



KORIABO: FROM THE CARIBBEAN SEA TO THE AMAZON RIVER

This book is about the archaeology of indigenous peoples who thrived across the Caribbean, the Guianas, and the Lower Amazon basin just before the European invasion, and who also remained central to the early history of conquest and colonization. It is the first result of collaboration among archaeologists that, until recently, had been working separately in these three regions, but on a very similar ceramic style, first named Koriabo in the Guianas. The exchange of data from research programs in Brazil, the Guianas, and the Caribbean made it possible to discuss how the unique Koriabo style of ceramics acquired such a surprisingly wide geographic distribution.

This book explores how patterns of mobility, migration, exchange networks, and the sharing of technology and beliefs shaped ceramic styles, cultural identities, and the dynamics of their dispersion and change across time and space. The sixteen contributions presented herein provide the reader with an extraordinary new body of data on ceramic styles and technology, local and regional archaeological contexts, historical and contemporary references on indigenous territoriality, regional boundaries, language dispersion, and ethnic interactions. It is both the first overview of a major but largely overlooked ceramic style and a broader synthesis of the state of the art debates in northern South American and Caribbean archaeology.

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from the Caribbean Sea to the Amazon River

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Foreword

This book is the result of a long story with a very happy ending. It began in 2014, when we organized the First International Workshop entitled **Archaeological Ceramics of the Amazon: towards a new synthesis**¹ at the Goeldi Museum in Belém, Pará. The goal was to foster the exchange of information and debate about Amazonian ceramic complexes and to develop new shared parameters for description, interpretation, and comparison throughout this vast region. The format of the event was designed to combine public presentations with laboratory sessions, using the remarkable and extensive archaeological collections housed at the museum. The workshop brought together experts in ceramic analysis working in different countries and different parts of the Amazon basin to produce the first synthesis in an edited publication with more than 40 authors (Barreto, Lima and Jaimes Betancourt 2016).

These results made it clear that the Goeldi Museum needed to continue its leading role and host further events for scholarly exchange, and to focus on specific areas, complexes, and research themes. One of the striking results was the awareness of the occurrence of Koriabo ceramics, previously considered a tradition restricted to the Guianese area, in several other regions including the lower Xingu, many northern Amazon tributaries, and the estuary of the Amazon itself.

Thus, together with Stéphen Rostain (CNRS, France) and Corinne Hofman (Leiden University), we organized the second international workshop entitled **Archaeological Ceramics of the Amazon: Koriabo, from the Caribbean Sea to the Amazon River**² in 2017, this time addressing this promising, more specific research theme. Archaeologists, anthropologists and linguists conducting research in the lower Amazon, the Guianas and the Caribbean were invited to debate and work in a similar structure as in the first workshop, combining public presentations with intensive lab work. Participants had access to the museum's Koriabo collections that include the type-collection from the British Guiana organized by Evans and Meggers (1960) and many others from the Xingu and Lower Amazon.

¹ The workshop was financially supported by Brazilian agency CAPES – *Coordenação de Aperfeicoamento de Pessoal de Nível Superior*, and by the North American WennerGren Foundation. The resulting book (Barreto, Lima and Jaimes Betancourt) was financed by the Goeldi Museum and the Brazilian Heritage Institute, Instituto do Patrimônio Histórico e Artístico Nacional – IPHAN.

² The workshop and the present volume were financially supported once again by CAPES and by the Leiden University, from the Netherlands (ERC-Synergy project NEXUS1492 gr. number n° 319209 and NWO Spinoza grant to Hofman).

This book is the result from this second workshop and was made possible through the financial support of CAPES and the Netherlands Organization for Scientific Research (Spinoza Prize Corinne Hofman). Other scholars joined us in this collaborative endeavour adding even more substance to the topic. The collectively edited volume addresses questions related to the Koriabo ceramic style, its definition as a ceramic complex, its surprisingly extensive territorial distribution, its relationship with language dispersion, and processes of cultural transmission and sharing of style which lies behind the archaeological record. The papers presented herein contribute to the debate with unprecedented research results, and new theoretical ideas and frameworks that help to unravel both the unexpected consistency and largely unknown meanings of Koriabo and related complexes.

We hope that this second workshop and resulting publication will be followed by several others, thus contributing to the growing of archaeological knowledge about of the Amazon and to reinforce collaborations among scholars and institutions.

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Belém, September, 2020.



1. Participants of the international workshop **Koriabo: from the Caribbean Sea to the Amazon River** which took place at the Museu Paraense Emílio Goeldi in Belém (24th-27th of September, 2017). From left to to right: Letícia Morgana Müller, Elber Lima Glória, Marcony Alves, Sérgio Meira, Andrey Maciel Castro, Corinne Hofman, João Darcy de Moura Saldanha, Stéphen Rostain, Mariana Petry Cabral, Cristiana Barreto, Helena Pinto Lima, Menno Hoogland, Camila Pereira Jácome, Bruno Barreto e Martjin van den Bel.



2. Poster of the 2017 Koriabo workshop.

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Koriabo, the Mysterious Amazonian/ Caribbean Culture

Stéphen Rostain¹ Cristiana Barreto² Helena Pinto Lima³ Corinne Hofman⁴

For decades, since the first findings of Koriabo ceramics in the 1950's, the three scientific worlds of the Guianas, the Amazon and the Caribbean have exchanged very little on the subject. Finally, it was during the 2014 congress on Amazonian ceramics held in Belém, Brazil (Barreto, Lima, and Jaimes Betancourt 2016) that Koriabo became a common subject, raising more questions than answers. During this scientific event, some papers and posters presented pottery designated as unknown style. Those working in Guiana soon recognized their Koriabo "identity", and discussions began on the more and more frequent discoveries of these ceramic types in the Lower Amazon. Some time later, similar exchanges took place in Leiden with colleagues working in the Caribbean with Cayo ceramics, which led to the idea of a meeting of the different researchers confronted with this type of pottery. Thus was born in 2017 the symposium "Archaeological ceramics in the Amazon: Koriabo, from the Caribbean Sea to the Amazon River" at the origin of the present work. There, archaeologists working in the three regions could meet and discuss not only about similarities and differences of ceramics and their archaeological contexts, but also explore the intrincacies and meanings of their surprisingly wide distribution. Furthermore, many issues regarding ethnic identity, language dispersals, and territoriality were discussed with ethnographers and linguists. This book is a first effort to put together this meeting of ideas.

The Guianas

It was just after the success of the joint publication of their respective PhDs (Meggers and Evans 1957), one on the Amapá State and the other on the island of Marajó at the mouth of the Amazon, that the North American couple of archaeologists began a vast survey in Guyana in the late 1950s.

¹ National Center for Scientific Research, CNRS, Paris.

² Museu Paraense Emílio Goeldi, Programa de Capacitação Institucional, Belém.

³ Museu Paraense Emílio Goeldi, Belém.

⁴ The University of Netherlands, Leiden.

They defined a series of archaeological phases, thus organizing a first pre-Columbian chronology in the country. Among other things, they described the Koriabo phase, a name given in reference to a tributary of the Barima River in the west coast of Guyana, where the archaeological sites attributed to this culture were found (Evans and Meggers 1960) (Figure 1). Four of them were then investigated. They extended over areas ranging from 1,800 m² to 7,400 m², and the archaeological layers varied from 16 to 32 cm thick.



Figure 1. A boulder used for stone grinding on the bank of the Warapoco Creek, at the foot of the Warapoco Mission habitation site, Guyana (courtesy B. Meggers).

In addition to these settlements, a few Koriabo sherds were also found in eight sites of the Recent Mabaruma phase of the western coast and, in the interior, on a Rupununi phase site, in the eponymous savannah (Evans and Meggers 1960). Further east, on a flood-prone bank of the Berbice River, the Itabru site is attributed to the Koriabo and Taruma phases (Boomert 1978, 1979; Williams 1978).

At the same time, two other archaeologists, North American and Catalan (from Spain), were conducting an important recognition in neighbouring Venezuela⁵. In the lower Orinoco, they found a Koriabo sherd in an Apostadero site⁶, which also provided European earthenware (Cruxent and Rouse 1958-59; Evans and Meggers 1960). It is so far the most western presence on the continent of the Koriabo culture.

During this same decade Koriabo culture was spotted in Suriname. Dirk Geijskes then made numerous field visits, while gathering testimonies and samples from various informants. The country very quickly presents the highest density of Koriabo sites, with 42 recognized settlements, including 32 located on the coast⁷ (Boomert 1977). Half of these sites, most of which are located on inland waterways, are said to be fully part of the Koriabo culture, while the others only retain intrusive pieces in a different cultural allocation or a double cultural component.

Thus, the situation of Kwamalasamoetoe-1 and Coeroeni Island, in the interior west of Suriname, is comparable to Itabru in Guyana, with successive occupations of Koriabo and Taruma (Boomert 1979; Versteeg 1980a). On the coast, the Koriabo influence occurs mainly in the east, because no sites identified between the Coppename and Corantyne Rivers (Versteeg and Bubberman 1992; Versteeg 1985) (Figure 2).

In addition, some Dutch researchers have based themselves on the correspondence between the ranges and the similarity of the engraved rocks of the Corantyne in Suriname and Saint-Vincent in the West Indies (where the presence of the Koriabo culture is also documented), to suppose that the Koriabo could be the makers of most of the petroglyphs of the Maroni and Corantyne Rivers (Boomert 1986; Dubelaar 1986).

The Koriabo culture was more recently recognized in French Guiana by Denis Groene (1974, 1976). He opened ten test pits of 50 cm² each and a 7 x 0.5 m trench to a depth of 50 cm in the Kormontibo site, on the Upper Maroni, near the village of Papaïchton, discovered during urban development work in 1973. Unfortunately, no research was subsequently undertaken on other Koriabo sites in the country, only a few sherds were occasionally collected. In the second half of the 1980s, the first author excavated in Koriabo sites in Lower Sinnamary and Lower Approuague (Rostain 1994), producing reliable field data and dates on this culture in French Guiana. At the same time, the entire

⁵ It should be recalled that the Venezuelan region east of the Orinoco is the former Spanish Guiana.

⁶ Apostadero culture on the east coast of Venezuela is identical to the Recent Mabaruma phase in Guyana. It would have lasted from AD 1100 to 1450 (Cruxent and Rouse 1958-59).

⁷ The higher density of Koriabo sites on the Surinamese coast may simply be due to a better knowledge of coastal archaeology than that of the interior.



Figure 2. Painted Koriabo pot figuring an ocelot, found in a river West of Suriname (Stichting Surinaams Museum, Paramaribo; drawing and photo S. Rostain).

vessels found in the river beds by the gold panners were inventoried, providing a unique record of complete shapes and associated decorations (Figure 3). This diversification of sources allowed the definition of a precise typology and a chronocultural sequence (Rostain 1994, 2008).

In the following years, the arrival of the Association for national archaeological excavations (AFAN), replaced in 2002 by the National institute for preventive archaeological research (INRAP), allowed the multiplication of compliance excavations and a significant contribution of new data within the already established framework.

Along the Amazon

In Brazil, anthropologist Protásio Frikel was the first to report a Koriabo site, Cajuaçu, on the left bank of the source of the Parú do Oeste iver, a tributary of the Trombetas River. In the early 1950's he collected diagnostic ceramic sherds from a layer of anthropogenic soil, *terra preta*, and found traces of rock paintings and polishers on a nearby rock outcrop. However, this discovery did not cause any particular sensation at the time. In fact, only later has Hilbert analyzed this material and identified it as Koriabo (Hilbert 1982). Later on, anthropologist Manfred Rauschert, during his 1955-56 expedition to the Maicuru River, also collected some sherds which remained deposited in a museum in Bonn and only now are being identified as Koriabo, as documented in Bet ancourt and Tagliati's chapter.

Further east, in Lower Xingu, the PA-AL-13 site was located on a non-floodable river terrace downstream of the *Volta Grande do Xingu*. It was excavated in the 1980s by archaeologist Celso Perota, who defined the Cacarapi phase on the basis of the pottery found. He had not identified the Koriabo style, which was very well represented in the sample (Figure 4), until he met the first author. It seems that history is repeating itself because the same anecdote happened 26 years later. In any case, since 2015, the Koriabo style has been well known in the lower Amazon and discoveries are multiplying at the rate of excavations.

