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PATTERNS OF INTERREGIONAL CONTACTS AS SEEN FROM THE CENTRAL
HIGHLANDS-ATLANTIC WATERSHED OF COSTA RICA

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ABSTRACT

Patterns of contact between the Central Highlands of Costa Rica and other regions are presented. Contacts, generally in the form of trade, appear to have had two peaks of intensity, one between 300 B.C.-A.D. 500 and again between A.D. 500-1500. This pattern is explained in terms of a change from decentralized to centralized trading patterns, and the formation of "gateway" communities in Costa Rica during the latter period.

RESUMEN

Se presenta patrones de intercambios entre la meseta Central de Costa Rica y otros regiones. Dos periodos distintos de intercambios estan indicadas, el primero entre 300 a.C.-d.C. 500 y el otro entre d.C. 500-1500. Este patron resulto del cambio de sistemas de intercambio desde uno menos centralizado a uno mas centralizado, el ultimo acompañado por la formación de comunidades especializados en intercambios (gateway communities).

INTRODUCTION

As evidence for interregional ties older than a few centuries before the time of Christ is still scanty or absent, it will not be treated here. After that time we have secure knowledge of nonlocal artifacts appearing in the Central Highlands-Atlantic Watershed. These artifacts form the basis for the inferences and models which follow. It is my contention that the cultural processes which brought foreign objects to central and eastern Costa Rica between ca. 300 B.C. and A.D. 500 were different than those in operation between ca. A.D. 500 and 1200. Models are presented for both periods, drawing on published finds and those made by the Museo Nacional de Costa Rica during the last nine years. Comments are made on the concepts of trade or exchange, and transfer.

METATES AND JADES: THE SIGNIFICANCE OF AGRICULTURAL SYMBOLISM CA. 300 B.C.-A.D. 500

While pottery dating to the first half of Period IV (1000-300 B.C.) is difficult to find in the Central Highlands-Atlantic Watershed (it was first recognized and radiocarbon dated only six years ago; Snarskis 1978:63-107), the second half of the period (300 B.C.-A.D. 500) was a time of marked population growth to judge from the ubiquity of its ceramic remains. Pavas and El Bosque phase sites appear to be both larger and more numerous, and have yielded many carbonized kernels and cobs of a Chapalote/Nal Tel/Pollo-like corn (W. Galinat and E. Smith, personal communication) and another maize much like Swasey II (R. Bird, personal communication). Maize kernels were frequently found in what appear to be Mesoamerican style bell-shaped storage pits.

As I have hypothesized elsewhere (Snarskis 1981, in press), this expansion may have been the result of a dynamic feedback relationship between improved and intensified maize agriculture, population growth, the "budding-off" of new communities, and increasing competition for arable land. A probable result of this relationship was an increasing need to obtain and insure land tenure, to ritualize cyclical agriculture procedures, and to administer the redistribution of food products. Warrior, priest, and administrative (cacique or chiefly) classes evolved to handle these duties resulting in a strongly ranked society and creating a market for luxury articles that were at the same time badges of office. These badges included jade or jade-like pendants, ceremonial stone mace heads and special, "ritual" metates which were the principal sculptural vehicle for religious symbolism.

Revising earlier interpretations (Snarkis 1976), I suggest that more intensive maize agriculture, as well as a reverence for carved jade amulets, were integral components in a mythic complex or politico-religious "world view" that was propagated in the northern half of Costa Rica through an elite-oriented trade or transfer network that included the heirs of the Gulf Coast Olmec cultural tradition ca. 600-400 BC. In that cultural tradition, the symbolism of jade celts and avian effigies, which are precisely the elements combined in the majority of Costa Rican "axe-god" pendants, was linked to maize (Drucker 1952:164; Joralemon 1976:47-58). Although we do not know when this network was initiated, it continued operating until at least

A.D. 400-500. Before discussing how it may have functioned over time, let us look at some concrete evidence of its existence.

