Temporal changes in material culture normally have been used by archaeologists to reconstruct the cultural history of an area or site. In the case of the Caribbean, shifts in artifactual style have been used to trace prehistoric migrations and interactions between different cultural groups. Unfortunately, there have been few attempts to explain these changes in terms of the social structures of these cultures. This paper reviews the archaeological evidence for cultural change in eastern Puerto Rico and proposes a model to explain it. Basically, the model suggests that changes in material culture in Puerto Rican prehistory are related to the development of social complexity. Shifts in decoration and types of artifacts are seen as an attempt by elite groups to have greater control over the symbolism represented in the artifacts in order to acquire and maintain their power. These changes are not abrupt, but gradual, as social organization evolves from simple to more complex chiefdoms.

Changes across time in material culture normally have been used by archaeologists to reconstruct the cultural history of an area or site. Although this approach has proven to be very useful in the determination of cultural groups and chronological periods, a necessary starting point for most archaeological research, it tends to ignore other sociocultural dimensions of ceramics, such as ideology and symbolism. It is for this reason, for example, that even though pottery studies often have determined and identified cultural and chronological changes in a precise manner, most of them have been unable to explain ceramic transitions through prehistory.

It is the purpose of this paper to propose a possible explanation for changes in the archaeological record, particularly pottery, observed in eastern Puerto Rico (Figure 1) between the Saladoid (300 B.C.–A.D. 600) and the Elenan Ostionoid periods (A.D. 600–1200) eventually leading to the Chican Ostionoid period (A.D. 1200–1500). During this transition a gradual and continuous decrease in the diversity, quantity, and quality of decorative techniques and designs took place. It is argued here that since pottery is a medium that carries messages of different symbolic types (Cusick 1991; Roe 1989, 1993), ceramic changes reflect modifications in the ideological structures of the social groups. In Puerto Rico one of the major social processes that could have promoted such modifications was the development of complex societies or chiefdoms during the Elenan Ostionoid period. As is suggested below, this marked change in the social, economic, and political institutions of prehistoric groups must have altered the ideological realm,
and, therefore, the symbolism represented in the material culture. Although my emphasis in this study is on ceramics, similar suggestions are presented for other aspects of the archaeological record, including decorated artifacts such as stone, bone, and shell objects.

**Theoretical Background and Considerations**

Many archaeological models for the development of social complexity in the Greater Antilles have stressed demographic and environmental variables as the main causal factors (Chanlatte and Narganes 1986; López Sotomayor 1975; Veloz Maggiolo 1977, 1987; see Curet 1991, 1992b for a more detailed discussion of this type of model). From this perspective, chiefs are viewed as having a social function to fulfill; their actions are on behalf of the social group and are aimed to benefit all or most of its members. Although they take different forms, traditionally, these models invoke critical demographic, social, and/or ecological situations that threaten the survival and reproduction of society. According to some of these models, under these circumstances new subsistence strategies (e.g., diversification and intensification of production) that require the presence of managerial positions (i.e., the chief and elite groups) to organize and direct the new social system are necessary. It is from this necessity that the permanent position of the chief develops. Other models emphasize the need for central leadership to control and manage the great amount of information generated by the increase in population and population density. In general, the adaptationist models (see Brumfield and Earle 1987) have been popular among archaeologists due to the feasibility of measuring such variables as demography, agricultural production, and environmental conditions in the archaeological record.

Contrary to the adaptationist view, other models based on different premises such as social and political factors have been suggested (e.g., Moscoso 1986, 1987). In these political models, chiefs are not considered public servants, but individual entrepreneurs who seek mainly to increase their own prestige and that of their close relatives or descent groups. Here the chief is not acting on behalf of the group, but for his/her own purposes. In many instances, these models have been developed from Marxist perspectives and normally argue that conflict and competition among individuals or social groups are the main factors behind the process of increasing complexity. Contrary to adaptationist models, political models view population increase and the development of production intensity as a consequence of the process of the development of social complexity and not as a triggering factor (e.g., Steponaitis 1991:198).

However, regardless of which of these two approaches is selected, any model that tries to explain the development of chiefdoms, and even-
tually of states, has to include in its explanatory 
statements a developmental process beginning 
with the specific conditions of tribal societies 
(i.e., what Friedman and Rowlands [1977] have 
called epigenetic models). This leads to a problem 
of explaining (1) how competition in egalitarian 
societies, where reciprocity and generosity are the 
main basis for prestige, led to the accumulation of 
wealth, power, and ascribed status; and (2) how 
elite groups were able to acquire and maintain 
power in an egalitarian context where individuals 
have options to resist centralized authority by 
exercising autonomy, avoiding excessive obliga-
tions, and mobility (i.e., fissioning). According to 
many ethnographic and archaeological examples, 
elite groups made use of the egalitarian ideologi-
cal structure to overcome these problems, chang-
ing it eventually to reinforce the chiefly position 
(e.g., see several papers in Earle 1991b; see 
Helms 1979, 1992). Thus, it is proposed here that 
in the case of pristine chiefdoms, where ideology 
was used as the main source of power, the develop-
mental process had to be gradual and not 
abrupt, as suggested by many (see various papers 
in Drennan and Uribe 1987; see Earle 1991b), due 
to the difficulty of shifting from a group-oriented 
to a chiefly ideology. This might not be true for 
secondary chiefdoms nor for pristine chiefdoms 
where chiefly power was based on secular power 
or force.

