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Chapter 13

THE SALADOID

Benoît Bérard

Pre-Columbian sites with similar artifacts were excavated at an early date in Trinidad (Howard 1943) and the West Indies (Rouse 1940), but the classification of these sites as reflecting a common culture area was not achieved until Cruxent and Rouse (Cruxent and Rouse 1958/1959) defined the Saladoid “series” (i.e., related “peoples and cultures”) following research in the Orinoco River valley of Venezuela. This name became widely adopted following the first international convention for the study of the pre-Columbian cultures of the Lesser Antilles (now IACA) in 1961, and it quickly replaced the appellation “Arawak” to designate the first Antillean ceramic groups. The Saladoid series culture area includes the Orinoco River basin, parts of the north coast of South America, and the Lesser Antilles and Puerto Rico.

The Saladoid series appears in the Middle Orinoco where it is associated with the first ceramic groups. This riverine component of the series constitutes the Ronquinan subseries. The Saladoid sequence in Venezuela has been the subject of a debate between Rouse (Rouse et al. 1976) and Roosevelt (Roosevelt 1977, 1980), on one side, and Sanoja and Vargas (Sanoja Obiente 1978; Sanoja Obiente and Vargas 1978; Vargas Arenas 1981), on the other (see Boomert 2000). La Gruta appears to be the first Saladoid complex in the Middle Orinoco where it seems to begin around 2500 cal b.c. It is followed by four other complexes expanding the distribution of Saladoid peoples in the region until cal a.d. 400 (see Heckenberger, this volume). The diffusion of the Saladoid series to the upper Orinoco (Cotuan complex) and the lower Orinoco (Saladero complex) also has been identified (Boomert 2000). The Saladero complex of eastern Venezuela is considered to be the first stage in the Saladoid expansion to the West Indies.

The groups associated with the Saladoid series in the Orinoco River valley are typical formative societies (Heckenberger, this volume). Living in villages located

along the river, their subsistence was based on horticulture associated with hunting, fishing, and collecting. Manioc is considered to be the most important cultigen (see Págan-Jiménez, this volume). It is associated with other root crops like sweet potatoes, arrowroots, yampee, topee tambu, tannia, and edible canna; and also with maize, peppers, beans, peanuts, cucurbits, and various fruits including avocado. Aside from this great variety of cultivated plants, dogs are the only domesticated animals. Ronquinan Saladoid ceramic production, predominantly made by coiling, is defined by its technical quality: it is thin and fine, well fired, and essentially sand tempered (Cruxent and Rouse 1958/1959; Vargas Arenas 1981). In addition to griddles, which are flat slabs of clay associated with baking cassava bread, the most common vessel shapes are unrestricted bowls and cooking pots. Frequently carinated, those vessels may have an inverted bell-shaped form. The less frequent restricted vessel shapes are jars and bottles. All of those pots are circular, generally with a rounded base, but sometimes with a flat one. Ronquinan Saladoid ceramics are characterized by a high degree of decoration. The most typical are white-on-red painted designs, shallow curvilinear and rectilinear designs, modeled biomorphic adornments and punctate rim pellets (Cruxent and Rouse 1958/1959; Roosevelt 1980; Vargas Arenas 1981). The lithic industry is composed of *manos*, metates, stone axes and non-secondary (expedient) worked flakes. The smaller flakes generally are considered to be cassava grater teeth. Therefore, if the Ronquinan Saladoid ceramic is very sophisticated and specific, their stone-tool assemblage corresponded to an Amazonian-Antillean *fonds commun*.

The first evidence of the Saladoid expansion into the West Indies appears in the lower Orinoco, Trinidad, and Tobago interaction sphere. It has been documented in site excavations at El Cuartel (Vargas Arenas 1979) and El Mayal (Cruxent and Rouse 1958/1959) in the Carumano zone (Venezuela) and Cedros (Rouse 1948) in Trinidad. Those sites have been integrated in the El Mayal and Cedros complexes by Rouse. They are clearly part of the Cedrosan Saladoid subseries that corresponds to the coastal and island Saladoid component and are dated to between the second century b.c. and the third century a.d.

