in the choices that were made during social interactions between different groups. The differentiation between surface and sub-surface characteristics therefore separates on one hand the outward appearance of the site versus its contents, and on the other hand the ceramics that were used during the entire habitation, use and abandonment phases of the site. The structure of the site-complexes will be further detailed below, as some of the sub-divisions need further explaining.

*Surface*

The first part of the site-complex descriptions deals with all surface characteristics of a site, divided into: *mounds, other permanent markers,* and *surface material*. For the *mounds* category, the layout of the site, and morphological characteristics (e.g. shape, size, and construction) are considered. The spatial layout of the sites can be an indicator for expressions of ethnicity or function, as for example visible in the presence of a plaza. The construction manner of the mounds is highly dependent on the materials used and the factors that influence the choice

of materials (e.g. the distance to the source) and therefore the implications for the social structures necessary to affect that behavior. Shape, size, and other outward characteristics such as the stone/earth ratio or the presence of a stone ring at the base are also significant, as they determine the visual recognition of the mound by others, and also possibly can be linked to specific functions.

The o*ther permanent markers* category comprises other surface characteristics such as petroglyphs and sculptures. Sadly, as most of the statuary has been moved to museums in the preceding centuries, their original locations are often lost. Like petroglyphs, these statues are permanent markers on a site, and suggest an investment of effort in expressing some important cultural idea. Although often less noticeable than a freestanding sculpture, the dimensions of the carvings can reach several meters, and some of them have intricate designs. They are less easily removed than sculptures, and although this has happened, petroglyphs are among the most permanent markers in this region. However, they are easily hidden by soil deposits, vegetation, or current habitation, and are badly damaged by trampling cows and horses. The analysis of the petroglyphs and sculptures is hampered by poor chronological control, which creates caution in the use of these markings of the landscape in archaeological analyses (c.f. Vlaskamp 2012).

The last category to be considered for the *surface* characteristics is the *surface materials*. While there are many biases inherent in non-systematic surface surveys (c.f. Drennan 2009), the recognition of ceramic types present on the surface is still an informative practice. However, some caution should be applied to the conclusions drawn from them. It is the assemblage in its entirety that should be considered, including the ratios between different types, their use, and their provenance.

*Sub-surface*

The second part of the site-complex descriptions deals with the sub-surface characteristics of the site. This is subdivided into two categories, *mounds* and *pits*. Besides the collection of ceramic and lithic materials from stratigraphic contexts, the amount and characteristics sub-surface of stratigraphic layers are considered. For the *mounds* category, the recognition whether the mound is constructed in (one or more) stages, or is the result of debris accumulation is of interest. Besides this, identifying the distribution of objects within the mounds facilitates the recognition between intentional deposition or the use of ceramics and lithics as construction

material. The differences between sites regarding these factors can be indicative of 'a different way of doing things', e.g. a different *habitus*.

*Ceramic assemblage*

Jones (2007) argues to stop using typologies and classificatory systems in archaeological research altogether, as it misrepresents the archaeological materials and takes them out of their contexts. However, this method does facilitate the recognition of similarities and differences between locations, and as Geurds and Van Broekhoven (2010, 57) mention, style plays a role in the mediation of "the material and immaterial in the social habitus". Therefore the established types will be followed, although their interpretative value is reconsidered. For example, the establishing of a new variety of a ceramic type known from Greater Nicoya that is not encountered in Chontales should be questioned for its interpretative value. What does it mean that this is a variety of a type, not a new type? Is the link with Greater Nicoya so apparent that it is almost certain that it is a trade ware? Or is it locally produced? There is confusion inherent in recognizing new types and varieties that are supposed to originate from distinct places, and the consequences should be carefully considered for each of these. Also, the absence of complete vessels for nearly all new types and varieties established by Gorin (1989) complicates the proper identification of sherds. This is not easily remedied, besides a remark on being conservative with the identification of new types. Instead thereof, the investigations should focus more on the description and documentation of similar sherds per assemblage.

In order to emphasize how the ceramics are utilized in this study, a separate part of the site-complex descriptions deals with the specific ceramic assemblage of each site, divided in surface, mounds, and pit categories. This facilitates the comparison of the materials between sites, on a similar level, so that it is obvious that the surface ceramics are from a different context than those encountered in the mounds.

### *3.2.2 Conclusions: Site-complexes*

Jones (2007) argues for a more contextual approach for the analysis of archaeological materials in order to more fully understand the processes of ethnic identification at play at a certain time and location in space. Besides the investigations of the archaeological materials, this means that historic and linguistic sources that deal with this region also need to be considered. Site-complex

descriptions ensure that a site is studied as a whole, and that it is possible to differentiate between differences stemming from diachronic development or from different choices on what material culture to use. As the sites can have had different functions or uses over time, and sites consisting of hundreds of mounds were probably not build within a very short time-period, understanding the chronology of the development of each site is necessary. However, this should be done by absolute methods, as using only ceramic sequencing is not sufficiently reliable.

# IV. The Data: Survey results and site-complexes

The research area will be defined through its geographical and archaeological features. This chapter has a twofold approach, beginning with general observations on surface characteristics of sites through combining new survey results with those of previous surveys. Subsequently, according to the methodology presented in the previous chapter, site-complexes of nine sites will be described that have been more thoroughly investigated by excavations.

## 4.1 Survey results

Several mayor surveys were conducted in the Juigalpa research area by Gorin and Rigat between 1984 and 1987 (see figure 4), and Geurds in 2007 and 2008 (see chapter II above). The investigations for this thesis revealed several notable sites and general conclusions based on the survey data, that will be described here in order to gain insight into the diversity of surface material present. Lastly, the results of a survey done in 2013 by the author will be presented, that further emphasized the value of studying surface characteristics of sites.

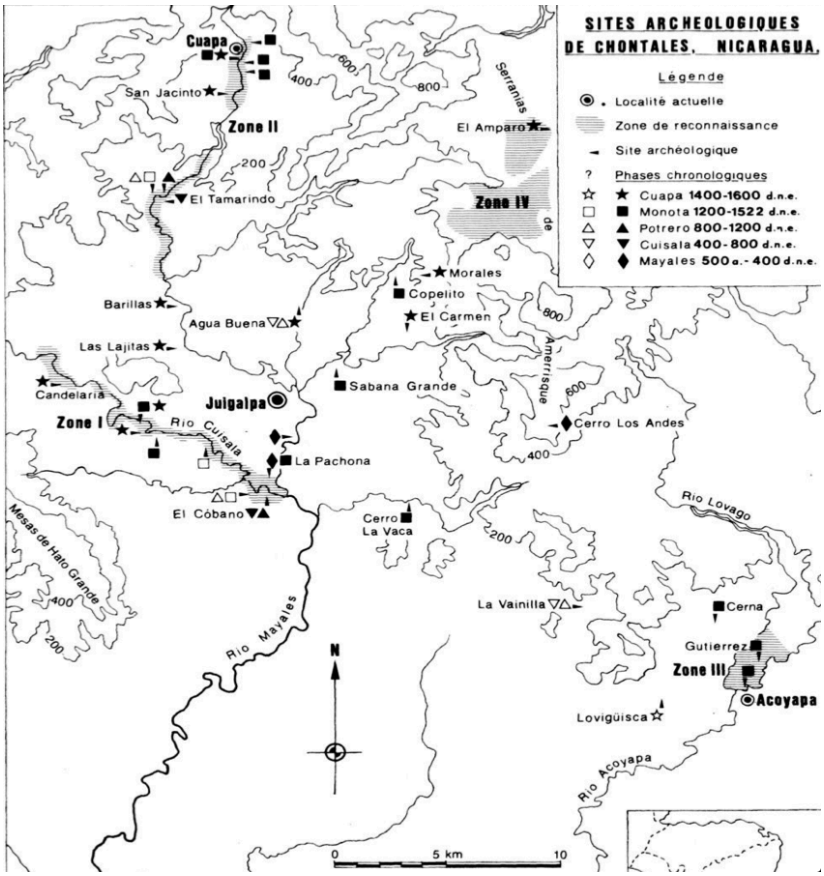


**Figure 4 - Map showing the locations surveyed and excavated by Gorin and Rigat. Zone I corresponds to the Cuisalá river, zone II to the Cuapa river, both mentioned in the text (after Gorin 1988).**

### *4.1.1 Cuisalá and Cuapa rivers*

A total of 78 sites were encountered along these two rivers, of which 30 contained visible structures. Sites that consist of surface scatters were interpreted as being temporary campsites or production areas, and sites with mounds larger than six meters in diameter are interpreted as permanent settlements (Gorin 1989, 136). Other locations containing mounds are identified as cemeteries, following Gorin's (1989, 136-7) system for identifying three distinct types of mounds that function as burial markers:

1. Large mounds entirely made out of rocks that are unsuitable for supporting residences, and whose dimensions and location at the edge of an escarpment suggest that they are not created in order to clear the field (ibid.). This type is known to contain burials from older sources, such as Belt (1974, 169), Boyle (1968, 41-46) and Sequiera (1940) (Gorin 1989, 137).
2. Heaps or piles ('*amoncellements'*) of stones, less than three meters in diameter (Gorin 1989, 137). These piles have been excavated at Cerro de los Andes by Gregorio Aguilar Barea and were found to contain burials (ibid.). However, manual agricultural processes from the recent past can create these mounds, based on the lack of burials encountered underneath these features at the site of La Pachona (ibid.).
3. Stone circles in the soil that have a diameter between one and three meters. There is no further information on the contents of these features (ibid.).

Regarding the surveyed sites along these two rivers, several observations can be made:

- The existence of ceramic surface scatter of purely modern material (n=14). Three of these locations also contain surface structures, though a low amount (two to four sites) and most were probably the result of recent clearings.
- One site consisted of modern remains but included modern and Prehispanic ceramics on the surface.
- Surface scatters containing Prehispanic lithic material in combination with modern ceramics was encountered at six locations, while five more contained Prehispanic lithics together with both modern and Prehispanic ceramics.
- Only one site that falls into Gorin's first category of mounds described above was encountered, and it contained no surface material.
- Four sites with burial mound category three were encountered, containing one (n=1), two (n=2) or three (n=1) circles.

- The 16 sites identified as being permanent residences all contained surface material, except two. All sites that were identified as containing burial mounds (n=9) did not contain any surface material.

The characteristics of the modern material in the surface scatters are not detailed, but are predominantly encountered at locations that solely consist of surface scatters. This calls into question the interpretation of surface scatters as temporary camps. The direct correlation between piles of stones and burials is also problematic, as these piles have been proven to be indistinguishable from more recent features. The absence of surface material makes it impossible to date them to the Prehispanic period based on survey results alone (see above). However, the amount of piles present at a location may be an indication of Prehispanic origins, as a higher number of piles seem more consistent with excavation reports of burials. As amounts of sherds pertaining to specific types are not mentioned by Gorin, it is difficult to make conclusions regarding them, but it is notable that the types present at the Cuapa complex are also encountered with other types such as *Papagayo Polychrome*, *Ometepe Red Incised*, and *Vallejo Polychrome* at the surface level. Another significant factor is the absence of surface material on all sites with a probable burial function, versus the presence of surface material at the habitational sites. However, a direct relation with functionality cannot be proposed at this moment, as the post-depositional processes that influence the density of surface material are not well understood.

### *4.1.2 Mayales river*

Along the Mayales river 37 sites were registered (Geurds 2008). Many sites were encountered on top of hills and the sites with mounds (n=17, of which two possibly pertain to the same site) contain between one and 34 mounds, most of a small size (<6 meter in diameter). Fifteen of those sites did not contain surface scatters, and the one that does, Site 33, contains many different types such as *Papagayo Polychrome, Ometepe Red Incised, Bocana (varieties Incised* and *Tumbe), Sacasa Striated, Tola Trichrome, Chaves White-on-Red,* and *Miragua Comun*. However, the dense vegetation often obscured a proper inspection of the surface at many sites (Geurds 2008, 18). The type *Sacasa Striated* is encountered most often (n=4) followed by *Castillo Incised* (n=3) and *Papagayo Polychrome* (n=2).

The main difference from the sites along the Cuapa and Cuisalá rivers lies in the amount of mound sites without surface scatter. This difference can have several causes, not in the least the environmental circumstances under which the survey

took place. Location is another differentiating factor, as the Mayales river connects directly to the lake of Nicaragua and most sites were located on top of hills in the floodplain.


**Figure 5 - Map showing all sites surveyed by the author in June 2013 (Google Earth image).**

### *4.1.3 Other locations*

In June of 2013 the author revisited several sites previously documented by Gorin and Magnus, and documented several new locations in the area around Juigalpa (see figure 5). As this is the first time these sites have been documented, they will be described in more detail, and global coordinates are provided. The main concern of this survey was to gain insight into the diversity of archaeological sites in

this region. Due to time restraints, an extensive survey of the new locations was not possible and the information is therefore restricted to an initial assessment that estimates the number of mounds, provide some comments on their construction, and the presence or absence of surface material, statuary, and petroglyphs. Regarding the presence of surface material, it is noted whether a low, medium, or high density is present. However, because this was not objectively measured, the categories are relative and based on comparisons between sites. Two locations visited, Cerro de la Cruz and Cerro de Aguas Buenas, did not contain notable archaeological features but are prominent marks in the landscape and might have been valued for their viewpoints in Prehispanic times as well.