While both the adaptationist and political 
models predict a correlation between the develop-
ment of social complexity, population increase, 
and intensification of production, they differ in 
their handling of the ideological structure. 
Interestingly, although some adaptationist models 
include changes in the ideological structure 
mainly to emphasize the managerial position of 
the chief, most of them do not predict the change 
in the ideological realm to reinforce chiefly insti-
tutions as an intermediary between the natural 
and the supernatural worlds. If chiefs acquired 
their power and authority from their sociofunc-
tional position, then there is no need to use reli-
gious ideology to reinforce and legitimize their 
authority. In this view, chiefly benefits are con-
sidered a privilege for “public servants” and not a 
right of the position or institution they represent. 
In contrast, most of the political models stress the 
importance of the use of ideological mechanisms 
to increase the status, power, and authority of the 
emerging elite. Under these circumstances, chiefs 
need to reinforce their authority continuously. In 
most cases this is accomplished through the use 
of the ideological structure, particularly by claims 
of proximity to the supernatural world, ancestors, 
or deities (see Curet 1991, 1992b for a more elab-
orate discussion of political models).

Following a similar line of thinking and using 
the early European chronicles, Moscoso (1986, 
1987) has argued against the adaptationist models 
suggested for the Greater Antilles and stressed the 
“exploitative” nature of Caribbean chiefdoms of 
late prehistoric groups. Although he is not clear in 
explaining why a particular lineage of society 
came to amass so much power (Hulme 1988:113), 
Moscoso illustrates how chiefly groups manipu-
lated religious ideology to control surplus in the 
form of tribute and to acquire prestige and power. 
However, his discussion centers specifically on 
the fully developed chiefdoms of the late prehis-
toric and early contact periods. Little attention is 
paid to the early developmental stages of social 
complexity. Archaeological data are needed to 
study early political developments.

In a recent study I tested the premises of sev-
eral population/resource imbalance models sug-
gested for the Greater Antilles (Curet 1992b). 
After comparing population and carrying capacity 
estimates for the Valley of Maunabo, Puerto Rico, 
under conservative conditions, my results demon-
strated that the local environment was able to sup-
port larger numbers of people than the ones 
estimated for prehistoric times. Two main conclu-
sions can be derived from these results: (1) pre-
historic populations never reached or even 
approached the minimum carrying capacity of the 
region, and (2) there is no reason to believe that 
prehistoric groups overexploited the local envi-
ronment, even if they were producing some sur-
plus. Since these conclusions do not support the 
main premise of the adaptationist models pro-
posed for the Greater Antilles, these models can 
be rejected until more supportive data are avail-
able. In light of this evidence, political models, 
thus, seem to be more reasonable for explaining 
the development of complexity in the Greater 
Antilles. However, as with the adaptationist
model, these models have to be tested rigorously in future research.

Although the previously mentioned regional project did not measure the variables necessary for testing political models, recent archaeological research in Puerto Rico provides information upon which to base some suggestions in this respect. Even though these data are sketchy and in most instances come from geographically separate areas of Puerto Rico, I believe they can be used to present some support for this kind of model and to prepare the basis for future research aimed at testing the political models. The discussion presented here emphasizes cultural changes on the eastern side of Puerto Rico (i.e., Virgin Passage) since more information is available for this region. Some evidence from the west side (i.e., Mona Passage) also is considered (Figure 1). The purpose of this paper is to present the evidence and discuss it from the perspective of the political models. As discussed below, it appears that the cultural changes are related to the mechanisms by which elite groups manipulate religious ideology to acquire and maintain power, authority, and prestige over the rest of the population.

A description of change in the archaeological record is presented in the next section. Then a model to explain some of the changes in material culture that correlate with the development of chiefdoms is presented. This model is based on previous anthropological and archaeological studies of complex societies in different regions of the world. The model deals particularly with diachronic changes and the relationship between chiefly power, the control of elite groups over the religious ideology, and the representation of this ideology in the material culture. However, this model is by no means complete nor final, and more studies exclusively directed to this problem are needed to refine it. The archaeological evidence is then discussed and compared to the expectations raised by the model.

The Archaeological Record

The archaeological record in Puerto Rico incorporates a number of changes that correlate with what seems to be the development of social complexity. Particularly, the following changes between the Saladoid and Ostionoid series are considered in the discussion that follows: (1) a shift in ceramic styles and lapidary work, (2) the development of ball courts and plazas, (3) possible changes in household sizes, (4) changes in religious rituals, (5) changes in mortuary practices, (6) intensification of agricultural production, and (7) trends in settlement patterns (including demographic trends).

The Cedrosan Saladoid Subseries

The Saladoid ceramic series (300 B.C.–A.D. 600) represents the first agricultural and ceramic groups that migrated to Puerto Rico from the South American continent (Rouse 1952, 1964, 1982, 1986, 1989, 1992). This tradition is characterized by high quality ceramics, which have no counterpart in Caribbean prehistory. In general, Saladoid ceramics are hard, relatively thin, well-fired, and of fine paste. Decoration normally consists of painting the vessels with one or more colors, white-on-red, white-on-orange, and red-on-buff being the most common combinations. Other decorative techniques include false-negative decoration, crosshatched incisions and engraving, excision, and modeled zoomorphic and anthropomorphic adornos, among others (Roe 1989:269).

Two styles have been defined for the Saladoid tradition in Puerto Rico: the Early Saladoid and Cuevas styles. For the purpose of this argument and for the sake of simplicity, the term Early Saladoid is used to include both the Hacienda Grande and La Hueca ceramic styles.1 Ceramically, the Early Saladoid styles (300 B.C.–A.D. 400) are characterized by monochrome, bichrome, and polychrome designs, the use of incisions (especially zone-incised crosshatched designs), the presence of effigy vases and bottles, and modeled-incised decoration. White-on-red painted depictions of curvilinear, geometric, and anthropomorphic designs are particularly characteristic of these styles. In addition, the Early Saladoid styles (especially La Hueca style, see note 1) are associated with great amounts of stone ornaments made of exotic materials (Chanlatte 1979; Chanlatte and Narganes 1983, 1986; Cody 1991, 1993; Rodríguez 1993; Sued Badillo 1974).
Compared to the Early Saladoid style, the Cuevas style (A.D. 400–600) experienced a decrease in the use of polychrome painting, modeling, and incisions for decoration. However, other decorative forms, in particular white-on-red pottery, were still retained, but with a shift towards the use of geometric designs. Through this period a gradual disappearance of the use of paints is registered in the archaeological record, leaving only monochrome painted vessels and simple modeled face lugs by its end.

