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Pre-Columbian Antillean civilizations in an archipelagic perspective

By Benoît Bérard¹

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Abstract :

This lecture main goal will be to present a synthesis of the researches we have conducted during the last 15 years about the pre-Columbian occupation of the West Indies between 300 BC and 400 AD. Those researches have been realized in Martinique, Dominica, Marie-Galante, Guadeloupe, Antigua and Barbuda. They have been enriched by the work of others archaeologists in Grenada, St. Vincent, Montserrat, Nevis, St Kitts and St. Martin. This huge set of data give us the opportunity to analysis the West Indian Amerindian civilizations in a maritime and archipelagic perspective, falling out by this way with the traditional approach focused on the insularity concept. The last part of this research have been an experimental archaeology program about Amerindian navigation techniques. Thus, between 2008 and 2010 we have navigated on a 60 feet long traditional dugout canoes from island to island, from Grenada to Antigua following the road of ours ancestors.

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Introduction

Reading this paper title you may believe that it will not directly concern Garifuna people that are the fruit of a post-Columbian ethno-genesis. That is far to be the reality. The Garifuna history is maybe, in the West Indies, the most spectacular proof that cultural heritage is not a matter of genetic, blood or skin color. Therefore, a large part of Garifuna heritage, history and identity is linked to the Kalinago ones. Then, the six thousand years of Amerindian pre-Columbian occupation of the West Indies is also part of the Garifuna heritage.

The main goal of this presentation is to analyze the geographical dynamics of the West Indies Amerindian occupation in terms of territories. This analyze will be essentially based on the researches we have conducted since near to 20 years on the early ceramic occupation of the Antillean archipelago and on the results of the experimental archaeology program on Amerindian navigation techniques we have conducted with Karisko association between 2007 and 2010.

The West Indies early ceramic occupation is the result of a migration of people coming from Orinoco basin in actual Venezuela. They entered in the Antilles during the second half of the first millennium B.C. and they have quickly occupied a large area going from north South America lowlands to Puerto Rico. Those groups are associated in two cultural entities called early Cedrosan Saladoid and Huecan Saladoid by the archaeologists. Several major archaeological programs developed since 30 years in Grenada, Martinique, Dominica, Guadeloupe, Montserrat, Saint-Martin, Vieques and Puerto Rico offer us a large data set on this Antillean history specific phase. Based on those investigations we now have strong foundations that make us able to characterize those earliest Saladoid cultural expressions in the West Indies and go relatively deeply in the analysis of the geographical dynamics set up by those groups.

The early Cedrosan Saladoid general presentation

Early Cedrosan Saladoid groups can be defined as pioneer societies. They are characterized by a predetermined economic system and a strong cultural identity².

This early Cedrosan Saladoid economic system 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 mainland³; an important long-distance exchange network incorporating the entire Cedrosan Saladoid expansion sphere from the mainland to Puerto Rico⁴; the definition of specific environmental characteristics for their village locations⁵; a centralized way of managing island resources⁶; and finally, a possible village mobility within and between islands that is linked, for a part, to the practice of slash-and-burn horticulture⁷.

Our knowledge of their tools and handicrafts is based on the recovery and analysis of objects constructed from a wide variety of raw materials. The most commonly preserved raw materials are 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.

² Bérard B., *Les premières occupations agricoles de l'Arc Antillais, Migrations et insularité*. British Archaeological Reports, International serie 1299, Paris Monographs in American Archaeology 15, E. Taladoire (ed.), Oxford : Archaeopress, 2004. 214p., 140 fig., 38 tabl.

³ Newsom Lee A. & Elisabeth S.Wing, *On Land and Sea: Native American uses of biological resources in the West Indies*. 2004. Tuscaloosa: University Press of Alabama.

⁴ Knippenberg Sebastiaan, *Stone Artefact Production and Exchange Among the Lesser Antilles*. 2007. Amsterdam University Press.