*Santa Rita* – 12° 3'40.62"N 85°18'53.18"W

The Prehispanic site of Santa Rita is located on a river bank and is currently occupied by a small farmers cottage. The ground around the cottage towards the river bank is clear of grass and showed a remarkable high density of ceramic sherds and lithic material (see figures 6, and 7). The river bank was three meters above the water level, and it is apparent that the layer of sherds continued for at least 1,5 meters deep, possibly even until the current water level. The field is heavily disturbed by precipitation flowing down towards the river, which cuts into the layer of sherds. Several ceramic types including *Ometepe Red Incised* and *Vallejo Polychrome* were encountered, as were many chert points and ground stone axes.

**Figure 6 - The slope towards the river containing a very high density of surface material.**


**Figure 7 - Some of the lithic material encountered at Santa Rita.**

12° 3'40.60"N 85°18'50.13"W

The second field at Santa Rita is located about 20-30 meters to the southeast of the previous field, and contains several mounds and an oblong piece of quadrangular basalt, indicating that sculptures could have been present in Prehispanic times (see figure 8). The mounds on the outer reaches of the field are quite high and compact, while in the center of the field they are lower and closer together, almost appearing to connect to each other. An oval mound in the southeast corner of the field is larger than the ones in the center that are more rounded. The area is naturally bordered by a hill in the southeast, on which a small wall of rocks could be seen. It is unclear whether this is a recent feature or if it is a Prehispanic remnant. Because the mounds on the edges are the most visible, the impression of an enclosed space is created. In contrast with the first field, surface material was scarce, possibly due to the higher vegetation. More mounds, together with large bedrock boulders and some surface material of ceramics, lithics and manos/metates are located in a neighboring field to the west. The vegetation in this field was even higher and the surface material is only encountered along the paths alongside the fences that are bare of vegetation.

**Figure 8 - The quadrangular piece of basalt encountered.**

*Cerro de la Cruz* – 12° 6'33.00"N 85°19'26.27"W

Cerro de la Cruz is a hill just to the northeast of Juigalpa. It is very visible in the landscape as it stands out from the relatively flat surroundings (see figure 9). On the fields surrounding the hill there are a lot of small rocks composed of mainly basalt, but also jasper and chalcedony that could have served as source material for tools or other objects in Prehispanic times. On the top of the hill, in the middle of the ridge there is a mine for quadrangular basalt blocks, a source material for statuary. These blocks can also be found intermittently on the flanks of the hill. On the lower, eastern part of the ridge mounds are encountered that are low and made of rocks loosely piled on top of each other. The vegetation is composed of trees and high shrubbery and made it difficult to detect any coherence between the mounds besides the observation that they were spaced closely together. Surface material in the form of ceramic sherds or lithic objects is not evident, either at the foot, slopes, or top of the cerro.

Because of its unique viewpoints, this cerro must have had an important role in Prehispanic times. Not only are a lot of identified site locations visible from its summit, the cerro itself is visible from a wide area. The mounds on top suggest a purpose other than habitational, something that their shape, size, and construction seems to exclude as well.

**Figure 9 - Cerro de la Cruz as seen from Piedras Grandes II.**

*Cerro de Aguas Buenas* – Near the site of Aguas Buenas

The cerro is oblong, with the southern region being lower than the northern peak (figure 10). From the whole summit it is possible to see the site of Aguas Buenas, which quite literally stands out in the landscape because of a ridge in the northern part of the site and cleared fields show individual mounds (figure 11). Several other sites and locations are also visible, including Cerro de la Cruz (figure 12). On the ridge there are no traces of Prehispanic use, however, this might be due to low visibility caused by the obstructive vegetation.

**Figure 10 - Cerro de Aguas Buenas as seen from the site itself, during the 2013 fieldwork campaign.**

**Figure 11 - The site of Aguas Buenas is partially visible in the bare patch of ground in the center of the image.**

**Figure 12 - The view east from Cerro de Aguas Buenas, with Cerro de la Cruz visible center-right.**

*Piedras Grandes II* – 12° 7'23.69"N 85°18'3.70"W

Located on the road to the Prehispanic site of Piedras Grandes in the Cordillera Amerrisque, this site has not been previously described. It consists of four fields, two with stone mounds and the other two with stone circles, though the relation between them in the Prehispanic period could not be deduced from the surface alone. The first field is located on a ridge with mounds along the edge and several more on the field directly behind, some of which are relatively large in diameter. The mounds are quite low, uneven and very rocky, with an upstanding circle of stones on their circumference; the largest of these are almost invisible and

only noticed because of the trees growing out of them (figure 13). A natural hill on the edge of the field was found to have surface material possibly including *Sacasa Striated*.

**Figure 13 - One of the mounds at Piedras Grandes II.**

12° 7'30.42"N 85°17'52.25"W

In the second field, 20 – 30 meters to the southwest, there are more mounds and large boulders of bedrock but without any signs of petroglyphs. The third field (without coordinates) is located up the slope and across a river from the first field, and consists of a field covered in small stone circles like Gorin's mound category 3 (figure 14). The location of this third field is impressive as it is bordered by a steep decline on one side and the eponymous rock face of Piedras Grandes on the other. Because of the height of the first and third fields, a panoramic view towards the southwest is observable, with both the Cerro de la Cruz and the Cerro de Aguas Buenas very visible in it. A lot of boulders are present in the field, but no petroglyphs or surface material was encountered. The fourth field was encountered between the first field and the road towards Piedras Grandes I, and again consists of small stone circles. The relations between the four fields are unclear except for the first and second, as they are separated only by modern fences and some thin trees and can therefore be more confidently ascribed to the same site.

The size and construction of the mounds in the first field seem to make habitation on top of them difficult, and they are reminiscent of the first category of burial mound markers as defined by Gorin (see above). In the second field, the mounds were lower and constructed of compact earth. In comparison to other sites,

this might indicate that the rocks were removed from the mounds, suggesting that these mounds can also be classified in the first category. It is at this point difficult to say for sure whether the first and second fields can also be interpreted as cemeteries. However, as the third and fourth fields consist of only stone circles, it is probable that these were cemeteries. The main difference with the observations by Gorin on the stone circles is the difference in amount that he encountered, usually two or three, as both fields at this location contained over 10 circles.

**Figure 14 - One of the stone circles at Piedras Grandes II.**

*Las Lomas* – 12° 3'8.41"N 85°15'28.99"W

This site is located on the southern slopes of the cordillera Amerrisque, on top of a narrow, elongated hill that overlooks a large valley to the southwest. Two types of remains are present, and on the southwestern side there are many large mounds that are constructed of loosely piled up rocks, low but with steep edges (figure 15). The other edge of the hill featured the small stone circles (figure 16), clearly Gorin's mound category 3, and the first type of mounds mentioned can probably be counted among Gorin's burial marker category 1. A difference with Piedras Grandes II, where both types are also encountered, is that the two types are not encountered in separate fields but next to each other. No surface material is present, and neither are other types of archaeological remains such as petroglyphs or sculptures.

The different types of mounds spaced so close together suggests a correlation in function, possibly a temporal development from one type to another.

This is corroborated by the absence of surface material as is usual at these sites according to Gorin. This is not a defining characteristic however, and the location on high places overlooking large valleys is also a frequently observed feature.

**Figure 15 - A stone mound at Las Lomas.**

**Figure 16 - A stone circle at Las Lomas.**

*The old road between Cuapa and Juigalpa* – 12°12'45.67"N 85°22'22.42"W

Around the city of Cuapa, about 20 kilometers from Juigalpa, many archaeological sites have been previously documented (c.f. Gorin 1989). However, a new site on the old road from Cuapa to Juigalpa was encountered during this survey, consisting of flat and wide mounds located in a field bounded by hills and 'overlooked' by two mounds on two natural hills. A high quantity of surface material

is present, as well as a lot of probably recent features consisting of loosely piled stones. This is a common feature at archaeological sites in this region and the suggestion is that they are made from loose stones that were removed from the mounds (Geurds 2008, 17). This theory is supported by the observation that a lot of the mounds have surface material resting on a hard packed earthen surface that could represent the inner core of the mound, laid bare by the removal of the outer layer of stones.

*El Despoblado* – 12°11'47.05"N 85°22'31.91"W

This site is located further down the old road from Cuapa to Juigalpa, and has been identified before by Geurds (2009, 33). The site was documented in 2008, and the 40 mounds were mapped, of which 15 have the same circles on the outer edge of the mounds as at Las Lajitas (Geurds 2009, 33-4). This feature of the mounds is also encountered at other sites such as Aguas Buenas. The mounds were ordered in a circle with two large mounds as the foci, was a very low density of surface material was encountered. During the visit in June 2013 one feature stood out that was constructed from flat stones interlocking like puzzle pieces, however, due to the rain no photographs could be made. There was also a high density of surface material that mainly consisted of lithic material. One white ceramic sherd that appeared to be porcelain was also encountered, however its context is unknown.

*Puente Mayahuel* – 12°16'19.14"N 85°22'35.74"W

This site is located on the road north from Cuapa, and has not been previously described in the literature. Two rivers form the border of this site, which slopes down towards one of them. The mounds are constructed in a compact manner of stones and sediment, and are placed quite close together, but due to the presence of modern fences the extent of the site could not be explored. A high density of ceramic and lithic surface material was present, comparable to that at Piedras Grandes I.

*Piedras Grandes I* – 12° 7'54.77"N 85°17'51.56"W

Near the Piedras Grandes mountain range, this site has been documented by Geurds (2008, 32), who notes the high amount of lithic surface material present and that it consists of over thirty mounds that are located on a hill that slopes towards the river. During the visit in June 2013 however, the high amounts of surface

material were also noted to not only consist of lithic, but also ceramic and ground stone objects.

#### *4.1.4 Surveys: conclusions*

As can be seen from these survey reports, the differences between sites in the area around Juigalpa can be quite distinct. Some assumptions about site function as determined from the surface remains have to be reconsidered, especially regarding the surface scatters. Because they contain ceramic sherds, often even material of a modern origin (even though this is not further specified by Gorin), the interpretation of these locations as temporary habitation sites can be questioned. Instead, some form of permanent habitation that does not leave visible traces, especially after many seasons of heavy rains, can be considered to have taken place here. From Gorin (1989) four distinct types of surface modifications can be identified as being present in this region, two of which are mounds (one type constructed of earth and stone, and one solely of stone), one type that consists of small piles of loose stones, and the last being the circles of stones encountered in the soil. As detailed descriptions of mounds are often lacking in the survey reports, it is difficult to recognize which type is present at a site and consequently draw conclusions regarding the presence of other archaeological traces in connection to it. This is also complicated by the lack of knowledge on post-depositional processes that have influenced the presence and visibility of surface material beyond the Prehispanic use, such as land use, climate, and vegetation.

The only sites that can be interpreted with a high amount of certainty are those with a habitational function that contain a high density of lithics, ceramics, and ground stone tools at the surface, e.g. Santa Rita, Piedras Grandes I, and Puente Mayahuel. These all contained mounds that consist of earth and stone, however, there is a difference in construction compared to the mounds at Las Lajitas and Aguas Buenas described below. The difference lies in the surface of the mound consisting of predominantly earth (e.g. Aguas Buenas and Las Lajitas), or predominantly stone (e.g. Santa Rita, etc.). Sites with mounds that consist solely of rocks (e.g. Piedras Grandes II) seem to contain lesser amounts of surface material or none at all, suggesting a different function. This different function is also alluded to because the construction of the mounds makes them unsuitable to serve as house platforms. The occurrence of this last type in the same field as the stone circles, at Las Lomas, and also at Piedras Grandes II, suggests a correspondence in function between these two types of stone constructions. The piles of stones that possibly

indicate burials are problematic in their interpretations, as they are easily constructed and can therefore be the result of recent activity, for example the clearing of Prehispanic mounds for agricultural purposes. However, the differences between amounts of piles present at one location might indicate the correctness of this interpretation, as a site containing a high number of these piles has yielded burials underneath them (e.g. Los Andes [Gorin 1989]), while a site containing a low number did not yield anything (e.g. La Pachona, see below).

Overall, surface characteristics are observed that are distinct per site, such as density of surface materials and construction materials. However, in order to understand the relation between these characteristics and the function of the mounds in Prehispanic times, they must be correlated with excavation data.

## 4.2 Site-complexes

The sites considered in this section have been selected primarily because they have been subject to more extensive archaeological research, rather than survey alone (figure 17). This research usually consists of several test pits in order to obtain material suitable for dating, except for the site of Aguas Buenas where more extensive investigations are currently taking place. However, as analysis of the Aguas Buenas materials is still underway and many of the previous research at the other sites has remained unpublished, the amount and quality of available information differs greatly per site. The available information is here ordered in *surface* and *sub-surface* categories, detailing the site characteristics as observed during a survey and as recorded during excavations. Besides this, a ceramic assemblage is detailed of the identified types encountered at the sites. As the amount and detail varies between sites, some assemblages only consist of the names of identified type while others have a detailed table identifying the amount of sherds per level.


**Figure 17 - The location of the site-complexes (minus Copelito).**

### *4.2.1 Aguas Buenas*

**Surface features**

*Mounds*

Up until now, more than 500 mounds have been documented by Geurds, making this the largest site in this region and possibly even within the entire country. As the creation of a Digital Elevation Model (DEM; figure 19) is still underway, the count is based on a preliminary map made in 2010 (figure 18). This first map already suggests the presence of geometric shapes in the layout of the mounds, something that the preliminary DEM shows even more clearly. Five nearly complete concentric circles are visible, in which all mounds are of comparable size and distance from each other. Besides these partial circles, a rectangular shape in the center can be observed. These mounds are again similar to each other, although they seem to be among the most damaged ones at the site. Aside from these two shapes, several other spatial categories can be identified from this map. Between the rectangular center and the circles there is another angular shape, but as most of this shape is still missing it is difficult to more precisely define its shape. The size of the mounds and the distances between them are suggestive of a similarity to the mounds in the circles. In the same area, several larger mounds are encountered that do not portray the same amount of regularity as the others. Outside of the circular formations altogether, a group of mounds in the northeastern corner can be observed. A large oval mound seems to be the orientation point for several round mounds placed in linear alignments towards the east along an escarpment. While this group is clearly separate from the circles, it is so close to them that one cannot have been build without knowledge of the other.