The people of the Saladoid series do not seem to have engaged in the construction of monumental architecture for religious ceremonies. Nevertheless, houses within the villages were arranged around a central plaza that had multiple functions (e.g., Chanlatte Baik and Narganes Stordes 1983; Rodríguez 1991; Rouse 1992:80; Siegel 1989; Siegel and Bernstein 1991) and, in addition to domestic activities, it might have been used as a dancing area, cemetery, and ball court (Rouse 1992:80). Houses seem to have been similar to the South American maloca (Hugh-Jones 1985; Schinkel 1992; Siegel 1989; Versteeg 1989, 1991; Versteeg and Schinkel 1992) and tended to be large enough to shelter more than 60 people (Curet 1992a; Schinkel 1992; Siegel 1989), probably members of extended families. In general, sites consisted of relatively large, independent villages and were located close to rivers and at a short distance back from the shore during the early part of the series. However, during the time of the Cuevas style the interior mountains of the island began to be populated. No site hierarchy is apparent during this ceramic subseries (Curet 1992b; Rodríguez 1992).

Religious rituals are evident in different aspects of the archaeological record. Snuffing vessels used in rituals involving hallucinogens are common, particularly during the Early Saladoid phase. In addition, it is during this series that the first zemies or idols appeared, indicating the beginning of a cult that has been referred to as zemieism (Stevens-Arroyo 1988). The small size of the idols and their wide distribution seem to indicate that they were used mostly in household rituals, and not in communal ones. Other ornamental artifacts have been found in the form of lapidary amulets, which are relatively homoge-

neous and, due to their repetitive nature and the consistency of their representations, seem to carry some symbolism, possibly religious. Although the evidence for ceremonialism during the Saladoid series is abundant, to the best of my knowledge, no significant social differentiation has been reported for the intrasite distribution of such artifacts. This seems consistent with the idea that during this time prehistoric groups were organized in egalitarian communities. Deceased people were buried in cemeteries in the central plazas of the villages. At least four of these cemeteries have been partially excavated at the sites of Monserrate (see Appendix in Rainey 1940), Tibes (González Colón 1984), Maisabel (Budinoff 1991; Siegel 1989), and Punta Candelero (Crespo 1989, 1991; Rodríguez 1991). None of these investigators has reported any differential treatment of the deceased that could reflect status differentiation, although in some cases burials varied in the items included and in their quantity.

In terms of the economy, to date there is no evidence for agricultural intensification or surplus production during the Saladoid series. Due to the lack of evidence for intensive production, it has been assumed that staple production relied primarily on slash-and-burn agriculture. Products from hunting, fishing, and shell and crab gathering seemed to have complemented the diet (de France 1989; Wing and Reitz 1982).

The Elenan Ostionoid Subseries

The Elenan Ostionoid subseries (A.D. 600–1200) is characterized by a dramatic decrease in the quality and aesthetics of the ceramics. During the early part of this subseries (i.e., the Monserrate style, A.D. 600–900), the technology and shapes of the late Cuevas pottery were retained, including the tabular lugs and red-painted surfaces, without any major addition of decorative techniques. Gradual decorative change led to the appearance of the Santa Elena style (A.D. 900–1200). Modeling and incision, particularly zoomorphic and anthropomorphic handles, were used again. Vessel forms were simplified, and red paint was used less. Most of the diagnostic decoration is restricted to crude, vertical, rectilinear incisions close to the rims of bowls, which are frequently accompanied by appliqué strips and
vestigial handles. Technologically, the ceramics became softer, thicker, coarser, and rougher. This “devolution” in the pottery is accompanied by a decrease in the number and quality of lapidary objects.

It is probably during the early part of this subseries that the first ceremonial ball courts or plazas were constructed, although it is possible that they were more developed with the first complex of such structures (i.e., what have been called, in Caribbean archaeology, ceremonial centers) constructed during the second half. Plazas dated to this subseries have been reported for many sites (Alegria 1983), including the sites of El Bronce (Robinson et al. 1983, 1985) and Las Flores (Veloz Maggiolo 1977:64, 1991:170), and at the earliest ceremonial center of Tibes (González Colón 1984). Interestingly, the largest plaza in Tibes was built on top of a Saladoid cemetery, suggesting a continuity in the use of ceremonial space and practices. The construction of monumental architecture seems to evidence the allocation and possible control of labor in activities not related to subsistence production.

During the Monserrate style, houses tended to remain large for extended families. However, during the Santa Elena style they decreased in size dramatically, possibly to house mostly nuclear families (Curet 1992a). While more studies are needed, this drastic shift seems to reflect major changes in production, distribution, reproduction, and transmission within the household group. Arrangement of houses within villages varies greatly. Although in some cases the structures seem to have been arranged around a central plaza (e.g., El Bronce and Maisabel), in others they followed more or less a linear pattern along the coast. During this time the indigenous population continued expanding to the interior of the island, and population increased rapidly on the basis of the large numbers and sizes of sites, especially of the Santa Elena style (Curet 1992b). However, the settlement pattern for this period differs from the one for the Saladoid series in two ways. First, a hierarchy of site sizes developed (Curet 1992b; Rodríguez 1990, 1992; Walker and Walker 1983); and second, a combination of nuclear village and dispersed settlement pattern characterizes the distribution of sites throughout the landscape.