However, a special mention should be made of Amapá, the former Portuguese Guiana. The activities of the Instituto de pesquisas científicas e tecnológicas do Estado do Amapá (IEPA) over the past twenty years have produced an impressive amount of archaeological data. Awared of the work carried out in neighbouring French Guiana, the researchers quickly identified the Koriabo style in their excavations, providing original data (Cabral 2011).

The first international workshop on Amazonian archaeological ceramics held in Belém in 2014 allowed archaeologists to compare data and figure out that many materials previously collected in the lower Amazon, often classified as "Santarém like" or as genereal "Incise-Punctated Tradition", in fact displayed typical Koriabo stylistic traits. A survey in the Museu Goeldi's collections, not only confirmed the presence of Koriabo





Figure 4. Koriabo sherds from PA-AL-13 site, Lower Xingu, Brazil (courtesy C. Perota).

materials in the lower Xingu, as far south as the rio Iriri mouth, but also along the northern shore of Amazon River, in places such as Monte Alegre and Almeirim, in the Caxiuanã National Forest and Portel, south of Marajó island, extending eastwards until the Belém area (Figure 5).

Recent research in the lower Amazon has been uncovering new data about the contexts in which these materials occur. In the Volta Grande do Xingu, research done in the context of licencing of the Belo Monte dam, has identified sites with Koriabo materials along with many others with a local style (Castro et al. in this volume). At the mouth of Xingu River (Gurupá) and eastern Marajó island (*Marajó das Florestas*), previous research by Denise Schaan identified ceramics with "a very curious type of decoration, consisting of small circular appliqués arranged parallel to each other (...) over an appliqué with fillets near the edge" (Martins et al. 2010:119). Ongoing excavations by Helena Lima in the Gurupá region, as well as in the nearby Caxiuanã area, have indentified such ceramics as Koriabo (Lima and Fernandes 2016; Fernandes et al. 2018) (Figure 6), raising questions about its regional distribution, chronology and historical associations between the location of early European forts and trade posts and Koriabo sites (see chapters by Barreto and Lima, and Lima et al. this volume).





Recent research in Monte Alegre, a region known for its rock paintings and older sites, Koriabo materials were found in more recent contexts in association with local style ceramics and rock painting (Barreto et al. 2016; Barreto and Lima this volume) (Figure 7). The petrographic analysis of Koriabo ceramic pastes in several localities along the Amazon (Monte Alegre, Almeirim, Gurupá and Caxiuanã) shows that they were being produced locally. The Trombetas project also identified Koriabo ceramics mixed to other styles in the upper Trombetas and Mapuera Rivers, perhaps the westernmost location known for the presence of Koriabo ceramics along the lower Amazon and the only one west of Santarém (see Jacome and Glória in this volume). In the state of Amapá, the "Brazilian Guiana", Koriabo ceramics were already known in the northwest, enlarging the contexts



Figure 7. Ceramic sherd from Monte Alegre region, Lower Amazon (photo C. Barreto).

studied in French Guiana, but in recent years research by Saldanha and Cabral (2010) and B. Barreto (this volume) have identified a Koriabo site in the south, not far from Ameirim, Gurupá and Caxiuanã.

Thus, overall results indicate an enormous area of distribution of Koriabo ceramics, not only along the Amazon floodplains, but also along the affluents that connect the Guyanas plateau to the lowlands, such as Trombetas, Maicuru, Paru and Jari Rivers. Because in the Amazon sites with Koriabo-like ceramics occur both in sites with evidence of single occupations (Gurupá, Caxiuanã) as well as mixed with other complexes (Monte Alegre, Trombetas), tt remains a challenge to better understand the cultural processes that led to such a wide distribution, as well as its temporality.

From mainland to islands

The most recent continental Koriabo sites are located on the coast of the Guianas and downstream of the rivers, including the lower Xingu area. If we were to consider these sites as settlements of a particular culture, we may think that Koriabo complex, regarded as the ancestral tradition of the Kali'na/Galibis of the South American mainland, may have had difficulty establishing itself on the coast of the Guianas, then occupied by strong and large populations. The first evidence of Cayo remains in the Windward islands are dated to approx. AD 1430. It is however possible that due to the demographic pressure Koriabo groups on the mainland, were attracted to move to the Windward Islands already in an earlier stage, (i.e. AD 1250 according to Boomert (1986), although the earliest dates for Cayo comlex is AD 1430. Boomert (1986) also linked the Cayo complex to the historic Island Carib. Recent radiocarbon dates obtained from sites on Grenada and St. Vincent show evidence for a continuation of the Cayo ceramic style (or Cayoid) until c. 1620 and maybe even later (Hofman pers. observation Dominica 2019). The Cayo culture, described by Earle Kirby (1974) and Boomert (1986) and more recently by Hofman and colleagues (Bright 2011; Hofman and Hoogland 2012, Hofman et al. 2015, 2019; Keegan and Hofman 2017) is mainly recognized on the islands of Guadeloupe, Dominica, Saint Vincent and Grenada and to a lesser extend on Martinique, St. Lucia and Tobago. In total c. 20 Cayo sites are currently known in the Lesser Antilles. Close similarities have been observed between this ceramic and the continental Koriabo pottery but also to local Lesser Antillean styles and the Meillacoid and Chicoid series of the Greater Antilles (Boomert 1986, 1995, 2009; Hofman et al. 2019, this volume; Keegan and Hofman 2017).

According to Boomert (1986), the main difference between Koriabo and Cayo lies in the nature of the temper: the Koriabo ceramic style is characterized by a temper of quartz sand, mica or burnt and ground bark, while Cayo ceramic uses local volcanic sand, and sometimes quartz crystal. Recent archaeometric studies have evidenced that 90% of the Cayo pottery on Saint Vincent and Grenada is made with local clays (Scott et al. 2018), suggesting indeed a movement of peoples to the Windward islands introducing mainland Koriabo pottery, rather than an exchange of goods (Hofman et al. forthcoming). Cayo decorations include incision, punctation and scraping, lobed edges, white, red, yellow and black paint, buttons and modeled-appliqué faces (Figure 8) (Hofman et al. this volume). Especially the techniques



of production of the Cayo ceramics and the diversity of local Cayo styles reflect the plurality of peoples that produced and used this pottery (Hofman et al. this volume). Cayo materials are regularly associated with European artefacts (Hofman et al. 2019) (Figure 9). Large scale open area excavations carried out on Saint Vincent and Grenada over the past ten years have provided a better context for the Cayo ceramics in the Windward Islands. Village lay-out and numerous house structures match the descriptions of the early 17th century European chroniclers about the so-called Island Carib or Kalinago (Hofman and Hoogland 2012; Hofman et al. 2015; 2019, this volume).

The current data suggests that during the late 15th to early 17th century the Lesser Antilles was a scene of inter-cultural interaction where peoples mixed and created a new Carib or *Kalínago* identity. *Kalínago* settlements were surrounded by the expanding colonial

powers, but remained autonomous with the ability to renegotiate new colonial realities (Hofman et al. 2014; this volume). Today, descendants of the *Kalínago* and Garifuna, live on several islands of the Lesser Antilles where they vividly claim their Amerindian origin, traditions, and rights and activily participate in the archaeological research (Boomert 2016; Hofman and Hoogland 2012; Hofman et al. 2019; this volume).



Figure 9. European glass bead inserted in the rim of a Cayo vessel from Argyle, Saint Vincent Republic (photo M. Hoogland).

Some precisons about the origin of a possible Koriabo culture

In considering Koriabo ceramics as an indicator of a particular culture, its frequent occurrence, its wide geographical dispersion, and its stylistic homogeneity raised many debates (Figure 10). Even if recognized as such and studied in various ways, it is still poorly understood.

The first hypotheses dated the origins of the Koriabo culture back to the Mazagão and Aristé cultures in Amapá, linked to the Polychrome tradition, then dated relatively between the 13th and 17th centuries AD (Boomert 1977, 2004; Evans and Meggers 1960). The reality is more complex, but the debates over the past fifty years have still not provided a unanimously accepted answer.

At the beginning of the research, Koriabo was considered a movement of populations that migrated from Amapá along the northwest coast, before moving up the major rivers. After this migration, which would have stopped on the Barima River in Guyana, they fled the first European incursions further into the interior (Evans and Meggers 1960). Their route would then have taken them up the Essequibo, Rupununi and Corantyne Rivers to their sources, then down the Marapi and Cuminá Rivers to the Amazon (Hilbert 1982). The presence of Koriabo and Taruma intrusive sherds in a Rupununi culture site in the Rupununi savannah of Guyana, dated relatively to about AD 1850, was considered an argument supporting this hypothesis (Evans and Meggers 1960).

Recent excavations, and especially the dating to ¹⁴C which reveal that Koriabo sites in the interior of Suriname are older than the coastal sites, turning this hypothesis questionable. Similarly, the coastal route by which the Koriabo populations spread from the mouth of the Amazon River and then expand inland is doubful. The rarity of

Koriabo traces on the southeast coast of Cayenne Island and along the Amapá coast does not support this hypothesis. However, the origin of Koriabo culture in the Polychrome tradition could be explained if diffusion had taken place on inland roads, but the sites are still missing. Another idea locates the Koriabo outbreak in the interior of the Guianas Shield rather than in the lower Amazon and, from there, the Koriabo culture would have spread to the Guianas coast by descending the rivers flowing into the Atlantic (Rostain 1994).

The shared feature of most Koriabo sites is their almost systematic location on rivers, often on the high bank of a river and, more rarely, on an elevation near a creek. This location of sites on rivers, often large, suggests that the groups were navigators, mastering the manufacture and use of boats (Figure 10). The frequent underwater discoveries of Koriabo vessels – without indication if they were shipwrecks or voluntary deposit rites in rivers – support this possibility (Rostain 1994).



Figure 10. Saut Mapaou Rapid on the Lower Approuage, French Guiana, where one of the most recent Koriabo sites of French Guiana has been found (photo S. Rostain).

Especially on the coast, many archaeological sites contain both Koriabo and other styles' materials. More than a contemporaneity of occupation, the clues point more to a succession of cultures, the Koriabo often replacing their predecessors. For example, the Surinamese sites in the Sipaliwini basin, located on the upper banks, have all experienced at least two different occupations, as habitat opportunities on non-floodable lands are rare in this region (Versteeg 1980b). Similarly, the Chemin Saint-Louis site, in lower Maroni in French Guiana, clearly shows a stratigraphy of several successive occupations (van den Bel 2015). The Guyana sites of the Apostadero, Barbakoeba, Kwatta, Mabaruma and Taruma cultures have often delivered Koriabo ceramics, but it is with the Kwatta and Barbakoeba cultures that cohabitation seems the closest. Kwatta pottery is found in several Koriabo coastal sites, while Koriabo ceramics, conversely, are found in Kwatta sites. The frequent appearance, in several Barbakoeba and Kwatta sites, of the Koriabo thickened-boarded bowl, which is supposed to be used for ceremonial purposes, could represent inter-community exchanges (Boomert 1993). In French Guiana, a few rare intrusive Koriabo pieces found in the Thémire sites could also indicate exchanges between these groups (Rostain 1994).

It seems that a Koriabo culture would not have spread uniformly along the Guyana coast, where it could have met with resistance from some communities (Rostain 1994). Thus, the coastal regions dominated by the Hertenrits and Aristé cultures, where no Koriabo ceramics are found, perhaps did not suffer this influence. Moreover, this total absence of Koriabo pottery indicates that no exchange even existed between these cultures and the Koriabo. Only one Aristé site has been reoccupied by Koriabo in the lower Oyapock (Mestre and Hildebrant 2011). More downstream, a Koriabo pot, placed in a rocky cavity in the Montagne Bruyère, Aristé territory, is the only known exception up to now (Rostain 1994).

Exchange networks and interaction spheres

A recent hypothesis proposes to consider Koriabo ceramics as an exchange of domestic pottery, used in intergroup social activities within a vast sphere of social interaction (van den Bel 2010). The proposal might seem attractive, but it is difficult to imagine a huge region of 1.8 million square kilometres where a large part of the local groups would wait to exchange goods to obtain domestic pottery, which they obviously knew how to produce. It is hard to characterize the Koriabo ceramics as just domestic pottery, especially because it has been found in a number of funerary contexts. It is true that we have often sinned by the use of flawed intuitive inferences to explain the Koriabo phenomenon, but it is equally problematic to replace them with non-validated theoretical models. Beyond the theory, it seems that many of the early European outposts coincide with sites with Koriabo ceramics; in the Amazon this is true for the Maicuru area (near Monte Alegre), for the lower Xingu, for Gurupá, and Belém, all known to have European (mainly Dutch) forts or outposts. It is thus possible that such locations were taking advantage of the pre-conquest Amerindian exchange networks, as it has often been the case along the Amazon and the Orinoco basins. The presence of Koriabo ceramics in these locations

along the lower Amazon may indicate a relationship between Amerindian and European exchange networks (see Lima et. al. in this volume). A similar pattern is evidenced from the Lesser Antilles (Hofman et al. 2019 this volume).

