

## 6.

# *The Bay of Salinas: Coastal Crossroads of Greater Nicoya*

FREDERICK W. LANGE

This chapter presents a distinctive set of named cultural phases for the Bay of Salinas region of Guanacaste Province, Costa Rica. The international boundary line that divides the Republic of Nicaragua from the Republic of Costa Rica slices through the northern edge of the bay, and this small segment lies in the extreme southwestern edge of the department of Rivas, Nicaragua.<sup>1</sup> The proposed sequence, based on extensive survey and excavation data, would distinguish the record of prehistoric cultural development on the Bay of Salinas from similar but different developments in the Tempisque River Valley (Baudiez 1967), on the adjacent Santa Elena Peninsula (Coe 1962b), on the Tamarindo Bay (Coe 1962b), and in the Bay of Culebra region (Accola 1978a; Lange and Abel-Vidor 1980) farther to the south in Costa Rica (Figure 6.1). These phases are also distinctly different from those of the isthmus of Rivas to the north in Nicaragua (Norweb 1964; Healy 1974, 1980) (Figure 6.2, chronological table).

The criteria for establishing a new phase were defined by Willey and Phillips (1958:22) as an archaeological unit "possessing traits sufficiently characteristic from all other units similarly conceived, whether of the same or other cultures or civilizations, spatially limited to the order of magnitude of a locality or region and chronologically limited to a relatively brief interval of time."

The sequential phases in the Bay of Salinas sequence meet these cultural, spatial, and temporal criteria. Distinctions can be made on the basis of ceramic and lithic assemblages (with assessments of both presence-absence characteristics and also relative frequencies), settlement patterns, and subsistence patterns, the latter reflected both through artifact remains and in nutritional analyses of human skeletal remains (Norr 1991).

## RESEARCH BACKGROUND

Twenty-five years ago this area was relatively unknown archaeologically, both locally and in terms of how it fit into the regional scheme of the prehistory of Middle America (*sensu* West and Augelli 1966). Stone (1966b) had published her general introduction to Costa Rican archaeology, Baudiez

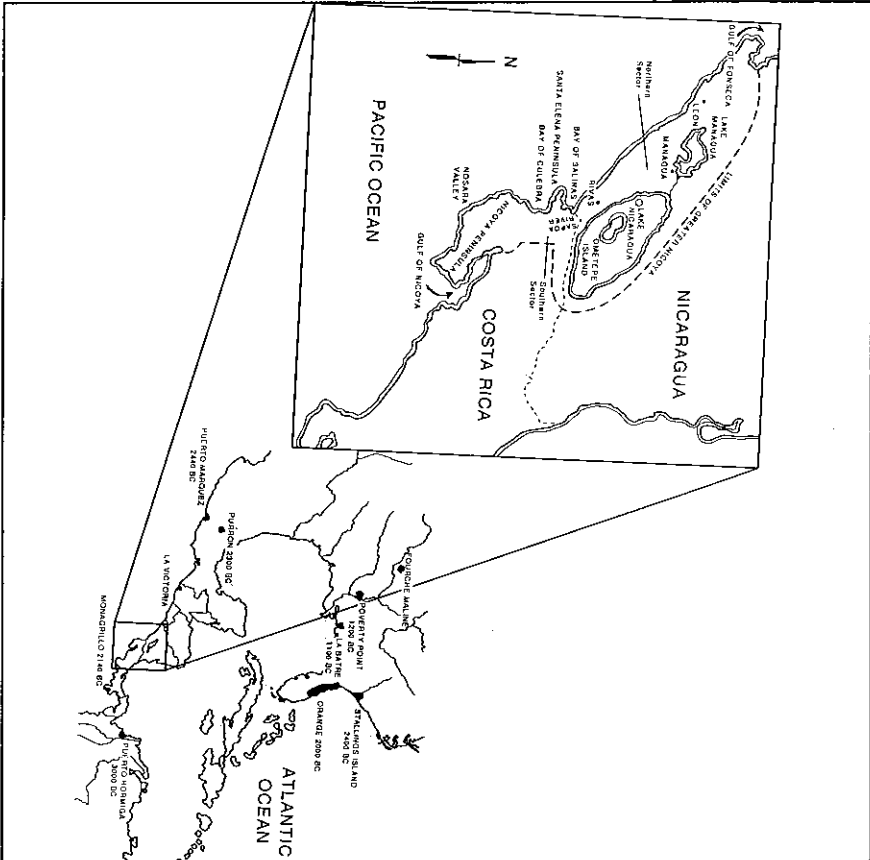


Figure 6.1 Map of geographical locations and sites discussed in this chapter.

(1967) had published his Tempisque River research, and Norweb (1964) had presented preliminary results of his isthmus of Rivas research with Gordon R. Willey. Norweb (1961) coined the term *Greater Nicoya Archaeological Subarea* to describe the Pacific coast of Nicaragua and the Nicoya peninsula of Costa Rica. There were no archaeologists at the National Museum of Costa Rica in 1969, and only one (Don Carlos Aguilar P.) was at the University of Costa Rica. Lack of archaeological data and an overreliance on the Spanish documents had covered the area with an excessive patina from pre-historic Mesoamerica.

When I first conducted research in northwestern Costa Rica in 1969, I was looking for Paleolithic remains in the Río Sapoa–Bay of Salinas area. I had

CENTRAL REGION				
CENTRAL PACIFIC SUBREGION	CENTRAL VALLEY	ATLANTIC SUBREGION	CENTRAL ATLANTIC	GREATER NICOYA REGION
CARTAGO PHASE	CARTAGO PHASE	LA CABANA PHASE		OMEITEPE PERIOD
				SAPOA PERIOD
CURRIDABAT PHASE	CURRIDABAT PHASE	LA SELVA PHASE		BAGACES PERIOD
				TEMPISQUE PERIOD
PAVAS PHASE	PAVAS PHASE	EL BOSQUE PHASE		
?	BARVA PHASE	LA MONTANA PHASE		OROSI PERIOD
				LA POCHOTA COMPLEX
	?	GUARDIPIA FLORENCIA		?

Figure 6.2 Chronological chart.

picked this narrow survey corridor as part of a natural passageway leading from southern Mesoamerica to northern South America. However, with the possible exception of a complex of surface Archaic sites (Murray 1969; Lange 1986a:24), the survey located only later (post-A.D. 300) ceramic sites (Little 1969; Lange 1971a, 1986a).

**SURVEYS AND TEXT EXCAVATIONS (1969-1970)**

Surveys and test excavations were conducted on the Bay of Salinas, northwestern Guanacaste Province, Costa Rica, in 1969-1970 (Lange 1971a). Intensive survey was conducted from January to May 1969 (Lange, ed., 1969), and excavations were conducted first in late June 1969 and again for a five-month period from January to June 1970 (Lange 1970). The objectives of the fieldwork were: (1) to develop a comparative settlement and temporal sample with test data from the adjacent Sapó River Valley (Georgeson and Kristensen 1969; McKenzie 1969), and (2) to obtain a ceramic sequence to compare with that of Bauder and Coe (1962) and Bauder (1967).