As mentioned, the outward morphologies of the mounds are different per spatial group. Yet a commonality of all mounds exists in their construction of uncut stones covered by earth that creates a rounded, smooth surface. The rectangular center is a possible exception, as these mounds seem to be constructed of predominantly stones. Notable is that some of the mounds have a protruding circle of stones around the base, which currently has only been noticed in the circular formations.

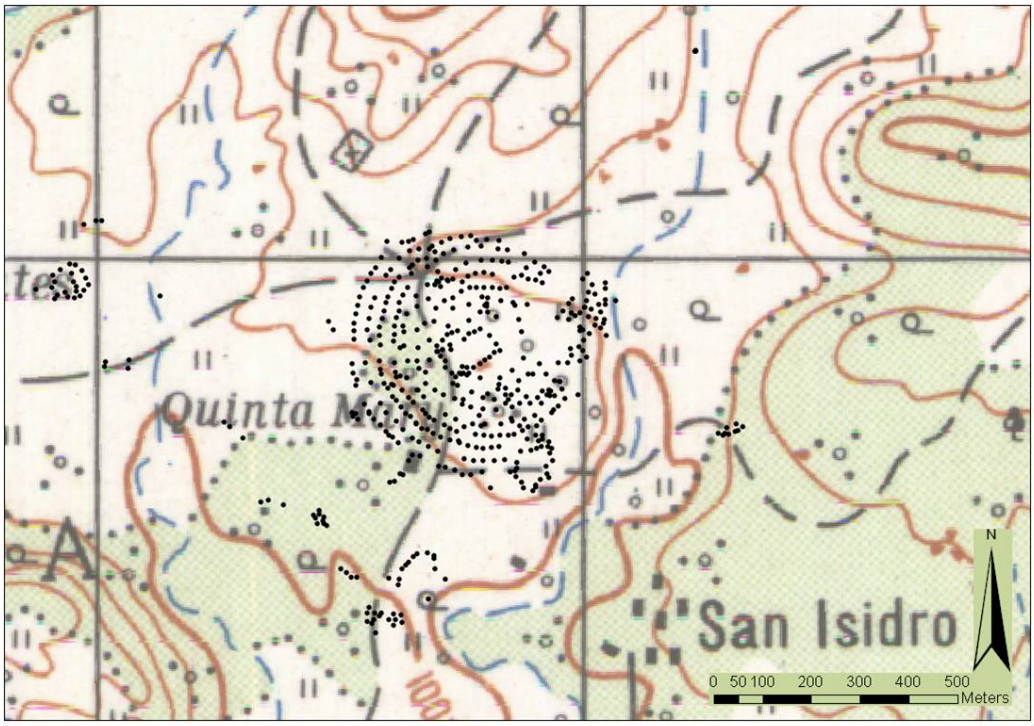


**Figure 18 - The 2010 preliminary map (personal communication Geurds).**

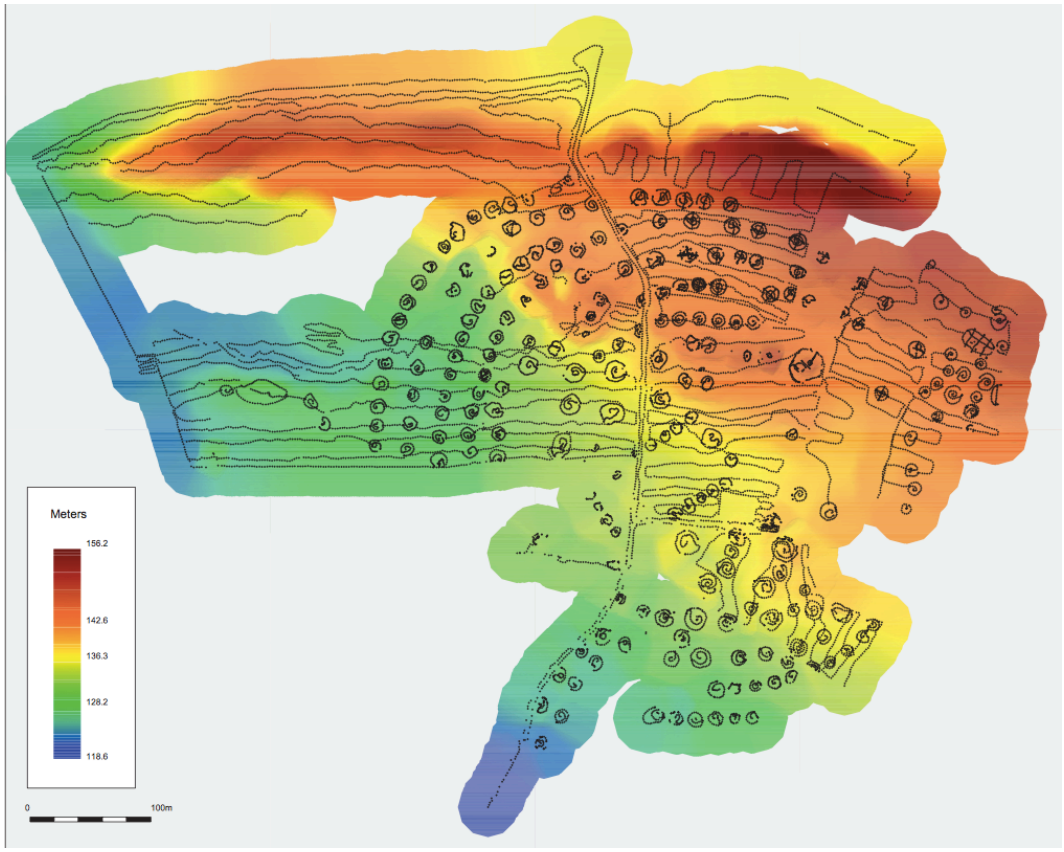


**Figure 19 - The preliminary DEM as of May 2013.**

*Other permanent markers*

Over a hundred localities of petroglyphs have been recorded at this site (c.f. Vlaskamp 2012; figure 20). The motifs range from singular spirals measuring 20 centimeters in diameter, to large composite engravings measuring several meters. The largest concentrations can be found within the spatial groups described above, but there are many also outside of them. As they are (nearly) all engraved on the bedrock it is quite possible that more are present at the site but currently covered by soil. The spatial relation between the petroglyphs and the mounds is not yet apparent.

Besides petroglyphs, it is highly probable that sculptures were present on the site. While accurate documentation is lacking, the site's proximity to the city of Juigalpa indicates that it was likely known to the local population for quite some time, and therefore it is probable that the most visible archaeological remains have been looted. A possible base of a sculpture or *proforma* has been encountered at the oval mound in the northeastern area, and the escarpment next to it is littered by large boulders, some of which are also rectangular.


**Figure 20 - One of the petroglyph localities (Vlaskamp 2012).**

*Surface material*

The first surveys in the early 1980s reported that no surface material was encountered (Lange and Sheets 1983; 1986). However, the second visit by Gorin and Rigat in 1987 yielded ceramic surface material of the types *Miragua Comun, Coronado Red,* and *Oluma Red and White* (Gorin 1989, 191-2), and in the northern area they encountered *Zamora incised* (Gorin 1989, 192). According to Rigat (1992, 84) the lithic material encountered during that survey was consistent with the material found at San Jacinto. Geurds (2009) mentions encountering *Vallejo Polychrome, Ometepe Red Incised,* and *Sacasa Striated* as well, though the exact provenience of these sherds is uncertain. Predominantly lithic material is encountered at the surface on the site. Most notably, during the 2013 fieldwork campaign by Geurds, a half-buried Jaguar head made of basalt was found half-buried on the surface of the oval mound. It was probably part of a metate, the remainder of which is possibly still buried inside the mound.

The dense surface vegetation of the rainy season and modern agricultural and pastoral activities (e.g. regular crop burning) have certainly complicated the collection of surface material. These activities are also very damaging to the petroglyphs, and their condition is deteriorating each year. How these activities affect the mounds is not yet certain, though modern osteological remains (bovine) have been encountered at a depth of 20 centimeters below the surface of the mound.

**Sub-surface features**

*Mounds*

Two different excavation methods have been applied to the investigations of the mounds by Geurds. First, he followed the standard method of excavating a pit in the center of a mound and expanding it outwards. However, the low amount of information this revealed necessitated a different methodology, and the quadrant methodology as applied in the mound research in Northwestern Europe was used thereafter. This secondary approach improves the chances of recovering data on mound construction, as well as revealing caches and other features.


**Figure 21 - The trench excavated in 2011.**

**Figure 22 - Mound M1, excavated in 2012.**

As mentioned, a single mound was investigated by excavating a trench from the center of a mound to the outside by expanding a 1x1 meter pit to one side (figure 21). The final dimensions of the trench were 1x6 meters, and bedrock was encountered at a depth of 170 centimeters in the center. A low quantity of ceramic or lithic material was encountered during this excavation, and the absence of cultural material associated with habitation (high amount of broken pottery, manos and metates, organic remains) suggested that this mound had not served a function as house-mound, nor had it been constructed of house debris. The materials still await analysis, but preliminary results suggest that most of the ceramic material was encountered in the lower levels, predominantly of the type *Chilamate* and unslipped sherds. Very little lithic material was encountered, and most of it was unworked. What was noticeable during the excavation was the apparent specific manner in which the mound was constructed, which was the motivation for starting with excavating according to the quadrant method the next year.

The second mound (coded as 'M1') was excavated using the quadrant method. Its location is in the western part of the site, and it is part of the inner circle of mounds (figure 22). Two adjacent quadrants (northeast and southwest) were excavated in order to obtain two profiles of the inside of the entire mound. During the excavation, it became apparent that deposits of artifacts were located inside the mound, possibly corresponding to the large stones that were visible from the outside, was most were either found on top, in between, or underneath these stones. For example, in the southwestern quadrant several deposits of stone artifacts with some ceramic material as well as deposits of large quantities of ceramic sherds were encountered in a circular pattern related to the large stones. One large vessel, probably of the *Espinoza Red Banded* variety, with a small dish was encountered in the northeastern quadrant (figure 23). Both were propped up by smaller stones, lifting the dish to equal height as the vessel. The vessel was filled with sherds, however, ceramic analysis of the relation between the sherds is not conclusive. Two smaller vessels were encountered about 50 centimeters to the east, following the same circular deposit pattern as observed in the other quadrant. Interestingly, most of the sherds that were not part of a deposit were encountered directly on the bedrock in the lowest levels of the southwestern quadrant. As the mound was constructed on a natural slope, the southwestern quadrant was deeper than the northern one, and the bedrock that was exposed had a stepped layering. The profiles showed that there was a definite planning present in the construction, as larger

stones were probably first laid out to form the circle shape, which was then filled in with earth and smaller stones.

The third mound (coded as 'M301') was also excavated using the quadrant methodology, using the same division as the M1 (figure 24). It is unclear whether this mound is part of the circles or not based on location in the field alone, as it lies in the northern area where the circles are not as obvious. It seems however that it lies just inside of the inner circle, which means that it is from a different spatial group than M1. Deposits around the edge of the mound were encountered, however, this time they consisted of ceramic sherds and large quantities of burnt adobe also known as *bajareque*. The construction method also seems to be consistent with the mounds excavated in 2012 at Aguas Buenas, where large stones were used on the outer edges with the deposits, and subsequently filled in with earth, smaller stones, and ceramic and lithic sherds. Large quantities of sherds were not encountered on the bottom, possibly explained because the mound was not constructed directly on top of the bedrock. Large vessels were also not encountered, and neither were sizeable stone objects.


**Figure 23 - One of the deposits encountered in M1.**

**Figure 24 - Mound M301, excavated in 2013.**

*Pits*

In 2010 and 2011 several 1x1 meter test pits were also excavated at the site that were not located on top of mounds. Two of these pits reached deeper than 1 meter in depth, and yielded the most diagnostic materials. However, most did not reach deeper than 30-50 centimeters, as the bedrock is erratic and difficult to predict from the surface. For example, two pits separated 5 meters from each other could have a difference in bedrock depth of more than 50 centimeters. Most ceramic material was encountered in the eastern part of the site, which also contained highly recognizable types such as *Papagayo Polychrome*. Again, as ceramic analysis is still to be completed on these materials, all results are preliminary. Noticeable is that no functional items such as manos and metates or organic material were encountered in the pits. All ceramic material was highly fragmented, especially in the very shallow pits.

**Ceramic assemblage**

As analysis has not been executed, these types are based on the identification as given by Zambrana (personal communication). Exact counts are also not available, and therefore no table is provided. However, most material consists of undecorated sherds and red-slipped ware.

