

## RECONOCIMIENTOS

Debido a las preparaciones realizadas por la Oficina del Patrimonio Histórico, los resultados han sido mucho más amplios y detallados de lo que habíamos pensado posible en cualquier momento antes de llegar al país. Agradecemos especialmente los esfuerzos, apoyo e interés de nuestros compañeros Olga Martha Montiel, encargada de Relaciones Internacionales del Ministerio de Cultura, y Amelia Barahona C., Directora de Patrimonio Histórico.



Figura 24.2 Maya "venom bottle" procedencia de sitio Las Padillas, encontrado durante investigaciones anteriores llevadas a cabo por el Departamento de Arqueología, Patrimonio Histórico (escala aproximada: 14 cm de altura).

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## SETTLEMENT PATTERNS AND CULTURAL HISTORY OF OMETEPE ISLAND, NICARAGUA: A PRELIMINARY SKETCH

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### RESUMEN

*En la prospección de la isla Ometepe en el Lago de Nicaragua, se encontraron 53 sitios arqueológicos. Se determinó los períodos representados en cada sitio, y estableció una secuencia cultural que empezó alrededor de 2000 a.C. con el fase Dinarte, y terminó con el fase Santa Ana, c. 1520 d.C.*

### INTRODUCTION

With a surface of 8264 km<sup>2</sup> Lake Nicaragua (or Lake Cocibolca, its old name) is the largest body of fresh water in Central America (see Figure 1). Roughly oval in shape, its 160km long main axis from Panaloya to San Carlos runs approximately from northwest to southeast. At its widest part, from La Virgen on the Isthmus of Rivas to San Ubaldo at the Chontales shore, it is 65km wide. It is said, that it is up to 70m deep, but up to date no depth larger than 23m has been scientifically measured. The lake's surface is 31m above sea level, and drains through the 190km long Río San Juan, which begins at the southeastern point of the lake, running to the Caribbean Sea (or Atlantic Ocean), which it enters at San Juan del Norte.

Among the many islands and islets of Lake Nicaragua, Ometepe (from the Nahuatl language: "Two Mountains") is by far the largest with a surface of 276 km<sup>2</sup> (Figure 25.1). Prior to the middle of this century, the main archaeological investigations on Ometepe Island were conducted in 1876-77 by a navy doctor, J. F. Bransford, while on duty with an expedition to survey the route for an inter-oceanic ship canal. His report (1881) is a model for that time. He was the first to report and name the "Luna Polychrome" (then "Luna Ware") and the secondary urn burials thought to be characteristic of the island. Several other early excavations are on record, but were not as well described as those of Bransford, and are, therefore, of less use. Among them are those of Boyle in 1866 (Boyle 1868:vol.II:90-98), of Nutting in 1883 (Nutting 1885) and of Walter Lehmann in 1908 (Lehmann 1910).

In 1961 Albert H. Norweb, a graduate student at Harvard University, excavated 2 stratigraphic test pits at the Cruz Site, about 2km northwest of Alta Gracia on the east side of

the Concepción half (Norweb 1964). Since then, his excavations, including those on the mainland, have been studied and published by Paul F. Healy (1980).

#### GEOGRAPHICAL SETTING OF OMETEPE ISLAND

From the air, Ometepe has more or less the shape of a figure "8" (Figure 25.1). Each of the two circles making up the "8" is occupied by a volcano: the southeastern one, with a widest diameter of 24.5km, is the probably extinct Maderas (1394m) volcano, and the northwestern one, with a widest diameter of 36.5km, is Concepción (1610m) volcano, formerly also often called "Ometepe" or "Volcán de Ometepe". With its regular cone shape, Concepción is one of the most beautiful volcanoes in Central America.

The two circles are connected by a rather narrow (5km) and low lying "waist", the Istian Depression, which is a swamp during most of the year and makes passage between the two segments of the island difficult. It is probably not as old as the two "circles" and may have emerged only in rather recent times. Actually, the raising of the lake level (which fluctuates annually by about 65cm) by only a few meters would inundate the depression again and divide Ometepe into two separate islands.

The Concepción volcano has been active off and on during historical times, mostly through light eruptions with ash falls, as during my visits in 1958 and 1962/63. These activities are not recorded in the soil stratigraphy and are, therefore, difficult to ascertain historically. Even the large ash falls mentioned by Karl Sapper for 1883 and 1908-10 (Sapper 1913:106-107) do not register in the soil profiles, despite the fact that in 1883 it is said that ash was blown to the region of Rivas on the mainland. This indicates that those ash falls which can be seen in the stratigraphic profiles on the island must have been of still larger dimensions. Typically, the volcanic activities seem to increase at the beginning and the end of the dry season, but this observation is impressionistic.

Through the prevailing northeastern winds, the ash mainly has been, and still is, deposited on the southwestern side of the Concepción volcano. This is the largest plain of the entire island, and is named here after the main settlement of this region the "Plains of Moyogalpa." The constant addition of ash makes the soil extremely fertile and allows constant planting, without following.

Obviously, larger eruptions occurred periodically, either with much heavier ash falls, as can be seen in the soil stratigraphy, or with lava flows, of which two, one to the south in the direction of La Esperanza and Loma El Mogote, the other to the north in the direction of San José del Norte, can still be distinguished. The first one may represent the eruption of 1883 (the church records of Moyogalpa give, however, the date of 1882 for this event!), recorded by Karl Sapper (1913:106-107) as having produced lava at its western side.

There are no comparable plains on the Maderas half of the island. The shores here are often steep, bluff-like inclines, or are occupied by numerous boulders, while on the Concepción half flat shores and some beautiful beaches are predominant. The Maderas volcano was, in 1962/63, mostly covered by woods, either natural vegetation or shading trees for the coffee grown on its slopes. Aerial photographs show a lake in the crater of the Maderas. The upper third of the Concepción cone is without any vegetation today, while at the middle of the 19th century it was wooded to the top. Woods are still present in the middle third of that volcano, sufficient to shelter deer and monkeys.