Artifacts related to religious activities decreased in both numbers and quality. Snuffing vessels are almost completely absent during the whole subseries. Three-pointed zemies are still present but are less common. During the Monserrate style they are small, similar to the Saladoid ones, while they tend to increase in size during the latter part of the subseries. Besides modeled representations of bats and zoomorphic creatures, the pottery of this time presents very few other symbolic representations. Stone ornamental artifacts also decreased in number and crafting quality. Treatment of the dead seems to have varied across time and space. In some cases burials were concentrated in cemeteries during the Monserrate style (e.g., Budinoff 1991; Siegel 1989), while in others they were interred either in trash middens or under house floors (e.g., González Colón 1984). To the best of my knowledge cemeteries have not been reported for the Santa Elena style nor has evidence of status representation been discovered for any burial of the Elenan Ostionoid subseries.

It is during the latter part of this subseries (i.e., Santa Elena style) that the first evidence of intensive agricultural production appears not only in Puerto Rico but also in the Dominican Republic (Ortiz Aguilú et al. 1993; Rouse 1992:98, 109; Veloz Maggiolo 1977:64, 1987:80, 1991:170). The use of mounded fields or montones has been reported for the south coast of Puerto Rico during the Santa Elena style (Veloz Maggiolo 1987), while terraces have been discovered in the central mountains, which date to this period (A.D. 600–1200) (Ortiz Aguilú et al. 1993). Finally, it is during the times of the Santa Elena style that chiefdoms (probably group-oriented chiefdoms; see below) seem to have first developed in Puerto Rico. Rouse (1992:108, Figure 8) has identified this time period as the beginning of the Formative Age.

The Chican Ostionoid Subseries

The ceramics of the Chican Ostionoid subseries (A.D. 1200–1500) also are characterized by modeled-incised decoration, although the content, variability, and quality of those designs vary greatly from the Elenan Ostionoid. Most of the
incised designs consist of different combinations of horizontal lines parallel to the rim; ovoid, circular, and semicircular figures sometimes enclose horizontal dashed lines or dots. Single incised lines parallel to the rim, and small, modeled head lugs representing anthropozoomorphic figures also are common. Most of the differences among the different styles of this subseries (i.e., the Boca Chica, Capá, and Esperanza styles) consist of different degrees in the complexity of the designs. However, some differences in vessel shape also seem to exist. For example, in the Dominican Republic the Boca Chica style includes a high number of bottles and effigy vessels, which seem to be almost absent in the Capá and Esperanza styles of Puerto Rico. Recently Roe (1993) has correlated some ceramic designs with mythical representations in rock art, arguing a “cross-media isomorphism” in Taíno art.

Although the chronicles state that houses of this period in the Bahamas, Cuba, and Dominican Republic were large enough to shelter several families, the archaeological record presents a contradictory view, at least for Puerto Rico. As in the case of the Santa Elena style, houses of the Esperanza style (A.D. 1200–1500) of eastern Puerto Rico tended to be small in size, possibly for nuclear families (Curet 1992a). In villages, houses were arranged around a central plaza or ball court delimited in some cases by stone rows (e.g., Robinson et al. 1983, 1985). Archaeologically there is little architectural or residential evidence for status differentiation. However, the scarcity of this kind of evidence might be the product of lack of archaeological research, since most recent work has concentrated on earlier periods, and late sites tend to have been disturbed or destroyed by agricultural practices and modern development.

Unusually large villages that included several plazas or ball courts also have been reported for this period (Alegria 1983; García Arevalo 1990; Mason 1917, 1941; Oliver 1992). The settlement pattern included both nucleated villages and isolated houses. A site hierarchy has been reported for this time (Curet 1992b; Rodríguez 1990, 1992; Siegel 1991a), which seems to follow a central place model where small sites are located around a large, multiplaza site.

Religious paraphernalia increased in number, quality, and size during the Chican Ostionoid subseries. Zemies became larger and included a wider variety of mythological beings, although the small three-pointed idols characteristic of previous periods also were present. Idols made of cotton, wood, and stone are not uncommon for the Chican subseries. Religious artifacts used in different rituals also increased in number, complexity, and raw materials (Rouse 1982:52, 1992:121). Vomiting spatulas, sniffing tubes, stone collars and elbows, duhos or ceremonial benches, and small tables or platters made of shell, bone, stone, or wood pertaining to this period have been found in Puerto Rico and Hispaniola (Rouse 1992:119–121). The increase in the quality, size, and frequency of religious artifacts has been interpreted by most Caribbeanists as an increase in religious, political, and social complexity.

Most burials were located under house floors, a practice also reported by the early chronicles, although possible cemeteries have been reported for the Dominican Republic (Veloz Maggiolo et al. 1973). However, despite the high complexity of the sociopolitical system and the marked social differentiation among different internal groups described in the chronicles, there has been no archaeological report of differential treatment of burials. The ethnohistoric sources state that chiefs were buried in more elaborated tombs, accompanied with several offerings, and in some cases accompanied by one of their wives. A possible example of this last practice has been reported in the Dominican Republic (Veloz Maggiolo 1973), but no evidence has been found in Puerto Rico. Again, this lack of information on status differentiation among burials might be an artifact of the scarcity of studies on Chican Ostionoid sites.

According to the chronicles the Taíno Indians of this period utilized a combination of intensive and nonintensive agricultural strategies including the montones, irrigation systems in relatively dry regions, and slash-and-burn (Sturtevant 1961). The use of this combination of techniques is responsible for the large surplus production of staples reported by the Spaniards. The political organization of this cultural group seems to have ranged from simple to paramount chiefdoms.
Contrary to traditional views, it is believed now that not all regions of Puerto Rico and Hispaniola belonged to paramount chiefdoms; a mosaic of different levels of complexity seems to have existed throughout the Greater Antilles (Curet 1992b; Wilson 1990:108).