In late 1977, the Museo Nacional de Costa Rica partially excavated an elite cemetery in the San José suburb of Tibás, in a salvage effort. The site had already been extensively looted by the construction workers who came across it, abetted by local huaqueros. (Parenthetically, the products of their illegal looting were eagerly purchased by a Costa Rican collector and dealer who later, amid much fanfare and praise, resold them to a San José museum for many millions of colones, the feeling being that he was doing a great favor to his country by not selling them in New York.) Among the Tibás graves that were scientifically excavated was an unusual one containing three Atlantic-style metates on which the deceased was laid, a broken Curridabat Phase ceramic vessel, two ceremonial mace heads, an exceptional 22 cm. long jade axe-god of typical Costa Rican style, and an Olmec jade clam shell 33 cm. in length with a complex low relief composition on its interior. An element-by-element analysis of the jade clam shell's design, which shows why it may be considered as Olmec, has been published elsewhere (Snarskis 1979). The Costa Rican artifacts that accompanied it can be placed between approximately A.D. 100-400 through comparative stylistic analysis; (there are no C14 dates), we conclude the jade clam shell was an heirloom. Bone preservation was very poor, but the dental eruption pattern that could be observed for the individual buried in this tomb showed him to be between 18 and 25 years old (David Weaver and Ricardo Vazquez, personal communication). Since he was relatively young to possess or merit such exceptional mortuary goods, they are most probably indicative of inherited high status.

In another burial in the Tibás cemetery, a ceramic monkey effigy bridge and spout style vessel related to the Claro variety of the Rosales Zoned Engraved type of the Zoned Bichrome period in Guanacaste, was recovered. Two ceremonial mace heads and a single, cylindrical jade bead accompanied it. A total of 25 ceremonial mace heads with mostly avian, and two anthropomorphic motifs were found, some in contexts disturbed by looters. In Tibás, then, we found a product of long distance contact with Mesoamerica, and solid evidence of ties to Guanacaste-Nicoya in the form of the ceramic monkey and, perhaps, some of the jades and mace heads.

Another artifact type found in Costa Rica that demonstrates the existence of long distance transfer during this period is Usulután pottery. Unfortunately it has never been excavated by an archaeologist in a secure chronological context. Stone (1973) illustrates two Usulután vessels in a private collection that are said to be from El Hacha, Guanacaste. Some years ago, an Usulután vessel was donated to the Museo Nacional. It had been looted by an acquaintance of a Museum board member from a farm near Chaparrón, San Carlos. The author later saw 10 to 15 other vessels which had been taken from the same cemetery, and they were clearly a local variant of the El Bosque complex (100 B.C.-A.D. 500) known for the central Atlantic Watershed. F. W. Lange (personal communication) has also reported finding Usulután sherds in Guanacaste from surface collections.

Demarest and Sharer (1982), on the basis of a long ceramic stratigraphy, have recently placed the origin and development of Usulután in western El Salvador. The Chaparron Usulután vessel and those illustrated by Stone (1973) can now be securely classified as the type known as Izalco Usulután, a multiple-line, hard-fired pottery from ca. 200 B.C.-300A.D., and which Mesoamerican archaeologists agree "is a clear marker of the Late Preclassic period throughout the southern frontier of Mesoamerica" (Demarest and Sharer 1982:819).

At the site of La Fortuna, San Carlos, D. Stone and C. Balser (1965) found 12 whole or fragmentary slate mirror backs, one of which had decorative Maya glyphs, deposited in a series of adjoining rectangular tombs. Associated ceramics included a zoomorphic (bat?) effigy vessel related to Tola Trichrome in motif (their Fig.11), a Charco Black on Red olla, a Galo Polychrome, and a series of red incised/engraved vessels. The latter are not Guinea Incised, as Baudez and Coe (1966) later suggested in commenting on the finds, but rather Zoila Red, a rather similar Atlantic Watershed type that can be placed between A.D. 300-600. Also present (Stone and Balser, 1965:Fig. 7) are sherds stylistically similar to the La Selva and Curridabat complexes, including Tuis Fino Negative, dating to A.D. 500-700.