The mechanisms for the movement of Saladoid cultural elements from the middle Orinoco to the lower Orinoco to the Venezuelan coast and to Trinidad are difficult to specify (i.e., diffusion and/or migration). The lack of a previous human presence in the Windward Islands indicates that at least this part of the Saladoid expansion involved migration to and colonization of unoccupied islands. Nevertheless, several questions remain open concerning the mechanisms, the rhythms, and the timing of this migration (Keegan 2004). The evaluation of the interaction between these new settlers, the Huecoid (or Huecan Saladoid) and the Archaic (pre-Arawak) groups in the northern part of the archipelago is an important field of investigation (Chanlatte Baik, this volume; Rodríguez Ramos 2010, this volume).

Concerning the social mechanisms linked to this migration, few elements can be advanced with confidence. First, the Cedrosan Saladoid migration into the Antilles is associated with a demographic expansion. They continued to occupy

the Venezuelan coast several centuries after their entrance into the archipelago. Second, a very low level of population density characterized this first movement. Only a few sites associated with the beginning of the Cedrosan Saladoid have been identified on each island (Bérard 2004, 2008a; Curet 2005; Haviser 1997). Third, strong links were maintained between communities inside the archipelago and those on the mainland. They are clearly materialized by an important exchange network (Knippenberg 2006). Fourth, early Cedrosan Saladoid groups can be defined as pioneer societies. They are characterized by a predetermined economic system and a strong cultural identity (Bérard 2004). They seem to maintain this system until the fourth century a.d. (Early to Middle/late Cedrosan Saladoid transition).

The first element of ongoing debate concerns the reasons for this migration. Several researchers have investigated this point, typically from the perspective of push and pull models. Internal sociopolitical mechanisms also can be proposed. For example, relatively small village communities can only sustain a low level of social hierarchy. Thus, this type of political system associated with a demographic expansion classically produces internal tensions and village divisions. This mechanism is at the heart of Saladoid expansion.

With regard to the timing and rhythm of this migration, the situation is far less clear. A small number of dates preceding 200 b.c. have been recorded at a few Ceramic Age sites in the Lesser Antilles and Puerto Rico. The earliest dates all come from the northern part of the archipelago, including St. Martin (Haviser 1991), Montserrat (Petersen 1996), Antigua, and Puerto Rico (Rodríguez Ramos, this volume). These very early dates are exceptional, even for sites where multiple contexts have been dated (cf. dates reported by Haviser [1991] and Bonnissent [2010] from Hope Estate site). However, for the major part of the Lesser Antilles the earliest dates for Ceramic Age sites are between the second and the first century b.c. The situation is complicated by the persistence of clearly invalid old early dates in the scientific literature despite efforts at chronometric hygiene (Fitzpatrick 2006 and Wilson 2007 both still cite clearly inaccurate early dates from the Fond-Brûlé site on Martinique) and by substantial differences in the intensity and quality of archaeological research on different islands.

Current knowledge is insufficient to clearly choose between very different hypotheses concerning the course and rhythm of the Saladoid migration. The classic, stepping-stone model from island biogeography has provided a relatively uncontested roadmap for population expansion into the islands. In this regard, the Saladoid migration progressed step-by-step, island-by-island, from Trinidad to Puerto Rico (Rouse 1992). Recently, a number of researchers have pointed out that the radiocarbon dates in the northern islands (i.e., Puerto Rico and the Leeward Islands) are significantly earlier than those from the southern, Windward Islands. These dates are exactly the opposite of those expected for a south to north stepping-stone movement through the Lesser Antilles. Interpreting the geographical distribution of early dates in combination with navigational simulations of precolonial voyaging, Callaghan (1990, this volume) proposed a direct migration

from the mainland to the northern islands. Following this hypothesis the southern islands initially were by-passed, then later populated by a southward migration from the more northern Antilles (Fitzpatrick 2006, this volume).

Although many details of the entrance and dispersion of the Cedrosan Saladoid in the Antilles remain in question, excavations conducted on many islands over the past 50 years provide a wealth of data regarding their lives. This archaeological subseries typically is divided into two phases. The transition between these phases, the early Cedrosan Saladoid and the middle/late Cedrosan Saladoid, occurred during the fourth century a.d.