**Previous Explanations for Cultural Change in Caribbean Prehistory**

The dramatic change from a fine, richly decorated Saladoid ceramic to a low-quality, poorly decorated pottery during the Elenan Ostionoid series is hard to explain. One is tempted to argue that this decrease in pottery decoration and quality is related to some sort of cultural impoverishment of the island groups, where ceremonialism and symbolic representations in the arts decreased in importance. In fact, Rouse (1982:52) has compared this reduction in religious art during the Elenan period with the dark age between the Classic and Renaissance art in Italy. However, when other aspects of the archaeological record (i.e., evidence showing a development of political, economic, and religious complexity) are taken into consideration, a contrasting picture emerges. This evidence demonstrating an increase in economic, political, and religious complexity does not support the idea of cultural impoverishment.

A wide variety of arguments have been suggested for explaining this change in material culture. The earliest ones (Alegria 1965; Rainey 1940) argued for new migratory waves from South America, influencing or replacing the Saladoid groups. However, Rouse’s later studies (1952, 1964, 1982, 1986) suggested that the transition from the Saladoid to the Ostionoid series was a local development with little external influence. Adaptation to insular environments also has been invoked as an explanation for the ceramic shift (Pons Alegria 1983; Roe 1989). Other explanations relate the shift in material culture to changes in subsistence systems, produced by an increase in population and/or a decrease in resource availability (Goodwin 1979, 1980; Lopez Sotomayor 1975; Veloz Maggiolo 1977, 1991). Although most of these suggestions present factors that could have influenced the shift in ceramic styles, they do not address the concomitant increase in religious complexity.

In another line of thinking, Rouse (1982:52) has implied that ceramic shifts are related to religious trends, although he does not explain the nature of such a correlation. Veloz Maggiolo (1974) has suggested that these shifts in material culture are intimately related to changes in ideological structure, which included the development of chiefdoms. Nonetheless, although he argues for the presence of the relationship between economy, politics, and ideology, he does not explain the dynamics involved in such changes.

In a recent paper, Roe (1989) has argued that the climax of Saladoid ceramics was the result of long-distance trade or interaction spheres with groups from the South American continent. Although Roe recognizes that ceramic changes may have been influenced by shifts in political spheres (1989:297–298), he believes that the rupture of this interaction is the main factor accounting for ceramic changes in the post-Saladoid Caribbean. Roe’s argument postulates that these earlier interactions produced large audiences, who received the symbolic messages represented in ceramic designs. However, with time, and due to local adaptations to insular environments, such interactions ceased, restricting the potential audience solely to local groups. This change caused a decrease in the amount of information sent in symbolic messages, producing at the same time a reduction in ceramic decorations and quality.

Finally, I have suggested (Curet 1992b, see below) that the decrease in decoration between the Saladoid and Ostionoid series is related to the development of social complexity. In particular, I argue that this shift in ceramics represents increased control by the emerging elite groups over symbols and ideology in general. A more detailed discussion of this argument follows.

**The Model: Chiefly Power, Ideology, and Material Culture**

Before discussing the model, some definitions of terminology are in order. First, the concept of chiefdom used in this work does not refer merely to “a polity that organizes a regional population in the thousands” as defined by Earle (1991a:1) and Carneiro (1981:45). It also refers to a sociopolitical system with an institutionalized office of lead-
ership with heritable social ranking and economic stratification (Service 1962). In this type of sociocultural integration, ascribed status is more prevalent than achieved status, and access to status and resources is more restricted than in egalitarian societies.

I use the definition of power suggested by Cohen (1979:88): “an abstraction referring simply to the relations of domination and subordination.” In addition, I make use of his perspective on the relationship between power and symbolism. He states, “Power relations are objectified, developed, maintained, expressed, or camouflaged by means of symbolic forms and patterns of symbolic action, both of which are referred to here as symbolism” (Cohen 1979:89). The concept of ideology used here is the one presented by Bloch (1985:33): “a system of knowledge which legitimates the social order by building up schemes about the nature of the world which place authority at the source of all good things.”

In building up the schemes, ideologies make use of symbols or units of elaborate ritual (Bloch 1985:36). These definitions of ideology and symbols are concomitant with the relationship between symbolism and power as expressed by Cohen. The development of ideology in a society is strongly related to the appearance of social hierarchy (see discussion that follows). In nonindustrialized societies, ideology is built around religious beliefs and rituals and comes from past, already established, nonideological cognition (Bloch 1985:34, 44; see also Drennan 1976).

Originally, when chiefdoms were recognized by anthropologists as a stage in social evolution, the chief’s power was seen as the result of a redistributive economic system (Sahlins 1958; Service 1962, 1975). Later studies (e.g., Peebles and Kus 1977), however, have demonstrated that redistribution is not the only source of power in most chiefdoms. Recently anthropologists have come to acknowledge that chiefly power has three main components: control over the economy, military force, and ideology (Earle 1989:86, 1991a:4; Vincent 1978:177). Although the three components seem to be present in most chiefdoms, typically one of them is more emphasized in the political structure than the others.

Recently, Anderson (1990) has argued that the more emphasized component in a particular chieftainship often depends on the historical nature of its emergence and subsequent development (i.e., pristine vs. secondary chiefdom). Although recognizing that some control over the economy is present in most of the cases, he suggests that ideological power is more common in pristine chiefdoms, while secondary chiefdoms use more secular power or force (1990:32). Of these, ideological power, in the form of rituals in which the elite legitimize their rule, is more effective and stable than the use of military force but takes a longer period of time to establish. Thus, the developmental process of some pristine chiefdoms is expected to be gradual and should show a process of increasing complexity roughly shifting from an egalitarian organization to simple chiefdoms and, depending on the particular case, eventually to a complex chiefdom.

With regard to pristine chiefdoms, it seems that, at least initially, previous communal rituals stressing activities reinforcing community bonds and norms of behavior are more effective measures to start establishing elite ideology than rituals stressing status differences (Anderson 1990:31; Drennan, cited in Earle 1989:86). That is, emergent elite groups make use of the previous egalitarian ceremonial structure as a starting point to establish their chiefly ideology. At this evolutionary point leaders cannot guarantee independent power, however, as institutions of communalism inherited from tribal antecedents are still present. The institutionalization of elite power is inhibited by communal traditions; expressions of chiefly authority produce resistance from the people subject to control (Nassaney 1992:131).