An important feature which influenced settlement patterns on Ometepe Island was the scarcity of surface water. During the dry season of 1962/63 only 4 creeks contained permanent water: Río Balue on the northern side of the Maderas half, Río Tichana on its southern side, Río Buen Suceso on the eastern side of the Concepción half and Río El Istian which drains the swamps between the two halves of the island. All other "creeks" shown on the official maps of Ometepe Island (edition 1-AMS, pp.3050 I, II, and III) were dry, as they are most of the time. Additional sources of fresh water include a number of springs, mostly on the Maderas half and the eastern part of the Concepción half (i.e., near Las Pilas), as well as a small lake, Charco Verde, on the southern side of the Concepción half. It is, however, very near the lake shore and, therefore, near the main source of fresh water even today (Haberland 1984).

#### BACKGROUND OF RESEARCH

I first visited Ometepe Island from November 26 to December 3, 1958, accompanied by Luis Nissen, son of a friend living in Managua. The purpose at that time was to appreciate the archaeological potential of the island. Therefore, a survey in the vicinity of Moyogalpa was conducted, and we located a number of potentially interesting sites. One test excavation at Los Hornos (Om-4) yielded the burial of a shaman, which dated to the San Roque phase (Haberland 1961b).

In the light of these results, an excavation and survey program was formulated, and carried out during the dry season of 1962/63 by the author, assisted by Peter J. Schmidt, then a student in the Anthropology Department of Hamburg University. We stayed on the island for 6 months, from October 25, 1962 to April 25, 1963, with our base at Moyogalpa. Up to 12 local residents were employed for our various activities. During that time we conducted test excavations at 10 sites, all situated in the western part of the Concepción half on the "Plain of Moyogalpa".

#### SURVEY AND PROCEDURES

At each site that was tested, at least 2, and usually 3 or more (up to a dozen in one case) test pits, with a standard size of 2m x 3m, were excavated in arbitrary 20cm levels. An additional 43 sites all over the island were

surveyed and surface collections were made. Details of the survey and test operations and the reasons for them have been described already in detail (Haberland 1984).

Of the 53 sites investigated (Appendix 25.1), 8 were pictograph sites without any other cultural material, and were situated on the Maderas half of the island, as were those pictographic sites which also yielded some other (mostly ceramic) material. These sites have already been described in detail (Haberland 1968, 1970).

The excavations, as well as the survey, yielded an enormous quantity of ceramic material: for example, a single test pit at San Lazaro (Om-16) contained more than 15,000 sherds in about 6 m<sup>3</sup> of excavation. Up to date, due to my other obligations, only preliminary sorting and counting has been accomplished. Identification of the animal bones recovered from most of the excavations is also still lacking. On the other hand, the human skeletons found at the Los Angeles cemetery have been published (Fleischhacker 1972). Nevertheless, all investigations have progressed sufficiently to establish a cultural sequence and a general understanding of settlement patterns on Ometepe Island, utilizing the stratigraphic test pits and the survey data. While preliminary, this sequence is essentially correct and comparable with those sequences established for the Isthmus of Rivas (Healy 1980) and the Greater Nicoya Subarea (Lange and Abel-Vidor 1980; Lange 1984b). In the following overview, the 9 phases of cultural development on Ometepe Island will be characterized, their significance for settlement and subsistence patterns analyzed as far as it is possible under the present circumstances, and comparisons drawn with other areas in Greater Nicoya.

#### THE DINARTE PHASE (2000 - 500 BC)

This is the oldest phase on the island, and evidence for it is limited to 111 ceramic sherds from the bottom of test pits 1 and 2 at Los Angeles (Om-9), in contexts isolated from the other ceramics by a 55cm thick sterile layer. When the Dinarte material was found in 1962, nothing comparable was known from Nicaragua or Costa Rica. I thought at that time that Dinarte should date about BC 1500 (Haberland, 1966). During the late 70's, Michael J. Snarskis found a comparable complex, Chaparrón, in the Llanuras de San Carlos (Costa Rica) (Snarskis 1981b:40-42, fig. 14; 1984:205-206, fig. 8.4). No dates were obtained for this complex, but Snarskis thought that Chaparrón dated about BC 800 - 400. Recently, John W. Hoopes, of Harvard University, found another complex, Tronadora, during excavations by the Proyecto Arenal in the vicinities of the Arenal volcano in Costa Rica (Sheets 1984a; Hoopes 1984). It shares a large number of traits with Dinarte as well as with Chaparrón. Two of the early C14 dates obtained from the Arenal area had corrected dates ranging between BC 1900 and 1800, which appear to validate another date obtained by Snarskis for his contemporary but not related Montaña complex of the Costa Rican Atlantic Watershed (Snarskis 1984:201-204; Lange and Stone 1984:386).

If we suppose that the Dinarte people were farmers, hunters, and fishermen, and there is nothing to suggest otherwise, the living conditions on the mainland around Rivas were not very different from those on Ometepe Island. Population pressure, which might have played a role in later migrations, is unlikely to have been a factor at this early date. One could argue that the "settlement" at Los Angeles during Dinarte time was only a temporary fishing camp, but I do not believe that. It is too far from the lake shore (about 1km) and the pottery sherds, in spite of their small quantity, represent too many different vessels, to have been brought along on a fishing trip. It was, in my opinion, a permanent settlement and most probably not the only one on the island at that time.