Important excavation programs have concerned early Cedrosan Saladoid sites during the two last decades. From south to north, we can cite the work conducted by Cody and Keegan at the Pearls site in Grenada (Cody 1991), my own research in Martinique (Bérard 2004) and Dominica (Bérard 2007, 2008a), the Trants site excavation in Monserrat (Petersen 1996; Petersen and Watters 1993; Watters 1980; Watters and Petersen 1995) and the two programs conducted in Hope Estate, St. Martin, first by Hofman and Hoogland (1999) and then by Bonnissent (2010). At the northern extreme of the Cedrosan Saladoid expansion sphere, excavations have been conducted in the Sorcé/La Hueca site on Vieques (Chanlatte Baik 1991, this volume; Chanlatte Baik and Narganes Storde 2002, 2005) and at Maisabel, Puerto Rico (Siegel 1989; Siegel and Roe 1991). Based on those investigations, we now have a strong foundation for characterizing the earliest Saladoid cultural expressions in the West Indies.

The early Cedrosan Saladoid economy is characterized by slash-and-burn horticulture associated with collecting, fishing, and hunting. More than that, it is defined by the introduction of plants and (wild) animals from the mainland (Newsom and Wing 2004); an important long-distance exchange network incorporating the entire Cedrosan Saladoid expansion sphere from the mainland to Puerto Rico (Knippenberg 2006); the definition of specific environmental characteristics for their village locations (Barrau and Montbrun 1978; Bérard 2008a; Watters 1980); a centralized way of managing island resources (Bérard 2004); and finally, a possible village mobility within and between islands that were linked, in part, by the practice of slash-and-burn horticulture (Bérard and Giraud 2006). The early Cedrosan Saladoid economy was different for continental and riverine groups but was a standardized and predetermined system characterizing a pioneer society that was able to support the expansion process.

Our knowledge of tools and handicrafts is based on the recovery and analysis of objects constructed from a wide variety of raw materials. There exist a few objects of bone and wood, but the most common raw materials were ceramics, lithics, and mollusk shells, which were used to create cutting and grinding tools, vessels, beads, and pendants. Cutting and grinding tools in stone and shell are common to a large number of archaeological cultures in the Amazonian-West Indian space. The most typical technique is the bipolar *débitage* technique used to produce numerous small flakes (Bartone and Crock 1993; Bérard 2008b; Crock and Bartone 1998; Rodríguez Ramos 2010; J. Walker 1983; J. B. Walker 1980, 1985),

but there also is evidence for freehand Flake production, and the pecking and grinding of stone axes. Despite their sophisticated knowledge of manipulating stone, their cutting and grinding tools production shows a low level of technical and social investment (“expedient” tools). The situation is totally different concerning ceramic vessels and stone and shell beads and pendants.

Early Cedrosan Saladoid ceramics have been described in detail. Their decorations are characterized by painted polychromic designs especially white-and-red and white-on-red, incised motifs including the typical zoned-incised-crosshatched pattern and modeled elements like adornos and rim punctate pellets. An exceptional collection of more than 300 complete vessels from Martinican sites has provided the basis for a comprehensive typology of ceramic production and decoration (Bérard 2004). A high technical quality and very high degree of decoration characterize early Cedrosan Saladoid ceramics. In general more than 30 percent of the sherds are decorated. The motifs demonstrate the significant social and symbolic value of this production (Petitjean Roget 1975; Roe 1989; Waldron 2010). The importance of ceramics as a symbolic media is reinforced by the great diversity of shapes and designs. This diversity is not the result of complete independence and freedom among the craftspeople. The collections conform to the rigorous use of a complex and very codified system (Roe 1989). This rigorous code expresses a cultural standard that structured the topological organization of symbolic content in a three-dimensional space (decoration techniques and design motifs), the use of colors, vessel shapes, and the link between a vessel’s shape and the decorative technique and message (Figure 13.1).