Thus, the ideological structure of emerging chiefdoms tends to emphasize communal rituals and symbolism, while diminishing those carrying individualizing ideas and status. In this context, we expect to find an increase in the construction, elaboration, and use of communal structures, in most cases, monumental in nature. In contrast, ornamental artifacts of personal use that symbolize individual prestige and religious/mythological context should decrease in number and in elaboration. The decrease in artifacts of individual prestige is necessary to: (1) eliminate any possi-
ble competition of the emerging elite, and (2) avoid weakening the new communal approach. Utilitarian artifacts that also carry symbolism would suffer a decrease in symbolic representations that could undermine the emphasis on communal cohesiveness. However, these changes are not expected to be absolute, as little evidence of individual status differentiation or inequality might be apparent at this stage. In terms of settlement pattern, a site hierarchy and possibly a central place arrangement with no more than two levels might emerge, since the chiefly site tends to attract populations from other settlements in a centripetal fashion.

Later, as pristine chiefdoms and chiefly power are better established, a gradual shift to an ideology that stresses elite authority will take place. Thus, elite ideology will tend to start reinforcing group unity and behavior while gradually transforming it to legitimize chiefly power in the person of the chief. Although ideologies legitimizing chiefly power take many forms (e.g., Steward and Faron 1959:177), most of the time they emphasize the sanctity of the chief and his/her position as intermediary between the supernatural and natural worlds (Friedman and Rowlands 1977; Helms 1979, 1987, 1992; Marcus 1989). The control over symbols and esoteric materials (which might represent contact with places that are geographically and cosmologically located beyond the border of the group’s territory or “universe”), and their incorporation in local ceremonies, reinforce the intermediary aspects of the chief’s person and his/her power (Cohen 1979; Helms 1979, 1987; Vincent 1978). The use of nonpolitical, religious symbols in power relations is not uncommon. For example, Godelier (1978:181) has pointed out that religion is the dominant form of ideology in classless societies and emergent class societies. Cohen (1979:87) also has stressed that “most of the symbols that are politically significant are overtly nonpolitical.” This condition creates an ambiguous situation in which the symbols have different meanings and are not given a precise definition. In chiefdoms this ambiguity serves the purposes of elite groups since now symbols will have both political and religious meanings. Under these circumstances, at least in primary chiefdoms, the position of chief has a dual function (i.e., political and religious) that cannot be separated in its parts until the developmental process is in a later stage (e.g., see Kirch [1991] for an example where different chiefly functions were shared with priests and warriors).

During this later stage an increase in social inequality should be indicated in burial and residential evidence and in the number and differential distribution of high-status artifacts, at the same time that previous structures used to reinforce communal bonds are reinterpreted to focus more on the intermediary position of the chief. Artifacts or structures that are used in religious ceremonies to contact the supernatural or that symbolize the intermediary position of elite groups should become more abundant and complex. The settlement pattern should present the same trend of site hierarchy and central place arrangement, although to a greater degree; the site hierarchy might show three tiers rather than two.

The transition from an egalitarian to a chiefly ideology can also be approached from another perspective. By definition (Nassaney 1992:117; Service 1962), a major difference between tribal societies and chiefdoms is that in the former most of the people have access to status (i.e., achieved status) and resources, while in the latter this access (at least to status) is more restricted to the elite (i.e., ascribed status). Since most of the time status is marked by symbolic and religious representations, then differential access to resources includes differential ownership of symbols.

More restricted access to status and resources also should be reflected in religious structures and the material culture. Although most people (given the right gender, age, and abilities) in egalitarian societies could present offerings or “contact” the supernatural personally, in complex societies this access is more limited, and in many instances it is accomplished through the intercession of the chief or a religious specialist, who acts as an intermediary (Friedman and Rowlands 1977; Helms 1979, 1992; Moscoso 1987). Thus, in terms of material culture, commoners in already developed chiefly societies will have less access to symbols and religious iconography than in egalitarian societies. However, in emerging chiefdoms, while commoners are gradually losing their access to prestige and esoteric symbols, the
elite cannot make use of them in an overt manner; otherwise, they would encounter a conservative reactivation of egalitarian principles that emphasize the group orientation of the ideological structure. Therefore, in emerging, simple chiefdoms the material culture should lack noncommunal symbolic representation and status differentiation. Later on, once the institution of chief is better established, symbolic representations might increase, although not evenly across the social sectors.

It is important to stress, however, that although most of the symbols are controlled by a small sector of the social groups, not all of them are related to and monopolized by the elite group. Some symbols might actually be related to commoners or other institutions with little political significance such as descent groups. For example, for preclassic Oaxaca, Marcus (1989) argues that certain symbols representing commoner groups might symbolize their different original egalitarian lineages. Therefore, the social hierarchy may also emphasize a hierarchy of symbols rather than exclusive access to symbols. Furthermore, since, in general, chiefdoms are relatively unstable social organizations (e.g., see Anderson 1990), elite groups may not only make use of a greater number of high-status symbols, but they may also include commoners' or low-status symbols in their repertoire to maintain an ideological nexus with the rest of the population and gain more support.

Thus, in terms of material culture it is expected that simple, emerging chiefdoms will present a decrease in the number and quality of symbolic representations that reflect personal status, while complex, “mature” chiefdoms should show qualitatively and quantitatively increased differentiation of symbolic representation. Although a hierarchy of symbols might be present, some high-status symbols should have a more restricted distribution, while others related to commoners or the ethnic group may show a more generalized distribution.