The excavations on the Bay of Salinas also were initially designed to fill a geographical gap. Coe's work on the Santa Elena Peninsula had not yet been published in any detail (with the detailed analyses being completed by Sweeney [1975]), and at that time, no other coastal excavations had been carried out from Ocos, Guatemala (Coe and Flannery 1967), to Monagrillo, Panamá (Willey and McGimsey 1954; see Figure 6.1, this volume).

The operating paradigm of the time was that early settlements had first occupied the rich alluvial plains of coastal rivers and then moved inland (see, among others, Sauer 1952; Coe and Flannery 1967). Voohties (1978:17) observes "that this view had been conditioned at least in part by the belief that aquatic food resources are in some way either significantly more stationary, abundant, nonseasonal, or predictable than terrestrial resources." She continues, "This view may be an accurate one, but its assessment requires more detailed resource characterization of both coastal and upland environments than has been assembled to date."

Since then, additional data have been acquired for northwestern Costa Rica (cf. Sheets, ed., 1984; Lange and Abel-Vidor 1980), and at present, the earliest human habitation in Greater Nicoya appears to have been in the interior uplands or cordillera of Guanacaste (Hoopes 1984, 1985, 1987); basically the same pattern prevails, albeit on a much earlier time scale, in Panamá (Linares and Ranere, eds., 1980; Cooke and Ranere 1984). However, in 1969, we were following the prevailing paradigm, and we were primarily looking for early coastal occupations.

Because of the previously mentioned influence of the Spanish documents, northwestern Costa Rica frequently (or perhaps it can even be said traditionally) had been included within the southern boundary of Mesoamerica (cf. Willey 1966:86, 1971:256). However, the Bay of Salinas research led to initial doubts as to whether such inclusion was justified (Lange 1970).

The two seasons of research on the Bay of Salinas led to survey and excavations farther south, on the Bay of Culebra (Lange and Abel-Vidor 1980) and in the Nosara Valley (Lange et al. 1976), and, most recently, additional survey throughout Greater Nicoya to fill in gaps in both the geological and

archaeological databases (Bishop, Lange, and Lange 1988; Lange et al. 1992). Throughout these studies, it has been customary to include the Río Sapó-Bay of Salinas area in the local chronological sequences already developed for the Santa Elena Peninsula (Coe 1962b; Bauder and Coe 1962).

In addition, little thought was ever given to including this sequence with the isthmus of Rivas sequence from Nicaragua. This was because (1) Bauder's Tempisque Valley report from Costa Rica provided a firmer reference point, (2) active research was more ongoing in Costa Rica, gradually reinforcing the basic structure and content of the Tempisque sequence, and (3) until recently, there was never any consideration of establishing a local sequence independent from both the Santa Elena and Rivas sequences.

**EVOLUTION OF THE REGIONAL DATABASE**

However, with the gradual development of a regional database, a division of Greater Nicoya into a "southern sector" and a "northern sector" (Figure 6.1) was proposed in 1980 (Lange 1984b), based at the most general level on a distinction between white-slipped ceramics, predominance of obsidian, and inland settlement patterns in the northern sector and tan-slipped ceramics, predominance of jade, and coastal as well as inland settlement in the south. Subsequent re-evaluation of the ceramic data as part of the Greater Nicoya Ceramic Project (Bishop, Lange, and Lange 1988; Lange, Bishop, and Lange 1990), analysis of a limited number of obsidian samples from both Costa Rica and Nicaragua (Stross, Asaro, and Michel 1992), and the results of a rapid but extensive survey of Pacific Nicaragua (Lange, Sheets, and Martínez 1986; Lange et al. 1992) motivated me to take another look at the Bay of Salinas area. Was it part of the northern sector or the southern sector? Or was it truly in between and different from the other two? This was not strictly a mechanical decision about lumping or splitting but an attempt to represent the spatial organization of prehistoric cultures as accurately as possible.

**Comparative Settlement Patterns**

Populations in the isthmus of Rivas appear to have been drawn more toward Lake Nicaragua, and those in northwestern Guanacaste Province were focused on the Tempisque and Sapó River Valleys and the mangrove-rich bays of the coast. Although, as I shall soon review, differences in settlement patterns and ceramic types are the most distinguishing characteristics between the two areas, differences in lithic technology and subsistence practices were also notable.

When Sheets, Martínez, and I conducted our survey in Nicaragua in 1983, we were able, based on differential distributions of ceramics types and lithic materials and forms, to divide the Pacific coast into four major "zones" that we felt reflected local, independent (but not isolated) societies (Lange et al.

1992:59). From this perspective, it seemed that the Bay of Salinas, as the closest coastal embayment to the comparatively straight isthmus of Rivas and to Lake Nicaragua, might have had a developmental pattern that differed significantly from either adjacent Isthmian or nearby Nicoya peninsula sites. All of these peoples could in fact have been part of one larger, loosely knit tribal group—individuals who, because of localized opportunities and adaptive preferences, had archaeologically detectable adaptive differences. This appears to have been the case in the Bay of Salinas, and the differences we see are precisely the degrees of variation that archaeological phase differences are designed and expected to represent. What then are the characteristics that distinguish the Bay of Salinas?

### CHRONOLOGICAL REVIEW OF THE BAY OF SALINAS CULTURAL ASSEMBLAGES CHARACTERIZING THE BAY OF SALINAS

The Bay of Salinas can be distinguished on the basis of its ceramic assemblage, its lithic assemblage, and by analysis of dietary and nutritional practices. The Bay of Salinas is somewhat different from the adjacent areas to both the north and the south of the bay, not only in each of these individual categories but also in the way the categories coalesce to form the culture totality of that area. The excavation data from the Chahuite Escondido site (Sweeney 1975, 1976) on the Santa Elena Peninsula (Figure 6.1) immediately to the south of the Bay of Salinas frequently provide a distinct contrast with the data from Las Marias and are referred to where appropriate.

#### Preceramic (?) Lithic Assemblages

South of the town of La Cruz, we found a series of surface lithic scatters (Figure 6.3) (Murray 1969; Lange 1986a:fig. 1.2). Geomorphological data and weathering rind studies (Heinrich, personal communication 1984) suggest that these tools date from the period 3000 to 5000 B.C.), but this preliminary dating awaits confirmation with more intensive research in the La Cruz area and at present, these assemblages are not formally included in the proposed Bay of Salinas sequence.

### CERAMIC ASSEMBLAGES, REGIONAL AND PANREGIONAL TYPES

As noted, one of the major distinctions between the northern and southern sectors of Greater Nicoya is a white-slipped ceramic tradition in the north and an orange/tan-slipped tradition in the south (Bishop, Lange, and Lange 1988:39–43). This distinction and geographical attribution was originally made on the basis of visual inspection (Day 1984b:53–63) and has been subsequently confirmed by instrumental analyses carried out by Ronald L. Bishop (Day 1984c:196–208; Bishop, Lange, and Lange 1988; Lange, Bishop, and Lange 1990; Lange, Canouts, and Salgado 1992).