Why did people decide to settle on the island? Fishing was certainly not better from here than on the mainland. Hunting and collecting of fruits and other plant materials was probably even better on the mainland than on the rather restricted island, and I cannot think of any commodity which could have been growing wildly only here and not around Rivas. The only reason I can think of for settling on Ometepe Island at that time is a higher soil fertility from the volcanic ash content. Crop yields were probably much higher on Ometepe than on the mainland and that might have brought people to the island. It may be the same reason why early people settled at the foot of the Arenal volcano at the same time (Sheets 1984b) and why volcanic regions all over the world have always been very heavily populated up to this time, in spite of the hazards involved. If this idea is correct, it supposes that the early Central Americans had a very good knowledge of soil fertility, an intellectual feat of a rather high degree. In the future, early agricultural settlements may more often be found in the volcanic interior rather than along the shores, where we have been searching for them in the past.

#### ANGELES PHASE (500-200 BC)

Pure Angeles phase material has been found only at the bottom of two test pits at Los Angeles (Om-9, test pits 8 and 9). It was also present, in small quantities and mixed with subsequent (Sinacapa) material at Los Angeles, test pits 1 and 2, in the same test pits which yielded the Dinarte material, and probably in the lowest layers of pits 1 and 2 of La Paloma (Om-2). Furthermore, the 2 vessels found in 1958 near the skeleton at Los Hornos (Om-4), but not associated with it, may belong into this phase (Haberland 1961b:fig. 6). Finally, three of the surveyed sites give indications that the Angeles phase may be present: Punta Viva (Om-14), Bajadero de Esquipulas (Om-15), and Sinacapa (Om-40). This, however, has to be verified through excavations.

Palmar Zoned Incised is the principal decorated type. Bocana Zoned Incised and Toya Zoned Incised may also be present, although a revision of this material may show that all of it could be included into Palmar, as indicated by Lange (1980b). [Eds note: Based on the results of the

Greater Nicoya Ceramic Conferences (Lange et al. 1984), Palmar is now designated as a variety of the type Bocana Zoned Incised.]

Unfortunately, no lithic or bone material has been recovered which might be unquestionably assigned to the Angeles phase, nor any "special" ceramic objects. Nevertheless, a subsistence by agriculture, hunting, and fishing seems probable.

The Angeles decorated pottery corresponds with the "Loma B" material of the Vidor site near the Bahía de Culebra, Guanacaste, Costa Rica. It has been dated by Lange between BC 800 and BC 300 (Lange 1980b:36), a date which also can be accepted for Angeles.

#### SINACAPA PHASE (c. 200 BC - AD 1)

Pure Sinacapa phase deposits were found in 5 test pits (1, 2, 8, 9, and 11) at Los Angeles (Om-9), indicating heavy occupation during this time, especially considering that some test pits were up to 500m distant from each other. Another more or less pure deposit was encountered at La Paloma (Om-2; pit 2), while Los Hornos (Om-4, pit 1) and San Roque (Om-8, pit 1) yielded mixed deposits, at least according to the preliminary sorting. Furthermore, characteristic ceramics of Sinacapa were found at 7 survey sites: Las Mercedes (Om-11), El Cairo I (Om-26), El Cairo II (Om-28), Punta Gorda (Om-31), Corozal II (Om-36), Sinacapa (Om-40) and Moyogalpa itself (Om-52). It is interesting to note that of these sites, 4 are situated on the Maderas half of the island, where the Sinacapa phase represents the earliest settlements.

The most characteristic decorated ceramics of the Sinacapa phase are Schettel Incised and Rosales Zoned Engraved. Schettel Incised may have developed from the grooved and zoned ceramics of earlier times, where horizontal flaring and ornamental lips had already appeared (cf. the Palmar Zoned Incised vessel from Los Hornos [Haberland 1961b: fig. 6, right]). Rosales Zoned Engraved, in Nicaragua is much rarer than Schettel Incised.

The presence of Schettel Incised and Rosales Zoned Engraved ceramics links the Sinacapa phase with the Aviles phase of the Rivas region, the Orso phase on the Bay of Culebra, and the Chombo phase on the Santa Elena Peninsula, suggesting dates between 300 BC - AD 1.

For the first time, some cultural material other than pottery sherds can be assigned to this phase, enabling us to have some idea of life on Ometepe Island during the era. These artifacts confirm previous assumptions that maize agriculture was the main subsistence basis. These assumptions are based not only on the presence of the *molcajates* mentioned above, but also on the basis of two complete *manos* and one fragmentary *mano* (all with rounded diameters). Fishing and hunting also played a role, as shown by the faunal remains collected during excavation.

Pure components of this phase have been found in 3 test pits (8, 9, and 10) at Los Angeles (Om-9), in both test pits at San Roque (Om-8), and in pit 1 of La Paloma (Om-2). The phase may also be represented in the lowest levels at La Providencia (Om-19). Materials of this phase are especially difficult to identify in surface collections. Therefore, only 2 survey sites were assigned to this phase: Santa Maria (Om-20) and Tichana (Om-34). Three more sites may also contain Manatiel phase materials, but there is doubt about these temporal assignments: La Lava (Om-12), La Gloria (Om-33), and Santa Teresa (Om-39).

Decorated Manatiel phase ceramics include Garcia Ridged, Espinoza Red-Banded, at least two types of Black-on-Red, one of them certainly Puerto Black-on-Red, and Orange-on-Red. Grooving is present but rare, as are Usulután technique painted sherds. This assemblage is somewhat like that already described from the preceding Sinacapa phase, and is perhaps best characterized by the absence of two diagnostic Sinacapa ceramic types: Schettel Incised and Rosales Zoned Engraved.

The similarity with the Sinacapa material makes it very difficult to assign surface collections to this phase, since the absence of either Schettel or Rosales may be purely accidental in small surface collections. Without the various stratigraphic tests, we probably would not have found this division and would have lumped the two phases together.