These pottery types indicate a probable time span of ca. A.D. 300-700 for the La Fortuna cemetery. During this time Guanacaste-Nicoya ceramics were deposited in elite Atlantic Watershed tombs. (These tombs are considered elite because the slate backs of pyrite mirrors have been found in them. Such pyrite mirrors probably originated in Peten Maya sites like Tikal around A.D. 400-500. They are found in Atlantic watershed tombs sometimes with reworked jade or jade-like pendants.) It is of interest here that during the course of excavations in a Zoned Bichrome cemetery in Nosara that scattered plaques of marcasite mirrors, some with flat, light-weight ceramic backs were recovered (Guerrero, in press). The cemetery also contained great quantities of metates and Rosales and Guinea pottery. Also found were jade pendants, some of which are reportedly Olmec and Maya. As the mirror backs were found in looters' backdirt, reliable inferences cannot be made, although it is tempting to view them as local versions of the coveted Mesoamerican product.

Stone and Balser (1965:317-321) also describe a cemetery of some 125 tombs in El Tres de Guácimo, Línea Vieja, three of which they apparently excavated. They comment that some tombs lay beneath 25 stone mounds .75 to 1.5 M high. This is intriguing in light of excavations carried out by the author, Carlos Enrique Herra and John Hoopes, among others, at the Severo Ledesma site, also in El Tres de Guácimo, probably less than a kilometer from Stone and Balser's site. There, careful horizontal stripping of slight mounds revealed rectangular house foundations of river cobbles. The largest of these (Snarskis 1981:48, Fig.16) had elite burials and/or caches of the El Bosque Phase beneath it. These contained jade necklaces of disk beads and pendants, fancy tripod ceramics, pottery ocarinas and rattles, and raised rim metates. One metate fragment was of the flying panel type. The grave goods found at Severo Ledesma with three C14 dates between 50 B.C. and A.D. 350 are not as "exclusive" as those published by Stone and Balser. It seems probable therefore that there is a

chronological difference or that Severo Ledesma was on the periphery of a higher status village/cum-mortuary zone.

Stone and Balser also illustrate slate mirror backs from Guácimo; some of which are incised in what they consider classic Veracruz style. Found in two tombs by looters, these were supposedly associated with jade pendants, ceremonial mace heads, metates and a series of hollow cast gold pendants in Cocle (Panamanian) and Quimbaya (Columbian) styles. It is unfortunate that these important associations rest solely on the word of a looter, since graves excavated by Stone and Balser contained only metates and ceramics. The three pottery vessels they illustrate from Guácimo (Stone and Balsar 1965, Figs.24 and 25) can be reliably placed in late El Bosque/early La Selva times, ca. A.D. 400-600; one is Zoila Red Incised. They are definitely not Cartago phase "Stone Cist" ceramics as Baudez and Coe suggest (1966:442).

Let us sum up the evidence for interregional and long distance contacts in Central Highlands-Atlantic Watershed Costa Rica during the second half of Period IV. I have stated elsewhere in more detail (Snarskis, in press) my hypothesis that the proliferation of jades and jade carving in Costa Rica was related to the gradual propagation of a new mythic complex in which the cyclical procedures of more intensive maize agriculture were important. Heavy maize consumption may have become an elite prerogative, and key aspects of the production cycle such as control of good land, rainfall and fertility may well have been symbolized by polished celts and jade and bird effigies, all of which were tied symbolically to maize first in the Olmec culture of southern Mesoamerica. Why such cultures might have had an interest in Costa Rica, and the nature of the contact whether direct or indirect, for trade or transfer, for ideological reasons, its intensity and duration are questions that remain to be answered. This model would tend to be supported by substantially lower frequencies or absence of maize in sites predating 300-500 B.C. in Costa Rica; we know that maize was frequent after that time. Also, the earliest jades in Costa Rica should be Mesoamerican imports, or at least of styles more closely related to northern models.