Another hypothesis, much inspired by the recent ethnographic data on social networks in the Guianas (Gallois 2005), considers the possibility that Koriabo ceramics could belong to a repertoire of ceremonial practices shared across a vast territory, perhaps related to the spread of Carib-speaking groups across northern South America during the few centuries preceding the European conquest (Barreto et al. 2016; Barreto and Lima this volume). Such social networks, although not focused on the exchange of material goods alone, provide a good basis to understand the dynamics of relations among villages which are set at a very long distances apart. Also, it could explain the recurrence of Koriabo ceramics along with other local styles, and even the fact that they are locally produced, if we consider that people were reproducing a shared 'model' of shapes and decorations (Barreto and Lima this volume; Hofman et al. this volume).

Towards a meeting of ideas

The papers herein presented reflect a new exchange of data across regions, and explore these different hypotheses under the light of the larger context of northern South American archaeology, which has evolved rapidly these last years. The volume therefore includes not only papers on Koriabo ceramics, but also on relations between different ceramic styles and cultural identities, their dynamics of dispersion and change across time and space.

The two first parts of the book are somewhat organized geographically, covering the different areas from North to South, and are more focused on the data from the recent or ongoing research projects dealing with Cayo or Koriabo ceramics. Hofman and colaborators picture the occurrence of Koriabo ceramics within Cayo assemblages in the Lesser Antilles in the context of a complex history of migrations and intensive networks of human mobility with the exchange of goods and ideas occurring well into colonial times untill the 17th century and maybe even later. Rostain, a pioneer in the study of Koriabo ceramics in the Guianas, sets the basis for defining the ceramic complex, its characteristics traits and distribution in this region. This is complemented by Van den Bel's work on the expansion of Koriabo in late precolonial times. Saldanha and Cabral, and B. Barreto discuss the ocurrence of Koriabo ceramics to the East, in Amapá, the Brazilian Guiana, raising questions about the meaning of the Koriabo regional dispersion, and its co-currence with other styles, arguing that Koriabo ceramics might be understood as technologies of meaning, "linking people, places and narratives through material means". Thus, from the start, three important questions are intrinsically related to the data which prepares the ground for understanding Koriabo in the Amazon: the wide geographic dispersion, the nature of interaction networks, and its association with other culltural complexes, including colonial settlements.

In the second part of the book, dedicated to Koriabo in the Amazon, the articles by Jacome and Gloria about the Trombetas/Mapuera area and by Betancourt and Tagliati Souza about materials collected along the Maicuru River document the presence of Koriabo ceramics halfway between the Guiana plateau and the Amazon River, confirming the use of these northern tributaries as multiple North-South axis of population movement in the Lower Amazon, other than the East-West one provided by the main river. Barreto and Lima show how Koriabo ceramics found in two different areas of the lower Amazon (Monte Alegre and Caxiuanã) seem to be made locally, and in trying to pin down exactly what is being shared across the vast lower Amazon conclude that behind the model of special ceramic pots with certain morphologies and decorations, might lie the sharing of ritual practices along a network of relations still visible and ethnographically documented today, especially among Carib-speaking groups. The articles by Castro and collaborators and by Garcia show a scenario of extreme cultural diversity in which Koriabo materials are found in the lower and middle Xingu (as far south as the Iriri River), in which ceramics of both Carib and Tupi styles are constantly present together. Lima and collaborators show us yet another context for Koriabo occurrences in the mouth of the Xingu, coinciding with colonial outpost and forts, especially of the Dutch, who seem to have taken advantage of the established precolonial exchange networks to practice their commerce.

The third part of the book broadens the discussion on ceramic technology, ethnicity and territoriality in both the Guianas and the Lower Amazon in order to better frame the questions raised about the meaning of Koriabo distribution. Rocha considers the possibility that the Incised Punctate Tradition of ceramics could have operated as a "lingua franca" among the diverse groups occupying the Lower Amazon in precolonial times, whereas Collomb speaks of an "ethnic style" for the Ka'lina ceramics. Gaspar proposes to explore the relationship between ceramics and ethnic identities reconstructing the different sequences of technological choices made (or "chaine opératoire") in the composition of Kari'na ceramics. The ethnography of Wayana and Apalai ceramics written by Van Velthem reveals how such technological choices and the uses of both everyday and ritual pots are intrinsically related, offering insights about the meaning of fabricating ceramics and cosmological representations. The final paper by Caixeta Queiroz, closes the volume addressing an even more complex issue, which is the fluidity of both territorial boundaries and ethnic identities among Caribspeaking groups between the lower Amazon and the Guianas plateau, with important consequences for archaeological models which relate ceramic style and distribution to ethnic identities.

We wish to thank all contributors to the book and hope this effort will inspire further investigations on the past and present conexions of Amerindians from the Caribbean, the Guianas and the Lower Amazon.

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Caribbean and Guianas



Cayo in the Lesser Antilles: a Network of Peoples, Places and Practices in the Late 15th to Early 17th Century

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The Cayo complex of the Lesser Antilles was originally identified in the 1980s. Koriabo ceramics, regarded as the ancestral ceramic tradition of the Kali'na/Galibis of the South American mainland, were documented to form an integral part of Cayo assemblages. Based on an extensive collection of potsherds excavated by I.A. Earle Kirby at the site of New Sandy Bay, close to the Cayo River, on the island of St. Vincent in the 1970s, the Cayo ceramics were described by Arie Boomert as a mosaic-like cultural aggregate with mainland Koriabo affiliations but also Greater Antillean Chicoid influences (Boomert 1986, 1995). He associated the Cayo complex with the document-based Kalínago or 'Island Carib' presence in the Lesser Antilles and placed its starting date around AD 1250, not much later than the assumed first presence of the Koriabo complex in the Guianas. The Kalínago connection with the mainland is referred to in the myths of their origin which postulate the descendance of the men in Island Carib society from Cariban-speaking warriors who immigrated into the Windward Islands from the area of the Kali'na on the coast of the Guianas, especially the lower Maroni River of northeast Suriname and northwest French Guiana. The different versions of these myths are contradictory as to the process of this mythical movement: one of them holds that the Windward Islands were unoccupied at the time, others refer to wars between the immigrants and the 'original' inhabitants of the Windwards.

Surveys and excavations in the Windward Islands of the Lesser Antilles (Figure 1) over the past two decades have recorded more than 20 sites which can be assigned to the Cayo 'series' as well as sites with a Cayo component between the islands of Grenada and Guadeloupe (Basse-Terre). Thus far most of these sites have been documented on

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Grenada, St. Vincent and Dominica (Boomert 2011a, 2011b; Bright 2011). These investigations, together with open-area excavations and collection studies in St. Vincent and Grenada, have provided novel insights into Kalínago archaeology in the Lesser Antilles, reflecting the network of peoples, places, and practices that characterizes the late 15th to early 17th century (Hofman et al. 2014, 2019). The co-occurrence of Cayo and European artefacts (beads, gun flints, olive jars, majolica, metal, coins, and glass from Spain, Portugal, Holland, France, and Britain) at these early-colonial sites also provides evidence of the first indigenous-European interactions and inter-cultural dynamics in this part of the insular Caribbean (Hofman and Hoogland 2012, 2016; Hofman et al. 2019). It is evident that in the late 16th century the Kalínago strongholds participated in a complex trans-Atlantic system that started from the combination of new colonial and trade strategies with pre-existing indigenous exchange and alliance networks. In the Lesser Antilles most of this trade first took place with only Spanish ships, and afterwards with French, English, and Dutch 'interlopers'. The latter were active on the shore of the Guianas, known as the 'Wild Coast', as well. Here only the Dutch were able to found permanent trade factories from the early 1600s onwards (Hofman et al. 2014, 2019). The early-colonial sources indicate that particular types of perishable indigenous goods had a lasting impact on the early colonial networks, such as the use of hammocks that revolutionized 17th- and 18th-century



Figure 1. Map of Caribbean area with the distribution of Cayo sites in insert (map by M. Hoogland).

maritime logistics. The popularity of the indigenously domesticated tobacco, a major *Kalínago* trade item with the northern European sailors on the Wild Coast and in the Lesser Antilles, profoundly impacted European society up to this day (Hofman et al. 2019).

This chapter focuses on our new research by discussing the *Kalínago* settlement organisation and village layout at the sites of Argyle (St. Vincent) and La Poterie (Grenada) which provide the context for discussing the Cayo material culture repertoire and related practices. First, we shall present our excavation results, corroborating the settlement data with the available ethnohistorical information on the *Kalínago* dating from the 16th and 17th centuries. Collaboration with the contemporary *Kalínago* communities in the Windward Islands, notably on Dominica, St. Vincent and Trinidad, has been crucial in the interpretation of these data and has resulted in the recent (experimental) reconstruction of the archaeological Cayo village at Argyle International Airport on St. Vincent at the site of the excavations. Secondly, we focus on the Cayo material culture repertoire. Especially the techniques of production of the Cayo ceramics and the diversity of local Cayo styles shall be discussed, reflecting the plurality of peoples that produced and used this pottery. Finally, a revised narrative of the resistance and the re-negotiating of the indigenous identities at the eve of the colonial encounters will be presented as seen from the material culture record.

Short Kalínago history

In the early 16th century, the Lesser Antilles and the coast of northern South America were the arena for the capture and enslavement of the indigenous peoples living here, a practice legalized by a *Real Cédula* issued by the Spanish Crown in 1503. Simultaneously, many of the indigenous inhabitants of the Greater Antilles took refuge in the small islands, sometimes serving as 'middlemen' in the trade between the Spanish Caribbean and continental South America. It was only from the 1620s and 1630s onwards that other European nations established permanent settlements in the Lesser Antilles, notwithstanding major resistance by the local Island Carib. As the (ethno)historic sources note, the latter claimed to have come from the mainland several hundred years before European contact. Assumed to be living between Tobago and St. Kitts in early-colonial times, some thirty years ago the lack of Island Carib (*Kalínago*) archaeological evidence made it difficult to ground their identity and this led to much debate among scholars who referred to this quest as the 'Island Carib Problem' (Davis and Goodwin 1990).

The Island Carib were regarded as a post-colonial culture and the inheritors of many of the cultural traditions of the indigenous peoples of the insular Caribbean and the mainland *Kali'na/Galibis* who temporarily manifested themselves on the vacuous stage of the early-colonial period. In the late 16th century, the chroniclers also described a pattern of exchange between Europeans and *Kalínago*, culminating in the cultivation of tobacco for sale to passing European traders (Boomert 2002). Subsequently, increasing numbers of enslaved Africans (from west and central Africa), mainly escaping from the plantations of Barbados, were absorbed by the Carib, ultimately leading to the formation of a 'Black Carib' ethnic identity. Adopting language, name, and cultural traditions of the *Kalínago*,

in the 18th century the Black Carib established independent communities, living alongside settlements that remained purely Amerindian, now known as the 'Yellow Carib'. On islands such as Grenada, the Island Carib took both Africans and Europeans as captives, shaving their hair and piercing their ears as signs of enslavement. St. Vincent and Dominica were left in the possession of the Island Carib until the 18th century as these islands were not officially colonized due to the rivalry between English and French, but designated as 'neutral'. Demographic decline resulting from the importation of contagious diseases from Europe and Africa, against which the Island Carib had no resistance, led to a dramatically reduced and marginalized indigenous presence around AD 1800. However, at present, descendants of the Carib, who now self-identify as *Kalínago* (or *Garifuna*), live on Dominica and St. Vincent as well as with those of other indigenous peoples such as the Nepoio and Warao on Trinidad where they vividly claim their Amerindian origin, traditions, and rights (Boomert 2016; Hofman and Hoogland 2012; Hofman et al. 2019).