*Surface*
Miragua Comun

Coronado Red

Oluma Red and White

Zamora (only in the northern area)

Ometepe Red Incised

Papagayo Polychrome

Vallejo Polychrome

*Mounds*

Chilamate

Zamora Incised

Chaves White-on-Red, Astorga variety

Espinoza Red Banded

Segovias Naranjas

Possibly Miragua Comun

*Pits*

Papagayo Polychrome

Chilamate

Segovias Naranjas

Chaves White-on-Red, Astorga variety

Vallejo Polychrome

### *4.2.2 San Jacinto*

**Surface features**

*Mounds*

Nearly 200 mounds were mapped by Geurds (2009) and a possible dual division of the site is argued because of the spatial layout of the mounds (figure 25). One part is oriented around a plaza surrounded by the largest mounds, including one with two smaller mounds on top. The other part consists of smaller mounds that are not grouped in any particular manner. Geurds (2009, 16-17) interprets this as a residential area because of the smaller size of the mounds, while the plaza indicates a communal area. A visit in 2013 determined that the mounds are similar to those of Aguas Buenas from the outside, as they are covered by earth that gives them a

rounded shape. However, as not the entire site was surveyed, this cannot be said securely for all the mounds.

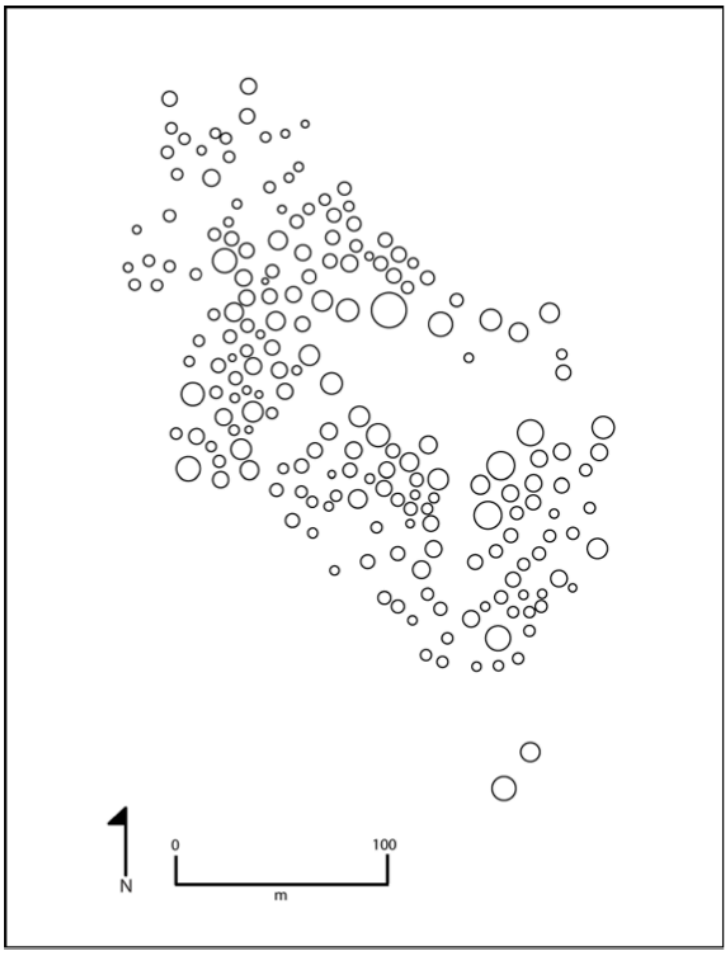


**Figure 25 - Map of San Jacinto (Geurds 2009).**

*Other permanent markers*

During the survey in 2013 a possible walkway was discovered, consisting of a linear alignment of flat stones. It measured over a meter in width and was located between two mounds. However, as neither Geurds nor Gorin has previously identified this feature, it needs to be further researched before it can be incorporated in the analyses. Besides this, there are historical mentions that sculptures used to be present at San Jacinto, but the exact locations and objects are unknown.

*Surface material*

Besides the high amount of mounds that were noticed by Gorin and Rigat, the element that was different from the other sites in the region was the kind of

surface material. Only very low quantities of material were present at the surface, and all material consisted of the types *Miragua Comun*, *Coronado Red,* and *Oluma Red and White*. However, one *Ometepe Red Incised* rim and a *Papagayo Polychrome* tripod leg are later used in order to date the site (Gorin 1989, 255). These two sherds were supposedly discovered by a farmer on the field and Geurds (2013) questions the validity of using these sherds in the analysis. The highest density of material was encountered on the slopes in the eastern periphery of the site.

**Sub-surface**

*Mounds*

No mounds were excavated at this site.

*Pits*

Two test pits were excavated at this site, located in the eastern periphery where the highest density of surface material was encountered. Both contained a "continuous discharge" of material, but only one is described in detail in the dissertation (Gorin 1989, 221-3).

The first pit (coded 'SS1') measured 4x1 meters and contained two stratigraphic layers (surface – 10 centimeter, and 10 – 30/40 centimeter) (Gorin 1989, 221). All 4029 ceramic sherds encountered consisted of *Miragua Comun* (3302), *Coronado Red* (443)*,* and *Oluma Red and White* (265), with the highest quantities were encountered in the upper levels (Gorin 1989, 223).

The second pit (coded 'SS2') measured 2x2 meters, and also consisted of two layers (surface – 7/8 centimeters, and 7/8 – 20/30 centimeters) (ibid.). All 3451 sherds belonged to the *Miragua Comun* (2849), *Coronado Red* (488)*,* or *Oluma Red and White* (109) types, with the highest quantities in the upper two levels (Gorin 1989, 224). Interestingly, the amount of lithic material in this pit is much lower than in SS1 (83 pieces versus 1076), while it consists of the same amount of levels (Rigat 1992, 104).

Remarkable is that while both of these pits are not very deep, the amount of recovered sherds is very high, and the assemblages of both pits very comparable aside from the lithic material.

**Ceramic assemblage**

*Surface*

Miragua Comun

Coronado Red

Oluma Red and White

*Pits*

| SS1 | **Level 1** | **Level 2** | **Level 3** | |
|---|---|---|---|---|
| **Types** | | | | Total |
| Miragua | 1601 | 1513 | 188 | 3302 |
| Coronado | 196 | 217 | 30 | 443 |
| Oluma | 113 | 144 | 8 | 265 |
| **Subtotal Diagnostic** | **1910** | **1874** | **226** | **4010** |
| Others | 2 | 13 | 4 | 19 |
| **Total** | **1912** | **1887** | **230** | **4029** |

| **SS2** | | | | |
|---|---|---|---|---|
| | **Level 1** | **Level 2** | **Level 3** | |
| **Types** | | | | **Total** |
| **Miragua** | **1579** | **1242** | **28** | **2849** |
| **Coronado** | **216** | **265** | **7** | **488** |
| **Oluma** | **43** | **63** | **3** | **109** |
| **Subtotal diagnostic** | **1838** | **1570** | **38** | **3446** |
| **Others** | **1** | **4** | | **5** |
| **Total** | **1839** | **1574** | **38** | **3451** |

Table 5 – Sherd counts per level at San Jacinto (after Gorin 1989, 223-4).

### *4.2.3 Las Lajitas*

**Surface**

*Mounds*

Interestingly, Gorin (1989, 194-5) mention encountering 16 mounds at this site, while Geurds (2009, 24-5) mapped 58 structures (figure 26). The mounds are constructed of stone covered by an earthen layer, and some show a protruding circle of stones on the base.

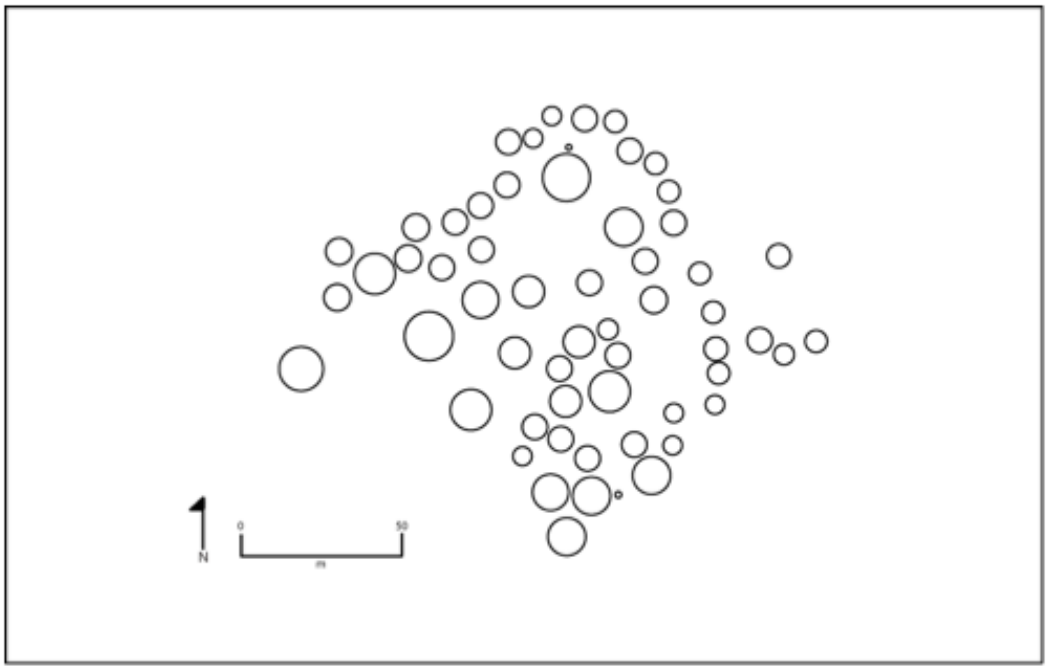

**Figure 26 - Map of Las Lajitas (Geurds 2009).**

*Other permanent markers*

There are indications that sculptures used to be present on this site. However, due to its close proximity to the city of Juigalpa and its easy accessibility as a road has been constructed directly next to it, it is highly probably that they were removed at an early stage.

*Surface materials*

Gorin (1989, 194-5) mentions that they encountered *Miragua Comun* and *Oluma Red and White* at this site, and Rigat (1992, 86) concurs that the types of lithic material encountered are the ones often associated with those ceramic types.

**Sub-surface**

As far as known, no excavations have been done at this location.

**Ceramic assemblage**

*Surface*

Miragua Comun

Oluma Red and White

### *4.2.4 Copelito*

The property named Copelito was found to contain three separate sites during the 2013 survey, two of which showed signs of excavations. While Sequeira mentions finding two sites, 80 years later his topographical descriptions were not detailed enough to identify at which site he excavated. Furthermore, it is also unclear on which of the sites the excavations by Magnus and the survey by Gorin and Rigat were executed. Therefore, the available information will be discussed per researcher, as no division in sites can be made.

**Sequeira**

The site of Copelito was first visited by David Sequiera in the first half of the 20th century, and as he never published his findings, only his field notes are available. He excavated one mound that was oval in shape (7,5x3 meters) and about 1,5 meters high and that was cut through by a road. On the construction he notes that it is entirely made of uncut river stones that were very well fitted together and most were 'fair-sized' with several large ones, either flat or long. The mound was located near a brook, on either side of which three larger statues were found, two of which are now in the Museo Nacional in Managua. Inside the mound he encountered thirteen small statues, arrow heads, jadeite beads, many pottery fragments, one whole metate and fragments of others, clay stamp rollers, spindle whorls, and human remains. The bones were broken up and scattered throughout the entire mound, together with high number of human teeth. Some animal bones were also encountered. The pottery was all white-slipped, and decorated in black, red, orange, yellow, and some gray/blue, but overall more monochrome than polychrome was encountered. At roughly half a mile distance another site was documented, consisting of around 25 mounds and a lot of lithic surface scatter. This site was not further investigated.

In June 2013, one remaining statue was encountered in the fields near one of the sites, but as the brooks were no longer visible, it is not evident if this is indeed the same site as described above.

**Magnus**

Richard Magnus visited the site in the 1970s, excavating three pits in one large mound. Using the material excavated in those pits he constructed a ceramic complex, containing predominantly incised wares (Magnus 1993, 81). The incisions predominantly occur in lines, and Magnus (1993, 81) mentions four different incised

types, and several painted wares, amongst which predominantly material from the Pacific area such as *Mombacho Incised*, *Luna*, and *Papagayo Polychrome* (ibid.). The field notes mention a high quantity of material encountered in the mound, including obsidian, metate fragments, clay balls, and *bajareque*.

**Gorin and Rigat**

Gorin (1989) describes the information of the articles by Magnus that were unavailable for this study. Through the descriptions in those articles, he reclassifies the ceramic materials as containing *Ometepe Red Incised, Sacasa Striated,* and *Combo Colador.* He also mentions Magnus' interpretation that views Copelito as contemporaneous with the sites of Gutierrez and *Sabana Granda*, both of which are not described in this research. One carbon-14 date from this site indicates that a possible date of these sites would be around AD 730 +/- 85 (Gerstle 1976, 7).

Gorin (1989, 193) also mentions that the site that Rigat and he visited in 1984 consists of approximately 40 mounds constructed of earth and stone. All except one are mounds of a circular shape with a maximum diameter of 15 meters and a maximum height of 2 meters. Rigat (1992, 85) mentions that the amount of surface material was abundant, and that the lithics encountered at the surface are similar to those of *La Pachona*. It is unclear whether this is the same site as where Sequeira excavated, the second site that was encountered by him further away, and how these relate to the excavations by Magnus.

### *4.2.5 La Pachona*

**Surface**

*Mounds*

Gorin (1989, 207) and Rigat mapped 30 – 36 mounds in a non-remarkable pattern at this site (figure 27). Gorin (ibid.) mentions that the mounds are constructed of earth, and that the highest measures 3 meter from the surface. The map in Rigat (1992, 94) depicts a linear alignment of mounds, though the validity of this has not been verified.

*Other permanent markers*

Gorin (1989, 208) mentions a partial statue that rolled down the eastern slope. The current location of this fragment is unknown.