There is no direct indication for agriculture, perhaps with the exception of the *molcajates*, which may have served for baking tortillas. Hunting and fishing activities are reflected in large quantities of faunal material, and at the San Roque site, the number of fish bones is very large during this time. How various kinds of fish were caught is still open to question since only a single net sinker, shaped from a sherd, has been found (at La Paloma) and this find was somewhat dubious as far as its context. Turtle bones, already present in Sinacapa deposits, show a marked increase during Manatiel times.

No radiocarbon dates exist from Manatiel phase contexts, but the phase seems to correlate with the San Jorge phase of the Rivas region. None of the phases from the Vidor site, nor from elsewhere in the rest of the southern sector of Greater Nicoya seem to be parallel to the Manatiel phase. Perhaps this phase is peculiar to the development of the northern sector of Greater Nicoya, or perhaps in the southern sector it is lumped in with phases such as the Chombo phase or the Orso phase.

The end of the Manatiel phase at San Roque (Om-8) is marked by a new cascajo layer 8-12cm thick, laminated in the same manner as the layer which marked the end of the Dinarte phase. At La Paloma (Om-2) the Manatiel component is separated from subsequent levels by several loose ash layers, which may or may not correspond to the San Roque

cascajo. At Los Angeles (Om-9), the Manatiel phase materials appear near the top of the column in test pits 8 and 9. In pit 10, however, it is beneath a cascajo layer up to 30cm thick, which was not broken through by subsequent burials. The same may be true at the Los Angeles cemetery (pits 3-7, and extensions), which pertained to the Gato phase.

It appears that the Manatiel phase ended with significant volcanic events, of which evidence appears to remain only on the southern half of the Moyogalpa Plain. These events obviously did not result in complete abandonment of the island, for at San Roque, the following phase is well represented above the cascajo. Nevertheless, we must assume that certain sites like San Roque, and probably also La Paloma, were temporarily abandoned.

#### SAN ROQUE PHASE (AD 500 - 950)

Pure levels from this phase have been found in 6 test pits at 3 different sites: In both San Roque (Om-8) tests, at the bottom of both Noche Buena (Om-3) holes, and in both La Providencia (Om-19) tests. It was probably present in most of the other test excavations, for example at La Paloma (Om-2) pits 1 and 2, but either mixed with later levels or, according to preliminary evaluation of the data, not well defined. On the other hand, San Roque phase material tends to occur in rather thick layers, with dense concentrations of cultural material. This is especially true for the type site of San Roque and for the Noche Buena site.

The following survey sites also yielded some San Roque materials: Sacramento (Om-18), El Peru (Om-32), Teguisapa I (Om-41), Las Pilas (Om-43), Piñon Saca (Om-44), La Primavera (Om-45), Calaysa (Om-47), and San Miguel near Alta Gracia (Om-48). Whether the large amount of San Roque material in sites surveyed in the eastern (Alta Gracia) part of the Concepción half of the island has any significance (perhaps a settlement shift because of ash falls?) cannot yet be determined.

Tola Trichrome is a characteristic ceramic of the San Roque phase, as is, to a more minor degree, González Polychrome (Galo Polychrome) which appears late in the phase. Other decorated ceramic types include the Urcuyu Variety of Chavez White-On-Red, the Chavez Variety of Chavez White-on-Red (which on Ometepe is more a "cream"-on-red), Black-on-Red (probably Obando), and Espinoza Red-banded.

Agriculture was certainly important during the San Roque phase, as shown by the number of *mano* and *metate* fragments, as well as basin-shaped mortars. Faunal remains were abundant, especially at San Roque, but fish bone declined in percentage occurrence; this may be a reflection of soil conditions, as the large number of net-sinkers suggests continued emphasis on exploitation of the lake. During the San Roque phase, turtle bones occur frequently and turtle-hunting was obviously an important subsistence activity.

The San Roque phase on Ometepe correlates with the Palos Negros phase in the Rivas region, with the Mata de Uva phase at the Vidor site, the Culebra phase on the Bay of Culebra, the Santa Elena phase on the Santa Elena Peninsula, the Matapalo phase on Tamarindo Bay, and the San Bosco phase in the Tempisque Valley. This widespread distribution shows that during this time Greater Nicoya had a high degree of cohesion. Never in later times was there such an areal uniformity.

#### GATO PHASE (AD 1000 - 1200)

This phase was somewhat difficult to define and might have gone unnoticed if the cemetery at Los Angeles (Om-9), had not been found. The phase is transitional between the Early and Middle Polychrome Periods, and in non-mortuary contexts might have been attributed to mixed cultural layers. With our knowledge from the cemetery, layers from 5 test pits at 3 sites have tentatively assigned to this short phase: Gato phase material was found in pits 2 and 3 at Tierra Blanca (Om-5), pits 1 and 2 at La Paloma (Om-2), and pit 1 at Noche Buena (Om-3). The nature of the Gato phase material makes it extremely difficult to assign sites which were only surveyed to this phase. Only two are assigned with any degree of certainty: Jaragual (Om-30) and Punta Gorda (Om-31). On the other hand, the site of El Respiradero (Om-51) was certainly used during this phase (Schmidt 1966).

As mentioned above, the Gato phase is a transitional phase between the Early and Middle Polychrome Periods, and the ceramic assemblage contains types from both periods. Most important is the continuation of Tola Trichrome which is, however, modified and in field notes was referred to a "Toloid", perhaps more closely resembling Baudez's Lopez Polychrome type (1967:99-101); [Eds note: the *Greater Nicoya Ceramic Conferences* (Lange et al. 1984) have designated the traditional Tola Polychrome as the northern sector (Nicaraguan) variety of Tola Trichrome, and Baudez's Lopez Polychrome as the southern sector (Costa Rican) variety]. The Middle Polychrome Period is represented by Papagayo Polychrome, most often by the relatively early Papagayo variety and by brushed pottery most often interpreted as ordinary culinary ware.