Argyle and La Poterie: Cayo villages in St. Vincent and Grenada

Archaeological surveys and excavations have at present revealed about 20 Cayo sites or sites with Cayo ceramics on several islands of the southern Lesser Antilles (Figure 1). These sites are located between Grenada and Guadeloupe (Basse-Terre), with an occasional isolated find further north, and date between the late 15th and early 17th centuries (Boomert 1986, 2011a, 2011b; Bright 2011; Hofman and Hoogland 2012; Hofman et al. 2019; Keegan and Hofman 2017). The majority of these sites are situated on the windward side of the islands, thus facing the Atlantic Ocean. This particular situation is also described in the early European documents which note that the Island Carib preferred the windward coast of the islands because of the steep cliffs and rough seas that aided in defending their settlements (against the Europeans). The chroniclers refer to hamlets or single households dispersed across the landscape (Labat [1722] 2005). The vast majority of Cayo sites have been documented on Grenada and St. Vincent. The sites are located on elevated plateaus near the lower reaches of a river or stream (Hofman and Hoogland 2012; Hofman et al. 2015). On both islands, archaeological excavations have uncovered numerous postholes of houses and related auxiliary structures.

Between 2009 and 2017 open-area excavations at the Cayo sites of Argyle (St. Vincent) and La Poterie (Grenada) have for the first time uncovered the remains of Kalínago villages dating to early-colonial times. They allow profound insights into Island Carib settlement organization, burial practices, and associated material culture repertoires. The 17 radiocarbon samples obtained from these sites range from cal AD 1430 to 1620. At La Poterie, the Cayo component overlays an earlier Troumassoid assemblage, dating back to cal AD 800–1000, and underlays an Amerindian/Afro-Caribbean component which can be placed between cal AD 1690 and 1750. Both excavations at Argyle and La Poterie were carried out in the context of a rescue operation. Excavations at Argyle in 2009 and 2010 were conducted prior to the construction of the new Argyle International Airport. At La Poterie excavations were conducted in 2016 and 2017 after the exposure of Cayo materials due to heavy landslides in the preceding years. Both excavations took place as



Figure 2. Location of the Argyle site, St. Vincent (map by M. Hoogland).

collaborative efforts between Leiden University and the local governments, NGO's, and community members (Hofman and Hoogland 2016).

The site of Argyle is located on top of a ridge overlooking the Atlantic Ocean, next to the mouth of the Yambou River in the southeastern part of St. Vincent (Figure 2). The excavations at Argyle uncovered about 300 features of which part can be assigned to 11 house structures surrounding two plazas. The latter have a surface area of 10x15 m and 15x25 m, respectively. The houses and the plazas are thought to be related to two partially overlapping construction phases, each incorporating a series of round to slightly oval family houses and an elongated men's or community house (*taboui*). The largest of the two *taboui* measures 12x4 m and the smaller family houses have dimensions between 4.5x5 m and 6x8 m. Two of the round houses at Argyle yielded burial pits. The high acidity of the site's clay soils caused decay of the bones, although several tooth caps were found



Figure 3. Open area excavation of La Poterie, Grenada.

confirming the presence of graves. The teeth belong to two young adult individuals, both of local origin (Hofman and Hoogland 2012; Hofman et al. 2015). Comparable burial customs are known from late pre-colonial sites in the Lesser Antilles, suggesting that human interment within houses was a widespread and long-lasting tradition in the region (Hoogland and Hofman 2013). The material culture remains, mainly consisting of ceramics and lithics, were all recovered from the eroded beach cliff, but seem to match the alignment of the structures suggesting that they were deposited in distinct refuse areas of particular households.

The archaeological site of La Poterie is located on the northeast coast of the island of Grenada (Figure 3). The site is characterized by a plateau with habitation features and an eroded cliff. As is the case at the other Cayo sites of the region, most of the cultural material remains derive from a cliff. The surface area of the site is estimated at ca. 200x50 m, i.e. it stretches for 200 m along the coast and up to 50 m inland. The excavations uncovered an area of 355 m² at La Poterie. Features include postholes, hearths, and burnt floors. The more than 500 postholes are suggested to represent a palimpsest of at least 17 structures with round to oval floorplans. They mostly consist of two rows of posts, an inner and an outer one. The recovery of house floors with Cayo artefacts and European materials at La Poterie is unique, as at Argyle this was not possible due to machine scraping and the mechanical removal of the topsoil with



Figure 4. Local community members working at the reconstruction of Argyle village (Photo by M. Hoogland).

artefacts. The round houses at La Poterie have diameters between 3 and 8 m. Indigenous ceramics are the largest find category, followed by lithics and shells, and, finally, European wares. The stone artefacts mainly consist of pebbles and pounding and rubbing tools of local rock types. Preservation of bone is very poor in particular on the plateau due to the high acidity of the clay matrix. The shell assemblages include very weathered fragments (especially tips) of queen conch (*Lobatus gigas*). The relatively high fragmentation rate of the ceramic materials can be explained by heavy trampling that apparently took place during the different occupation phases and the recent cultivation of the terrain. The materials recovered from the coastal profile, to the contrary, consist of very large potsherds.

The settlement layout at both Argyle and La Poterie concurs with the 17th-century Island Carib village layout as described for Dominica and Guadeloupe in the documentary sources. The chroniclers mention that a typical *Kalínago* village would include a number of family dwellings (*mánna*) encircling an open plaza, the center of which was occupied by a men's

house or táboüi. (The French sources often use the Tupian term carbet for such a 'community' house, which they adopted from the indigenous peoples of the Brazilian coast in the early 16th century). Several small rectangular structures such as racks and sheds would be scattered between the houses. The two oval structures at Argyle closely resemble the táboüi or men's house described in the documentary sources and the nine round houses are very similar to the mánna. Father Breton and other early chroniclers also mention the practice of burying the deceased under house floors as encountered at Argyle. Accordingly, the Carib would dig a round pit three feet deep in a house. After having wrapped the deceased in a brand-new hammock, he or she would be placed into this grave in almost the same position as a child in a mother's womb, neither backwards nor flat faced on the dirt, but upright, feet first, head up, bent at their knees. The burial pit was sometimes covered with reed (mat) or boards/planks, while occasionally clay pots were buried upside down over the head. When the burial took place outside the house, a small hut was built over it, for the Island Carib would never leave the dead without a cover. The personal belongings of the deceased, such as baskets, spun cotton, and other items, were burned over the grave by the women of the village. Also, at this last point of contact with the deceased, bow and arrows, boutou (war club), feather crown, ear and nose pendants, necklaces, rings, bracelets, baskets, pottery vessels, and other belongings would either be buried with the dead body or burned over the grave (Breton 1665, 1666; see also Hofman et al. 2015).

The interpretation of the Argyle village layout has considerably benefited from the collaboration and exchange of knowledge with the Garifuna and Kalínago communities in the Windward Islands. In the context of the construction of the Argyle International Airport, St. Vincent requested the rebuilding of the Cayo village at the location where it was originally situated, next to the runway of the new airport. In March 2015, we presented a model of the village, made by Eric Pelissier, to the Kingstown Library during the Garifuna Conference then held on St. Vincent. In January 2016, at the instigation of the Argyle International Airport Development Company Ltd., the Ministry of Culture and Tourism, and the St. Vincent and The Grenadines National Trust, we started building the first experimental Kalínago house at Argyle in collaboration with the Garifuna and the Ministry of Agriculture. Throughout 2016, local community members successfully worked on the reconstruction of the Island Carib village at Argyle with four round houses (mánna) and one large oval structure (táboüi) (Figure 5). Subsequently, it was opened officially. This village is an outstanding contribution to St. Vincent's cultural heritage, documenting its history and the vicissitudes of its early inhabitants. The Garifuna in the village of Greiggs now build a manná inspired by the Argyle houses on Heroes Day (March 14) each year.

The first round house was built in an experimental way, using as much as possible stone and shell tools in order to fashion the wood and plant materials employed. The archaeological data obtained from the excavations were complemented with information from the writings of Father Breton, who gives very detailed descriptions of the various materials used in the construction of the *Kalínago* round and oval house structures (Hofman et al. 2015).



Figure 5. Potentially mainland associated vessels shapes and decoration techniques found in the Eastern Greater Antilles and the Lesser Antilles. From Greater Antilles to Lesser Antilles and Trinidad: a) Chicoid vessel with Amazonian style painting inside from La Cucama, Distrito Nacional, Dominican Republic (collection and courtesy of M. García Arévalo), b) 'calabash' shaped vessel from Dominican Republic (private collection), c) 'flower pot' from St. Croix (National Museum of Denmark), d) Koriabo style decorated sherd from Morne Cybele, La Désirade, Guadeloupe), e) Koriabo style decorated vessel from Telescope Point, Grenada (photo by M. Hoogland), f) Cayoid vessel from Woodfort Hill, Trinidad (photo by A. Boomert), g) Mayoid vessel from Trinidad (photo by A. Boomert).

Cayo pottery

Cayo ceramics have been recovered in smaller and larger quantities on most of the Windward Islands, albeit occasionally at multi-component sites or in more or less clear stratigraphic contexts. The most complete collection of Cayo pottery comes from the site of Telescope Point on the south coast of Grenada. It was uncovered during a landslide in 2010, and at present is kept in a private collection on the island (Figure 6f). Besides, it is known from various other sites of Grenada (Cody Holdren 1998). In the 1920s Gudmund Hatt excavated one Cayo style vessel at the site of Salt River on the island of St. Croix (U.S. Virgin Islands) to the extreme north of the island chain (Figure 6b). It is currently curated in the National Museum of Copenhagen (pers. commun. Martijn M. van den Bel 2016; pers. observ. Corinne L. Hofman 2016). The context of this vessel with multi-lobed rim and black-painted motifs is not completely clear, but it was apparently associated with the burial of a child. Then there is a Chicoid vessel from the Dominican Republic which bears very similar black-painted motifs on its inner surface (Figure 6a; Garcia Arévalo 1977). Another isolated object, an ovoid vessel with similarly black-painted designs on its interior surface, has been reported from a private collection. It may derive from Puerto Rico or the Dominican Republic (Figure 6c; pers. commun. André Delpuech 2017; pers. observ. Corinne L. Hofman 2017). Cayo-related materials are also known from the sites of Morne Cybèle and Morne Souffleur on the Plateau of La Désirade (Figure 6d; Hofman 1995; Hofman et al. 2004, 2014; de Waal 2006). Typically Cayo pottery has been recovered from the site of Roseau on the eastern shore of Basse-Terre (Guadeloupe) (Bel 2018; Richard 2003). Thus far, Dominica has yielded Cayo sites especially in its northeastern coastal zone, at Woodford Hill (Figure 6e; Boomert 2011a, 2011b), while recently a Cayo settlement site was encountered at La Soye 2, just to the west of Woodford Hill (Hauser et al. 2019). Finally, some isolated sherds have been found in the southern part of St. Lucia (Hofman et al. 2004). On Trinidad it is the late pre-colonial/early-colonial Mayoid pottery which is closest to the Cayo ceramics of the Windward Islands (Figure 6g; Boomert 1986, 2016; Boomert et al. 2013). Some of the Cayo pottery vessels and all of the Mayoid ceramics are known to be tempered with caraipé, the burnt siliceous bark of a small savanna tree (Licania sp.), which is also typical of part of the Koriabo and all of the present Kali'na ceramics of the South American mainland (Boomert 1986, 1995).

It was only in the 1980s and 1990s that, for the first time, links were made between the 'Island Carib' presence on the islands of the Lesser Antilles and the Cayo ceramics, based on similarities between the latter and the Koriabo pottery of the Guianas and Brazil (Boomert 1986, 1995). Koriabo is regarded as the ancestral pottery tradition of the contemporary *Kali'na* or 'Mainland Carib' of the Guianas and Lower Orinoco Valley. Most likely, it emerged in the coastal zone of Guyana (former British Guiana), Suriname, and French Guiana, as well as in the interior of the three Guianas (the Guiana Highlands) and northeastern Brazil (Lower Xingú and Upper Cuminá Rivers) around AD 1100–1250 (Bel 2015; Boomert 1986, 2004; Rostain et al., this volume; Rostain and Versteeg 2004; Versteeg 2003). Koriabo pottery continued to be made well into the early-colonial period. Specific Cayo elements may have been inspired by *Kali'na* carrying out raids in the Lesser Antilles, exchanging marriage partners with the local inhabitants (Boomert 1995; Davis and



Figure 6. Chaîne opératoire, Cayo pottery (neck) probably for cashiri beer preparation (1a), Grenade (La Poterie): roughout by coils by pinching. *Diagnostic features*: 1b) finger pressures associated with horizontal and equidistant fissures; horizontal, rhythmic and similar undulations; 2) poral system is not oriented parallel to the wall; the distribution of coarses particles is generally random or follows the boundaries between two coils; 2a) discontinuity visible in the section and corresponding to the coil joints; 3) coil junction visible in preferential fracture, morphology in "U" confirming a very low coil deformation (coils by pinching, coils superposed). 1c) The neck is made after a break made by the potter during the shaping of the body, probably to prevent this large pottery from collapsing under its own weight. Preforming on wet clay and by scraping. *Diagnostic features*: 1d) print of passive hand (only on wet clay); 4) striations, scraping; 5a) deep striation with irregular bottom associated to prominent grains (wet clay); 4) and 5b) striations with thickened edges, but also straight or even open edges (photos: S. Manem).