*Surface materials*

During the survey by Gorin (1989, 206) and Rigat, they encountered a high density of surface materials, especially the types of *Ometepe Red Incised, Papagayo Polychrome*, and *Patastule Red Banded*. Most of this was encountered in the eastern part, where the surface level drops and material is easily washed down the slope. Interestingly, *Schettel Incised* and *Yaboa* were also encountered at the surface, but the exact location is unknown. Rigat (1992, 93) mentions that the lithic material is of high quality, and that a lot of bifaces were encountered.

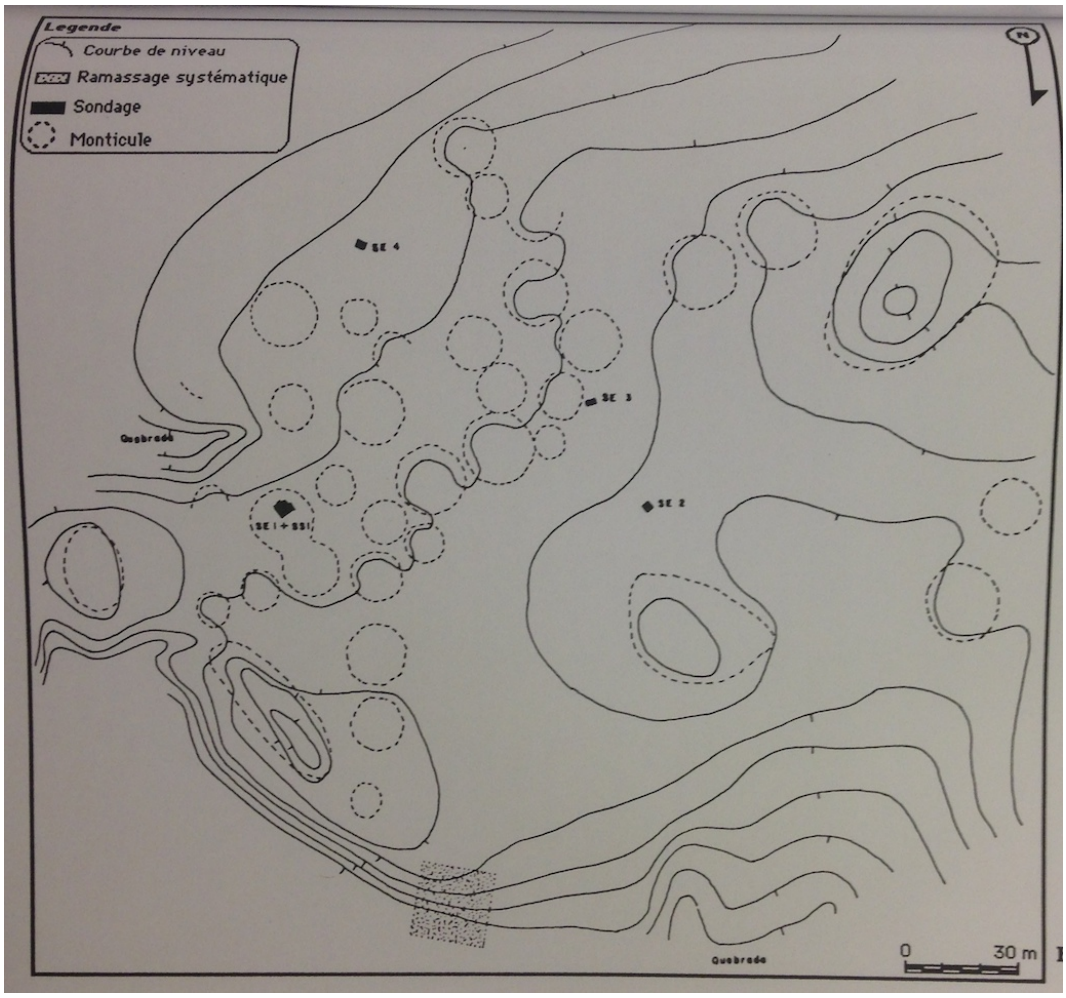


**Figure 27 - Map of La Pachona (Gorin 1989, 94).**

## Sub-surface

Several test pits (SE 1, 2, 3, 4) were excavated at La Pachona in order to test the depth of the ceramic deposits, and the extent of several small heaps of stone that could indicate burials (Gorin 1989, 208). Only one of these pits was placed in a

mound and subsequently expanded into a larger pit (SS1) because human remains were encountered.

*Mounds*

The first mound excavated at La Pachona (Gorin 1989, 208-13) was tested by a 1x1 meter test pit. However, 70 centimeters below the surface human remains were encountered directly deposited in the earth. This warranted the expansion of the test pit, during which 10 direct and indirectly deposited localities of human remains were encountered. The final size of the pit totaled 12,8 $m^3$, but the final dimensions are not given (Rigat 1992, 95). This probably has to do with the irregular expansions of the pit in order to excavate the burials. The bedrock was encountered at a depth varying between 1,6 to 1,83 meter and as the pit was located on a slope, the overall depth varied. Five distinct stratigraphic layers were encountered, the upper 4 of which contained burials and a specific assemblage of materials, while the lowest layer contained different ceramic types. Gorin (1989, 656) mentions that the mode of burial and the ceramics encountered are reminiscent of those during the "recent Polychrome" period on the Pacific side. The 20 centimeter artificial levels in which the ceramics were collected show this division, and in level 6 a mixing of the two different assemblages occurs. One carbon-14 date was encountered in the first layer, dating to AD 1485 +/- 140 (Gorin 1989). As mentioned in Chapter II, two other dates from level 6 (AD 865 +/- 185) and 8 (AD 1190 +/- 135) were disregarded, partially due to their reversed ages in relation to their spatial location. However, these three dates together provide a date between AD 700 – 1530 for the remains of this pit, and therefore a chronological frame for the placement of the burials. The age of the deeper deposits remains unknown, but the absence of soil formation or other indications of a large time-depth suggests that this was probably not long before.

*Pits*

The test pits were all located in the piles of stones to investigate whether these also marked burials (Gorin 1989, 213-15). None of them yielded human remains, only ceramics, lithic material and occasionally animal bones. All ceramic types corresponded to the upper layers of SS1, but there were different stratigraphic layers visible that did not correspond directly to those previously encountered.

**Ceramic assemblage**
*Surface*

Ometepe Red Incised

Papagayo Polychrome

Vallejo Polychrome

Patastule Red Banded

Schettel Incised

*Mounds*

| SS1 **type** | **level 1** | **level 2** | **level 3** | **level 4** | **level 5** | **level 6** | **level 7** | **level 8** | **level 9** | **total** |
|---|---|---|---|---|---|---|---|---|---|---|
| Granada | | | | 1 | | | | | | 1 |
| Pataky | | | | 2 | 4 | 5 | | | | 11 |
| Carlitos | | 1 | 2 | 6 | 12 | 15 | | | | 36 |
| Luna | | 1 | | | | | | | | 1 |
| Miragua | 2 | | | | | | | | | 2 |
| Patastule | 1 | 8 | 6 | 5 | 9 | 1 | | | | 30 |
| Combo | 10 | 5 | 8 | 10 | 8 | 2 | | | | 43 |
| Sacasa | 12 | 5 | 10 | 34 | 9 | 2 | | | | 72 |
| Madeira | 15 | 12 | 10 | 6 | 5 | 2 | | | | 50 |
| Vallejo | 53 | 63 | 73 | 45 | 50 | 30 | 2 | 1 | | 317 |
| Ometepe | 218 | 140 | 185 | 181 | 218 | 157 | 4 | 3 | | 1106 |
| Papagayo | 207 | 138 | 169 | 161 | 227 | 227 | 2 | 4 | | 1135 |
| Coyolito | | | 1 | 1 | | 10 | 33 | 7 | | 52 |
| Bonifacio | | | | 1 | | 11 | 17 | 6 | | 35 |
| Nispero | | | | | | 7 | 10 | | | 17 |
| Capulín | | | | | | 2 | 1 | | | 3 |
| Jícaro | | | | | | 23 | 83 | 20 | | 126 |
| Schettel | | | | | | 16 | 15 | 4 | | 35 |
| Guarumo | | | | | | 11 | 22 | 2 | | 35 |
| Azabache | | | | | | 5 | 7 | 4 | | 16 |
| Charco | | | | | | 1 | | 2 | | 3 |
| Rosales | | | | | | | 4 | | | 4 |
| Usulután | | 1 | | 1 | | 7 | 43 | 17 | 3 | 72 |
| Jobo | | 1 | | | 1 | 41 | 129 | 189 | 90 | 451 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Matanga | | | | | 1 | 26 | 37 | 14 | 4 | 82 |
| Bocana | | | | | | 2 | 23 | 16 | 19 | 60 |
| Yaboa | | | | | | 5 | 13 | 2 | 1 | 21 |
| Chagüitillo | | | | | | 1 | 4 | 3 | 2 | 10 |
| Rodeo | | | | | | | 7 | 1 | 2 | 10 |
| Bálsamo | | | | | | | 1 | 1 | 1 | 3 |
| **Subtotal diagnostics** | **518** | **375** | **464** | **454** | **544** | **609** | **457** | **296** | **122** | **3839** |
| C.Common | 5620 | 2898 | 3507 | 3082 | 4512 | 11327 | 9389 | 3641 | 733 | 44709 |
| C.Red | 3631 | 2114 | 2087 | 2256 | 2904 | 2576 | 987 | 538 | 180 | 17273 |
| Others | 7 | 4 | 5 | 7 | 14 | 96 | 233 | 137 | 26 | 529 |
| **Subtotal common** | **9258** | **5016** | **5599** | **5345** | **7430** | **13999** | **10609** | **4316** | **939** | **62511** |
| **Total** | **9776** | **5391** | **6063** | **5799** | **7974** | **14608** | **11066** | **4612** | **1061** | **66350** |

Table 6 – The La Pachona SS1 sherd count (after Gorin 1989, 210).

*Pits*

The same types as in SS1, minus Zamora Incised and Bramadero Polychrome.

### *4.2.6 El Salto*

**Surface**

*Mounds*

Geurds (2009, 14) mapped 19 mounds at the site, with an average diameter of 14 meters (figure 28). They are all constructed of predominantly rocks, and many have small trees growing out of them. This pattern has been observed at other sites as well, and might be mutually influential, as the loose structure gives room for the trees to grow, which then push apart the stones. Because they are centered around a plaza, Geurds (ibid.) interprets the site as a communal area.

*Other permanent markers*

Several fragments of possible statue bases are still present at the site. Because of its proximity to the city of Juigalpa and its contemporary partial use as a basalt mine, it is highly probable that more statues were present in the past.

*Surface materials*

Geurds (2009) did not encounter any materials at the surface, and during a recent visit in 2013 none were found either.

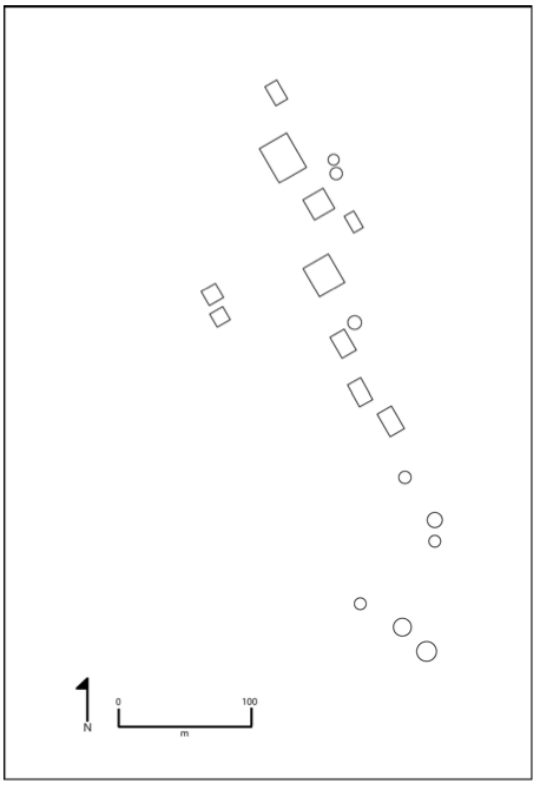


**Figure 28 - Map of El Salto (Geurds 2009, 15).**

## Sub-surface

*Mounds*

Nothing has been published on the excavations at this site, however, people living close to the site mentioned a rescue operation by the Nicaraguan Institute of Culture in the 1990s of one mound. During these excavations they encountered 13 small stone sculptures that are currently on display at the Museo Nacional in Managua. Because of these findings, it is possible that the description of an excavation by Belt (see Chapter II) was done at the same site, as he encountered the same type of sculptures inside a mound. However, the original location of neither of these mounds is known.

## Ceramic assemblage

Nothing is known of the ceramics encountered during the excavations.

### *4.2.7 Barilles*

**Surface**

*Mounds*

According to Gorin (1989, 192) there are 15 mounds present at this site (figure 29). During the survey in 2013, the vegetation impeded verification of this figure, but the mounds seemed to be constructed of predominantly rocks and to quite high levels when compared to the mounds at Aguas Buenas.

**Figure 29 - A mound at Barilles.**

*Other permanent markers*

So far, no mention has been found of other archaeological remains at the surface.

*Surface material*

Gorin (1989, 193) mentions encountering the same materials as at San Jacinto, consisting of the type *Miragua Comun*, *Coronado Red*, and *Oluma Red and White*, but in very low quantities.

**Sub-surface**

*Mounds*

Magnus excavated six test pits in three mounds but did not publish the results. However, his field notes have been made available for this study (Personal communication Magnus to Geurds 2013).