Besides the ceramics found either in the preceding San Roque or the following La Paloma phase, the Gato phase also has some characteristic types of its own. One type, Potosí Applique, consists exclusively of two part incense burners (Figure 25.2) and is a special purpose group (Schmidt 1966). Finally, it should be mentioned that some rather crude underslip-incised sherds occur, as well as some other still unidentified polychromes, which may include specimens of Granada and González (Galo) Polychrome.

The Gato phase people continued to be agricultural, as shown by the fragments of their *manos* and *metates*. Turtle bones are still very frequent in the faunal assemblage, but in smaller percentages than previously. It is interesting to note, however, that some burials were accompanied by

complete carapaces. Fish bone occurs in low frequencies, while there is the continuing contrast with the net-sinkers from rim and body sherds, which are relatively common. Net-sinkers (Figure 25.3) made from stone are a new trait in this phase. They were made from beach pebbles, were often egg-shaped, made from light volcanic stone, and have indentations around their mid-sections. Burned clay from the exterior of wattle and daub houses demonstrates continuity in housing construction from the San Roque phase.

One other site of the Gato phase deserves special mention: El Respiradero (Om-51) is an offering place near a still active volcanic blow-hole halfway up Concepcion volcano, where a large number of smashed Potosí Applique incense burners were found (Schmidt 1966). This type may be intimately connected with volcanoes, since it seems, with the cover, to imitate the volcano's shape, especially with the smoke hole in the top of the incensario, which creates the illusion of a smoking volcano.

One radiocarbon date (Hv-2688) from the Gato phase came from Feature 1 of the Los Angeles cemetery and gave a corrected date of AD 980 - 1070. Based on the available chronological information, the Gato phase seems to date to between AD 950 - 1100. There appear to be no coeval phases from elsewhere in Greater Nicoya; the Gato phase on Ometepe may be another transitional phase, mistaken elsewhere for a mixed level. Also, allowing for sub-regional variation, the Early Polychrome Period on Ometepe may have continued culturally, while other Greater Nicoya peoples evolved to the Middle Polychrome Period. This may have been related to the arrival of the Chorotega peoples to the island where, in relative isolation in the middle of the lake, the change from Early to Middle Polychrome was more gradual and perhaps more an amalgamation of two cultures than a displacement of the old by the new. The problem of the arrival of the Chorotegas is still clearly a matter of debate. While the polychrome ceramics point to Mesoamerica, the brushed shoe-shaped vessels (Sacasa Striated) do not have any roots there.

#### LA PALOMA PHASE (AD 1100 - 1300)

This phase covers the first part of the Middle Polychrome Period on Ometepe Island. In its pure form, it has been found only at one of the 10 sites tested, La Paloma (Om-2), where 4 test pits were excavated. However, other sites such as Los Hornos (Om-4) and Chilaite (Om-7) also show some evidence of the phase, as did 14 of the sites surveyed but not tested: Quinta Santa Ana (Om-1), Antigual (Om-10), El Guineo (Om-22), La Palma III (Om-25), El Cairo II (Om-28), Jaragual (Om-30), El Peru (Om-32), La Gloria (Om-33), Santa Teresa (Om-39), Taguisapa II (Om-42), Piñon Saca (Om-44), Buen Suceso (Om-46), San Miguel/Alta Gracia (Om-48), and Moyogalpa (Om-52). Some of these sites may actually represent the Gato phase, since the presence of Papagayo Polychrome was taken as an indication for the La Paloma phase; the multi-component potential of these sites can only be evaluated by excavation.

As noted, Papagayo Polychrome (Figure 25.4) was the main decorated ceramic type for this phase. Most of the numerous Papagayo varieties are also present, although the early Papagayo variety is rather rare. Other polychrome types, some of which suggest the latter part of the Middle Polychrome period and the beginning of the Late Polychrome Period were also found: among these were Granada Polychrome, and very infrequently Pataky Polychrome. The Mombacho (underslip incised) variety of Vallejo Polychrome was also found, but again only in small percentages. The main shapes of these polychrome ceramics were hemispherical bowls, sometimes with an annular base, and tripod bowls with flat bottoms and out-curving walls. Egg and pear shaped vessels were rare. Incised ceramics were also found, but as with incised ceramics elsewhere in Greater Nicoya, the typology is sufficiently confused as to make comparisons difficult.

Houses during this phase continued to be of the wattle and daub type, as evidenced by a number of "briquettes" found at the type site. Agriculture during this phase is indicated by various *manos*, *metates* (either basin-shaped or with 3 or 4 legs), mortars, and pestles. Hunting continued, especially turtle-hunting, but not as much as during earlier times. Net sinkers made of sherds, rims, and also of stone were present. Other activities are reflected by the presence of polished stone celts, "points", and pottery stands made from the necks of ollas. The only ornaments known from the La Paloma phase are a ceramic bead and a probable bone bead.

A special aspect of the La Paloma phase are the big stone figures for which the islands of Nicaragua have long been famous (cf. Bovallius 1886, Thieck 1971, Haberland 1973, Bruhns 1982). Excavations around a badly damaged figure at Chilaite (Om-7) revealed a stone foundation, including some roughly rectangular, relief-sculpted stone blocks, and sherds related to the ceramics of the La Paloma period.

Two radiocarbon dates from the La Paloma phase, and both from the type site (Om-2), provided corrected ranges of AD 1230 - 1290 (Hv-2690) and AD 1240 - 1310 (Hv-2691). Related phases from the Nicaraguan mainland near Rivas are probably Apompua and La Virgen, both phases from Healy's (1980) Middle Polychrome Period. Other related Greater Nicoya phases are either the Panama or Monte del Barco phases, or perhaps both phases, on the Bay of Culebra (Accola 1978b), the Doscientos phase of the Santa Elena Peninsula (Sweeney 1975), and the Palo Blanco phase of the Tempisque Valley (Baudez 1967).