Goodwin 1990), or just by movements of peoples up the islands. In the islands, Cayo ceramics have been found associated occasionally with deer bone flutes and pendants made of the teeth of tapirs, dogs, and peccaries, also attesting to mainland connections (Hofman et al. 2019). European trade wares have been found in context with the Cayo remains at several sites (Hofman and Hoogland 2012, 2016; Hofman et al. 2019).

The production of Island Carib pottery: An (ethno-) historic account

According to the early chroniclers, the production of Island Carib pottery was, in most cases, carried out by women. The descriptions allude to the existence of a ceramic repertoire of well-finished vessels with Cariban-affiliated names related to the men's realm, and less well finished domestic vessels with Maipuran Arawakan or European names, associated with the female sphere of activities. The former include more or less ceremonial ceramics.

used for communal use during meals, the preparation of cassava beer, or for serving the latter during drinking feasts (Breton 1665; Boomert 1986, 1995, 2011a). This linguistic dichotomy would concur with the male and female registers within the Island Carib language that were recorded by the 17th-century French chroniclers, notably a male register of Maipuran Arawakan character with an extensive Kali'na or Kali'na-derived vocabulary, and an entirely Arawakan female register (Hoff 1994, 1995). The men's 'language' shows elements suggesting that it was used as a pidgin during trade contacts between the Island and Mainland Carib (Taylor and Hoff 1980). In all, 10 vessel types are described by the chroniclers, all with specific functions, of which some have both a female and a male name, such as the griddle (boutalli or bourrelet) and the pepper pot (tomáliacae or toma-hiem). Other vessels mentioned are the canalli, chamacou, ouchou, roüara, iáligali, tourae, balabi, and boutéicha (Hofman and Bright 2004). The manufacturing process of the Island Carib pottery is also described in great detail in terms of clay processing, shaping (coiling and possibly moulding), finishing or surface treatment, decoration (painting and incising), and firing (at low temperatures in open pyramid-like piles). A resin of a wild palm tree is mentioned to have been used for coating the vessel surface, producing a fine black color (Hofman and Bright 2004).

Cayo pottery manufacture

In terms of general forming techniques, the Cayo ceramics from Argyle and La Poterie are characterized by an operational sequence, very similar to that of the earlier pre-colonial ceramics in the Windward islands in terms of general forming techniques. Notable, however, are the varied coiling techniques encountered with Cayo pottery including coiling by pinching and crushing. Study of the entire collection will make it possible to identify the possible variability in the way things were done (Jacobson in prep.). This variability may be of a socio-cultural and/or functional nature. Techno-functional trees (Roux 2016) will make it possible to understand which operations of the *chaîne opératoire*, or operational sequence, have a cultural origin (not varying according to the shape of the vessels) and which have a functional origin (varying according to the shape or function of the objects), in order to identify the technical traditions. For example, in La Poterie (Figure 7), the large pottery vessels probably used for cassava beer preparation show a roughout through coiling by pinching for the neck and a preforming on wet clay by scraping, first, the outer surface, and then the inner surface. The complete analysis will determine if this chaîne opératoire is fully dedicated to the function of this pottery or if it is the main technical tradition of the social group. From an anthropological point of view, the question is relevant because it will help to understand the socio-cultural composition of the Cayo settlements, and more precisely whether they consisted of a single social group (one technical tradition) or several social groups living together (several traditions). It is indeed accepted that the variability of technical traditions is superimposed on the variability of the socio-cultural composition of populations. Touching upon this question with the concept of the chaîne opératoire and not just the finished object, makes it possible to circumvent a possible situation in which several social groups share the same type of object (homogenization of consumption patterns) and for the same function (see Manem 2017 for an archaeological example and Gelbert 2003 for an ethnoarchaeological case study).

Vessel shapes

Based on the classification by Boomert (1986) and the newly available data from Grenada and St. Vincent, a number of vessel shapes can be characterized as Cayo in the islands (Figure 8). Unrestricted, flaring bowls (known as 'flower bowls') with carinated or indented rims, sometimes showing white-painted interior surfaces decorated with red, black, or yellow designs, are highly analogous to comparable Koriabo vessels in the Guianas and northern Brazil (Figure 9; Boomert 2004; Hofman et al. 2019; pers. commun. Stephen Rostain and Christiana Barreto 2016). Secondly, restricted jars produced from red clay with corrugated inner surfaces and flat lips, showing orifice diameters of up to 50 cm, are highly characteristic. These probably served as containers for the fermentation of cassava beer (ouicou or kashiri), such as mentioned by the early chroniclers. This practice left characteristic signatures on the interior of the vessel: surface attrition on the walls marked as a horizontal line (in some examples located at the lower neck) most likely corresponds to the level of the liquid (Arthur 2002, 2003, 2016; Schiffer and Skibo 1989; Skibo 1992). Sometimes, these jars have modeled decorations of animal/human faces (Figure 10). A large number of griddle fragments are associated with the Cayo ceramic assemblages. These do not have legs as is known for example from the Suazoid series in the Windward Islands. Geochemical analysis of the Cayo materials from Grenada has shown that 99% of the pottery was manufactured of local Grenadian clays (Scott et al. 2018). The one exception forms the painted flower bowls, which are tempered with caraipé, and are non-local to the Windward Islands, suggesting that these vessels were brought in from Trinidad, where this tree was indigenous (until the mid-19th century) or from the mainland. Caraipé temper is characteristic of Trinidad's Mayoid ceramics as well (Boomert 2000, 2016).



Figure 7. Cayo vessel typology, St. Vincent (Boomert 1986) compared to vessel types from Telescope Point and La Poterie, Grenada.



Figure 8. Koriabo vessel typology, Suriname (Boomert 1986) compared to vessel types from Telescope Point and La Poterie, Grenada.



Figure 10. Decoration techniques of Koriabo style pottery of La Poterie, Grenada. a) polychrome (bluish, yellow, white) painted inside of 'flower pot', b) white and red painted inside of bowl, c) white painted jar (Boomert Koriabo type 12), d) rim with broad and shallow incision, e) bowl with incised rim and white painted inside, f) jar with modelled zoomorphic decoration, g) 'flower pot' with broad and shallow parallel incisions on the rim, h) Cayoid jar with incised and applique decoration showing Greater Antillean influence. All items belong to the collection Dolton Charles, photos by M. Hoogland.

Decoration

The decorative elements relating Cayo especially to the Koriabo ceramic tradition of the mainland include painted or slipped designs, incised and grooved motifs, punctuations, lobed rims, and outward-bossed wall sections (Figure 11; see also Boomert 1986, 27). Modeled ornamentation consists of zoomorphic and geometric designs. Characteristic decorations related to the Greater Antilles comprise curvilinear incised and punctuated motifs which are closely comparable to Chicoid and/or Meillacoid elements. Some also occur on the Chicoid pottery in Hispaniola, Puerto Rico, and the Virgin Islands, especially those discussed by García Arévalo (1978, Fig. 2, Lam. III:b-c). Medium-sized biconical bowls with concave necks, often decorated with punctuated or nicked small knobs at the corner point, are typical late Chicoid shapes as well (Cayo Vessel Form 4 in Boomert 1986, Figs. 3:4, 5:4, 10:4).

Conclusions

Throughout its entire pre-colonial history, the Lesser Antilles are known to have been an arena showing the to- and froing of people from different areas of the insular Caribbean and the coastal zone of South America. Migrations and intensive networks of human mobility and exchange of goods and ideas created various ethnic/cultural communities across these small islands. The recent investigations at Argyle and La Poterie have shown that during the late 15th to early 17th century the Lesser Antilles remained a scene of inter-cultural interaction where peoples mixed and created a new Carib or Kalínago identity. Settlement organization, village layout, the varied material culture repertoire, and related practices mirror the pluralism at play during the early-colonial period. The mixed style of Cayo ceramics, which entangles local vessel shapes and decorative elements with those from the Greater Antilles and the mainland, reflects the fusion of different peoples partially at fled from the Spanish invasion and retreat from European colonization. Indigenous peoples from the Greater Antilles may have sought refuge in the Lesser Antilles, but the documentary sources also refer to Carib raids on the indigenous settlements of Puerto Rico and Hispaniola. Strengthening of a new Kalínago identity through the formation of a new language and the organization of cohesive events and feasting activities would explain the large amounts of sumptuary mixed wares and paraphernalia exhibiting Greater Antillean and mainland connections at sites like La Poterie and the adjacent Telescope Point. The Kalínago settlements were surrounded by the expanding colonial powers, but remained autonomous with the ability to renegotiate new colonial realities (Hofman et al. 2014). Over time, the Island Carib developed a pattern of trade and exchange which ensued the integration of Spanish, Portuguese, Dutch, French, and English goods in the indigenous material culture repertoires and culinary practices. The Kalínago participated in a complex trans-Atlantic system in which they combined their knowledge of indigenous exchange and alliance networks with new colonial and trade strategies (Hofman et al. 2014; Shafie et al. 2017).

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Koriabo Pottery In The Guianas

Stéphen Rostain¹

Exactly sixty years ago, the Koriabo archaeological culture was defined on the basis of a ceramic sample collected on the coast of Guyana (Evans and Meggers 1960). Very quickly, it was recognized on the Middle Maroni, in French Guiana (Groene 1976). Some of the material from Suriname's archaeological sites is also attributed to this culture (Boomert 1977), then to a site of a tributary of the Tapajos in Brazil (Hilbert 1982). At the same time, a late Koriabo extension is defined in the Lesser Antilles (Boomert 1986). It is then studied extensively in French Guiana (Rostain 1994), before being identified in Brazil, Amapá and the lower Amazon (Cabral 2011; Barreto and Lima in this book).

In total, dozens of sites associated with the Koriabo culture have been uncovered over a vast area ranging from the shores of the lower Amazon to the Lesser Antilles. It is necessary to underline the homogeneity of the Koriabo decoration throughout this large space where it is recognized, the variations from one region to another intervening rather in the nature of the temper. While the Koriabo remained attached to their stylistic tradition everywhere, their ceramic technique adapted to the raw materials they had at their disposal.

This article discusses the different ceramic classifications proposed for the Koriabo culture. Two are particularly noteworthy: the first was the original typology in Guyana by Clifford Evans and Betty Meggers (1960), while the second, connected to the initial, was defined a few decades later in French Guiana by Stéphen Rostain (1994). The latter will be detailed here. In addition to these two references, many authors have classified Koriabo material according to these typologies, demonstrating the extent of this late pre-Columbian cultural phenomenon. Today, the Koriabo culture is much better understood geographically and chronologically.

Classifications of pottery

Ceramics is considered as a relatively stable craft within a group, conservative and not very permeable to innovation. According to Claude Lévi-Strauss (1985: 236-237), any modification in relation to tradition and experience would risk causing the loss of the pieces, and this would explain the conservative spirit of the potters as well as the progressiveness of the changes in techniques and, to a lesser extent, the sets. During my ethno-archaeological investigation on Palikur ceramics in 1989 (Rostain 1992, 2016), the potters told me that they did not invent the shapes they shaped, but rather took up the

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models that their mothers had taught them. Archaeologists admit that this principle also applied in pre-Columbian times (Meggers and Evans 1957), but the problem of ceramic classifications in Amazonian environments is complex. Meggers and Evans (1969) imposed the Fordian typology more than half a century ago, which is still used today. However, it is frequently called into question because such typologies based on the nature of the temper can be very far from the Amerindian cultural reality.