The first and second mounds were both investigated with one test pit in the center of the mound. In both, a layer of earth (about 20-30 centimeters) was encountered on top of a meter of loosely placed rocks, interpreted as two different stratigraphic layers. Ceramic and lithic materials were encountered in both layers, but predominantly in the upper one. Underneath the rocks, *talpetate* was encountered, which is described as being hard, orange soil.

In the third mound, one 2x2 meter pit was excavated in the center, in which several interesting features were encountered. Six postholes were found at a depth of 30 centimeters, and according to the initial drawing, five of them form a half circle around the largest one. A stone wall was also encountered in the opposing corner of this pit, and the entire layer contained large quantities of burnt clay with ridges. This is interpreted as being the remains of an oven, also because the soils in the lowest level are black and sticky. Below the stones a floor of burnt clay was encountered, that appeared to be the last (or first) cultural trace. Another 1x1 meter on the side was also excavated, that yielded a high quantity of material, and *talpetate* combined with clay on the bottom, but no sherds.

Interestingly, Martinez Somarriba (1977, 7) mentions encountering one colonial sherd in one of the excavations. The field notes do not corroborate this, but personal communications with Magnus indicate that it is highly probable that it was indeed encountered.

**Ceramic assemblage**

*Surface*

Gorin identified *Miragua Comun, Coronado Red,* and *Oluma Red and White*, but the basis for this is uncertain

*Mounds*

Magnus mentions predominantly incised and appliqué wares in the field notes. Martinez Somarriba (1977, 7) mentions that the material is similar to that encountered at the site of Lovigüisca, but that assemblage is not located as of yet. Gorin (1989, 192) did study the materials (either from Barilles or Lovigüisca), and identifies them as the same three types mentioned above.

### *4.2.8 El Tamarindo*

**Surface**

*Mounds*

Gorin and Rigat mapped 13 to 15 mounds at this location, seemingly in a non-remarkable pattern (Gorin 1989, 216; figure 30). No mention is made on their construction.

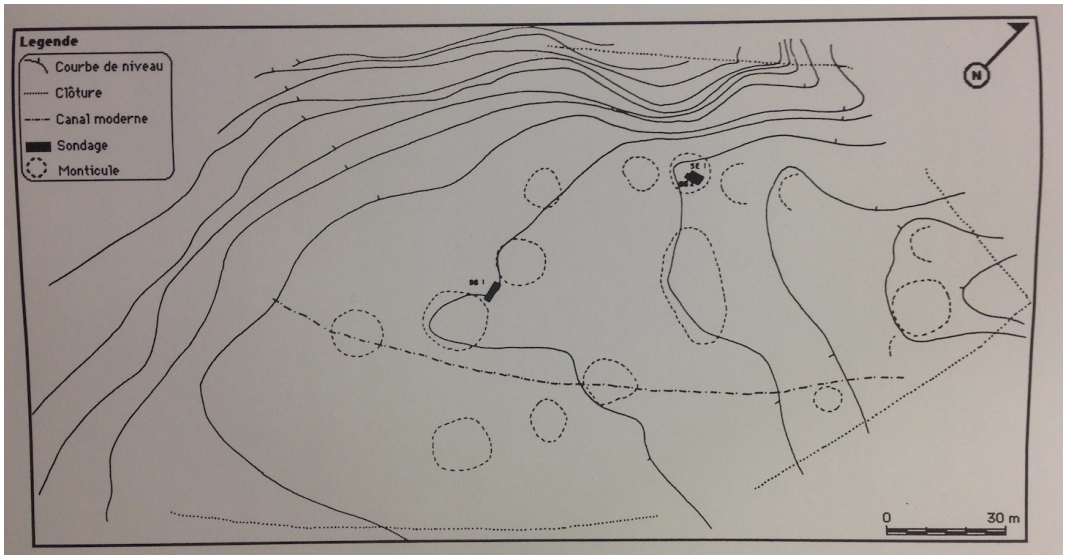


**Figure 30 - A map of the mounds at El Tamarindo (Rigat 1992, 100).**

*Other permanent markers*

None are noted.

*Surface materials*

While not explicitly noted, Gorin and Rigat encountered various densities of material (see for example Gorin 1989, 218).

**Sub-surface**

*Mounds*

One pit was excavated on top of a mound, measuring 6 $m^2$ in total (Gorin 1989, 218). One stratigraphic layer was encountered, and the total depth was 30-40 centimeters (ibid.). A lot of ceramic and lithic material was encountered, however, no table is printed with the amount and types of sherds encountered (Rigat 1992, 101).

*Pits*

One pit was excavated between two mounds, measuring 4x1 meters (Gorin 1989, 218). Only one stratigraphic layer was encountered, and the pit was only about 20 centimeters deep. Some rocks were present in the pit, and very little ceramic or lithic material identified, however a table of this material has been printed (Gorin 1989, 218). A carbon-14 date was obtained from halfway down the pit, dating to AD 470 +/- 135 (Gorin 1989, 259).

**Ceramic assemblage**

*Surface*

Unknown

*Mounds*

Unknown

*Pit*

SS2

| **Types** | **Level 1** | **Level 2** | **Level 3** | **total** |
|---|---|---|---|---|
| Zamora | 36 | 5 | | **41** |
| Combo | 1 | 1 | | **2** |
| Papagayo | 1 | | | **1** |
| **Subtotal diagnostic** | **38** | **6** | | **44** |
| C.Common | 513 | 241 | 27 | **781** |
| C.Red | 177 | 84 | 15 | **276** |
| **Subtotal Common** | **690** | **325** | **42** | **1057** |
| **Total** | **728** | **331** | **42** | **1101** |

Table 7 – Sherd count from El Tamarindo (after Gorin 1989. 218).

*4.2.9 El Cóbano*

**Surface**

*Mounds*

Gorin and Rigat rather confusingly mapped "6 to 10" mounds, and nothing more is known on their morphology (Gorin 1989, 196; figure 31).

*Other permanent markers*

The base of a statue, probably *in situ,* was encountered by Gorin (ibid.) and Rigat.

*Surface materials*

Not mentioned.

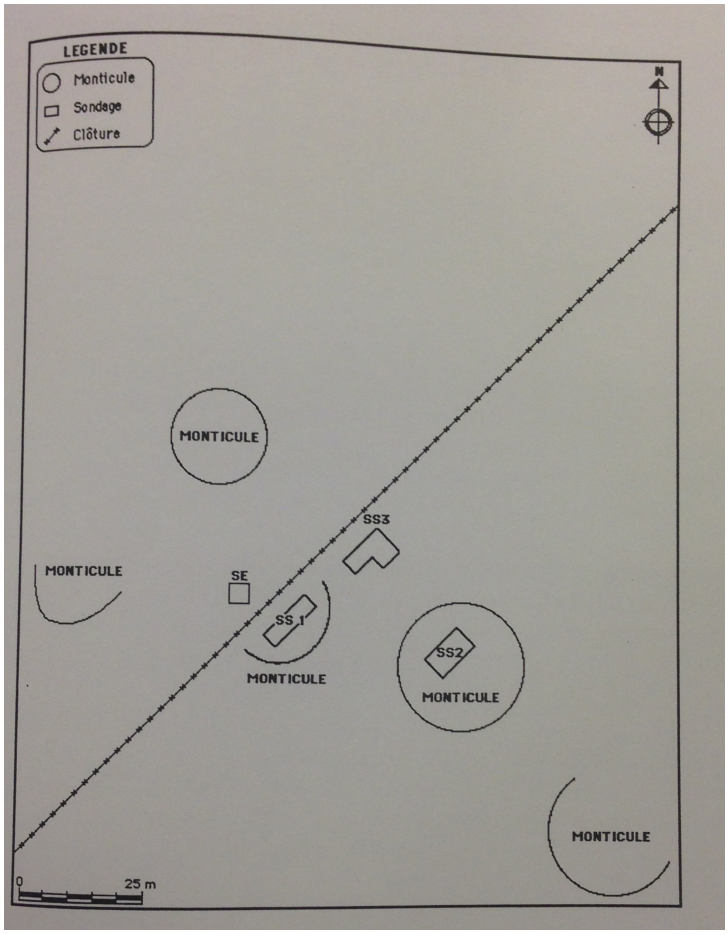


**Figure 31 - Map from El Cóbano (Rigat 1992, 88).**

## Sub-surface

*Mounds*

Two pits were excavated in the center of two different mounds. The first one (coded 'SS1') was placed in the center of a mound, which measured that was only 50 centimeters high and 12 meters in diameter (Gorin 1989, 199-201). The pit measured 4x1 meters and two stratigraphic layers were encountered, of which the upper one contained a high quantity of stones (until 20/30 centimeters depth), and the lower one less so (until 45/50 centimeters depth). Because the ceramic types differ slightly throughout the pit, it is assumed that the mound is constructed of two different fills. For example, *Papagayo Polychrome* is only encountered in the upper two levels, while *Orégano Polychrome* is only encountered in the lowest three.

However, the two main ceramic types of *Zamora Incised* and *Tambor Black and Red* are encountered throughout the entire depth of the pit. One carbon-14 sample was recovered from a depth of 50 centimeters, however due to its relative young age of AD 935+/-140, it was deemed to be intrusive or contaminated (Gorin 1989, 259). This is compared to a sample from level 2 that dates to AD 810+/- 145, revealing yet again a reversed chronology just as at *La Pachona*.

The second pit (coded 'SS2') was also excavated in the center of a mound, which measured 25 meters in diameter, and 1 – 1,5 meters high (Gorin 1989, 201-4). The mound was located on a natural slope, creating a difference in depth throughout the pit. The pit itself measured 4x7 meters, and the same two stratigraphic layers as in SS1 were encountered. Again, there was a difference in ceramic assemblage between the two layers, however there was no trace of soil formation between the two. The difference in ceramic assemblage is the basis for the establishment of two different periods, Cuisalá and Potrero, as defined by Gorin (1989). However, while there is certainly a distinction between types, this only occurs in the types that consist of a minor portion of the entire assemblage. The main ceramic components of *Zamora Incised*, *Papagayo Polychrome*, and *Tambor Black and Red* are present in more or less the same ratio throughout the entire pit. More noticeable is the sudden increase of ceramic material in the lowest level, especially considering *Zamora Incised*, the un-diagnostic wares, and the red slipped un-diagnostics. Several of the types on which the division is based are only present in this lower level, including an almost complete *Africa Tripod* vessel, several sherds of *Chavez white-on-red*, and *Orégano Polychrome*. Two carbon-14 samples were recovered from this pit, one in level 11 dating to AD 770+/-145, and one from level 7 dating to AD 685+/-150, again displaying a reversed chronology (Gorin 1989, 259).

*Pits*

A pit of 11 $m^2$ was excavated in order to study the context of the statue fragment (Gorin 1989, 204-5). Again, the same two layers as in the other pits were encountered, only now the second layer had very little material. The pit that was dug in order to place the statue cut through this second layer, and was filled with material corresponding to the first layer.

**Ceramic assemblage**

*Surface*

Unknown.

*Mounds*

SS1

| **Type** | **level 1** | **level 2** | **level 3** | **level 4** | **level 5** | **Total** |
|---|---|---|---|---|---|---|
| Zamora | 14 | 21 | 20 | 5 | 4 | 64 |
| Tambor | 1 | 2 | 3 | 1 | | 7 |
| Papagayo | 3 | 1 | | | | 4 |
| Potosí | 2 | | 5 | | | 7 |
| Jiñocuao | | 1 | 1 | | | 2 |
| Orégano | | | 1 | 1 | 1 | 3 |
| Subasa | | | 1 | | | 1 |
| **Subtotal Diagnostics** | **20** | **25** | **31** | **7** | **5** | **88** |
| C.Common | 484 | 335 | 350 | 135 | 35 | 1339 |
| C.Red | 22 | 81 | 121 | 45 | 8 | 277 |
| others | | 3 | 13 | 2 | | 18 |
| **Subtotal Common** | **506** | **419** | **484** | **182** | **43** | **1634** |
| **Total** | **526** | **444** | **515** | **189** | **48** | **1722** |

Table 8 – Sherd count from SS1 El Cóbano (after Gorin 1989, 199).