#### SAN LAZARO PHASE (AD 1300 - 1400)

This phase is also clearly defined from only a single tested site: San Lazaro (Om-16). Among the surveyed sites, three showed surface indications of San Lazaro phase materials: La Palma III (Om-25), Jaragual (Om-30), and La Gloria (Om-33).

San Lazaro itself, where the test excavations were placed, is a single component site, resting on a series of old beach gravels. Obviously the lake level had shifted at that time, perhaps to its present level, or to an even lower level. This may be one of the reasons that San Lazaro material is so rare on the island.

The San Lazaro phase is characterized especially by the presence of Madeira Polychrome. Some late varieties of Papagayo Polychrome and the Mombacho variety of Vallejo Polychrome occur, but in low frequencies. Engraved ceramics were also present, and brushed pottery was dominant, although even further deteriorated in techniques and shapes from the high standards of the Gato phase. A poorly made plain red ware was also used.

*Manos* and *metates* again point to agriculture as the main subsistence activity, but fishing was also of obvious importance (although perhaps only at this site) if one can judge by the huge number of net sinkers from re-used body and rim sherds. These quantities of net sinkers may indicate that throwing nets, still popular for fishing throughout Central America, were in use at this time. Faunal remains also indicate continued hunting for turtles, armadillos, and deer. Other remains were present but not identified.

Except for the *metate* and *mano* fragments, one of the latter of the "over-hanging" type (see Healy 1980:280, fig. 128), stone implements were rare. No celts or celt fragments were found, although a specimen similar to a "nutting stone" (Lange 1971) was found.

There is one radiocarbon date from the type site for the San Lazaro phase, with a range from AD 1380 - 1410 (Hv-2692) corrected. Taking Madeira Polychrome as the primary typological key, comparable phases are Las Lajas on the Isthmus of Rivas, La Cruz A on the Santa Elena Peninsula, Berbedero A in the Tempisque Valley, and Iguanita on the Bay of Culebra. There seems to be some doubt about the Iguanita phase, since the list given by Lange (1980a: tbl. 1) seems to contradict his regional sequence (Ibid: fig. 9). Therefore, it might be that the Ruiz phase should be substituted for Iguanita. If, as suggested, the San Lazaro phase on Ometepe Island dates from AD 1300 - 1400, it would be out of alignment with other "Early Late Polychrome" phases, which have normally been dated to between AD 1200 - 1350 (Lange 1980a: fig. 9; Day 1984b: fig. 1). This may again reflect the isolated (insular) location of Ometepe, which seems to have been in the "backwaters" of Greater Nicoya at this time. While other authors called these phases "Early Late Polychrome", I would still like to refer to it, at least on Ometepe, as Late Middle Polychrome. The ceramics still belong in the Middle Polychrome tradition, and I do not see any sharp break between La Paloma and San Lazaro. Such a break does occur on Ometepe, however, between the San Lazaro and Santa Ana phases.

This last pre-Conquest phase has been found in at least 9 test excavations at 4 sites: San Antonio del Norte (Om-6), pits 1, 2, and 3; Chilaité (Om-7), pits 1 and 2; San Roque (Om-8), pits 1 and 2; and La Providencia (Om-19), pits 1 and 2. Santa Ana material was also found at a number of surveyed sites: Quinta Santa Ana (Om-1, and possibly the site known as the Luna Hacienda by Bransford), Punta Viva (Om-14), Calaysa (Om-47), San Miguel/Alta Gracia (Om-48), and Punta Robles (Om-50). The phase may also be present at El Cairo I (Om-26), and Sinacapa (Om-40).

In the polychrome ceramics, there is a complete break with the preceding Middle Polychrome tradition, and Luna Polychrome is the only type of any consequence. There may be some imitations/derivations present, but that remains to be verified. In shapes (bowls with incurving rims, bowls with hollow cylindrical feet which are open at the lower end), color combination (orange and dark-brown on light cream to white slip), style (fine-line painting and new motifs), Luna is completely different from the previous polychromes and was not derived from them.

Fragments of celts, *manos*, and pestles have been identified among the lithic artifacts, and net sinkers of stone and ceramic rims and bodysherds also continued to be present.

The people of the Santa Ana phase obviously preferred the same settlement localities as did the people of the Zoned Bichrome and Early Polychrome times. At San Roque (Om-8) and La Providencia (Om-19), Santa Ana material often directly overlies San Roque material, with scarcely a trace of Middle Polychrome (Gato to San Lazaro phases) presence. Thus, if only San Roque had been tested, we might have completely missed the Middle Polychrome component on the island.

Why this pattern of settlement distribution evolved is still not clearly understood, but it may well have been related to fluctuations in the level of Lake Nicaragua. Middle Polychrome sites are located closer to the present lake shore than are other sites, and it should be recalled again that the San Lazaro materials were directly above beach gravels.

There are no radiocarbon dates for the Santa Ana phase. Comparisons with other regional phases, with the exception of the Alta Gracia phase of the Rivas region are difficult, especially since many vessels are typed as Luna Polychrome, when at most they are but "imitations;" Healy (1980:137-140) has already discussed this fact. Luna Polychrome has been found together with European trade materials (Lothrop 1926: 194); the saint (?) image mentioned by Healy (1980:140) from Bransford (1881:46, fig. 106, upper row) is certainly not a European import, but came from Costa Rica or farther south. In my opinion, only the Santa Ana phase represents the Late Polychrome period on Ometepe Island.

## SUMMARY AND CONCLUSIONS

The analysis of survey and excavation data obtained by the author and Peter J. Schmidt during the dry season 1962/63 shows that Ometepe Island in Lake Nicaragua was first settled around 2000 BC, and had a rather complicated and eventful culture history. The 9 phases established and defined above can be combined into 4 larger periods or traditions, not all of which conform to those which have been established for the rest of Greater Nicoya, with which Ometepe was only sometimes closely related. These differences may be due, at least in part, to the fact that Ometepe is an island, and therefore somewhat isolated. It appears to have occasionally been passed by, or to have received external cultural impulses later than other parts of the subarea. On the other hand, the island also appears to have received cultural influences which never arrived in the rest of the subarea, or only achieved broader distribution after significant time lags.