In Suriname, for example, in the 1970s, the ceramic classification did not retain the nature of the temper as a selective criterion, because researchers considered that "geographical location, and thus the availability of suitable temper material, is as important as cultural tradition with respect to the choice of temper" (Boomert 1978: 38). They therefore radically deviate from the Meggers and Evans methodology, which gives fundamental, and probably excessive, importance to tempering agents (Meggers and Evans 1969). The problem with the typology, which is mainly based on decorative criteria, is the difficulty, if not the impossibility, of classifying ordinary sherds. Only decorated sherds can be distinguished, which reduces the possibility of defining ceramic styles: "As there exist few differences between the temper materials chosen by the Koriabo and Taruma peoples, it is difficult to decide which of the plain sherds belong to the Koriabo and which to the Taruma Phase" (Boomert 1978: 38). In addition, many sets are rarely characteristic of a single style and therefore become less discriminating.

Types and comparisons based on decoration are as inaccurate and imprecise as other based solely on the nature of the temper, or on morphology. Only a set of ceramic features can guide the search for a cultural focus, whose boundaries with neighboring focus remain unclear in any case. It is therefore also necessary to take into account, not only the ceramic lines, but also the location of the styles. This impasse is characteristic of the limitations of Cartesian classification methods, here on the Amerindian world, and in the world in general. Regional cultural changes from one village to another are gradual, and there is rarely a sharp border between two cultures. The most telling contemporary image of this spirit is the geopolitical division of borders that have little impact on Amerindian groups, such as the Kali'na living on either side of the Maroni in Guyana and Suriname, the Palikur and the Wayãpi straddling Guyana and Brazil.

We still know too little about the rules that governed the choices of potters, especially in the pre-Columbian times. Ethnography shows us, for example, an occasional, brutal and temporary change in the temper among the Palikur who, when they did not find a *kwep* tree (*Chrysobalanaceae, Licania* sp. and *Couepia* sp.) used to make the traditional tempering agent, replaced it with crushed pottery sherds (Nimuendaju 1926; Rostain 2016). The temper of the same type in archaeological ceramic can also show dimensional or structural variations. Thus, the sand temper of the griddles of Ouanary encoché type from the Aristé culture, is always much coarser than that of other culinary pieces (Rostain 1994).

Moreover, almost all archaeological sites have sherds with different tempers (crushed sherds, sand, etc.), although their decorations are sometimes similar, without us being able to really explain these changes. The use of a temper does not necessarily imply cultural affiliation or chronological significance, as the availability of the raw material varies from one region to another. Thus Koriabo ceramics, widely distributed throughout

French Guiana, shows strong variations in tempering agents, which are directly linked to the local resources available.

In short, if the technological characteristics (type of temper, clay, mixture) allow the definition of stable differentiating criteria, independent of the state of conservation of the material, they remain conditioned by environmental resources and, to a lesser extent, by the function of the object being shaped. The stylistic characteristics (shape, decoration), which are more diversified and free from technical constraints, may be more directly related to cultural particularities and clearly distinguish the groups, but they present a wider range of faster and gradual variations, and remain limited by the state of conservation of sherds. "Both are fundamental and neither can substitute for the other" (Shepard 1965: 314). For these reasons, in order to come closer to a certain ancient reality, classifications must take into account all the descriptive criteria of pottery, whether technological, morphological or iconographic.

Koriabo studies

The two most relevant and transversal classifications of Koriabo ceramics were originally carried out in Guyana and in French Guiana (Evans and Meggers 1960; Rostain 1994). The other works were simply integrated into these proposed typo-chronological schemes, enriching them with ceramic collections, excavation data, dating, etc. Other works were punctual classifications limited to one site.

Clifford Evans and Betty Meggers (1960) defined the Koriabo phase on the basis of their ceramic typology resulting from a collection on Guyana's western coast during their extensive archaeological survey in the country. The 4378 sherds were classified into three ordinary types (Barima plain, Koriabo plain, Warapoco plain), and two decorated types (Koriabo incised and Koriabo scraped) (Figure 1). Six categories, including one ordinary and five decorated (brushed, modelled, punctuated, imitation of Mabaruma incised or white slipped) complete the sample. The temper is made of coarse sand, sometimes with large quartz particles, or burnt and ground bark (*kwep*). The shapes include flared bowls or hollow dishes, flared bowls or bowls, globular pots with an inset rim, globular pots with a globular body and vertically tapered neckline, plates. The decoration, present on 4.9% of the material, consists of fine or wide incisions, forming parallel curved and rectilinear, diagonal, undulating, staircase, zigzag, and spiral lines. Modeling, sometimes incised or notched, are small buttons, veins, eyes and animal or human figures.

Of the total ceramic collected in the four western sites, at least 13.4% of sherds (of which 4.8% were decorated) belonged to the Mabaruma culture, which has a Barrancoid tradition. In addition, in all sites, several features of the Late Mabaruma culture are sometimes imitated in Koriabo ceramics (Boomert 1979; Evans and Meggers 1960). These exchanges and imitations would testify to the partial cohabitation of the two cultures.

In the Itabru site, in the east of the country, the ceramic temper is diverse: medium to coarse quartz, with possibly feldspar, the paste often containing laterite fragments, fine quartz, burnt and ground bark (Boomert 1978).



Figure 1. Types céramiques Koriabo du Guyana (apud Evans & Meggers 1960).

The typology of Evans and Meggers was perpetuated and popularized later on thanks to various archaeologists who adopt it in the region. Arie Boomert (1977) applied it to his study of the collections of the Stichting Surinaams Museum in Paramaribo. He did not actually carry out archaeological excavations and the samples have been collected since the 1950s by various researchers. In addition to the decorations types known in Guyana, Koriabo ceramics from Suriname feature elaborate black and red paintings on a white background, generally reserved for funeral pieces (Boomert 1986). In addition, unlike Koriabo ceramics from Guyana, mica is also used and even mainly as a temper. The clay is tempered with micaceous sand (45%), a mixture of burnt and ground bark and quartz sand (21%), burnt and ground bark (17%), quartz sand (12%). Inspired by Earle Kirby (1974), Boomert's (1986) intimate knowledge of the ceramic material he then acquired in Suriname allowed him to recognize a few years later potteries of the Cayo culture in the Lesser Antilles as a late island extension of the Koriabo continental style.

The Koriabo culture was recognized in French Guiana in 1974, during the excavation of the Kormontibo site, on a non-floodable bank of the upper Maroni (Groene 1974, 1976). Of the 1894 sherds collected in the test-pits, 453 symptomatic sherds (rims, bases, decorated) were preserved to be classified. Their thickness varies from 0.5 to 1.8 cm, the majority being between 0.6 and 1 cm, while the plates are 2.2 cm thick. Among the sounding material, 114 sherds (6%) have decorations made of fine or wide incisions, applied models and some paintings. The Dutch forester and archaeologist from Suriname Frans Bubberman immediately recognized the characteristics of the Koriabo style (Bubberman in Groene 1976).

In the interior, along the Paru de Oeste River in Brazil, Peter Hilbert studied the 250 sherds of the Cajuaçu site, which he separated into two types, exactly the same as those defined by Evans and Meggers: Cajuaçu plain for Koriabo plain and Cajuaçu incised for Koriabo incised (Hilbert 1982).

Celso Perota (pers. comm. 1990), on the other hand, defined ceramic types of the Cacarapi culture in Lower Xingu. The decorations are characteristic of the Koriabo culture in Guyana: wide scraped incisions, ringed pellets, digitally printed cordon, and red paint. These two references to a Koriabo presence in the lower Amazon and on the Tapajos will unfortunately be forgotten for nearly thirty years, knowing to return in force thanks to the recent increase in discoveries and the renewal of Amazonian archaeological dynamism in the country.

At the end of the 1980s, I conducted excavations mainly in the lower Oyapock, the lower Approuague, Cayenne Island and the surroundings of Kourou, which uncovered Koriabo material that allowed me to define a typo-chronology for the country (Rostain 1994, 2008, 2009, 2012). It will be presented below.

Recently, Martijn van den Bel (2010, 2015) has been collecting data from the compliance archaeology work of the Institut national de recherches archéologiques préventives (INRAP formerly AFAN) for fifteen years, because he wanted to establish a new framework for coastal archaeology in French Guiana. In fact, it faithfully follows the chrono-cultural framework already in place twenty years earlier (Rostain 1994), incorporating its equipment, including a small Koriabo part, so we are far from a revision from the bottom up, just an update. More interesting are the most recent studies conducted on the left bank of the Oyapock River in French Guiana by Mikael Mestre. This archaeologist has carried out excavations at Pointe Morne, revealing a site with a peripheral ditch and a double archaeological component (Mestre and Hildebrand 2011). It was first a cemetery of Late Aristé culture (AD 900-1400), then reoccupied by the Koriabo between AD 1400-1500. The researcher assumes that the site was recovered by a Koriabo group that trashed the traces of their predecessors by looting the lateral chamber burial wells containing urns and ceramic offerings. They have even sometimes replaced them with pieces of their own culture, in a spirit of cultural re-appropriation of the places.

Excavations conducted since the beginning of the new millennium in Amapá, Brazil, have shed light on the ancient past of this little-known region. Koriabo occupations, both domestic and funeral, have been highlighted, revealing unknown aspects of this culture (Cabral 2011). By observing the weakness of the field data available on Koriabo – researchers often focusing on ceramics – the same author also questions the systematic adoption of the Koriabo concept in the region, "as a result, the similarities and differences are neglected, with a strong tendency towards homogenization" (Cabral 2011: 90).

Finally, it is worth mentioning two failed attempts in French Guiana to define alternative ceramic classification methodologies that are incompatible with existing ones. One ingenious and the other flawed have not been successful and have never been adopted by anyone. Indeed, they proposed irrelevant groupings that prevented them from being compared to any validated classification.

The first was carried out by Alain Cornette (1991a) on the basis of the multiple field collections he had made. He classifies them into nine basic decorative styles (incision, painting, application, etc.), without taking into account shapes and pastes of the containers. The result is an unhelpful list that mixes all the sites without really illuminating any cultural aspects. Barely published, this classification was forgotten. He also established a local typology based on forms, particularly contemporary Kali'na ceramics (Cornette 1991b), which was no more successful. It includes 50 types (45 vessels, 4 zoomorphic objects, 1 musical instrument) for a sample of 168 pieces. This classification is difficult to handle because a number referring to a particular shape is assigned to each criterion (lip, rim, shoulder, body, base, etc.). Thus, a bowl is designated under the code 31.1.22.1.1.2.2 and a bottle 31.2.11.13.1, an unclear system.

The second methodology was determined a few years later during the Petit-Saut compliance program by the Association pour les fouilles archéologiques nationales (AFAN now INRAP). Archaeologists organized a vast survey in the Sinnamary basin and large-scale excavations by scraping. This resulted in a large collection of ceramic and lithic remains and a whole series of dates to ¹⁴C (Vacher *et al.* 1998). This enormous project mobilized substantial human, logistical and financial resources without achieving the expected innovative results. Through a fierce desire to stand out radically from previous work and in the idea of imposing a methodology developed in the temperate environment of Europe, the authors proposed a series of innovations, which are in reality difficult to put into practice. The dates are disconnected from human occupation, the sites are not really analyzed and the ceramic classifications are confusing and impossible to compare with those existing. Thus, by vaguely drawing inspiration from the work of José-Maria Cruxent and Irving Rouse (1958-59) in

Venezuela, they based their groups on the sample from each site, thus overwhelming any possibility of cross-sectional comparison. Their assemblies themselves differ on the sole basis of the temper. In this way, the Koriabo style was mixed with others, becoming de facto invisible. The monograph (Vacher *et al.* 1998) therefore remained marginal because it was rarely used by other archaeologists in French Guiana and Amazonia.

Koriabo typology in French Guiana in 1994

The classification of archaeological ceramics and the first definition of coherent types in French Guiana were carried out as part of my doctoral research (Rostain 1994). Three main sets could thus be determined on the basis of 23,206 sherds from my archaeological excavations in the coastal plain and 296 complete vessels, found in context or accidentally discovered, mainly in the riverbeds by gold miners. This equipment has been classified, on the one hand, according to the technological characteristics (type of temper, clay, mixture) allowing the definition of stable differentiating criteria, independent of the state of conservation of the sample. On the other hand, these specificities remain conditioned by environmental resources and, to a lesser extent, by the function of the shaped object. The stylistic characteristics (form, decoration), which are more diversified and free from technical constraints, may be more directly related to cultural particularities and clearly distinguish groups, but with a wider range of variations, rapid and gradual, and remain limited by the state of conservation of the sherds. These two fields of study were considered at the same level because "both are fundamental and neither can substitute for the other" (Shepard 1965: 314). For these reasons, I considered that the classifications, to approximate a certain past reality, must take into account all the descriptive criteria of pottery.