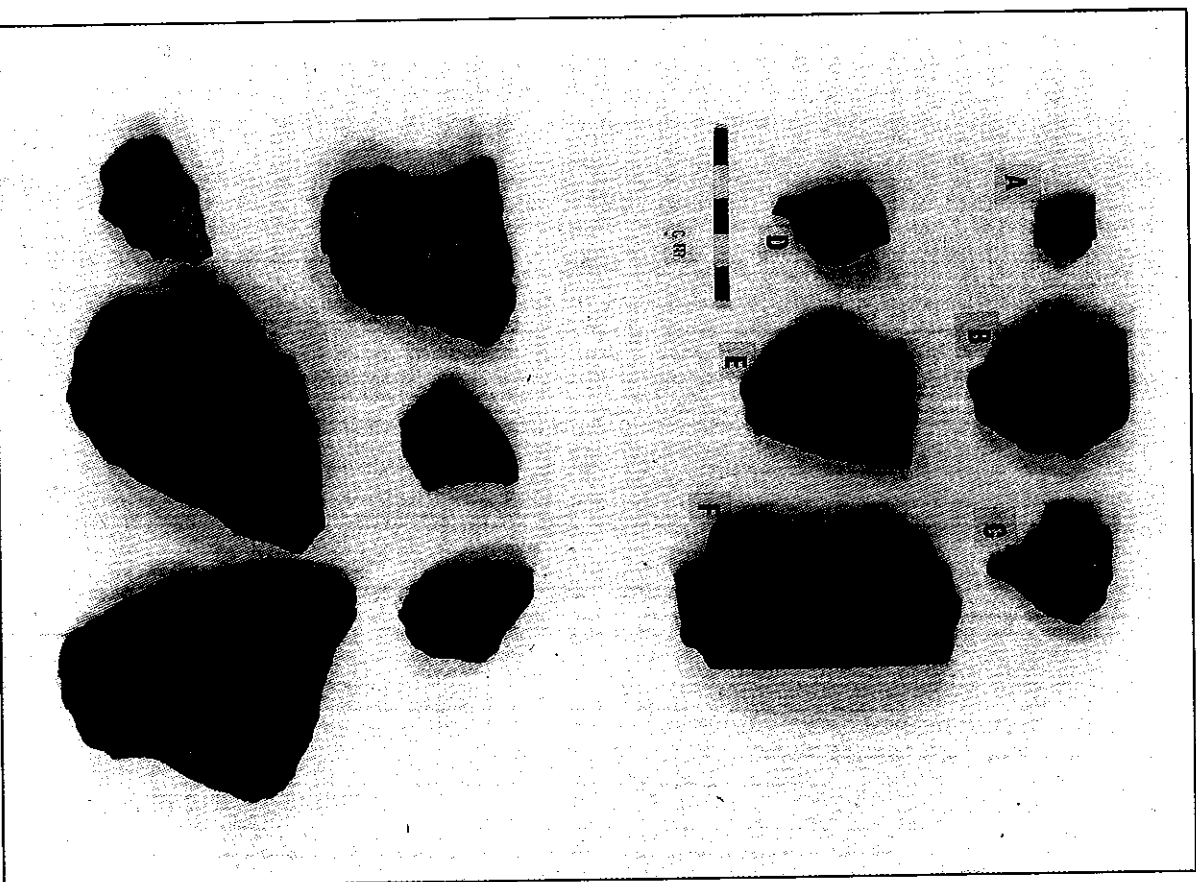


Figure 6.3 Preceramic tools from the Bay of Salinas area.

In reviewing the ceramic data from the Bay of Salinas, we note the presence of panregional Greater Nicoya ceramic types and varieties (those that appear in both the northern and southern sectors) and other types or varieties that are more limited in their distribution and are found only in one sector or the other. Northern sector types and varieties (such as Papagayo Polychrome) are frequently found farther south in Guanacaste, and to a much lesser extent southern types and varieties are found in the northern sector, so their combined presence in the Bay of Salinas is not unusual.

However, the fall-off curve for tan-slipped ceramics from the Bay of Salinas north is notable; very few examples were reported by Healy (1980) from a number of sites tested by Norweb and Willey, few sherds were collected in our 1982 survey or seen in national or regional museum collections (Lange et al. 1992), and few have been reported by other researchers (cf. Gorin 1990, Salgado n.d.). However, as noted in the introduction, the distinctiveness of the Bay of Salinas cultural sequence is not only in its ceramics but also in the totality of its cultural assemblages throughout the prehistoric period.

The characteristics that distinguish the successive cultural assemblages from the Bay of Salinas from those of other Greater Nicoya sequences are summarized in the following overview.

#### **Tempisque Period (500 B.C. - A.D. 300)<sup>2</sup>**

##### ***Ceramic assemblage and chronological placement***

There is little evidence for any phase of this period at the Bay of Salinas. During the 1969 survey we surface-collected very limited quantities of ceramics, including Bocana Zoned Incised: Bocana variety (Bonilla et al. 1990:29) and Rosales Zoned Engraved: Rosales Variety (Bonilla et al. 1990:59) from the surface of disturbed tombs at the Las Pilas cemetery (Lange and Scheidenhelm 1972). In other sequences these types are characteristic of the first two phases of the Tempisque period, but at this point they are so poorly represented on the Bay of Salinas that it is beyond the limits of the data to base local phases on their limited occurrence.

During the final phase (A.D. 300-500) of the Tempisque period, the Bay of Salinas apparently was beyond the principal distributional limits of Zelaya Painted (Bonilla et al. 1990:89) and Guinea Incised (Bonilla et al. 1990:68), two distinctive southern sector types that characterize this phase on the Bay of Culebra and on the Santa Elena Peninsula. Although Zelaya Painted is rare in both locations, Guinea Incised occurred in large quantities (763 sherds) at the Chahuite Escondido site; the contrast of this level of presence with its apparent absence from nearby Las Marías is striking. Northern and panregional types and varieties such as Tola Trichrome: Tola variety (Bonilla et al. 1990:103) and Tola Trichrome: Chávez variety (Bonilla et al.

1990:100) also are present only in very limited quantities at either Las Marías or Chahuite Escondido.

Further research, especially deep testing in stratigraphic contexts, will be required before we can decide whether earlier research simply failed to reach the Tempisque period components on the Bay of Salinas or whether they are absent, except for faint traces of diagnostic ceramics that probably reflect transitory rather than permanent residence.