The data presented in this overview demonstrate that (1) Ometepe Island was settled by agricultural people for about 3,500 years prior to the arrival of the Spanish; (2) the island went through cycles of local development and fluxes of external ideas; and (3) natural forces such as volcanic events and changes in the lake level affected the lives and cultural development of the prehistoric peoples.

The division between the northern and southern sectors of the Greater Nicoya Archaeological Subarea, already referred to by Lange (1980a) and Day (1984b:190-191) is much more pronounced if Ometepe is compared, for example, with sites from the Nicoya Peninsula in the southern reaches of the subarea. I doubt that during the final pre-Conquest phase whether Ometepe was at all part of Greater Nicoya. This overview also demonstrates that there are still many intriguing questions which only further archaeological research on this rich island will answer.

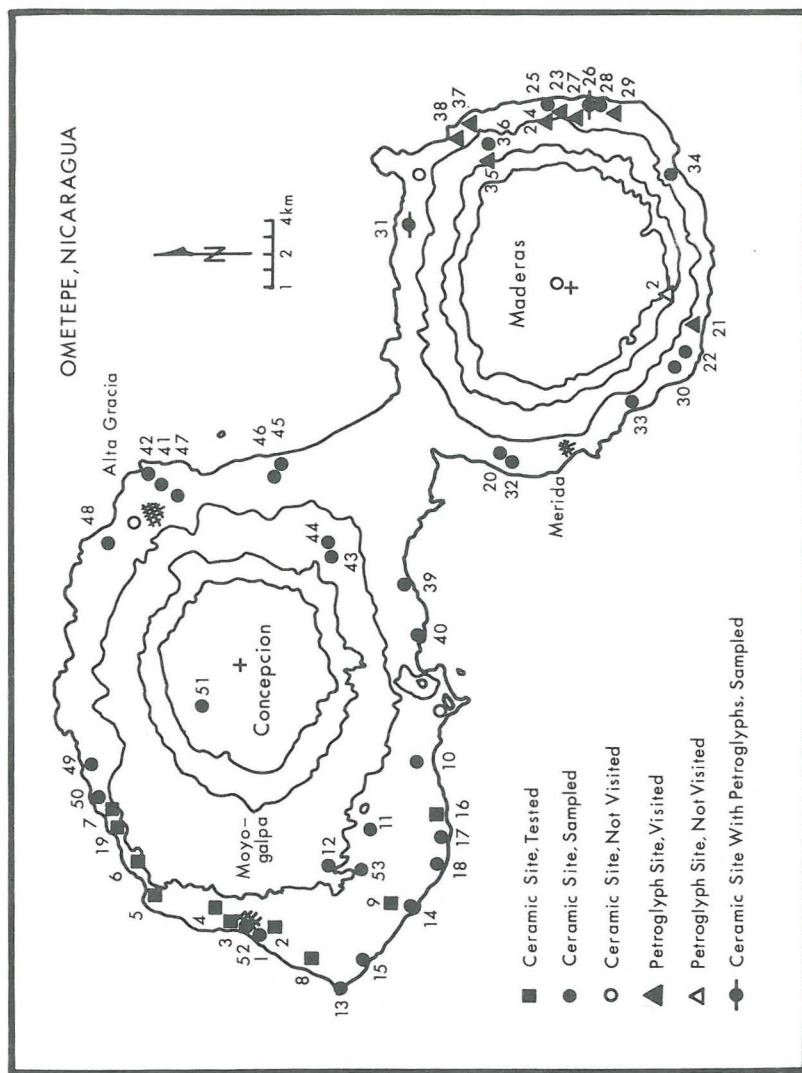


Figure 25.1  
Site locations,  
Ometepe Island.





Figure 25.2 Gato Phase (AD 1000 - 1200), Potosí Applique two part incense burner.

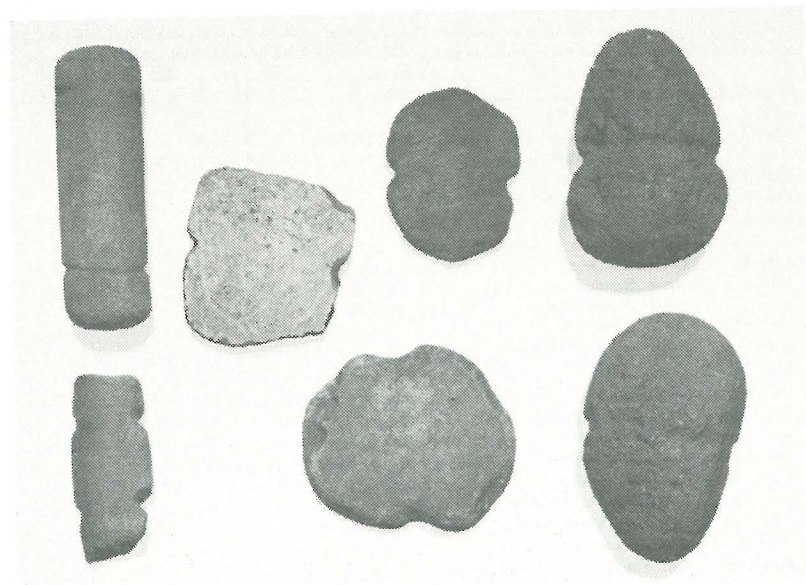


Figure 25.3 Net sinkers made from stone.