If we assume for the moment that this was the process that produced a "demand" for jade pendants in the second half of Period IV, what can we say about the nature of interregional ties within Costa Rica? First, there is a striking similarity in the contents of elite tombs from central, eastern and northwestern Costa Rica. Jade pendants and/or necklaces, ceremonial mace heads of a variety of greenish and whitish stones, fancy carved metates, special purpose ceramics, and items derived from long-distance trade, such as the mirrors, and functional stone celts are also seen.

Important here is the fact that virtually all artifacts indicative of interregional contacts are elite, high status nonfunctional items. In many cases the jades and mace heads found in the Atlantic Watershed north of Limón, the Central Highlands, and Guanacaste-Nicoya are virtually identical, suggesting a well developed distributional network for these highly valued, highly portable products of specialized, skilled craftsmen. Flannery's (1967) model of interregional trade between Oaxaca and the Gulf Coast Olmec may be of use here. Noting that differential access to prestige goods was an

important factor in the definition of rank-status positions within society, he postulates the exchange of such goods through the headmen of different lineage groups who could then redistribute the items among their own people as they saw fit. He also says that such ritual exchange in the higher echelons of society may result in the adoption by initially less sophisticated groups of the others' religion, symbolism, ritual behavior and trappings of status. At the same time, the more sophisticated or donor groups may thus achieve access to the products of regions previously denied them, resulting in the ecologically more efficient exploitation of a diversified environment.

In the Costa Rican case, I postulate the peoples of Guanacaste-Nicoya, and perhaps those of the northern Atlantic Watershed just over the Cordillera Central, as the donor cultures for three reasons: (1) The mythological worldview which concerns us in the last half of Period IV had a northern origin. (2) Ritually important artifacts of Guanacastecan manufacture; certainly some special purpose ceramics, and probably many jades and mace heads, have been found in the central Atlantic Watershed and Central Highlands, but not vice versa. (3) The Santa Elena peninsula on the Pacific near the Nicaraguan border is that part of Costa Rica most likely, geologically speaking, to contain sources of jadeite, serpentine, chalcedony and similar hard, green stones (Teresa Aguilar, personal communication).

Since there is a major environmental frontier between Guanacaste-Nicoya and the Atlantic Watershed, we may assume that it acted as a brake on frequent casual contact, yet actually stimulated certain types of exchange because of the complementary distribution of some resources. Carved jades and mace heads were not functional artifacts or commodities, but carried a strong ideological charge. The propagation of a religious system and its symbols may have allowed the Guanacastecans of the tropical dry forest to more easily obtain items like the skins, feathers and teeth of rain forest animals and rain forest plants for drugs, dyes, and a whole new range of food products, all perishable things that leave little or no trace in the archaeology.

Even if this model is correct, there is no doubt that Atlantic Watershed-Central Highlands peoples, at least during the last 300-500 years of Period IV, began to manufacture their own ritually symbolic artifacts, as seen in the quantities of reworked string-sawed jades and ceremonial metates carved in a style utterly different than that of Guanacaste-Nicoya. The Atlantic flying-panel metates are a fascinating example. Like their Guanacastecan counterparts, they are the principal medium of stone sculpture for the period, probably displaying symbolism related to all aspects of the agricultural cycle, and are frequently associated with the other badges of the politico-religious power holders, jades and mace heads. Yet the style in which they are carved varies so greatly from that seen in Guanacaste-Nicoya that there can be no doubt that they are products of a totally different esthetic tradition, possibly that of a rain forest environment. One wonders if the taking of human heads in battle or as part of a sacrificial ritual, a symbol often seen on these metates but not on those of Guanacaste-Nicoya, was a new wrinkle added to the jade-mace head-metate agricultural cult as it was interpreted in the Costa Rican tropical rain forest.