The beads and pendants were made from semiprecious stones and shells. Different types of beads have been identified: discoid, cylindrical, bi-conical, and olive shaped. Pendants are generally zoomorphic and the most common is frog-shaped amulets (Bérard 2004; Cody 1991, 1993; Crock and Bartone 1998; Narganes Storde 1995; Watters and Scaglione 1994). This production is very homogeneous across the entire early Cedrosan Saladoid sphere and is one of the fundamental elements for distinguishing the Saladoid from the Huecoid. Beads and pendants also provide testimony to long-distance exchanges inside and outside this sphere. Finished products, but also semiprecious stones as raw materials, circulated between the Lesser Antilles, the Greater Antilles, and the mainland. They show the importance of the links maintained between those groups dispersed over a large continental and archipelagic space.

Therefore, the early Cedrosan Saladoid is characterized (1) by a standardized and predetermined economic system; (2) by a very strong cultural identity visible in the ceramic, bead, and pendant production; and (3) by a broad long-distance exchange network. Those three elements may represent the starting point and success of their pioneer project. Those elements seem to stay relatively stable until the fourth century a.d.

Although we have established the foundations of early Cedrosan Saladoid material culture and social dynamics, we have just started to study other

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Figure 13.1. Early Cedrosan Saladoid ceramic typology based on complete vessels analysis (from Bérard 2004).

important aspects. The first essential need is to create a precise chronology in relation to geographical dispersion. The present situation is less than satisfactory; numerous questions require more detailed chronologies based on radiocarbon dating and material culture seriations. Second, the complexity of the early Saladoid identity expressed in their material culture facilitates the cultural identification of these groups. Time has come to parse the classification in order to distinguish interaction and to analyze the internal dynamics of early Saladoid groups. Recent research concerning this question (Bérard 2008a; Knippenberg

2006) already has demonstrated that the cultural complexes defined by Rouse (1992), based on the idea that every island in the Lesser Antilles was a distinct cultural culture, is not valid.

Other cultural dynamics also have to be analyzed with more precision. They concern the nature of the interactions between the early Cedrosan Saladoid groups and the Huecoid and Archaic groups present in the Leeward Islands and Puerto Rico at this time. Important work already has been done (Rodríguez Ramos 2010) and demonstrates the potential for field research in the coming years. The treatment of those questions necessitates a double change of scale: first, very precise research at a local scale, and second, movement beyond the island terrestrial perspective to engage an archipelagic and maritime one.

As mentioned, decades ago archaeologists created a chronological division between early and middle/late Cedrosan Saladoid. This transition occurs around the end of the fourth century a.d. and is linked to the relative chronological convergence of various elements. This change was first identified by changes in the classification of ceramic assemblages. The progressive aspect of the modifications and the numerous prior-phase heritages show clearly the importance of endemic factors in this transition. However, external influences also have been identified. They are linked to a stylistic Barrancoid series influence associated with its expansion at this time in the Lower Orinoco, Trinidad, and Tobago (Boomert 2000). This influence is clearly visible in the vessel decorations. Middle/late Cedrosan Saladoid ceramics are characterized by thickened walls, thick triangular or round rims, large strap handles going up to the rim level, and new vessel types like hammock-shaped (navicular) bowls and large zoomorphic effigy pots.

From a general perspective, the morphologic and aesthetic repertory seems to be richer than during the previous phase, which is why some archaeologists have called the Middle/Late Saladoid the “Antillean ceramic Baroque age.” However, a careful analysis of the data shows that this rich repertoire is poorly exploited. Even if new colors and designs appear, the major parts of the decorative modes are statistically anecdotic. The vessels essentially are decorated by red painting, sometimes associated with broad incisions, incised designs, and white-on-red motifs sometimes in conjunction with incisions. The use of black painting and modeling was moderate, and the Bordeaux and orange colors applied to some vessels are exceptional. For example, of the 43 decorative modes identified during the analysis of 7,000 ceramics from the Dizac site (Diamant, Martinique), 34 modes were represented by less than 1 percent of the decorated sherds or vessels (Berthé et al., in press). In sum, the morphological and aesthetical richness of ceramic production increased, but its diversity decreased. This situation may have been linked to a cultural standard that was poorer than during the early phase and was reflected in greater freedom among individual potters in relation to cultural norms. With regard to other items of material culture, the production of cutting and grinding tools stayed relatively stable during this transition. The tool types did not change and the production techniques remained identical (Bérard 2001).