⁵ Barrau Jacques, Montbrun Christian. La mangrove et l'insertion humaine dans les écosystèmes insulaires des Petites Antilles : le cas de la Martinique et de la Guadeloupe, *Social Science Information* 17 : 897-919, 1978 ; Bérard Benoit, La mission archéologique française en Dominique. *Les Nouvelles de l'Archéologie*, N°111/112, Paris, 2008 Maison des Sciences de l'Homme, pp. 95-100 ; Watters David R., *Transect Surveying and Prehistoric Site Locations on Barbuda and Montserrat, Leeward islands, West Indies*. PhD, University of Pittsburg, 1980. Ann Arbor: University Microfilms.

⁶ Bérard B., *Les premières occupations agricoles de l'Arc Antillais, Migrations et insularité*. *op.cit.*

⁷ Bérard Benoît and Jean-Pierre Giraud, *Les premières occupations agricoles de la Martinique*. *Actes du XIV^e congrès de l'Union Internationale des Sciences Préhistoriques et Protohistoriques*. British Archaeological reports, International Serie 1524, pp. 153-160. Archéopress, Oxford, 2006.

The most typical saladoid technique is the bipolar *débitage* technique used to produce numerous small flakes⁸ but there is also evidence for freehand flaking, and the pecking and grinding of stone axes. Despite their sophisticated knowledge of manipulating stone, their cutting and grinding tools production show 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 punctuated 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 decoration⁹. A high technical quality and very high degree of decoration characterize early Cedrosan Saladoid ceramics. In general more than 30% of the shards are decorated. The motifs demonstrate the significant social and symbolic value of this production¹⁰. 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 collection conforms to the rigorous use of a complex and very codified system¹¹. This rigorous code expresses a cultural standard that structured

⁸ Walker, Jeffrey B., Analysis and Replication of Lithic Artifacts from the Sugar Factory Pier Site, St. Kitts, West Indies. In Suzanne M. Lewenstein éd., *Proceedings of the eighth international congress for the study of the pre-columbian cultures of the Lesser Antilles*, pp. 69-79. Arizona State University, Anthropological Research Papers, 22, Tempe, 1980 ; Crock John G., Bartone Robert N., Archaeology of Trants, Montserrat. Part 4. Flaked Stone and Stone Bead Industries. *Annals of Carnegie Museum* 67: 197-224, 1998 ; Bérard Benoit, Lithic technology, one of the ways to complexity for Caribbean archaeology, In Hofman, Corinne L. Hoogland, Menno L. P. Van Gijn, A. L. (eds.), *Crossing the Borders: New Methods and Techniques in the Study of Archaeology Materials from the Caribbean*. Tuscaloosa : University Alabama Press, 2008

⁹ Bérard B., *Les premières occupations agricoles de l'Arc Antillais, Migrations et insularité. op. cit.*

¹⁰ Petitjean Roget, Henry, *Contribution à l'étude de la préhistoire des Petites Antilles*, Ph.D. dissertation, Ecole Pratique des Hautes Etudes, Paris, 1975 ; Roe Peter, A grammatical analysis of cedrosan saladoid vessel form categories and surface decoration : aesthetic and technical styles in early antillean ceramics. In P.E. Siegel (ed.), *Early Ceramic Populations Lifeways and Adaptive Strategies in the Caribbean*, pp. 267-282. BAR International Series 506, Oxford, 1989 ; Waldron Lawrence, *Like Turtles, Islands Float Away: Emergent Distinctions in the Zoomorphic Iconography of Saladoid Ceramics of the Lesser Antilles, 250 BCE TO 650 CE*. Ph.D. dissertation, Central University of New York, 2010.

¹¹ Roe Peter, A grammatical analysis of cedrosan saladoid vessel form categories and surface decoration : .. op. cit.

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 vessels shapes and the decorative technique and message.

The beads and pendants were made from semi-precious stones and shells. This production is very homogenous across the entire early Cedrosan Saladoid sphere. Beads and pendants also provide testimony to long-distance exchanges inside and outside this sphere. Finished products, but also semi-precious 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 by a standardized and predetermined economic system, by a very strong cultural identity visible in the ceramic, bead and pendant production, and by a broad long-distance exchange network. Those three elements may have represented the starting point and success of their pioneer project.