##### ***Mortuary remains, jade, and metates***

Above the Bay of Salinas, on a high ridge, was the rich Las Pilas cemetery (Lange and Scheidenhelm 1972), which, according to reports and to some extent demonstrated by surface collections of cultural debris adjacent to the looted tombs, yielded large quantities of (1) jade-greenstone artifacts, and (2) carved stone metates-ceremonial thrones. There appears to have been a minimal quantity of ceramics. We also collected one jade pendant from the surface of a looted grave at the Las Pilas site (Lange and Scheidenhelm 1972:fig. 2).

From this vantage point one can look into the northern sector of Greater Nicoya in Nicaragua, where both of these distinctive southern sector artifact classes are, for all intents and purposes, absent. Carved metates are known from Nicaragua, with the majority seeming to come from sites on the Solentiname Islands in the southeastern corner of Lake Nicaragua.

##### ***Settlement pattern***

Based on available data, there is no evidence of Tempisque period settlement in the Bay of Salinas at this time (Figure 6.4, Table 6.1). Numerous scattered, single-household-size Tempisque period sites were identified in the Río Sapodá Valley during the survey (Lange 1986a:19-21), and these may have been the communities whose deceased members were buried in the Las Pilas cemetery. In the isthmus of Rivas, Willey and Norweb also recorded dispersed sites from this time period (Healy 1980:331-332), and at Chahuite Escondido, Coe also found sites with Tempisque period components (Bauder and Coe 1962; Sweeney 1975, 1976).

##### ***Subsistence***

We have no data from the Bay of Salinas from this period. Very limited data from other areas suggested highly localized, mixed patterns of fishing, hunting, gathering, collecting, and incipient farming.

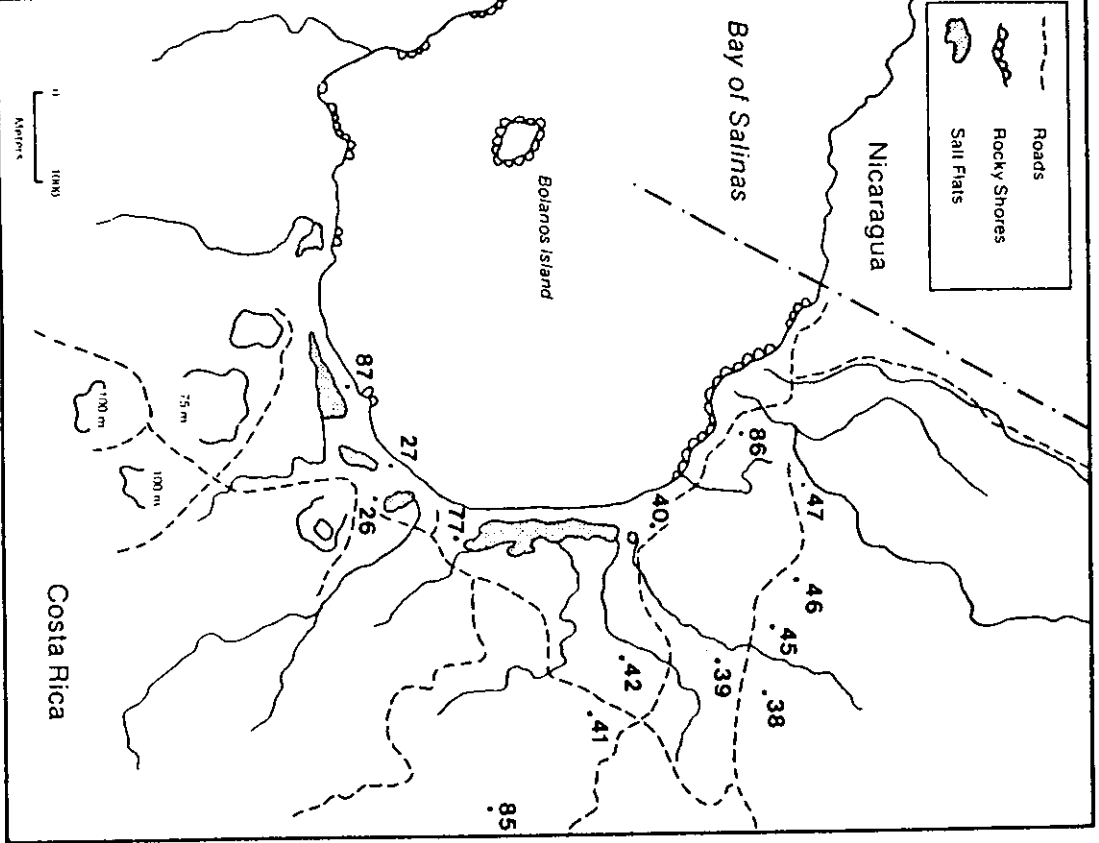


Figure 6.4 Bay of Salinas site map.

**Chronological difference**

Chronological difference  
 Chronological difference (A.D. 300-800)  
 In Healy's isthmus of Rivas sequence (1980:332), this period dates from A.D. 300 to 800; or in other words, there was no Nicaraguan equivalent to the final Tempisque period phases found in the Bay of Salinas and Bay of Culebra sequences. The absence of Guinea Incised from the early part

TABLE 6.1 Bay of Salinas and Sapot River sites

Location	Site #	Time Periods Present						
		ZB	E	M	L	U	SC	T
Bay of Salinas	27					X	X	
	63					X	X	
Salt Flats	77					X	X	
	87		X		X			X
	118					X	X	
Shell Mounds/ Middens on Bay	26		X	X	X		X	X
	62				X			X
	65			X			X	
	86					X	X	X
	117					X	X	
Flat Land	38					X	X	
Back From Bay	39					X	X	
	40					X	X	
	42		X <sup>1*</sup>			X	X	
	45					X	X	
	46					X	X	
	47					X	X	
	67		X	X	X			X
On High	35		X				X	
Ridges	41					X	X	
Back From Bay	85			X		X	X	
	116					X	X	

NOTE: Detailed site survey description, sketch maps, and artifact analyses from all sites have been printed in the two annual field reports (Lange 1969, ed., 1970); more detailed site location data are also on file with the National Museum of Costa Rica and are not repeated here.