SS2

| Types | level 1 | level 2 | level 3 | level 4 | level 5 | level 6 | level 7 | level 8 | level 9 | level 10 | level 11 | total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Zamora | 13 | 58 | 96 | 82 | 77 | 65 | 47 | 37 | 36 | 33 | 116 | 660 |
| Papagayo | 9 | 37 | 55 | 37 | 23 | 31 | 17 | 14 | 10 | 8 | 2 | 243 |
| Tambor | 1 | 1 | 4 | 7 | 8 | 3 | 3 | 7 | 8 | 1 | 7 | 50 |
| Castillo | 3 |  | 5 | 1 |  |  |  |  |  |  |  | 9 |
| Potosí |  | 2 | 4 | 4 | 4 | 2 |  |  |  |  |  | 16 |
| Arrayan |  | 4 | 1 | 2 | 1 |  |  |  | 1 | 2 | 1 | 12 |
| Ometepe |  | 2 | 1 |  |  | 1 |  |  |  |  |  | 4 |
| Jiñocuao |  |  | 1 | 2 | 2 | 2 | 2 | 1 | 2 |  |  | 12 |
| Subasa |  |  |  | 2 | 2 | 1 | 2 | 1 | 1 | 4 | 5 | 18 |
| Atalaya |  |  |  |  |  |  | 2 | 5 | 3 | 4 | 11 | 25 |
| Sacasa |  |  |  |  |  |  |  | 1 |  | 1 |  | 2 |
| Orégano |  |  |  |  |  |  |  |  | 1 |  | 1 | 2 |
| Carillo |  |  |  |  |  |  |  |  |  | 2 | 2 | 4 |
| Chavez |  |  |  |  |  |  |  |  |  |  | 1 | 1 |
| Tripod Africa |  |  |  |  |  |  |  |  |  |  | 1 | 1 |
| **Subtotal Diagnostic** | **26** | **104** | **167** | **137** | **117** | **105** | **73** | **66** | **62** | **55** | **147** | **1059** |
| C.Common | 379 | 1174 | 1418 | 1212 | 1197 | 878 | 577 | 555 | 490 | 441 | 1115 | 9436 |
| C.Red | 56 | 170 | 299 | 258 | 278 | 275 | 232 | 223 | 170 | 171 | 421 | 2553 |
| Others |  | 13 | 12 | 19 | 13 | 15 | 10 | 19 | 16 | 18 | 36 | 171 |
| **Subtotal Common** | **435** | **1357** | **1729** | **1489** | **1488** | **1168** | **819** | **797** | **676** | **630** | **1572** | **12160** |
| **Total** | **461** | **1461** | **1896** | **1626** | **1605** | **1273** | **892** | **863** | **738** | **685** | **1719** | **13219** |

Table 9 – Sherd count from SS2 El Cóbano (after Gorin 1989, 199).

*Pits*

SS3

| **Type** | **level 1** | **level 2** | **level 3** | **fill** | **Total** |
|---|---|---|---|---|---|
| Zamora | 104 | 48 | 2 | 4 | **158** |
| Papagayo | 42 | 51 | | 4 | **97** |
| Ometepe | 3 | 1 | | | **4** |
| Castillo | 5 | 2 | | | **7** |
| Potosí | 2 | | | 2 | **4** |
| Tambor | | | | 1 | **1** |
| **Subtotal Diagnostic** | **156** | **102** | **2** | **11** | **271** |
| C.Common | 2638 | 1538 | 46 | 80 | **4302** |
| C.Red | 287 | 180 | 2 | 8 | **477** |
| Other | 2 | 4 | | | **6** |
| **Subtotal common** | **2927** | **1722** | **48** | **88** | **4785** |
| **Total** | **3083** | **1824** | **50** | **99** | **5056** |

Table 10 – Sherd count SS3 El Cóbano (after Gorin 1989, 199).

## 4.3 Conclusions

As the analysis of the presented data in this chapter will follow in the subsequent chapter, this conclusion will only mention some general similarities and differences between sites.

First of all, the locations of the sites are not explicitly mentioned in the site-complexes. As the geomorphology of the Juigalpa area consists of an ever-changing landscape from rolling hills to steep mountains, cut by rivers, the locations of the sites are quite similar. They are always located near running water, and often bordered by an escarpment on at least one side. The current level of vegetation differs quite drastically between sites, as some sites are used for pastoral activities, while others are still currently inhabited, and some or not used at all. The effect of vegetation and the climate on the different types of mounds has not been studied, but it has been already remarked in the 19th century that some mounds are only visible because of the trees that grow out of them. Often those are the mounds constructed of loose rocks, which possibly become more dislocated because of the trees growing through them.

The division in surface and sub-surface characteristics revealed the differences between the sites. Not only the ceramic assemblages are different at

each site, the amount of mounds, their morphology, spatial layout, and the other surface remains also vary. Sub-surface characteristics are less well researched, and therefore make it more difficult to identify the differences between sites. Construction and contents are the most obvious features, and the latter category comprises not only artifact type, but also location and amount inside the mound or pit. These variables will form the basis for the analysis in the next chapter, where they will be further identified and detailed.

# V. Analysis: Patterns on the surface and below

In this chapter, the methodology proposed in Chapter III will be implemented. In order to facilitate the comparisons of similar data per site, the site-complex descriptions will be structured in a threefold manner: surface, sub-surface, and ceramic assemblage. The similarities and differences that emerge from these descriptions are expected to reveal a discontinuous but non-random pattern, which can then be related to the different ways in which ethnic identity was established in this region (Jones 2007).

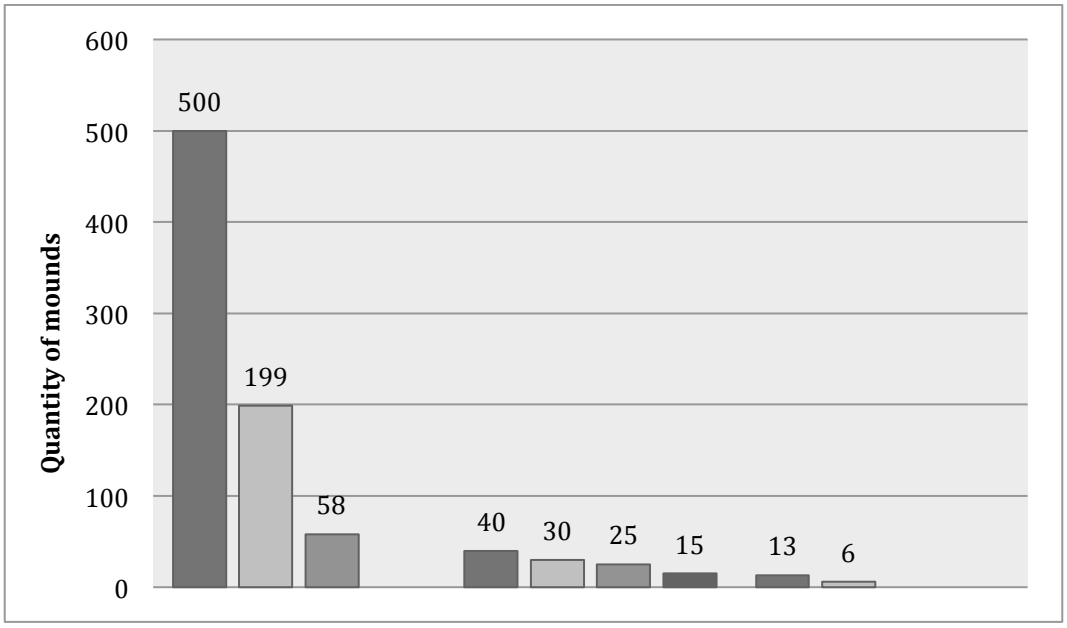


**Figure 33 – Histogram showing the quantity of mounds per site. From left to right: Aguas Buenas, San Jacinto, Las Lajitas, Copelito I, La Pachona, Copelito II, Barilles, El Tamarindo, El Cóbano.**

## 5.1 Surface characteristics

Gorin (1989) divided the mounds in Chontales into several groups based on size and construction (see Chapter IV). However, due to the absence of data on average mound size from most of the sites, it is here suggested to group sites based on the number of mounds present (see figure 33). From this figure, it is clear that the site of Aguas Buenas is exponentially larger than the others, counting over 500 mounds. The second largest site is San Jacinto, measuring 200 mounds. Besides being the two largest, there are more similarities between these two sites. For example, they both have a central plaza, and the construction of the mounds is similar as they are covered by a layer of earth. Smaller by a large degree, but with

the same characteristics as described for Aguas Buenas and San Jacinto, is the site of Las Lajitas. The morphology of the mounds is the main argument for this similarity, as often there is a circle of stones visible around the base of the mounds. All three sites have a very low density of surface material, and Gorin (1989) encountered many of the same ceramic types during his visits.

After these three sites, the second group of sites measures between 30 - 40 mounds. It is noticeable that these sites, such as Piedras Grandes I, Puente Mayahuel, La Pachona, and one of the Copelito sites, are all characterized by a high density of surface material. There is also an apparent absence of a central plaza, or any form of spatial ordering of the mounds. As far as known, the mounds are also of a different construction than the first group. While still constructed of stone and earth, there is no outer layer of earth, which causes the top of the mound to have an uneven, rocky surface. Based on this criteria regarding mound construction, the site of Barilles could also possibly be incorporated into this category, however the preliminary mound count for that site is significantly lower than the others, and there is also less surface material present. The third group comprises sites that have between 6 – 25 mounds, such as El Cóbano, El Tamarindo, and the other Copelito site. Surface characteristics and mound construction and morphology are not known for most of these sites, as they were not described in detail. Therefore, this category is more uncertain in its limits and characteristics.

The fourth category consists of the sites of El Salto, Las Lomas, and Piedras Grandes II, as the previous three categories based on the number and construction method of the mounds leaves no room for them. Typical for these sites is the complete absence of surface material, mounds that are constructed of loosely piled rocks, and in the case of the latter two, the occurrence of stone circles. El Salto consists of 19 mounds around a plaza, but it is the only one of the three sites that has been subjected to mapping. Therefore, these three sites form an additional fourth category characterized by a complete absence of surface material, but with mounds constructed of loose rocks and the possible occurrence of stone circles.

Interestingly, only Aguas Buenas is documented to contain petroglyphs. Most of the other sites are known to have contained sculptures, however the information on their number, exact location, and individual iconography of the sculptures is likely lost forever. Remarkably, these mentions occur in all four site categories presented above.

## 5.2 Sub-surface characteristics

Less information is present about the sub-surface characteristics of sites, which makes the patterns more complicated to recognize. Any comparisons between mounds are very preliminary and tentative given the drastically different methods of excavation, and the incomplete analyses of the encountered materials. However, several observations can be made. The only clear signs of habitation are found at Barilles and Copelito by Magnus (personal communication to Geurds, 2012). While no mention is made of encountering functional objects or traces of habitational use at El Cóbano by Gorin, the amount of material encountered inside the mound is very high and diverse, implying that this site possibly also had a habitational function. Most interestingly, human remains were encountered in a clear burial context only at La Pachona, while 19th century travelers described that many human remains were encountered in the mounds. Furthermore, both Belt (1874) and the Nicaraguan Institute of Culture have encountered several small sculptures at the bottom of a mound at El Salto, the construction of which is very different from those at El Cóbano, Barilles, Copelito, or La Pachona.

The ongoing excavations at Aguas Buenas only add to the diversity of mound contents. Possibly due to the excavation method, patterns in the deposition of the contents are starting to emerge, especially those related to the stone circles visible on the outside of the mounds as well. However, the function of the mounds at Aguas Buenas has not yet been made clear by the excavations, although a habitational function seems unlikely due to the absence of useware ceramic material or household debris.

## 5.3 Ceramic assemblages

As most of the encountered ceramics have not been adequately analyzed, this will predominantly be based on the work done by Gorin (1989). Some mentions will be incorporated of types found in other locations, but especially types probably linked to other regions of Nicaragua are left out (such as the occurrences of *Segovias Anaranjado and Chavez white-on-red* at Aguas Buenas), as their significance is unclear in relation to their context.

The most apparent pattern in the ceramic assemblages is the combination of the types *Miragua Comun*, *Coronado Red*, and *Oluma Red and White* (for convenience called the 'Cuapa complex' in this thesis). This assemblage is so distinct, that Gorin (1989) bases the final phase, the Cuapa phase, of the Chontales ceramic sequence

solely on the presence of these types. However, as Geurds (2013) has attested, there is very little chronological evidence for dating them to AD 1400 – 1600, or for the link proposed with Matagalpan speaking people. All three types were defined by Gorin (1989, 476-487) for the first time, and they have not been encountered outside of the Chontales area so far. Noticeably, all three types have the same paste, and are only distinct due to the different surface decorations. As no complete vessels have been encountered, it is impossible to say however if surface decoration is indeed indicative of three different types, or if rather we can see this as one. The vessel shapes are similar as well, but again as no complete vessels have been encountered it is difficult say (ibid.). Petrographic analysis (Gorin 1989, 523-4) indicates that these types are made from a locally occurring clay source. Interestingly, the only times so far that these ceramics have been encountered with other ceramic types such as *Papagayo Polychrome* or *Ometepe Red Incised* is on the surface, or the upper level of a pit, but always in very low quantities. The only site where there is more evidence for the occurrence of the Cuapa material in higher quantities with other types as well is at Aguas Buenas, where it possibly has been encountered inside a mound together with *Zamora Incised*. It therefore seems that the ceramics have a strong local component, suggested by the petrographic analysis and the fact that it does not resemble ceramics from other regions of Nicaragua, nor that it is encountered outside of Chontales. However, there is no chronological framework at all for the Cuapa complex ceramics, making it impossible to understand the diachronic and spatial development of these ceramics, and therefore difficult to understand what that 'strong local component' entails for the people that used these ceramics.

Nearly all petrographically analyzed ceramics from the lowest levels of SS1 at La Pachona lie within the same petrographic group as the 'Cuapa complex'. Two types that were also tested, *Charco black-on-red* and *Rosales Engraved in Zones* (Gorin 1989, 526) are of such small sample size and belong to a different ceramic category that they can be disregarded as diagnostic material for the dating of this pit. The tested sherds included types known from Greater Nicoyan contexts such as *Schettel Incised* and *Usulután Negatif* (for an interesting discussion on the production locations of the latter type, see Dennett *et al* 2011). Also included in this group are *Zamora Incised* sherds (Gorin 1989, 524), that are encountered as the main ceramic component at El Cóbano, and El Tamarindo, and also are present inside a mound at Aguas Buenas. The implications of all this petrographic data is unsure, complicated by the unclear origin of the tested sherds; however, it is

certainly notable that the clay from several types that were thought to be diagnostic of Greater Nicoya have a probable local origin (ibid.).