I believe that exotic objects like Olmec and Maya carved jades, Usulután pottery, and slate-backed pyrite mirrors reached Costa Rica by down-the-line trade, during the Early Classic, and were then distributed within the elite oriented interregional exchange network as described above. The original stimulus that gave rise to a demand for such articles may well have been visits by Mesoamericans on long distance missions, akin to the later pochteca. Stone (1973:216) makes brief mention of a related idea, suggesting that the large numbers of jade axe-gods in Guanacaste were related to a religious conversion produced by missionary colonizers from the north. She does not make a connection between jade and maize agriculture.

With the exception of the Olmec jades, the foreign objects reached Costa Rica not long after their manufacture in Mesoamerica. For some time, it has been thought that the Olmec artifacts reached Costa Rica as heirlooms several centuries after their production, an hypothesis that has been confirmed in part by the controlled recovery of the jade clam shell in Tibás (Snarskis, 1979). Flannery's (1967) model may give us an explanation for this also. He notes that the elite directed exchange of scarce, ritually important objects requires that the various parties be of almost equal cultural sophistication. When the active trade in magnetite, pearl oyster, mica, and jade was being carried out by the Olmec in the first half of Period IV, the cultures of Costa Rica most probably had not reached that critical threshold of socio-political evolution that would have allowed them to deal, to their mutual benefit, with cultures like the Olmec.

While we do not yet understand exactly how the jade-mace head-metate agricultural cult was established in Costa Rica, there is no doubt that it thrived there. The extravagant use of jade or jade-like stones suggests a local source (Easby, 1968), although recent investigators (Lange, Bishop and van Zelst 1981), on the basis of limited compositional analyses, postulate that most real jadeite in Costa Rica came from the Motagua source in Guatemala and made its way south through trade. Through the years, there has been disagreement among geologists about the existence of jadeite in Costa Rica's Santa Elena Peninsula where conditions are appropriate for its formation. Recently, Teresa Aguilar, a geologist in the Museo Nacional de Costa Rica, informed the author that she had found and identified jadeite from that region. In any case, the custom of burying quantities of these imperishable ritual materials with the deceased served the underlying purpose of "consuming" them or taking them out of circulation, thus maintaining the demand for more of the same and the existence of the elite exchange network (Flannery 1967).

Toward the end of Period IV, there are indications that this network also encompassed southern Costa Rica and western Panama. There is an oval, basin-shaped, tetrapod metate seen at this time in both the central Atlantic Watershed and the Panamanian site of Barriles. It is frequently decorated with human trophy heads along the sides and motifs in high relief at the inside upper surface at both ends (Snarskis 1981b:218, entry 234). Recently, a Museo Nacional biologist photographed one of these metates from a looted site in the high Talamancas, suggesting an important continuity of distribution. In her most recent discussion of the cultural dynamics of maize agriculture in Period IV western Panamá, Linares sees the rapid

development of numerous and large sedentary agricultural villages with craft specialization and a rank ordered society as the result of the "expansion of seed crop agriculture (and/or agriculturists) from the adjacent area of eastern Costa Rica..." (Linares and Ranere 1980:241). In this scenario, the dynamics of the model suggested above for northern and eastern Costa Rica would have stimulated the development of what we know as Concepción-Aguas Buenas culture in Greater Chiriquí, probably the first chiefdoms in that sub-area.

An increasingly southern focus is also indicated by the first introductions into Costa Rica of foreign gold work, which appears in contexts suggestive of the elite controlled exchange network. Stone and Balser's (1965) Guácimo tombs with jades, metates, slate-backed mirrors, and Quimbaya and Coclé gold pendants, assuming the associations to be valid, are very important here, and should date to ca. A.D. 500. This time placement is supported by the local ceramics illustrated. Carlos Aguilar (1981) also found a fragment of a Coclé style metal figurine in a Curridabat phase tomb at Tatiscú, in the Cartago valley.