Martinique/Dominica, re-evaluate pre-Columbian territories

In Martinique all the early Cedrosan Saladoid sites are located in the north Atlantic coast facing Dominica. Therefore, after near to 10 years of excavation in Martinique we have decided in 2004 to cross the channel. Our desire was to evaluate the validity of the classic territorial model used by the archaeologist for the Lesser Antilles pre-Columbian occupation. This model developed by I. Rouse¹² is centered on the “complex” concept that is his minimal entity corresponding to a level of perfect cultural equivalence of all the groups (archaeological sites) related to a same complex. Geographically, a complex is associated in the Lesser Antilles with single islands. Thus, in this model each island appears to be a perennial valid cultural territory. The underlying element of this vision is that each channel constitutes a geographical boundary and that those supposed “natural” boundaries are stronger than any social or cultural considerations.

In fact, our hypothesis was that the term ‘complex’ may better be applicable to terrestrial and maritime spaces including nearby islands, in this case the North of Martinique and the South of Dominica and the channel between them.

¹² ROUSE I., *The Taïnos : rise and decline of the people who greeted Columbus*. Yale University Press, New Haven, 1992. 211 p.

We tried to test this hypothesis during our three years research program in Dominica. We hoped that our work will enable us to determine if the sea provided a link or a frontier for those early Amerindian pioneers. Indeed, we strongly suspected that modern perceptions of the Lesser Antilles, dominated by important inter-island divisions that came into being with colonization and, more recently, decolonization probably have little or no relations with how the pre-Columbian people perceived their world. The idea was to leave the terrestrial island approach to develop an archipelagic and maritime perspective.

Our three years of research in Dominica had included a review of all the collections already existing linked with early ceramic sites, a systematic survey of the island, which enabled us to increase by 40% the number of pre-Columbian sites known, the digging of tests pits in four early ceramic sites and a larger excavation of the Soufrière site.

Early ceramic sites in Dominica are spatially divided in two sets separated by an important gap. The first set is composed by 3 sites located in the north part of the Atlantic coast facing Marie-Galante, the second set is composed by seven sites located in the south of Dominica. Two types of analysis have been conducted concerning those sites. First, we have analyzed the environmental characteristics of each of them (distance to the sea, distance to fresh water, soil agricultural quality, vegetation, annual quantity of rain and distance to the nearer landing point suitable for a canoes). Second, we have realized a typological and iconographical analysis of the ceramic remains. Finally, we have compared the results of those works with the ones we obtained earlier in Martinique.

After those researches, we have been able to clearly demonstrated¹³ that 2000 years ago the peoples living in the south of Dominica have shared more cultural affinities with the contemporaneous groups living in the north of Martinique than with the groups living at the same time in the north of Dominica. Therefore, if we have to delimit a minimal cultural territory for that period, it will integrate north Martinique, the Martinique channel as space of contact and fishing place and south Dominica. Researches now conducted about the early ceramic occupation of others lesser Antillean spaces (North Dominica/Marie Galante and south Basse-Terre, Antigua and Barbuda) seems to produce the same type of results and other archaeologists working on other chronological phases are also defining multi-insular and

¹³ Bérard B., Le phénomène pionnier agro-céramiste antillais : vers une vision archipélique. *Les Nouvelles de l'Archéologie*, N°108/109, Maison des Sciences de l'Homme, Paris, 2007. and Bérard B., La mission archéologique française en Dominique. *Les Nouvelles de l'Archéologie*, N°111/112, Paris, Maison des Sciences de l'Homme, 2008. pp. 95-100.

marine territories¹⁴. Thus, it is necessary to completely change our Lesser Antilles Amerindian territories vision adopting a marine and archipelagic point of view. This new perspective may have multiple consequences on the archaeological practice. However, it seemed to us that it was first necessary to evaluate the inter-insular relationship technical conditions before to be able to obtain satisfying results in this new frame and thus to produce solid data about pre-Columbian navigation techniques in the West Indies. It was the scientific motivation of the *Kytangomingo Ema* program¹⁵ we set up with Karisko association.