In summary, if social complexity developed from conflict and competition as suggested by the political models, then it is expected that initially the shift from tribes to pristine chiefdoms should include an emphasis on communal ritualism, where group cohesiveness is emphasized, at the same time that access to status and religious symbolism decreases. Later, as the elite’s authority is better established, religious rituals tend to emphasize chiefly authority. This trend, in which the ruling elite concentrates on controlling the ideological structure and its symbolism to legitimize its power, should be detectable archaeologically. The restrictions in access to status and religious ideology should be evidenced by a decrease in the representation of symbols, particularly on artifacts of domestic and personal use that have the ability to carry symbolic messages, and on limited distribution within a site or intraregionally. At the same time, at least in the early stages, symbolism should be retained or increased in aspects of artifacts and features used in communal ceremonies. Settlement pattern evidence should show a site hierarchy and possibly a central place arrangement from the early developmental stages. Later stages should present the same trend but stronger and, in some cases, in more complex arrangements.

This distinction between emerging (simple) and “mature” (complex) chiefdoms as presented here is analogous to what Renfrew (1974) has called group-oriented and individualizing chiefdoms, respectively. Although Renfrew did not present these types within an evolutionary context, according to the model presented here, I expect that group-oriented chiefdoms are simple, emerging complex societies, while the individualizing chiefdoms have a more complex social organization. The description of group-oriented, emerging chiefdoms as described by Renfrew and used in this model is also comparable to the category of “complex tribes” described by Hoopes (1988; see also Habicht-Mauche et al. 1987 cited by Hoopes). According to Hoopes this term describes those archaeological cases where material evidence of “communal architecture, long-distance trade, specialized crafts, and a degree of social differentiation” appears in the absence of evidence for centralized authority or individual chiefs. However, besides not having any evolutionary or dynamic value (i.e., Hoopes’s concept does not explain or describe the process of change from “simple” to “complex” tribes), this category does not take into consideration the possibility of
having central authorities that are archaeologically invisible due to the lack of conspicuous and flagrant exhibition of status. I believe that studies of these groups have to emphasize the nature and context of the communal activities, long-distance trade, specialized crafts, and degree of social differentiation, rather than the presence or absence of these particular features. For example, it is crucial whether an irrigation system was developed by an egalitarian social group to support an increasing population in an arid region, or, rather, was constructed to increase the surplus to finance elite activities and projects.

Although this model proposes that the rise of pristine chiefdoms was the result of a long process, it also suggests why it often appears to have occurred at a rapid rate in the archaeological record. During the early stages of development (probably the longest stage), pristine chiefdoms produce very little archaeological evidence of social differentiation due to the emphasis on communalism. During later stages, the ideological emphasis shifts to focus on the person of the chief and the elite, stressing social differentiation. Social hierarchy is more overt, and, therefore, detectable in the archaeological record in this final stage. In sum, although social complexity might have taken a long time to develop, we are able to detect most of the evidence for social differentiation during the advanced stages of the process. The impression of a fast social process is only an archaeological artifact.

As a final comment I stress that this model does not present the only trajectory for the development of chiefdoms; a wide range of trajectories could have been followed by different social groups (Drennan 1991; Sanders and Webster 1978). The model concentrates mainly on pristine chiefdoms developing from egalitarian societies and does not include simple chiefdoms that “devolved” from previous more complex chiefdoms in a cyclic process as described by Anderson (1990; see also Petersen 1985). This model, however, is in agreement with Friedman and Rowland's argument (1977) on epigenetic models concerning new, complex social structures that arose from previous egalitarian conditions. Although it is suggested here that shifts in political and religious structures can produce changes in material culture, it is important to recognize that other factors might also influence the direction of such changes (Roe 1989; Braun 1991).

Discussion

From the perspective of the model presented above, it can be argued that if early complex societies in the Greater Antilles were developmentally pristine, as most Caribbeanists conclude (Wilson 1990:6), and if chiefly power was acquired and maintained through the control of religious ideology, then these expectations should be observed in the archaeological record. It is expected that during the early developmental stages of chiefdoms, domestic and personal artifacts that carry ideological messages should decrease in their display of symbols, while items representing communal ritualism should increase. These expectations are comparable to the changes in the archaeological record registered for the Cedrosan Saladoid/Elenan Ostionoid transition. During this period a decrease in symbolic representations is apparent in artifacts of personal or domestic use, such as ceramics and, possibly, personal ornaments or stone, shell, or bone zemies as well. It is clear that Elenan pottery presents not only a more restricted set of decorative techniques than the previous Saladoid groups but also simpler and less diverse designs and symbolic representations.

This argument does not contradict completely Roe’s (1989) suggestions concerning the relationship between the cessation of pan-Caribbean long-distance trade and ceramic change. It is possible that the ceramic changes also were influenced by a decrease in information needed to be sent and in the recipient audience. Nevertheless, I think that the shift in trading interaction was not merely caused by the adaptation to insular environments as Roe suggests but possibly due to the control of extraregional relations by emergent elite groups. Although drastic changes in trading have been recognized in the archaeological record, trade does not seem to have ceased completely in later times. For example, Helms (1987) argues for spheres of interaction between late prehistoric chiefdoms from the Greater Antilles and those from Panama and possibly Colombia.

Although more research is needed, it is possi-
ble that stone artifacts that were used as personal ornaments or idols suffered a similar transition. For example, zemies, which during the Saladoid period seemed to have been small personal items, increased in size during the late Elenan subseries, while the small ones decreased in number (Rouse 1982; Siegel 1991a). This increase in the size of idols has been interpreted by Walker (1993) as a tendency towards more communal or public ceremonialism (see also Roe 1989:280). In addition, the decrease in the number of small, ornamental lapidary artifacts and raw materials used from the time of Saladoid, particularly during the Early Saladoid styles, to the Elenan subseries seems to represent a decline in the number of personal symbolic artifacts (Chanlatte and Narganes 1983, 1986; Cody 1991, 1993; Rodriguez 1991, 1993; Rodriguez and Rivera 1991; Roe 1989).