PERIODS V (A.D. 500-1000) AND VI (A.D. 1000-1550)

In the two or three centuries following A.D. 500, striking changes took place in the Precolumbian cultures of atlantic and central Costa Rica. Gold casting replaced lapidary work in jade-like stones as a source of ritually significant symbols of elite status, resist painted ceramics became much more numerous, stone cist tomb types replaced rectangular or "corridor shaped" tombs without floor or lid, and circular, rather than rectangular, houses came to be the preferred form. The last is very probably indicative of a significant shift in the dominant Precolumbian cosmogony in Costa Rica.

Sophisticated metallurgy is definitely of South American origin in the Americas; and, taken as a group or complex, the aforementioned cultural traits can all be shown to have existed earlier in South America, for example at sites in the San Agustín region of Colombia. As in the case of the jade-mace head-metate cult of agricultural symbolism, we cannot be certain as yet of the cultural dynamics that caused the appearance of these "southern" traits in Costa Rica. However, the archaeological data in hand admit the following inference: the elite-oriented exchange network of chiefdom societies in eastern and central Costa Rica had expanded to include southern peoples and their different artifacts, including cast gold pendants from Panamá and Colombia. It is probable that these lines of communication between tropical forest peoples had been established much earlier. It was perhaps fortuitous that a series of volcanic eruptions (Sheets 1984) and the fall of Teotihuacan in the sixth century A.D., with the consequent disruption in central Lowland Maya centers and the Pacific overland trade route to the south (Sharer 1984), coincided approximately with the introduction to Costa Rica of cast gold objects and then metallurgical techniques from Colombia and Panamá. However, it may also turn out that there was a causal relationship, with elite-oriented gold objects and their associated mythology filling the vacuum produced by the sundering of ties with Mesoamerican elite groups. This "southern" influence was eventually felt in all of Costa Rica, witness circular houses at Period VI on the Bay of Culebra. However, Guanacaste-Nicoya always remained closer to

northern traditions; and after ca. A.D. 500, its polychrome painted ceramics diverged markedly from the plastic decorative styles that predominated in the Central Highlands, Atlantic Watershed and Diquis regions of Costa Rica, later characterized as the "zone of southern influence."

Guanacastecan ceramics of the period A.D. 500-800 such as Galo Polychrome are found only very rarely in central and eastern Costa Rica. One tiny Galo vessel was found beneath a structure at Barrial de Heredia among a total of 450 vessels. At La Fábrica de Grecia, four late Galo figurines and two Carrillo-like bowls were found among more than 900 vessels, both in tombs and within circular domestic structures (Juan Vicente Guerrero, personal communication). In a stratigraphic pit at the Turrialba site of La Zoila, the author excavated three Galo sherds in association with several La Selva complex ceramic types (A.D. 500-700).

The nature of the interregional ties that brought this pottery to the Central Highlands would seem to be very different from the elite-controlled exchange that earlier brought jades, mace heads and related symbolic items. For the time being, I believe it can be adequately understood using a simple down-the-line "distance-decay" model (Renfrew 1977), in which the frequency of artifact distribution varies inversely with the distance from the source of manufacture, always keeping in mind the alterations that may be produced by geographic and cultural frontiers. This pottery was functional; was used and broken. Its use probably implied some status because of its rarity, but it was not in demand as such key, long-lasting religious paraphernalia indispensable for high status, as jades seemingly were. Imported gold pendants from the Gran Chiriquí sub-area may have been the object of such ritual exchange during this time, but they still lack secure documentation by archaeologists.