Kytangomingo Ema program

Until then, our knowledge was based on very rare archaeological data, European descriptions from contact period and the offshore dugout canoe building tradition maintain in the central Lesser Antilles, especially in the Dominica Carib Territory, and also by mainland by the *Kali'na* Amerindian groups. Richard Callaghan exploited those data¹⁶ to create digital simulation. With *Karisko* association we decided to follow another way developing an experimental archaeology program.

Therefore, in 2007 we have asked to Felix Brinkman, a *Kali'na* offshore dugout canoe building master from Surinam to conduct in French Guyana the production of two sixty feet long canoes more or less identical to the Carib *kanawa* described in the 16th and 17th European accounts. This is one of those *kanawa* baptized *Akayouman*¹⁷ we used for our expeditions. After several preparation and training month, we first crossed Martinique channel in May 2008, then linked Martinique to Antigua in May 2009 and Grenada to Martinique in May

¹⁴ Hofman C., A. Bright et M. Hoogland. Archipelagic ressource procurement and mobility in the Northern Lesser Antilles: the view from a 3000-years-old tropical forest campsite on Saba. *Journal of Island and Coastal Archaeology*, Volume 1 Issue 2, 2006, pp. 145-164 and Hofman C. *et al.*, Island rhythms: the web of social relationships and interaction networks in the Lesser Antillean archipelago between 400 B.C. and A.D. 1492. *Latin American Antiquity*, Vol.13, Number 3, September 2007, Washington, Society for American Archaeology, 2007.

¹⁵ Bérard B., Billard J.-Y. et Ramstein B., Ioumoúlicou "*Koumoúlicou nhányem amonchéentium oubao*" (Les Caraïbes qui viennent des autres îles sont gens de notre nation), In Rebrovich S. (Ed.) *The Proceedings of the XXIII Congress of the International Association for Caribbean Archaeology*, Antigua, 29 june-3 july 2009. Dockyard Museum, English Harbour, Antigua, 2011. pp.577-589.

¹⁶ Callaghan R., *Mainland origins of the preceramic cultures of the greater antilles*. PhD dissertation, University of Calgary, 1990, UMI dissertation services, Ann Arbor.

¹⁷ L'esprit du grand père serpent en caraïbe insulaire.

2010. Those expeditions were associated to hundreds of coastal navigation hours. The scientific program was articulated around three axes: The ethno-archaeological study of the *kanawa* building process including all the technical, symbolic and religious aspects, the *Akayouman* 3D digital modelization for his hydrostatic and hydrodynamic analysis by the of the *Ecole Navale de Brest* Hydrodynamic Laboratory ¹⁸ and finally the experimental navigation data exploitation.

The first major information we have obtained is a valid evaluation of *kanawa* transportation capacity. The *Akayouman* hydrostatic analysis has clearly demonstrated that those boats are transportation ones. Even with a 27 persons complete crew, it is necessary to add an important ballast quantity to make it stable during navigation. Thus, we have transported 500 kg of ballast each time we have crossed a channel and we have done coastal navigations with one tons without any problems. This is a crucial element when you want to evaluate the inter-insular material exchanges Amerindian capacity and this way to evaluate the contact intensity through the non-local row materials identification in the archaeological sites.

More than that we have discovered during our navigation all the marine qualities of that embarkation type. Therefore, even if we stay an inexperienced crew regarding the Amerindian multiseular tradition, we have been able to run *Akayouman* in rough sea with a 2 m high average swell and 3 m for the higher waves. Our average surface speed was around 3-3,5 knots. Therefore, theoretically (excluding currents, wind and swell influence) the *kanawa* speed is equivalent to the one of a fast walker in an open and flat landscape. After hundreds of navigation hours, we start also to have an intuitive appreciation of the distances you can do in one day. A travel inferior to 10-12 nm in one day does not represent real effort and must be considered as ordinary. A day travel between 12 and 20 nm start to be consequent and at least represent a real time investment (around between 4 and 6 hours). Finally, over 20 nm by day the journey can be considered as a real expedition (it start to be difficult to go and back the same day), especially if you have to cross a channel (the maximum distance we have did in one day during our expeditions was 37nm corresponding to a 11h 30mn navigation). Moreover, the Kytangomingo Ema program has highly contributed to change our perspective. We have been able this way to move from scientific theoretical positions to a live experience. Sometimes the intelligence and the understanding run from the hands to the brain. During the