To study this ceramic material, I chose to partially adopt the typology used by Meggers and Evans (1969), but adapted with a more technological evaluation, in order to be able to compare my results with theirs. Indeed, experience had shown that individual attempts in pottery classification in the Amazon led to a comparative deadlock. The few researchers who had chosen other methodological approaches, such as Suriname or Venezuela, were unable to establish connections with the various typologies in progress. But, the Fordian method did not completely convince me, while Rouse's method seemed to me to lead to a complete split of the archaeological register into small local units. I therefore enriched the Meggers and Evans typology with a typically French component based on technology: the "chaîne opératoire" approach. So I added to the nomenclature based on temper and decorations, an important field on morphology and manufacturing method. To better understand the Amerindian ceramic operating chain (Balfet *et al.* 1983), I conducted a long investigation among the Palikur of Lower Oyapock (Rostain 2016). This ethno-archaeological work provides me with the necessary foundations for a better understanding of technological processes and a necessary improvement of the adopted Fordian typology.

This research highlighted the pre-Columbian cultural variety of the French Guiana coast, with at least three models of societies represented in the chrono-cultural sequence: Aristé, Arauquinoid and Koriabo. They are based on the ceramic typology, the lithic corpus, the way the territory is occupied and various other societal aspects.

To the east, in the Ouanary hills and on the Amapá coast, the Aristé culture, which originated in the lower Amazon region, began to develop in AD 350. On the other hand, on the west coast, Arauquinoid cultures gradually settled from AD 900 onwards, originating from the Orinoco Middle Ages. Multiple mergers and overlaps between the cultures of this tradition give a certain homogeneity to this cultural ensemble. The Koriabo culture, on the other hand, shows some characteristic ceramic features, identical everywhere in the sites of Brazil, Guyana, Suriname or French Guiana, indicating a homogeneous and solid culture. It seems that this culture had its home in the interior of the Guyana Shield, from where these populations spread in the Guianas along the main river axes. Recognized in the interior of French Guiana from AD 1100-1200, it developed particularly in riverside villages, which controlled river traffic and probably played an essential role in domestic commercial networks.

The Chaton fantastique type, representing the Koriabo culture in French Guiana, was defined from the analysis of excavation samples from the sites of the Approuague River and its tributary the Matarony, but also from fieldwork in the lower Sinnamary. This represents 1661 sherds, of which 7% are decorated, a usual percentage in French Guiana sites. The Chaton fantastique type is found on the vast majority, if not all, of the material at each site.

If the Chaton fantastique type predominates largely in inland sites, it is on the other hand poorly represented in coastal sites. Its wide dispersion explains the significant variations between pastes from one region to another, but differences also exist between sherds from the same site. Three varieties, corresponding to different pasta and three geographical areas, are currently distinguished. The main criteria of the Chaton fantastique type are a mainly red, reddish yellow or yellowish red paste, with a temper of white or translucent quartz sand (variety #1 named Approuague), translucent blunt sand (variety n#2 named Matarony) or very micaceous white quartz sand (variety #3 named Sinnamary). The shapes include a very characteristic pot with a flared base and globular body, sometimes with four bulges and often incised with complex patterns, a vertical neckline and a flared edge. The decoration is rare but characteristic, dominated by fine or wide incisions, incised pellets and applied beads that sometimes depict human or animal figures.

The Chaton fantastique type in French Guiana is in many ways comparable and similar to four types of the Koriabo culture, defined in Guyana by Evans and Meggers (1960). Variety #1 of the Chaton fantastique type is similar to the Koriabo plain, Koriabo incised and Koriabo scraped types, and variety #3 to the Waracopo plain type. Variety #2 is original

Variety #1: Chaton fantastique Approuague

PASTE

The junction of the coils is flat or slightly sinuous, and may have characteristic incised grooves along the coil, particularly at the junction of the neck and belly. Non-plastic elements are angular and irregular particles of white quartz 0.01 to 0.5 cm in diameter, accompanied by smaller quantities of translucent quartz grains, making up about 30 to

40% of the paste and giving a characteristic appearance with white spots. The texture is homogeneous, rather loose, and dense, with a clear break. The morphology seen at the SEM shows that the sherds have a homogeneous mixture. There are large quartz, small feldspar particles, some biotite leaves and sometimes pyroxene grains. Clay contains silica, aluminum, iron, magnesium and potassium. The color of the fracture is overwhelmingly the same color as the surface.

On the surface, red and reddish yellow are characteristic in the lower Approuague. There are also, to a lesser extent, diluted red and reddish brown (according to the Munsell classification). The surface is relatively smooth, with visible browning marks, but erosion inside the pottery is often significant, revealing the speckled appearance of the temper.

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The wall thickness varies from 0.4 to 1.6 cm with a dominant thickness between 0.8 and 1.2 cm. The rim is direct or slightly thickened, vertical, slightly inward or flared, convex lip, flat or beveled outwards, sometimes lobed (diameter 13 to 54 cm, with a dominant at 20-30 cm). It can be direct, vertical, with a rim bent almost horizontally outwards, convex thinned lip (diameter 16 to 33 cm). It can be thinned, sinuous and vertical then flared, convex lip (diameter 40 to 44 cm). It can be is thinned, flared, convex, beveled or flat lip (diameter 18 to 36 cm, with a dominant at 20 cm). It is also externally thickened vertically, flat lip (diameter 26 cm). It is much thickened externally in a triangular section bead, flared, convex lip (diameter 25 to 36 cm). It can be flared with a very inward rim, convex lip.

The base is flat (thickness 0.7 to 2.1 cm; diameter 5 to 15 cm) or crowned pedestal (thickness 1 cm; diameter 7 cm). An inner ear can be added (height 1 cm; width 3 cm; 1.6 cm).

The ceramic forms, common to all three varieties, are mainly known by a large sampling from chance discoveries made mainly in Approuague, Matarony and Comté (Figure 2). The fact that these pieces come from outside an archaeological context may, however, lead to confusion with other ceramic types with similar body characteristics:

• Pot with globular body, vertical or slightly inward neck, straight or concave, flared rim and flared base. The neck may have handles. The body can have four swellings, often decorated. The decorations are located on the body and on the handles. The simplest patterns are straight, oblique incisions and rows of notches or wide incisions, in elaborate curved, spiral or straight patterns, which have been made on the body with a serrated-toothed tool. The more complex designs are often repeated, with variations, on each of the four swellings: zoomorphic appendices, notched cords and frog-shaped pellets with fantastic character and complex fine incisions, human faces made of pellets and cords surrounded by many thin and wide elaborate incisions, etc. The handles are decorated with notched cords and tablets with a human or animal head. The flared base and globular body make it easy to stack several pottery pieces. This shape is the most characteristic of the Chaton fantastique type (Figure 3). Opening diameter 11 to 25 cm, with a dominant around 18 cm; maximum diameter 13 to 28 cm, with a dominant around 20 cm; base diameter 6 to 12 cm; height 12 to 22 cm.



Figure 2. Chaton fantastique shapes of pottery of the Koriabo culture in French Guiana (drawings S. Rostain).



Figure 3. Typical pots of Chaton fantastique type of the Koriabo culture in French Guiana (drawings S. Rostain).

• Bowl, hollow dish, bowl or bowl flared with a more flared edge, vertical or recessed (occasional discoveries). Sometimes there are applied pellets depicting an animal, and/or incisions on an outer or inner rim, or on the body, or the lip is notched. The interior can be painted white or very dark grey concentric triangles, or painted with human faces. Like the first one, this shape is also very characteristic of the Chaton fantastique type (Figure 4). Opening diameter 14 to 42 cm; base diameter 6 to 12.5 cm; height 4 to 15 cm.



Figure 4. Typical open bowls of Chaton fantastique type of the Koriabo culture in French Guiana (photos and drawings S. Rostain unless bottom right from Vacher *et al.* 1998).

• Pot, bowl or bowl with convex or fairinged body, of shape derived from the first, vertical or flared neckline, straight or concave, flared edge. Two handles, or perforated ears, can be applied to the edge. The inner rim is sometimes incised with parallel curves, the

thickened outer rim can be incised with notches and wide sinuous lines, and shapes applied to the body can show the head and limbs of a turtle. Opening diameter 10 to 31 cm; maximum diameter 15 to 42 cm; base diameter 5 to 10 cm; height 7 to 20 cm.

- Cup, pot or bowl with a vertical, slightly flared or convex body. Opening diameter 12 to 32 cm; base diameter 7 to 23 cm; height 7 to 14 cm.
- Bottle, neck jar with fairing or globular body. Exceptionally, a coarse, apparently human face is applied to the neck, and the shoulder can be painted with simple patterns or uniformly in red. Opening diameter 6 to 32 cm; maximum diameter 7 to 23 cm; base diameter 6 to 10 cm; height 7.5 to 23 cm.
- Globular jar or jar with vertical narrow neckline. Four swellings of the body, which is painted white, can be decorated with a human or animal face, incised and applied. Opening diameter 17 to 20 cm; maximum diameter 41 cm; retained height 10 to 17.5 cm.
- Globular pot with very inward rims. A button can be applied to the rim. Opening diameter 11 cm; maximum diameter 20 cm; retained height 8 cm.
- Flared bowl with pedestal. The pedestal has four windows. Opening diameter 17.8 cm; base diameter 11.5 cm; bowl height 4.8 to 5.8 cm; total height 11 to 11.5 cm.
- Griddle: from 1.5 to 2.2 cm thick, with regular on both sides, but with a smoother upper side. Some plates have an impression of curved parallel lines on their underside (large leaf?). Two slightly raised rim, one direct with a convex lip (diameter 32 cm), and the other with a straight and beveled lip (diameter 29 cm).

DECORATION

The techniques include fine incisions, 0.05 to 0.15 cm wide and 0.05 to 0.1 cm deep, with a U-shaped section; wide incisions, 0.2 to 0.3 cm wide and 0.03 cm deep, made with a finely serrated stick; notches on the outer edge bead, 0.5 cm wide and 0.05 to 0.2 cm deep; cup-printed bead edges (width 1.3 cm; height 1 cm; depth 0.5 cm), made with the finger. Painting is red and diluted red dominate. The appliqués are circular pads with printed central ring (diameter 0.7 to 1 cm; thickness 0.2 to 0.3 cm) or zoomorphic circular buttons (diameter 1 to 1.2 cm; thickness 0.3 to 0.6 cm) associated or not with fine and wide incisions.

The patterns are fine and wide incisions in straight or curved parallel linear patterns; fine and wide incisions in elaborate curved and straight patterns; a single row of notches on the outer bead; a beaded edge printed with cups (Figure 5). The paint is uniformly red or forms patterns of straight lines and red curves; red and yellow lines and stripes on a very pale brown background drawing a face, or rows of very dark grey concentric triangles on a natural background (Figure 6). Modeling are circular pads with central ring printing, placed by two or three on the rim and associated with wide incisions; simple buttons, circular pads and incised cords forming animal and human figures, often associated with elaborate incisions (Figure 7).



Figure 5. Chaton fantastique plastic motives of pottery of the Koriabo culture in French Guiana (drawings S. Rostain).



Figure 6. Paintings of Chaton fantastique type of the Koriabo culture in French Guiana and Suriname (photo S. Rostain).


Figure 7. Various representations of felines in the Koriabo pottery from Suriname and French Guiana. Bottom right is an up-side-down typical pot with incisions figuring a feline (photos S. Rostain).

Variety #2: Chaton fantastique Matarony

Only differences from variety #2 are noted here.

PASTE

Non-plastic elements are more or less fine sand with blunt translucent particles, from 0.05 to 0.1 cm in diameter sometimes reaching 0.4 cm, composing 30 to 45% of the paste. The morphology seen at the SEM shows that the sherds have a homogeneous mixture. There are quartz and some ferruginous nodules. If the fracture is mostly the same color as the surface, some shards have a black section.

The surface color is reddish yellow, light brown, brown or yellowish red. The surface is generally well smoothed, sometimes granulated by the emergence of quartz grains.