From approximately A.D. 800-1200, we see the best documented evidence for interregional contacts in the Central Highlands-Atlantic Watershed, in the form of polychrome ceramics from Guanacaste-Nicoya. These are usually what we can call "serving vessels"; that is, "with shapes and sizes more appropriate for serving of solid and liquid foods than for preparation or storage." They generally have finer paste and thinner walls than utilitarian pottery, and may show signs of stylistic elaboration (Fry 1979:496).

In Costa Rica, this pottery was almost certainly produced by specialists at a series of manufacturing centers in Greater Nicoya (Accola 1977). There is no doubt that it was highly valued among central and eastern peoples, as it often shows careful crack-lacing repairs and may be concentrated in some elite burials. At Barrial de Heredia, polychrome pottery from Guanacaste was found only in tombs beneath square or rectangular house foundations that were interpreted as domiciles. None was found beneath ellipsoidal structures dedicated to culinary and other domestic activities (Snarskis 1981). Of 450 ceramic vessels recovered at the site, 20, or 4.5%, were imported polychromes. Of these, six were found in the principal tomb beneath the largest quadrangular house, and two others elsewhere in that house (Snarskis and Blanco 1978). At the eastern lowlands site of La Cabaña, sherds of all decorated pottery types, both of local and Guanacastecan manufacture, were found in highest percentages within

the principal circular structure (Snarskis 1978:252). Status, then, was a factor in the distribution of Middle Polychrome pottery from Guanacaste, but it doesn't appear to have been nearly as important as in the previous exchange network of jades, mace heads and the like. Let us examine some of the differences:

(1) Pottery is not inherently as precious a material as jade or gold, does not require such skilled labor to produce, was made at several different centers, and was not as long lasting.

(2) Imported Guanacastecan polychrome pottery was probably viewed as a luxury functional item, perhaps with symbolically important decoration, but not purely symbolic of status and power as jade and gold were.

(3) Although in limited numbers, these polychrome ceramics are found in virtually every site of this period in the Central Highlands-Atlantic Watershed of Costa Rica, and not only as grave goods.

In a recent article, Lange (1983:27) suggests that the presence of Guanacaste-Nicoya polychrome pottery in the Central Highlands-Atlantic Watershed is the result of "Greater Nicoya elite persons themselves bringing the vessels to be placed in the graves of extended family members or political/economic allies." He specifically rejects the idea that the polychrome ceramics made their way to central and eastern sites through trade, an hypothesis previously put forth by the author and others (Snarskis and Blanco 1978; Snarskis 1978, 1981a). There are many points that need further discussion in Lange's rejection of ten different models for trade in the case of foreign polychrome pottery between ca. A.D. 800-1200, but a few of the more salient should be mentioned. One of the problems in proving the existence of interregional trade is finding preserved objects in one region that were made in another, and vice-versa. The absence of Central Highlands-Atlantic Watershed artifacts in Guanacaste-Nicoya is used by Lange to argue against trade or exchange. However, in another article dealing with Costa Rican jades, he states that "It is not difficult to visualize quantities of material moving through a trade network from Guatemala to Costa Rica." Furthermore, we learn that "Panama...was also linked by Precolumbian trade routes to northwestern Costa Rica." (Lange, Bishop and van Zelst 1981:172). Here, the absence of Panamanian artifacts in Guanacaste or those of Costa Rica in Guatemala did not prevent the introduction of the trade or exchange concept.

Lange also stresses the low percentages of Nicoya polychromes in other parts of Costa Rica, saying that they represent "infrequent and almost unique events" and that, unlike most of the contexts he cites for Guanacaste-Nicoya, are concentrated in cemeteries as grave goods. It is true that the quantities of polychromes found are small, but I think it much more significant that they are found at virtually every site in the Central Highlands-Atlantic Watershed during the A.D. 800-1200 time span. I do not know of a single site without them at this time. Lastly, we have Lange's contention that the Nicoya polychromes are found in mostly domestic contexts in Greater Nicoya and mostly mortuary contexts out of that sub-area. On the basis of those eastern and central Costa Rican sites in whose excavation I have participated, it can be said that the majority of the imported

polychrome vessels seem to have been used for as long as possible or until broken, as might be expected for "serving vessels", and are found scattered throughout the domestic refuse. Many are heavily abraded on the lip, interior and base, and crack-lacing repairs are frequently seen (much more so than on locally made pottery). I do not think elite emissaries from Greater Nicoya would have brought vessels in this condition to place reverently in the tombs of their affines or allies. Those polychromes that were placed in tombs as mortuary offerings, if they are still complete (many are not), are very often just as worn.