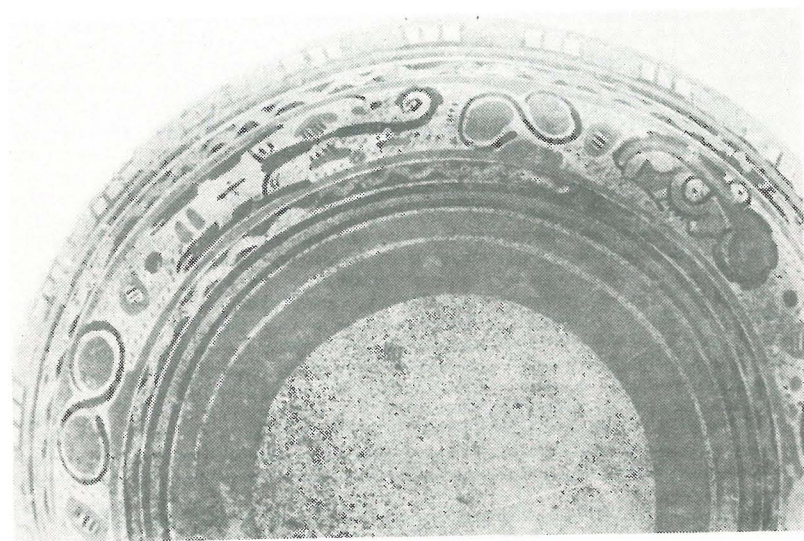


Figure 25.4 La Paloma Phase (AD 1100 - 1300) Papagayo Polychrome.

APPENDIX 25.1 OMETEPE SITE INVENTORY

Site No.		Periods/Phases Represented								
		ZB		EP		MP		LP		
		D.	A.	S.	M.	SR.	G.	LP.	SL	SA
Om-1	Quinta Sta. Ana							x		x
Om-2	La Paloma		x	x		?	x	x		
Om-3	Noche Buena					x	x			
Om-4	Los Hornos		?	x				x		
Om-5	Tierra Blanca						x			
Om-6	San Antonio del Norte									x
Om-7	Chilaite							x		x
Om-8	San Roque			x	x		x			x
Om-9	Los Angeles	x	x	x	x		x			
Om-10	Antigual							x		
Om-11	Las Mercedes			x						
Om-12	La Lava				?					
Om-14	Punta Viva		?							x
Om-15	Bajadero de Esquipulas			?						
Om-16	San Lazaro							x		
Om-18	Sacramento						x			
Om-19	La Providencia			x		x				x
Om-20	Santa Maria			x						
Om-22	El Guineo							x		
Om-25	La Palma III							x	x	
Om-26	El Cairo I			x						x
Om-28	El Cairo II			x				x		
Om-30	Jaragual						x	x	x	
Om-31	Punta Gorda			x				x		
Om-32	El Peru						x			
Om-33	La Gloria			x				x	x	
Om-34	Tichana				x					
Om-36	Corozal I			x						
Om-39	Santa Teresa				x			x		
Om-40	Sinacapa		?	x						?
Om-41	Teguisapa I						x			
Om-42	Teguisapa II							x		
Om-43	Las Pilas						x			
Om-44	Piñon Saca						x	x		
Om-45	La Primavera						x			
Om-46	Buen Suceso							x		
Om-47	Calaysa						x			x
Om-48	Alta Gracia						x	x		x
Om-50	Punta Robles									x
Om-51	El Respiradero							x		
Om-52	Moyogalpa			x				x		

Om-13, 17, 21, 23, 24, 27, 29, 35, 37, 38, 49 and 53 remain unnamed with no Period/Phase designation.

KEY

PERIODS: ZB=Zoned Bichrome, EP=Early Polychrome, MP=Middle Polychrome, LP= Late Polychrome;  
 PHASES: D=Dinarte A=Angeles S=Sinacapa M=Manatiel SR=San Roque G=Gato LP=La Paloma SL=San Lazaro SA=Santa Ana.  
 Sites tested are in BOLD FACE.

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26.

EARLY SIXTEENTH CENTURY EVIDENCE  
 FOR THE SETTLEMENT ARCHAEOLOGY OF GREATER NICOYA

by

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RESUMEN

*La explotación del potencial antropológico de los documentos históricos que se refieren a los patrones de asentamiento del periodo del Contacto en la Gran Nicoya se ha menospreciado como técnica de investigación, tanto por los historiadores como los arqueólogos que trabajan en el área. Se discuten las fuentes aprovechables y los problemas antropológicos que ellas pueden resolver. Se ofrecen algunas inferencias específicas relacionadas con la sociedad indígena, al momento del Contacto, basadas en los datos históricos y arqueológicos.*

INTRODUCTION

Settlement archaeology is still in its infancy in the Greater Nicoya Archaeological Subarea of northwestern Costa Rica and Pacific Nicaragua (Norweb 1964). Systematic site survey has been carried out only in very restricted zones (Lange 1971; Lange et al. 1980); less rigorously controlled surveys in others (Baudez 1967; Creamer 1979, 1983; Healy 1980; Norr 1979, Ryder 1980). It would be difficult to overestimate the importance of gaining an understanding of the distribution in space and over time of human occupations. Settlement study has many interrelated aspects, among them the changing patterns of interaction between prehistoric cultures and the natural environment, and the structure of the social systems in that region at any given moment in the archaeological sequence. Both "macro" and "micro" analytic levels of settlement archaeology, as two stages of any long-term, intensive program of research, ideally indulge in the luxury of a regional approach. Thus, the variation in site types and the range of periods represented may be determined. Moreover, the locations of settlements vis-a-vis exploitable natural resources can be established. This information can serve to help pose specific questions about the internal make-up of settlements, the nature of the activities that took place there, and the artifact assemblages present.

While ethnohistoric data can make a worthy contribution at all levels of settlement archaeological analysis, this paper focuses primarily on the information available in early 16th century documents. These may shed light on regional site distribution at the time of European contact,