¹⁸ Billard J.-Y. Bérard B., et Ramstein B., Apports de l'hydrostatique à l'archéologie expérimentale : Etude d'une pirogue de haute mer (Kanawa). *Acte du 19^{ème} congrès Français de Mécanique, Marseille, 24-28 août 2009*, I-revues, 2009.
<http://documents.irevues.inist.fr/bitstream/handle/2042/36639/772.pdf?sequence=1>.

experience we have intimately (in our bodies) take conscience that paddling between the Antillean islands must not be looked as something exceptional but as one of the Amerindian groups everyday life elements. This is those frequent travels, contacts and exchanges that have been the social and historical dynamics basement that authorized the Amerindians to make the Antillean archipelago a civilization space.

Finally, it is important to point out that on the side of scientific aspects, Karisko association Kytangomingo Ema program also integrated strong social, cultural and symbolic elements. Re-opening ancestral maritime roads Akayaouman have been the media of a reappropriation by the Lesser Antillean populations of a shared heritage, a shared space and a shared identity.

Conclusion

The lack of "given" territories for the Antilles Amerindian occupation analysis, has made indispensable a specific modelization effort. We are deeply convinced that the vision produced may also be useful to the Antillean colonial history understanding. That is the way we have tried to follow developing a specific collective research program called *Les territoires de l'histoire antillaise* and conducted by J. Dumont, J.-P. Sainton and the author¹⁹.

"Caribbean history has been the victim of a triple peripheralization: geographical, typological and epistemological"²⁰. Our goal was to develop a self-centered vision by a systematic evaluation of external models and concepts used or adapted (if not adopted) by Caribbean historians and also to produce our own conceptual or geographical categories. If we analyze Lesser Antillean history as a mosaic of secant various scale geographical territories, four are well conceptualized and used by contemporaneous historians: the new world plantations space, the imperial perspective (F.W.I, B.W.I, Spanish America...), more recently the Atlantic world and finally the insular level.

The three first, considered as global or connected history approaches, are focusing on the links produced by the colonial process and therefore on the external factors of the Antillean historical dynamics. Thus, the Antilles are seen too often as "peripheral societies with no

¹⁹ Bérard B., J. Dumont & J.-P. Sainton (dir.), *Les territoires de l'histoire antillaise, Outre-Mers, Revue d'Histoire*, n°378-379, SFHOM, Paris, 2013

²⁰ Sainton J.-P., *Territoires de l'histoire antillaise et dynamiques des sociétés* in Bérard B., J. Dumont & J.-P. Sainton (dir.), *Les territoires ...* (op.cit.), Translation from the french by the author.

roots, totally emerging from the center and produced by it, inconstant even without signification and interest out of the colonial relationship"²¹. The fourth is based on the insularity notion and the contemporaneous geo-political context. Historians working at a larger scale generally consider it pejoratively as "local history". All those approaches are legitimism and useful to write Lesser Antilles history but they are not all the story, several others geographical scales have to be evaluated to make us able to analyze the internal factors role and importance in the Caribbean historical dynamics. Micro local level and the non-imperial inter-insular relationship (interlope exchanges, short-sea shipping, Antillean internal contacts and population moves...) for example need to be taken into account. Those internal dynamics were numerous and have had a major impact a several levels. If, Saint Vincent is the Garifuna birth land, the Antillean archipelago is also the good scale to understand their history, theirs tide relations with Victor Hugues in Guadeloupe during the last Carib war is a good example of this reality.

²¹ Ibidem.