As *Zamora Incised* is also not encountered outside of the Chontales region and it represents the main component of the ceramic assemblages at the sites of El Cóbano and El Tamarindo, it seems that together with the 'Cuapa complex' ceramics, these types represent locally made ceramics. Both the El Cóbano and El Tamarindo assemblages have the combination of dominant ceramic types of *Zamora Incised* and *Papagayo Polychrome*. It is uncertain whether these *Papagayo* sherds come from locally available clay sources or if they are imported. As Steinbrenner (2010, 746) mentions, "the appearance of Papagayo Polychrome typically marks the beginning of the Sapoá Period in Greater Nicoya", which is assumed to be around AD 800. What is interesting to note is that three of the five carbon-14 samples associated with these assemblages are very early in combination with *Papagayo Polychrome* (see table 11). Especially El Tamarindo is aberrant in this regard, although the quantity of *Papagayo* is very low in that particular location.

| Site | **Pit** | **Levels** | **Carbon-14 dates** |
|---|---|---|---|
| **La Pachona** | | | |
| | SS1 | Level 8 | AD 1190 +/- 135 |
| | | Level 6 | AD 865 +/- 185 |
| | | Level 1 | AD 1485 +/- 140 |
| **El Tamarindo** | | | |
| | SS2 | Level 2/3 | AD 470 +/- 135 |
| **El Cóbano** | | | |
| | SS1 | Level 5 | AD 935+/-140 |
| | | Level 2 | AD 810+/- 145 |
| | SS2 | Level 11 | AD 770+/-145 |
| | | Level 7 | AD 685+/-150 |

Table 11 – The carbon-14 dates available for the pits on which the Chontales ceramic sequence is founded (after Gorin 1989).

Interestingly, in the La Pachona assemblage, neither *Zamora Incised* nor Cuapa complex ceramics are encountered. Instead, in the lowest levels, a high diversity of diagnostic ceramics from local clay sources is present, while there is a decrease in the diversity of different types in the upper levels (see table). The diagnostic types of the upper levels are *Ometepe Red Incised* and *Papagayo Polychrome*, together with *Vallejo Polychrome*, followed by several types (both local and external) in minor quantities. Gorin (1989, 380) mentions that stylistically, *Ometepe Red Incised* can be seen as the successor to *Zamora Incised*. Steinbrenner

(2010, 743) also suggests that this is a local Chontales type, due to its high occurrence in this region versus the rest of Nicaragua. Some of the Papagayo sherds from La Pachona tested by Gorin (1989, 524) came from local clay sources, while others clearly were imports. All *Vallejo* sherds tested revealed to be imported (Gorin 1989, 531). As this is the ceramic type that indicated for Gorin that Chontales was at least partially under Nicarao influence, the implications of this type are investigated in more detail. Notably, new research by Steinbrenner (2010, 871) indicates strongly that Vallejo developed in Nicaragua from *Papagayo Polychrome*, and the new date of around AD 1000 for this type makes it unlikely that it is associated with the Nicarao migrations. All carbon-14 dates from La Pachona would fit the interpretation that the occurrence of Vallejo Polychrome indicates that this assemblage dates from after AD 900. This seems to more firmly establish the chronology of the upper deposits of SS1 at La Pachona that includes the identified burials, and to refute the argument viewing this site as indicative of a Nicarao presence in Chontales. However, the assemblage of the lower levels are not as securely dated, and even though there are some indications for the earlier date (the basis for the establishment of the Mayales I and II phases by Gorin [1989, 240-2]) the sample size of those ceramic types is very small and therefore the use of these types as diagnostic of the chronology of this pit should be applied with caution. As there are no clear indications that there is an 800 year gap between the two, it is probably better to assume that the chronological difference is less. This would indicate that the lower assemblage is likely contemporaneous with the sites of El Cóbano and El Tamarindo. However, these assemblages themselves are very different, further complicating the picture.

Concluding, it seems that the ceramics encountered at all sites investigated by Gorin have a large local component. The overlapping carbon-14 dates combined with the lack of similar material between the four sites investigated by Gorin (1989) creates serious issues for the chronological ordering of these sites. This is further complicated by the lack of excavated pits with a deep stratigraphy in this region, which complicates the possibilities for encountering deposits with a large time-depth at sites. This greatly diminishes the opportunities for correlating sites over time based on material culture alone, though the evidence presented above suggests that contemporaneous sites do not have to contain the same assemblage of materials, which is also suggested by the theoretical discussion presented in Chapter III.

## 5.4 Interpretation

The combination of the three categories that form the site-complexes leads to unexpected insights into the Prehispanic population of Chontales. First, from the sites where the ceramics have been studied it becomes obvious that there is a preference for certain ceramic types in combination with others. It seem that in all three combinations mentioned above there is a preference for locally produced types, which seem to have no correspondence to ceramic styles outside of Chontales. Interestingly, this concurs with Magnus's observation that there is no relation between the ceramic styles of Chontales with that of the Pacific or Atlantic regions.

Secondly, a pattern between mound groups as defined in section 5.1 and the ceramic assemblages is only visible at the level of the surface material at this moment. While these densities are based on observations made during short visits and have not been statistically tested, the occurrence at certain sites of many large sherds of pottery and lithics versus the complete absence of any material at other sites was remarkable. Of the sites in group 1, the low amount of surface material and the specific construction method of the mounds suggests that they had a non-habitational function. The exact function is not yet clear but it is possible that ceremonial activities took place at these locations. The sites from group 2 have a high density of surface material, consisting of large ceramic sherds of many different types and stone tools. This kind of material remains is suggestive of habitational contexts, which seems to be supported by the construction of the mounds with less earth and similar sized rocks. None of these mounds have been excavated using the quadrant methodology, making it difficult to say whether the mounds have similar or different contents as those of group 1. Furthermore, this interpretation suggests that the ceramics traded from outside Chontales, such as *Vallejo* and *Papagayo Polychromes* predominantly occur in habitational contexts.

The third group of sites is difficult to analyze, as so little of both outward and internal characteristics of the mounds are known. Different amounts of ceramic materials have been encountered at the sites in this group, complicating the recognition of a pattern. Therefore, a functional interpretation cannot be made of this group.

The fourth group also poses further problems, as it is not defined on number of mounds, but solely on the other two characteristics of construction and surface material. However, these characteristics are so deviant from the other site-categories that a separate designation is warranted, as there was no surface material encountered at any of the sites, and the mounds were all constructed of loosely piled

rock. At two sites, stone circles in the soil were encountered that are interpreted as tombs by local archaeologists, though adequate research into this interpretation is lacking. However, the correlation of these circles together with mounds constructed of loosely piled rocks (eg. Las Lomas) is indicative that these two types of stone constructions served the same purpose. The presence of human remains that purportedly have been encountered in certain types of these mounds, combined with the occasional presence of small sculptures (eg. El Salto), and the complete absence of ceramic materials at the surface of these sites, seem to support the interpretation of these features as related to burials.

Chronological data are not readily available for the sites, and therefore the interpretation that the differences perceived in number and construction of mounds, together with density of surface material are in fact the result from temporal changes in settlement patterns cannot be disregarded. However, the carbon-14 dates that are available suggest that even though there was a large diversity in the specific composition of the ceramic assemblage, the actual settlement pattern in this area, ie. the use of mounds in a region where the ecological factors do not necessitate this, were similar.

Thirdly, the two sites that were dated using multiple carbon-14 samples, La Pachona and El Cóbano, both featured one date that would be considered too early for the Greater Nicoyan ceramics encountered within the pits. Both those pits consisted of two different ceramic assemblages, and the Greater Nicoyan types are mainly evident in the upper levels, but not exclusively. This leads towards the interpretation that the oldest dates are related to to the earlier component of the assemblage. However, in both pits the carbon-14 samples are in a different chronological order than the stratigraphy would indicate. This questions the stratigraphic order of the pit, and the utility of analyzing the soil in artificial 10 centimeter levels. The occurrence of the most dominant types throughout the entire pit also draws this into question, such as the small quantities of *Papagayo* and *Vallejo Polychromes*, and *Ometepe Red Incised* that were encountered in the lower levels at La Pachona. This indicates, as previously described by Gorin (1989, 237), that the stratigraphy of these pits cannot be guaranteed to be and accurate depiction of the Prehispanic developments at that site. Therefore, the use of this data as basis for the phases of his ceramic sequence is not tenable, but rather it is the analysis of the contents of the pits in their entirety is more secure.

In conclusion, the current data sample is beginning to reveal a pattern that lacks detail, as exact data is not available regarding the quantity of mounds, their

construction methods, excavation results, and ceramic analysis. However, the interpretation that the ceramics encountered in Chontales represent the migrations of Nicarao peoples in this region around AD 1350 is contested at every step. This then presents us with another problem of a different quality, namely, where are the archaeological remains of the latest Prehispanic inhabitants? One carbon-14 date from La Pachona indicates that there might have been people still living there at the end of the 15th century, but as the historical sources indicate that Chontales was not under Spanish control until the late 17th century, there is remarkable little evidence for their settlements in this region. As the Cuapa complex remains undated, these ceramics are still 'in the running' for being the evidence for this time period, however, as suggested above, they might be predominantly related to non-habitational contexts. As many post-depositional processes in this region are not thoroughly understood, and the strange reversed chronology of the carbon-14 samples at La Pachona and El Cóbano is unexplained, it is also possible that this lacunae is caused by unknown factors, or even the archaeological excavation method itself.

# VI. Conclusions

During the 20th century, the focus of archaeological research in Chontales has been on understanding the cultural affiliations of the Prehispanic peoples in this region. This was expressed in the establishment and use of a ceramic sequence that focused on the recognition of types related to the Greater Nicoyan subarea in Chontales. Subsequently, those types were interpreted as directly representing the people themselves, culminating in the interpretation that Chontales was part of Greater Nicoya. In the first decade of the 21st century however, this correlation between ceramic types and ethnic groups in archaeological research was questioned based on new data and new theoretical insights. Following from that, this thesis argues that the relation between material culture, language, *habitus*, and ethnicity is not straightforward. Instead, ethnic identity forms during the interaction with 'the other' and is expressed on all these levels, though, not necessarily in a similar or equal manner.

These insights also lead to a different methodology for the analysis of the archaeological data. By creating site-complexes, the ceramic materials encountered at different locations are no longer the main focus of the investigations. Instead, all characteristics of the sites are considered, which places the ceramics in their local context. This also puts more emphasis on the presence of the earthen and stone mounds in Chontales that are ubiquitous in the region. Their value for archaeological investigations is underscored by the information that they can provide on the lifeways of the Prehispanic population.

The reconsideration of available archaeological data also brought to light several inconsistencies with the current ceramic sequence. By taking the ceramic materials out of their isolation and using carbon-14 data as secondary evidence, the existing chronology formed from the materials in Chontales did not withstand closer inspection. Instead of subsequent, the ceramic assemblages can be seen as being partially contemporaneous, and the diversity in types can be seen as indicative of the process of ethnic identity construction as is described above. As the prevalent ceramic types at each site are locally made, it could be suggested that different type or amount of external relations are the cause of the variations in ceramic assemblage at each site, instead of solely chronological development. Other characteristics that are present at all sites, such as the presence of mounds and possibly also statuary, further support this assumption as both are related to the *habitus* of a group of people that apparently is larger than individual sites alone.

The function of the mounds in Prehispanic times in Chontales is not clear yet. However, due to the correlation of surface and sub-surface characteristics, a pattern has been revealed. The number of mounds at a site was combined with the construction method and the amount of surface material, which revealed four distinct groups of sites. It is hypothesized that the sites in these groups have different functions for the Prehispanic peoples that constructed them, although existing chronological control is poor and therefore the diachronic changes are not well understood.

The correlation of the archaeological remains to a particular ethnic group is currently very problematic given the small amount known about the lifeways, languages, and material culture of the people in the Chontales region, or the Pacific area before the migrations from Central Mexico. The value of searching for the ethnic origins of groups such as 'the Nicarao', or 'the Matagalpans' as a starting point for archaeological research in Nicaragua is also questioned, as its value or reality is uncertain. Specifically because the theoretical insights presented above suggest that ethnic identity is a constantly changing process in the face of social interactions, not knowing the predecessors or the 'other' people greatly diminishes the possibilities for understanding the 'shared we-feelings' between groups. The search for ethnic groups in the archaeological record then becomes a method in order to interpret the encountered materials, as the specific groups carry their own sets of assumptions for social strategy, ideology, and language with them. In Nicaragua, this means that the research paradigm of 'Mesoamericans vs. South-Americans' is perpetuated at the expense of local developments. This thesis has shown that while external influences are certainly present in Chontales and no doubt played a role in the establishment of identities, local preference was given to local materials. Consequently, the practice of constructing mounds in this region can be seen as an integral part of Prehispanic life, that should be fully incorporated into archaeological research.

# VII. Abstract

The most characteristic feature of the archaeology of Chontales, Nicaragua, are the high amount of earthen and stone mounds present throughout the landscape. However, traditionally in the archaeology of this region, the focus has predominantly been on building a ceramic sequence. This sequence is used to correlate the Prehispanic Chontales people to those of the Greater Nicoya region on the Pacific coast, and in its current state views ceramic types as representative of ethnic groups of people migrating from one region to the next. In this thesis, a new theoretical framework is used to argue that the relationship between ceramic style and ethnic identity is not straightforward. This warrants a reevaluation of the data that was used to build the sequence, in which the ceramics, mounds, and other archaeological features are analyzed together per site. The resulting site-complexes reveal a pattern of ethnic identity formation on a micro-scale, where contact with outside influences is predominantly visible in the material culture, rather than the *habitus*.

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