- ZB = Zoned Bichrome
- E = Early Polychrome
- M = Middle Polychrome
- L = Late Polychrome
- U = Unknown temporal association
- SC = Surface collected only
- T = Tested by excavation
- 1\* = isolated find

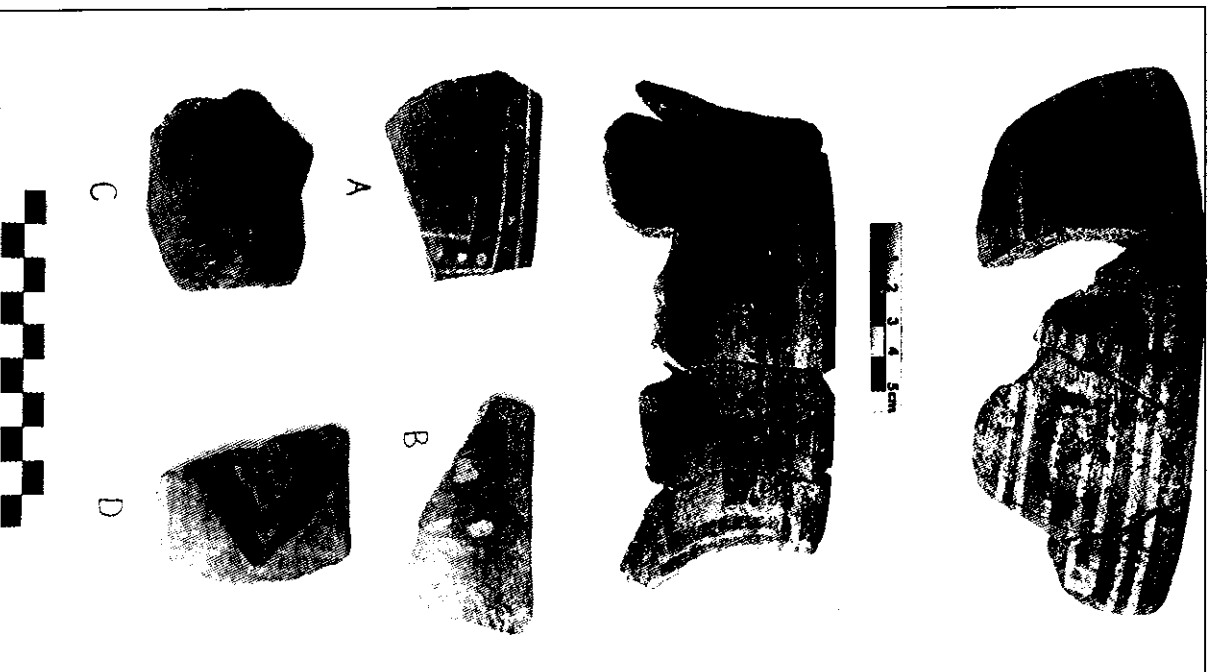


Figure 6.5 Bagaces period ceramics.

of this period in Nicaragua provides a greater sense of unity over the 500-year period than is seen in the various Costa Rican sequences from south of the Bay of Salinas. Current data suggest that this earlier division between the Tempisque period and the Bagaces period may be the most accurate for the Bay of Salinas as well.

#### *Ceramics*

Chávez White on Red:Chávez variety (Bonilla et al. 1990:114) is present in small quantities at both Las Mariñas and Chahuite Escondido (Figure 6.5); the Punta variety (Bonilla et al. 1990:115) was not present at either site. In excavations at Las Mariñas on the Bay of Salinas, there was also a poorly made (in terms of decorative techniques) ceramic that appeared to be a locally distinct variant of Chávez White on Red, which I provisionally called Alhambra Lined on Red (Lange 1971a:156). However, I now feel these ceramics should be subsumed under the “Chávez variety” category, even though there are distinct differences in technical quality. As Hardy (1992:259) notes more generally, when discussing ceramics from the Nacascolo site on the Bay of Culebra, “There are degrees of expertise among everyone and it takes time and practice to perfect this skill. The Nacascolo data reflect this.” So, apparently, do the Chávez-Alhambra ceramics from the Bay of Salinas.

This marks the farthest northern extension of Carrillo Polychrome (Bonilla et al. 1990:117) and Galo Polychrome (Bonilla et al. 1990:138), with both types being represented in very limited quantities both at Las Mariñas and at Chahuite Escondido; no examples of the northern sector Galo Polychrome counterpart, González Polychrome (Healy 1980:120–124), were found. The complex of trophy heads and human female figures typical of northeastern Costa Rica during this period is also absent.

León Puncate (Bonilla et al. 1990:122), a pararegional type with a northern sector emphasis, was also found in small quantities at Chahuite Escondido and Las Mariñas.

#### *Settlement pattern*

Most of the Bagaces period ceramics at Las Mariñas were found on a flat area just below the modern surface, on part of the natural hill that formed the base for the Las Mariñas shell midden complex. Our knowledge of this period is limited both for the isthmus of Rivas and for Chahuite Escondido because of the very small number of sites identified and tested. A major problem in all areas seems to be that there are very few single-component sites from this period; of the 31 temporally affiliated sites (out of a total of 112 identified cultural areas), only two were single-component Bagaces period sites (Lange 1986a:19–21).

#### *Subsistence*

We have no subsistence data for this time period on the Bay of Salinas. In the isthmus of Rivas, Healy (1980:333) suggests an increase in reliance on

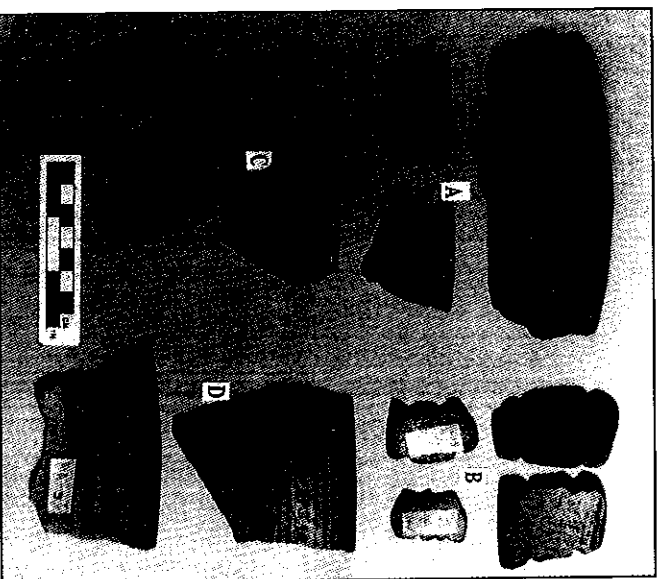
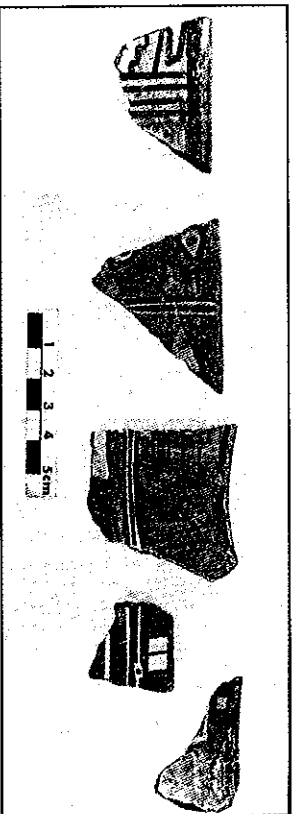


Figure 6.6  
Sapoá  
period  
ceramics.



farming, but the supporting data were and still are very limited. Data from Chahuite Escondido are also limited, and those that are available continue to suggest a mixed subsistence economy.