At the same time that personal or domestic artifacts decreased in symbolic representations, there was an increase in communal ceremonialism. First, as discussed above, the use of zemies became more public. Also, the development of ball courts and ceremonial centers (Alegria 1983; González Colón 1984) during the Elenan period indicates an increase in “public” rituals. I already mentioned that some of the early Elenan ball courts from the ceremonial center of Tibes are located over earlier Saladoid cemeteries, suggesting a continuity in the use of ritual space between the two periods (González Colón 1984). A similar continuity between Saladoid and Taíno ancestor cults also has been suggested by Siegel (1991a), who argued that they were used by the Taíno elite to reinforce their power. This continuity in rituals through time also was predicted by the model, because it contends that pristine chiefdoms use the established ritual structure to implement chiefly ideology. Finally, Roe (1991, 1993) has argued that the development of petroglyphs (which I suspect were probably used in “public” or communal ceremonies) in Puerto Rico is related to the Elenan period, in particular with the use of the ancestor cult and mythology by chiefs to legitimate their control over important resources (e.g., fishing areas) and territories. This evidence also implies an increase of “public” symbolism and ceremonialism.

All this evidence suggests that the development of social complexity in the Caribbean involved the control of ideology by elite groups, creating eventually what can be called an “official” religion. This contrasts greatly with previous periods in which the archaeological evidence indicates a more personal interaction between the supernatural and the individual, as is represented by the widespread use of symbolism in a wide variety of artifacts and media.

Objects of status differentiation and possibly evidence of the control of religious ideology emphasizing the chief’s individual power seem not to be present until the Chican Ostionoid subseries. It is during this time that the most elaborated religious paraphernalia appeared, which, according to the descriptions in the chronicles, was controlled by elite groups composed mainly of the chiefs, their immediate assistants, and religious specialists. Particularly the chief and the religious specialists were the only ones allowed to participate in the ceremony of the cohoba, a hallucinogen used for consulting the supernatural entities (Martir de Anglería 1964:196). The importance of this ceremony during the Elenan Ostionoid subseries is evidenced by a decrease in the number of snuffing tubes or vessels compared to the Saladoid series. Larger, new kinds of idols also are produced during the Chican Ostionoid period, including stone, cotton, and wooden idols.

The Chican Ostionoid subseries also produced other status objects which were not present before, such as stone collars and elbows, which have been argued to be related with the ball game and have a function similar to the stone yokes in Mesoamerican ball games (Alegria 1983). Nevertheless, these kinds of artifacts have not been found in Elenan ball courts, plazas, or ceremonial centers. If ball courts and plazas were located in Chican chiefly settlements, then it is possible that these stone artifacts are related more to chiefly ideology as symbols of high status than to the ball game, as suggested by many archaeologists (e.g., Alegria 1983).

Duhos (stools) used only by the chiefs in religious ceremonies, and related to their position, are another kind of artifact present only in the Chican Ostionoid subseries and which also emphasize the supernatural source of chiefly
power (Fernández de Oviedo 1959:117, 145). Thus, the information provided by the archaeological record combined with the early chronicles supports the suggestion that there was a shift in the ideological structure from a group-orientation during the Elenan Ostionoid to a more individualizing or chiefly-oriented ideology during the Chican Ostionoid.

In conclusion, the model for pristine chiefdoms presented here not only explains the "devolution" of ceramic styles between the Saladoid and the Elenan Ostionoid period, but also clarifies the contradiction of a concomitant increase in ceremonialism. In addition, it suggests that Caribbean chiefdoms were more complex in their origins and functioning than has been suggested previously. Future research in this area should concentrate on the specific paths taken by elite groups to control the ideology, economy, and sociopolitical structure, in order to arrive at a better understanding of the nature and dynamics of social and political changes.

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2. It has been suggested that many of these ceremonial artifacts might have existed in previous periods but have not survived until present times because of age and poor preservation. Although it is true that many of these artifacts were made of wood, cotton, or other organic materials, they also were made of more durable materials such as stone, shell, or bone. Thus, differences in preservation and age alone cannot explain the differential presence of these types of artifacts through time.

3. Interestingly, one of the criteria used by Steward to distinguish between Circum-Caribbean (chiefdom level societies) and Tropical Forest (egalitarian societies) cultures was this access to the supernatural world. He stated that Circum-Caribbean cultures had temple cults with idols served by priests (1974: 12), while in Tropical Forest cultures “most religious observances were private” (1974:15). I recognized that while most South Amerindian groups tend to have religious specialists for curing and divination, many permit people to contact the supernatural directly and others allow anyone to become a shaman. In other words, everyone has potential access to the supernatural; there is no monopoly of the religious structure as is the case in chiefdoms. In my argument on religious specialists in chiefdoms I am not referring to simple shamans who might have existed in these polities but to an even more specialized religious position which Steward referred to as priests. In most cases, priestly positions in chiefdoms seem to descend from the same descent line as secular offices (Service 1962:171).

Notes

1. I am aware that this term does not reflect the wide variety of possibilities for explaining the cultural affiliation of La Hueca style (see Siegel 1991b). Nevertheless, due to the lack of a better term I decided to use this one. I do not want to give the impression that I am ignoring the La Hueca debate. However, that debate is irrelevant to the arguments presented here, in which I attempt to explain the shift from a highly elaborated and decorated pottery (either or both from the Hacienda Grande or La Hueca style) to a more rustic, coarser ceramic tradition, a process that Roe (1989:270) has called “ceramic devolution.” In terms of politics and ideology, I believe (in agreement with Roe) that both the Hacienda Grande and La Hueca people (who might or might not have belonged to the same ethnic or migratory group) had similar political organizations and ideological structures. This, I would argue, explains why both “styles” have very complex ceramic wares.