Many fewer tombs have been excavated scientifically by archaeologists in Greater Nicoya compared to the Central Highlands-Atlantic Watershed, perhaps giving a skewed perception of what is or is not mortuary pottery. In the recent excavation of the La Ceiba site near Filadelfia, Guanacaste, approximately 65-70% of the grave goods consisted of polychrome pottery, with many different types represented, from elite to ordinary (Juan Vicente Guerrero, personal communication).

Those Greater Nicoya polychrome types which were transferred regularly to other parts of Costa Rica seem to have been limited in number, suggesting relations with only some of the pottery producing centers, probably those nearest to the eventual recipients of the pottery. We might begin to think in terms of a non-centralized marketing model, in which exchange through a series of smaller scale local markets (for example, site hierarchies within chiefdoms) is carried out with no overall regional market systematization. For ceramic items from one center of production, this should result in a high correlation between frequency and geographic distance, as well as similar frequencies in all collections within each separate market or redistributive zone (Fry 1979:497, discussing the distributive economics of pottery serving vessels at Tikal).

The archaeological evidence in hand so far seems to support this model. A small stone-cist cemetery excavated near Pital, San Carlos, much nearer to Guanacaste than the other Atlantic and Highland sites discussed here, had approximately 15% polychromes among all sherds collected. A frequency between 1-10% seems to be usual for some Central Highlands-Atlantic Watershed sites. Barrial, as mentioned, had 4.5% imported polychromes among all vessels excavated in tombs or caches. At the Ochomogo site, 167 stone cist tombs yielded 209 ceramic objects, 8 of which, or 3.83%, were imported polychromes (Aida Blanco, personal communication). Of a total of 259 artifacts excavated at Ochomogo, one was a small, elaborate stone jaguar metate and another was a small, "sukia" sculpture. These locally made "elite" objects occurred less frequently than the imported pottery. This tells us something about the demographic unit making up the Ochomogo cemetery (a lesser status, mixed group) and about the distribution of imported polychromes (they are there anyway). Day and Abel-Vidor (1980) postulate that the white-slipped Papagayo Polychrome was made in the northern part of Gran Nicoya; its frequency in Highland and Atlantic sites is correspondingly low. Types supposedly manufactured in southern Gran Nicoya, like Mora, Chircot, Birmania, and Highland, show appropriately higher percentages. The latter two are common enough to suggest that they were manufactured near the frontier of the Central Highlands, perhaps around Caldera, where the

natural pass to the Highlands begins, following the Rio Grande de Tárcoles. There we should look in the future for evidence of the "gateway communities" which can form at passage points into and out of distinct natural and cultural regions (Hirth 1978:37), in response to intensive exchange which may well have included marine products like salt. That this passage may have been the main route between Guanacaste and the Central Highlands is supported by historical evidence given by the first Spaniards; the coastal populations complained that the Huetars had come down from the Highlands in the recent past and were seizing lands and warring in an attempt to establish their own access to the sea (Carlos Melendez, personal communication).

Although we have relatively little controlled information for the Central Highlands-Atlantic Watershed, I think there is enough to postulate a difference in kind between the interregional exchange or transfer systems of late Period IV and those of Periods V and VI. The former involved elite badges of office in a power-holding cult based on the ritual and political control of all aspects of agriculture; while the latter seems to have been a more generalized, widespread system reflecting commercial, as well as ideological, relations.

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