#### Sapoá Period (A.D. 800–1350)

##### *Chronological adjustment*

Based on recent research, the end date for the Sapoá period was extended from A.D. 1200 to A.D. 1350 (Bonilla et al. 1990:VII; Figure 6.2, this volume).

##### *Ceramics*

The Bay of Salinas was the farthest northern extent of the distribution of Mora Polychrome (with the exception of a few stray sherds, which illustrate

the danger of drawing solid lines to represent the absolute limits of the distribution of any particular artifact form or style) (Figure 6.6). Percentages of orange/tan-slipped ceramics also were either very small (cf. Cabuyal Polychrome, Bonilla et al. 1990:222), or they were absent (cf. Altiplano Polychrome, Bonilla et al. 1990:236).

This period also marks the initiation of the flow of white-slipped ceramics from the northern sector into the southern sector. As a reflection of the intermediary location of the Bay of Salinas, Mora Polychrome outnumbered Papagayo Polychrome by approximately three to one at Las Marías (N = 112 [Mora], 37 [Papagayo]), and the ratio was almost exactly reversed at Chahuite Escondido (N = 245 [Papagayo], 84 [Mora]). The Jicote Polychrome type (Bonilla et al. 1990:258) was developed in the Tempisque Valley late in this time period. It has a rather limited occurrence outside of the valley (Bonilla et al. 1990:260; Lange n.d.), and though it is represented minimally at Chahuite Escondido, it was not present at Las Marías.

##### *Settlement patterns*

Settlement appears to have been mainly on living surfaces on natural hills and artificial shell mound complexes (Figures 6.7, 6.8) around the mangrove and estuary locations on the Bay of Salinas. Burned fragments of *bahareque* ("burned mud adobe") seem to indicate that habitational structures were built on the mounds. However, no actual living surfaces were located. In the isthmus of Rivas, earthen mound sites developed along the shore of Lake Nicaragua (Healy 1980:51); at Chahuite Escondido, settlement patterns were very similar to those at Las Marías (Sweeney 1975:38). From the available maps and based on field observations, it appears that the mounds at the Nicaraguan sites were more dispersed than those at the Costa Rican sites, which is perhaps related to the purely earthen composition of the former and the heavily shell-laden composition of the latter.

A gray volcanic ash (tephra) level was deposited during the Sapoá period and may be coeval with that identified at the Vidor site (Accola 1978a; Moreau 1983) and at the Guacamaya site.

##### *Subsistence*

Utilization of marine resources with complementary utilization of agricultural products increased greatly during this period in Costa Rica, but in Pacific Nicaragua subsistence efforts were focused on the agricultural potential of the isthmus of Rivas, supplemented by the freshwater aquatic resources of Lake Nicaragua (Pohl and Healy 1980:chap. 7). Although in the previous two time periods, the subsistence patterns appear to have been very similar because of their generally mixed nature, in this period the differences in subsistence strategies became clearly demarcated.



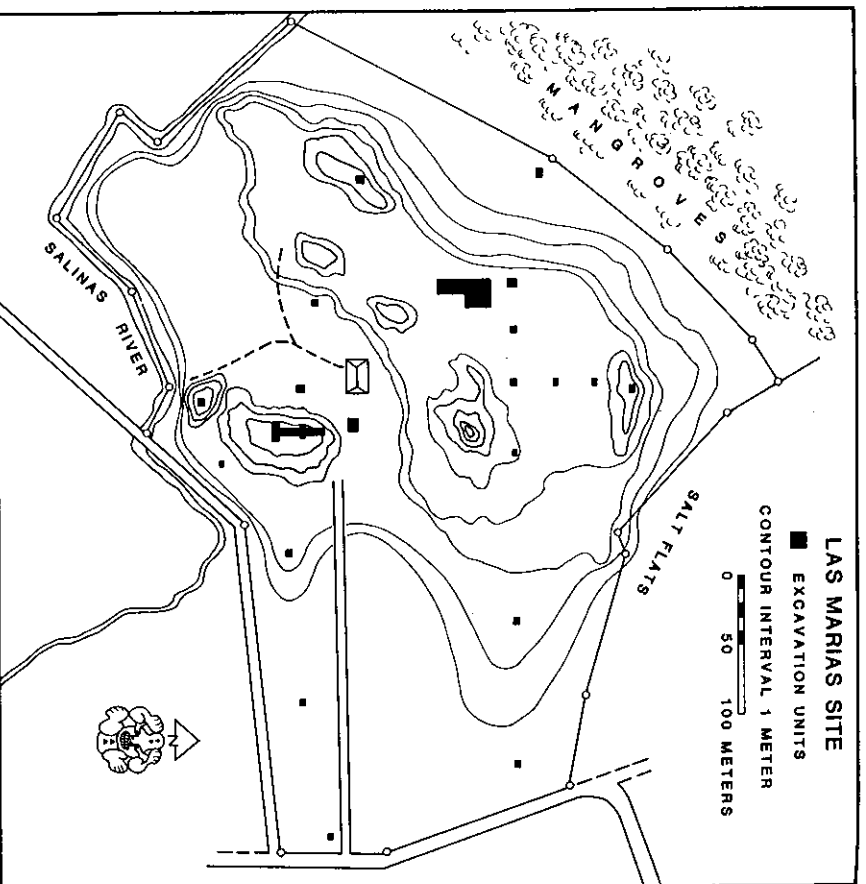


Figure 6.7 Las Marias midden map.

### *Lithics: expedient tools*

The presence of expedient lithics also increased on the Bay of Salinas. These tools were made from a gray porphyry and used as scrapers, cutting edges, and hammerstones. A generally related Nicaraguan industry was observed in 1977, when I visited a tool manufacturing and quarry site near Juigalpa, Nicaragua, with Richard Magnus. The chert colors described by Healy (1980:284) as ranging from "cream white and maroon to pinks and oranges, apparently due to geological impurities in the limestone beds" adequately reflect the color varieties seen at the quarry near Juigalpa. The presence of large quantities of stone tools appears to be more of a northern sector trait than a southern one. Ground stone tools and celts occur in limited frequency in both areas.