It is clear that the changes visible on the vessels are also linked to some modifications of the Cedrosan Saladoid symbolic system. This idea is reinforced by the appearance of a new element in the Saladoid cultural set, namely three-pointed stones. These objects were still in use as symbolic elements in the Greater Antilles at the time of European contact as representations of Amerindian deities and ancestor spirits called *cemis*. The few chronological data we have about the Lesser Antillean petroglyphs seems to indicate that they also have been created during the Middle/Late Cedrosan Saladoid phase (Hayward et al., this volume).

Concerning the organization of Saladoid villages, they are generally associated with the concentric circular village model (Heckenberger and Petersen 1995; Siegel 1989) with burials located in the central plaza. Although early Cedrosan Saladoid house patterns are still unknown, we have good data concerning the later phase. The most complete evidence was obtained during the excavation of the Golden Rock site (St. Eustatius), where three small round houses (circa 7 m in diameter), dating to the fifth century a.d., were identified (Versteeg and Schinkel 1992). The internal organization of this village seems to have been more or less stable during the two Cedrosan Saladoid phases. These data indicate important changes in settlement and space-management patterns. As we said before, early Cedrosan Saladoid groups had a very precise idea of settlement-place environmental specifications and their space-management pattern was very centralized, with transformation and consumption activities concentrated in the villages. In contrast, the residential sites during the later phase were located in a diversity of environments. In addition, specialized sites (e.g., camp sites, farmsteads, procurement sites, petroglyph sites, etc.) and workshop sites have been described (Bérard and Vidal 2003; Curet 2005). This diversification is also visible when we look at the faunal resources that were exploited. Again, there was an increase of the diversity of the economic choices among the different sites in comparison with the previous phase (Grouard 2007; Serrand 2007). This variation is associated with a decline in the introduction of species from the mainland. Therefore, the Middle/Late Saladoid economic strategy seems less standardized and predetermined, and more opportunistic. This phase is also characterized by an increase in the number of sites and the colonization of new territories and islands. These observations are clearly linked to a demographic expansion (Curet 2005) and to changes in economic strategy.

Concerning the internal dynamics of the Saladoid sphere during this phase, a reduction in long-distance exchange with the mainland and within the West Indies has been documented (Knippenberg 2006). However, the homogeneity of the cultural reproduction remains high. In comparison, during this phase we observe a reduction of the cultural diversity in the Lesser Antilles and Puerto Rico with the end of the Huecoid and Archaic presence. The later Huecoid dates in the Lesser Antilles have been obtained at the Basse-Terre sites in Guadeloupe (Romon et al., in press; Bonnissent, personal communication). The cultural homogeneity between Grenada and Puerto Rico ended during the Saladoid/post-Saladoid transition (Keegan 2004; Hofman, this volume).

The transition between the Early and the Middle/Late Saladoid seems to occur more or less at the same time in the entire Saladoid sphere. In contrast, the beginning of post-Saladoid cultural assemblages dates from different periods in Puerto Rico, the Windward Islands, and the Leeward Islands. Moreover, one result of those changes is an increase of the ceramic groups' cultural diversity. In Puerto Rico and the Virgin Islands, Saladoid productions disappear around a.d. 600 with the appearance of Montserrat style ceramics, which are linked to the beginning of the Elenan Ostionoid subseries (Curet 1997). In the Windward Islands, the transition occurs at the end of the seventh century a.d. with the development of ceramics classified as belonging to the Troumassan Troumassoid subseries. In the Leeward Islands, the Troumassoid series is linked to a distinct Mamoran subseries whose development did not occur before the ninth century a.d.

In sum, Middle/Late Cedrosan Saladoid is characterized by:

- a strong continuity with the previous phase;
- a continental Barranroid influence;
- an increase in the richness of ceramic production, but a decrease in diversity that may be linked to a reduction in social control and investment;
- changes in the symbolic system;
- a less standardized and predetermined economic system that was more flexible and adaptive;
- a demographic expansion;
- the colonization of new territories; and
- a decline in long-distance exchange.