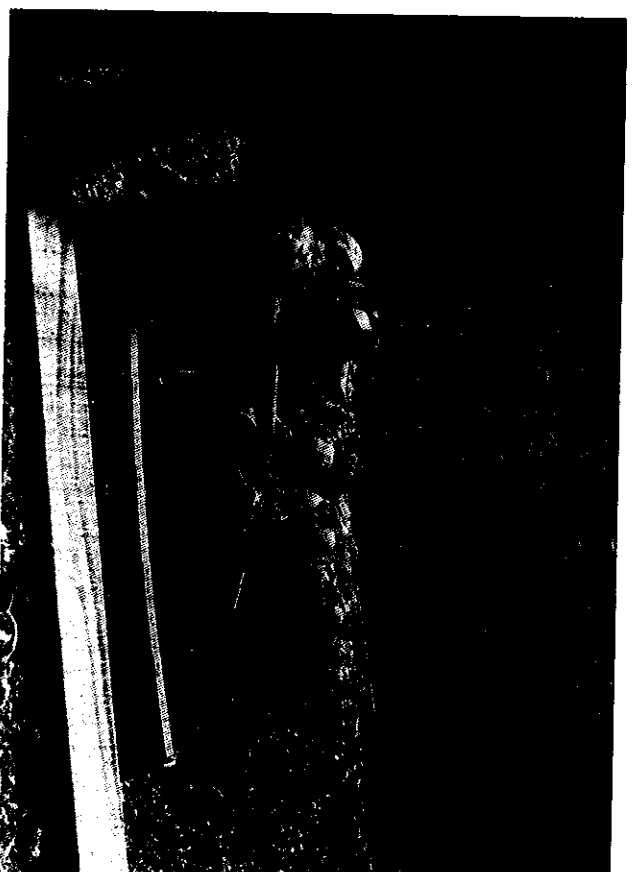


Figure 6.8 Detail of the Las Marias excavation, with multiple-burial excavation.

### *Celts and nutting stones*

Nutting stones, with a distinctive pit in the center of one or both sides, are almost uniquely distinctive of the Bay of Salinas area and may have been utilized for processing acorns and/or opening shellfish (Figure 6.9). Polished stone celts were also relatively common; their multifunctional use in northwestern Costa Rica is analyzed in detail by Bernstein (1979, 1980).

### **The Ometepe Period (A.D. 1350–1520)**

#### *Chronological adjustment*

Based on recent research and as discussed in more detail elsewhere (Lange n.d.), the beginning date for the Ometepe period was extended from A.D. 1200 to 1350 (Bonilla et al. 1990:3). Also, there are differences in the end date for this period in various publications. In some cases (Baudiez 1967:210; Lange 1971a:168; Lange and Abel-Vidor 1980:4) it is given as A.D. 1600; in others as A.D. 1550 (Lange 1984b:183); in other cases (Healy 1980:309; Bonilla et al. 1990:3) as A.D. 1500; in another (Lange et al. 1992:179) as A.D. 1530; in one as both A.D. 1530 (Lange 1992:128) and, a few pages later, A.D. 1520 (Lange 1992:135); and in still another as the date employed here, A.D. 1520 (Lange and Norr, eds., 1986:4). In many of these

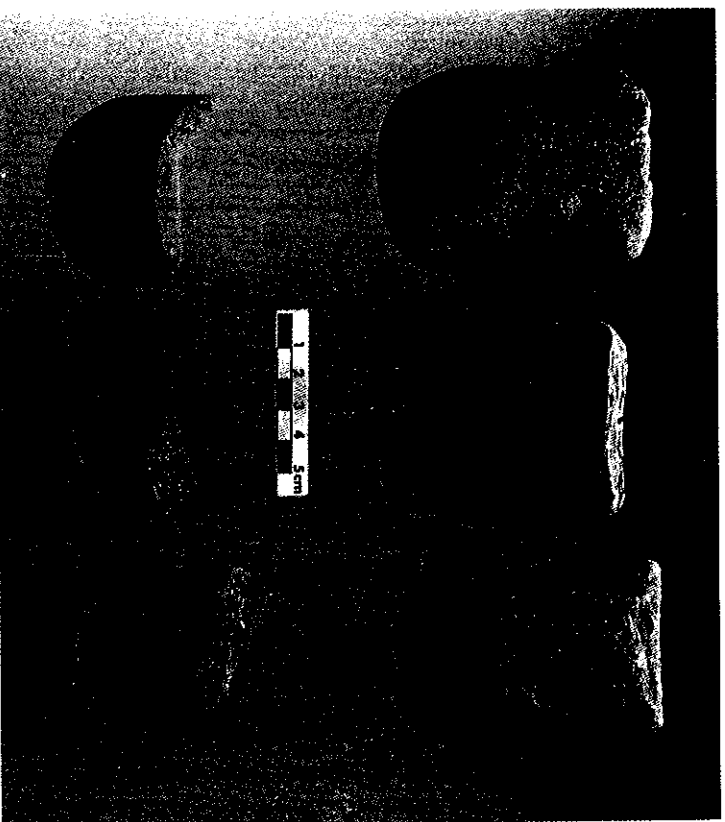


Figure 6.9 Groundstone celts, Las Mariñas.

cases, the lack of contact period data has resulted in reduced rigor toward consistency.

Initially, the idea of a date of A.D. 1550 or even A.D. 1600 was to provide “elbow room” in the chronological sequence for sites that were anticipated to represent some degree of native survival after the arrival of the Spanish. The Spanish *entrada* through the Nicoya peninsula and into Nicaragua was relatively rapid (Abel-Vidor 1980, 1981). With no permanent settlements having been established except for Nicoya and Bagaces, it was anticipated that some native communities might have survived relatively intact for as many as two or three decades. However, no data have been recovered to support this initial supposition, and the use of the A.D. 1550 date creates the erroneous impression that such sites in fact exist. At this juncture, it seems better to use the A.D. 1520 date, which is the round number representing the traverse of Guanacaste by Gonzalo Fernández de Oviedo y Valdés in 1522. If post-Contact survival sites are eventually found, we can, depending on the evidence for cultural continuity and for either cultural isolation or cultural

integration, extend the prehistoric Ometepe period according to actual date or create an early historic period on the same bases.

### *Ceramics*

The provisional Lunoid Polychrome type (Lange 1971a:173) is now called Banda Polychrome (Bonilla et al. 1990:302) and seems to have its distribution focused in this area, although significant quantities were also found at the Ruiz site on the south side of the Bay of Culebra (Figure 6.10, 6.11). The Bay of Salinas at this time also represents, in general terms, the northern limits of the distribution of Bramadero Polychrome (Bonilla et al. 1990:311) and Murillo Appliqué (Bonilla et al. 1990:314) and the southern limits of large quantities of Madeira Polychrome (Bonilla et al. 1990:299). The Bay of Salinas examples were almost exclusively bowls with tripod dolphin head supports. This is an apparently localized but typologically undifferentiated variety of Madeira originally referred to as Las Mariñas Polychrome (Lange 1971a:176–177), perhaps physically and iconographically representing the folklore of the dolphin of Corobicí, a local culture hero described by Alfaro (1923).

### *Settlement*

This was the period of greatest occupation around the Bay of Salinas. The site of Las Mariñas is still the most extensive sample of Ometepe period materials that we have. Actual patterns were much like those of the Sapóá period, with living surfaces on both the natural and artificial sections of the shell midden complexes.

### *Lithics*

The same classes of expedient tools and nutting stones described for the Sapóá period continued to be used in the Ometepe period.

### *Subsistence*

Evidence of marine resource utilization is ubiquitous. Norr (1991:262) summarized the stable isotopic analysis of the physical remains from five individuals from this period as reflecting a marine-oriented economy, with “little or no isotopic evidence for maize at Las Mariñas”; although this interpretation applies only to her Ometepe period, it is probably true for the Sapóá period as well. These data clearly distinguish the Bay of Salinas subsistence pattern from the agriculturally oriented and complementary marine resource utilization of the inland valleys and the somewhat more balanced marine-agricultural model on the Bay of Culebra. There are no analyses of human remains from Nicaragua for purposes of comparison, but Pohl and Healy (1980:chap. 7) describe a pattern that focused on the agricultural exploitation of the volcanic soils of the isthmus, complemented by freshwater fishing, turtles, and other aquatic resources.

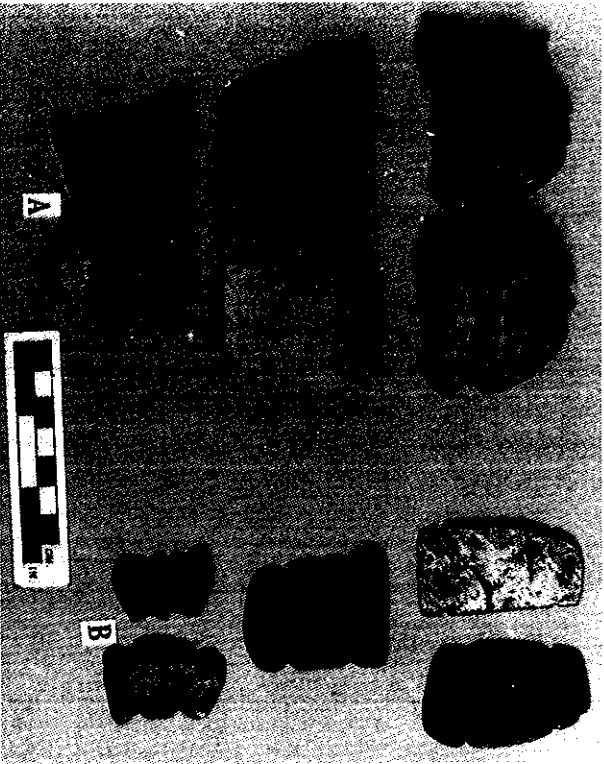
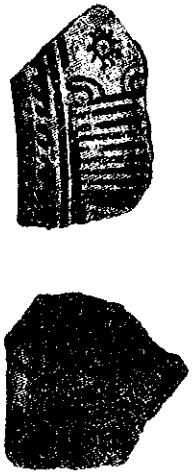
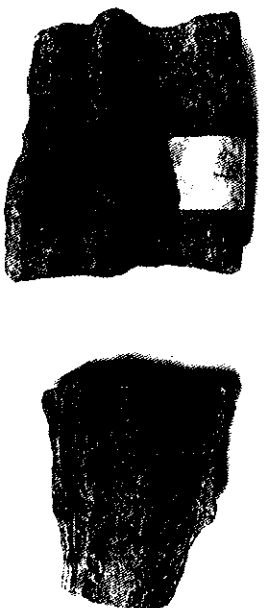


Figure 6.10 Ometepe period ceramics: Madeira Polychrome, net-weights or spacers; Bramadero Polychrome.

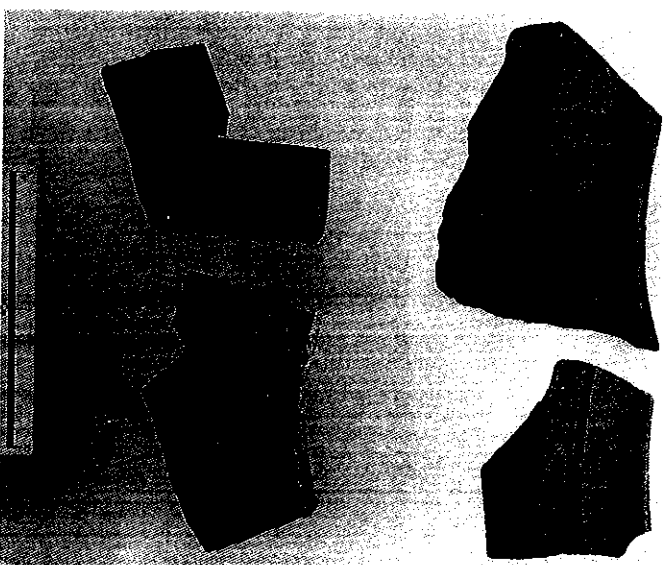


A

B



Figure 6.11  
Vallejo  
Polychrome,  
Luna  
Polychrome,  
Murrillo  
Applique.



## SUMMARY

The Bay of Salinas is at the crossroads of Greater Nicoya, relative to existing isthmian and peninsular local sequences, and it merits its own identity. The distinction based on shellfish exploitation and expedient tool manufacture reflects the opportunistic use of local resources, a pattern we

see in other parts of Greater Nicoya; this reinforced the independent but not isolated status of prehistoric communities.

At Las Marías and other sites either tested or surface-collected around or near the Bay of Salinas, the recombination of general traits common to various zones of Greater Nicoya is unique:

1. The coastal settlement and shell midden adaptation are southern sector traits;
2. The dominant ceramics are northern sector ceramic types, and the ceramic assemblage is clearly distinct from that of the Chahuite Escondido site on the adjacent Santa Elena Peninsula, which is more representative of southern sector ceramic assemblages;
3. The Tempisque period jade-metate mortuary complex at Las Pilas is a southern sector trait;
4. The extensive expedient lithic industry is a northern sector trait; and
5. The nutritional, ecofact, and artifact analyses that suggest a strongly marine-based subsistence model for Las Marías (at least for the period A.D. 800-1520) is distinct from both more balanced marine-agriculture or agriculture-marine models based on skeletal analyses and/or artifact and ecofact analyses from sites and regions to both the north and the south.

Having drawn these distinctions, I propose that, in the future, the Bay of Salinas region be represented by a separate sequence of prehistoric cultural phases:

- Tempisque period (?-A.D. 300): Fase Las Pilas
- Bagaces period (A.D. 300-800): Fase Coche Negro
- Sapodá period (A.D. 800-1350): Fase Alan
- Ometepe period (A.D. 1350-1520): Fase Las Marías

## Notes

1. An earlier version of this chapter was originally presented at the fifty-fourth annual meeting of the Society for American Archaeology in Atlanta, Georgia (1989). It was revised for inclusion in this volume to further contribute to the emphasis on the contemporary need for additional time-space systematics in Central America.
2. The earlier regional period names (Zoned Bichrome, Early Polychrome, Middle Polychrome, and Late Polychrome) were based on perceived major changes in ceramic styles and decorative techniques. At the National Science Foundation-sponsored Cuajiniquil conference in May 1993, the participants

decided to substitute a more culturally "neutral" regional nomenclature. As noted in the introduction to this volume, I have employed the new system in this chapter and, as editor, have made adjustments in other chapters where it was possible to do so.

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