Thus, a clear evolutionary dynamic existed during the millennium of Cedrosan Saladoid history in the West Indies. The early phase appears to correspond a period of pioneer logic during the Saladoid expansion. This phase is characterized by a standardized economic system and strong social control in the expression of cultural standards. The transition to the middle/late phase reflects the progressive abandonment of this pioneer logic. The middle/late Saladoid groups seem to have been more flexible and adaptive. In sum, the early phase may be seen as a maritime and archipelagic pioneer stage and the later stage as the first real West Indian formative culture.

It is necessary to try to define the meaning of Saladoid. We started this chapter by recognizing that Saladoid is a cultural series defined by Crucent and Rouse (1958/1959) based on their investigations in Venezuela and the Antilles. For Rouse (1992) a "series" is a set of subseries and complexes (or styles) sharing cultural elements characterized by a list of typical modes that are associated with groups of "peoples and cultures" who share a single normative tradition as descendants of a common ancestor. This concept is specific to the Caribbean area and cannot be directly linked with the continental notions of "horizon" or "tradition." What we can say first about what Saladoid is now is that the precision of our knowledge is definitively higher than a simple list of modes.

Saladoid can be divided into a continental and riverine component and a coastal and archipelagic one, and both of these can be further divided into chronological and geographical elements. We suggest that the current classification system be expanded by adopting a more paleoanthropological approach, in which the goal is to try to define what Saladoid may have meant for the Amerindians themselves. This is clearly a difficult task but one that is evident in recent investigations.

Some researchers have defined Saladoid as a phenomenon (Wilson 2007). We can go further by looking at the relation between those groups and the geographical space they have occupied. The first level of analysis is the village, which can be considered as the basic unit. The second is defined by the analysis of the catchment areas associated with residential sites. The focus is on products that were material and conceptual. Again, two levels can be defined. The first corresponds to the catchment areas of the material elements essential for everyday life (e.g., lithic raw materials, animal and plant resources, etc.) and the geographical space constituted by the groups sharing a set of specific cultural elements. The second is associated with the catchment areas of the materials with essentially a high symbolic value (e.g., semiprecious stone beads and pendants, green stone axe blades, etc.) and the geographical space occupied by Amerindians sharing fundamental cultural elements. The first level should be considered a frequent circulation area. People living in this space were regular participants in the village associated with it. Those relations must have been associated with a feeling of, at least, cultural proximity or even cultural identity. The territory defined in this way is essentially culturally determinate, even if environmental aspects influence it. It can be both intra- and interinsular. The second sphere corresponds to an area characterized by exceptional travels and indirect relations and exchanges. But the inhabitants of the villages associated with it, at least mythically, knew this space. The exchanges inside this territory provided nonessential economic elements for their everyday lives, but materials that were essential at the symbolic level. Therefore, this territory and its occupants were of major importance. We may consider this sphere and its conception by the Amerindians as the closer equivalent of what archaeologists have called the Saladoid.

How can this approach be translated in terms of current archaeological classifications? The difficulty with Rouse's classificatory system is the mixing of geographical, chronological, and cultural elements. Rouse's system was perfectly suited to his questions, but it is not sufficient to address current issues. If we look beyond the Caribbean, to Europe, for example, the prehistory is divided into archaeological cultures (with variable degrees of precision) and geographical and chronological facies. In this system the Saladoid may be considered as a set of facies associated with an archaeological culture (perhaps two, one continental and riverine and the other coastal and archipelagic). The advantage of this system is the definitional flexibility of each element that allows more elaboration of definitions and comparisons than does the Rousean system. However, it may be more useful to look at other classification systems used in continental America. In these

systems, Saladoid may be globally considered as an archaeological tradition and its rapid expansion in the West Indies as a horizon. The first level of catchment area may help us to divide the Saladoid sphere into chronologically variable regions and localities, while the second attests to its regional integration.

The Saladoid phenomenon was one of the major episodes of Amerindian history. Its echo can be detected in all later Antillean cultures, and throughout much of the Americas. With its long duration and extensive interaction sphere, it provides an exciting arena for the further development of classificatory systems.

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