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In addition to rims comparable to variety #1, there is also a direct, sinuous and vertical one, convex lip (diameter 24 to 32 cm). Another is direct, flared curved outwards, convex lip (diameter 19 to 25 cm). There are additions in the form of buttons (height 2.4 cm; width 2 cm; thickness 1.6 cm).

DECORATION

In addition to the surface modifications of variety #1, there are notches of 0.2 cm by 0.3 to 0.7 cm. The paint includes red, diluted red, dark red. Very dark grey or yellow (rarely) patterns are known. The background is occasionally uniformly painted pinkish white or very pale brown (probably white at the origin).

The patterns are fine straight horizontal incisions, single or multiple, parallel vertical or oblique incisions, a single or multiple row of notches on the inner rim.

Variety #3: Chaton fantastique Sinnamary

There are more differences here with varieties #1 and #2.

PASTE

Non-plastic elements are angular irregular particles of white quartz 0.01 to 0.8 cm in diameter, very often mixed with mica (27.5% of non-plastic elements) that are abundantly found in the region, making up about 40 to 50% of the paste. The morphology seen at the SEM shows that the sherds have a homogeneous mixture and the paste is fibrous. There are quartz of all sizes, biotite and some feldspar.

The surface is red, yellowish red or very pale brown. The surface generally very eroded and granulated by the emergence of quartz grains. Some parts with little erosion show

signs of smoothing. It should be noted that the sherds found on the surface are less eroded than those found in the test pits.

SHAPES

The rim is direct or slightly thickened, vertical, slightly inward or flared, convex, flat or beveled outward lip, sometimes lobed (diameter 13 to 54 cm, with a dominant at 20 30 cm). It is also direct or thickened internally, vertically, outwardly curved, lobed, acutely beveled or rounded outwardly. There are handles decorated with a human face.

DECORATION

The only difference with the other two varieties is the pattern of parallel straight white stripes.

The case of the Melchior kwep type

The Melchior kwep ceramic type poses an attribution problem. It was defined on a small sample of 234 sherds and 4 complete vessels from Cayenne Island, the lower Approuague and the lower Oyapock, several of which are of Koriabo culture (Rostain 1994). It is characterized by a temper of burnt and crushed bark. The surface is smooth. The decoration, present on 28% of the material, consists mainly of white or red paint, straight incisions, rows of punctuation, notches, and digital prints.

Due to the nature of its temper, widely used in the region, it is similar to several ceramic types. It can be compared to the Barima plain type of the Koriabo culture in Guyana (Evans and Meggers 1960), but also to the Caripo kwep type of the Aristé culture (Rostain 1994). However, there is not a perfect match between these types and the Melchior kwep decorative themes, so it is difficult to compare it to known styles. There is clearly a component of kwep-temper pottery in Koriabo in French Guiana, but it cannot yet be accurately assessed.

Recent study in Suriname

I also had the opportunity to observe and study more recently all the archaeological collections of the Stichting Surinaams Museum in Fort Zeelandia, Suriname. I used the nomenclature I introduced in 1994 in French Guiana to describe the characteristics of the Koriabo style in Suriname. Some of the conclusions of this work are published in the book "Suriname before Columbus" (Versteeg 2003).

At the same time, in 2004, with Versteeg, we excavated two mixed Koriabo-Arauquinoid sites, discovered then and located at the junction of the coastal plain and the inland forest formation. Rac-a-Rac is located near the Suriname River and its archaeological

material reflects this position. Much stone material shows that it was a link in a trade network. Stone was traded from the interior to the stoneless coastal plain and this site is in between. Koriabo pottery in combination with pottery typical of Suriname's coastal cultures confirms the contacts of the inhabitants of this site.

The Surnaukreek site is situated on the bank of a small creek. It also yielded Koriabo pottery, but less stone. Excavation of a larger area of this site with machinery resulted in the find of postholes and dump pits. The excavations showed many details of the sites. The four layers excavated at Surnaukreek do not suggest a contempora-neous Koriabo/ Arauquinoid inhabitation, but two successive inhabitations: the Arauquinoid groups were the first inhabitants (the pottery in the lowest layers, ca. 50-80 cm depth), these were replaced by a Koriabo occupation subsequently (ceramics in the lowest layers: 30-50 cm depth) (Figure 8).

The results of these studies still must be published.

Beginning and end of the Koriabo culture

The Koriabo culture was first of all dated, relatively, between the 12th and 16th century AD (Evans and Meggers 1960). This chronological estimate was obtained by stratigraphic methods (density of sherds releases, rate of variation of the frequency of a type), from the presence of intrusive ceramics and by the study of the archives. The presence of more recent Koriabo and Taruma sherds and mixed European material in the upper level of the Itabru site led to the assumption that the Koriabo culture could have continued until the 18th century (Boomert 1979).

The chronological position of the Koriabo culture is nevertheless discussed in Suriname. Arie Boomert (1986, 1993) dates from between AD 950-1000 and 1450. More recently, Boomert (2004) dates it between AD 750 and 1500, and disagrees with Versteeg for having ruled out all dates prior to 1150. Versteeg as to him (1980) on the basis of the dating distinguishes the interior Koriabo sites, dated between AD 1260 and 1350, of the later Koriabo later sites, between AD 1350 and 1600 dates. More recently, this author nuances his estimate by accepting the possibility that this culture, on the coastal sites, continued after AD 1600 (Versteeg and Bubberman 1992). Moreover, the presence of intrusive Koriabo sherds and ceramic imitations of this culture in Kwatta and Barbakoeba sites, and conversely of intrusive and imitated features in Koriabo sites, indicate a contemporaneity, at least partially, of the three cultures. Recently, Cabral (2011) suggested that the thirty or so dates available be used to re-evaluate the chronology. The framework would change significantly since, by retaining the dates rejected by some, the Koriabo would appear from about AD 400 in the interior and AD 900 on the coast.

While the beginnings of an archaeological culture are often identifiable, its end is generally problematic to highlight. The opposite is true of the Koriabo culture, whose origins are difficult to identify, while solid evidence indicates its latest manifestations.



Figure 8. Koriabo decorated pottery from Surnaukreek site in Suriname (drawings S. Rostain).

At the end of the 1980s, I organized with Yves Wack an archaeological research in the Lower Approuague, in French Guiana, based on an extremely sharp 18th century map (Rostain 2015). In 1764, the geographer Joseph-Charles Dessingy drew a very precise map downstream of the Approuague, on which he placed colonial dwellings and Amerindian villages, abandoned or in activity, indicating the ethnic groups that inhabited them (Figure 9). Since the sites were located and the occupants identified, it was worth searching them. Thus, during these surveys, six sites (including five indicated on the Dessingy map) and two archaeological *loci* were discovered. Among them, *"an ancient Akokwa village"* located on the right bank of the Approuague, downstream of the Mapaou rapid. He specifies that it was *"the Old Establishment of Apoumanan, Chief of the Akoukoa Nation"*. The Akokwa (also spelled Akoukoa, Acoquois, Acoquas, Acoquas), possibly a Karib group, have been known in eastern French Guiana since the second half of the 17th century. The excavations have provided a very large majority of Koriabo sherds, and to a lesser extent also of Aristé culture. A charcoal sample, collected 20 cm deep in a test-pit, was dated at 14C 240 +/- 50 years BP (OBDY 728). The age was calibrated between



Figure 9. Dessingy map from 1764 of the Lower Approuague showing Amerindian villages. Top left, Akokwa Indian (Barrère 1743).

1518 and 1801 AD, but the Akokwa occupation of the site, under the authority of Chief Apoumananan, is likely to occur in the first half of the 18th century because, when Dessingy passed, the village may have been abandoned only a few years ago. This type of conjunction between cartographic sources and archaeological data is too rare to ignore the pleasure of obtaining them.

On the map of Dessingy, the sites of Tourépé and Dubol, also dominated by Koriabo, are former Norak villages (probably a Tupi group), information probably obtained from the Norak of Grand Vevoni. The villages had perhaps been abandoned a few years earlier, and can be dated, subject to the reservation, to the first half of the 18th century. Mapaou was probably one of the last Koriabo villages in French Guiana.

Other evidence of the persistence of Koriabo communities has been found in French Guiana and Guyana, confirming their continued existence during the colonial era. This obviously raises the question of their future and ethnic identity from ethnohistorical sources. Based on the available data, it can be assumed that the Koriabo culture was represented by several ethnic groups from the Karib linguistic family. On the coast of the Guianas, the Koriabo met the Arauquinoid populations, with whom they fused, giving birth, after occasional influences from the Aristé groups, to new hybrid ceramic styles. In French Guiana, contemporary Kali'na pottery is undoubtedly the legacy of these multiple influences (Figure 10). In historical times, Tupi groups from the Amazon arrived in southern French Guiana, where they dominated the local Koriabo groups by absorbing their style.

Archaeological cultural units and ethnic groups are not defined on the same criteria and do not reflect the same realities. It may therefore be dangerous to attempt, through direct parallels, to generalize linguistic identifications of archaeological culture based on the study of material culture alone. There are fundamental differences between archaeological and ethnological classifications because "ethnicity and linguistic affiliation are concepts which are beyond archaeological retrieval, reason why archaeologists have to classify their units in terms of cultural traditions rather than, for instance, in terms of peoples" (Boomert 1986: 5-6).

In French Guiana, in the 18th century, the Tupi-speaking Norak and the Karib-speaking Akokwa in the Lower Approuague belonged to the same Koriabo ceramic culture. The current Wayãpi and Wayana, located in two separate river basins and belonging to two different linguistic groups (respectively Tupi and Karib), have had distinct trajectories and original structures (Grenand 1982; Hurault 1968, 1972; Schœpf 1972). Yet, these two groups share many material elements, as they are linked to the same cultural area and face the same ecological problems (Grenand 1971). In addition, Wayana material culture has strongly influenced Wayãpi material culture (Grenand *in litteris* 1993). It is almost certain that the excavations of recent Wayãpi and Wayana villages would provide similar furniture, differentiated mainly by spatial distribution and some particularities.

A large cultural sphere is therefore, in our opinion, rarely represented by a single ethnic group, but most often corresponds to a gathering of several groups. The expression of nebulae of different intertwined ethnic groups (Grenand and Grenand 1987) represents the historical and apparently prehistoric reality of the Amapá coast. Very diverse groups



Figure 10. The oldest Kali'na ceramic known from the 18th century French Royal Collections, with features from Kali'na, Aristé and Koriabo cultures (Quai Branly-Jacques Chirac Museum n° 78.1932.276; drawings and photos S. Rostain).

occupied contiguous territories, but the whole gave the observers an impression of unity. The profound historical upheavals brought about by the European conquest have led to the total destabilization of indigenous communities, the collapse of cultural cultures that have sometimes been in existence for thousands of years, and the reconstruction of Amerindian society towards the image it offers us today.

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Koriabo in French Guiana: Cultural Expansion in the Guianas During Late Prehistoric Times

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Koriabo, a supremacy of thought which challenges the notion of territory

Until the beginning of the 1990s a handful of Koriabo ceramics have been found at various sites in French Guiana conducting pedestrian surveys and small test pits as well as numerous complete pots from private collections found in rapids (Groene 1976; Rostain 1994; Migeon et al. 2010). This first inventory has been substantially extended by subsequent preventive operations conducted by members of the AFAN at the Barrage de Petit-Saut upon the Middle Sinnamary River where numerous tested and excavated sites have yielded Koriabo ceramics as well as a series of radiocarbon dates (Vacher et al. 1998).

After 2003, this register was further extended by members of Inrap (formerly Afan) executing more large-scale preventive excavations as well as mechanical surveys, notably in the vicinity of expanding villages in French Guiana. The latter research spanning nearly 15 years of investigation yielded important archaeological data on the cultural manifestation, chronology and interpretation of the Koriabo ceramic complex which presents itself in French Guiana firstly as a very late prehistoric expansion followed by an early historic, but modified version.

The results of five Inrap excavations are presented here briefly which are located upon the Maroni and Oyapock Rivers. We will focus on the ceramics, stratigraphy, and chronology of these sites in order to elucidate the late prehistoric timescale and intrusive character of Koriabo in French Guiana (Figure 1).

The Maroni river

The western sites discussed here are all situated along the Lower Maroni River upon important affluents of this river: Crique Sparouine and Saut-Saillat are located along Crique

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Figure 1. Places with Koriabo ceramics in French Guiana.

Sparouine and Crique Serpent whereas the La Pointe Balaté and Chemin Saint-Louis Phase³ sites are situated at the confluence of Crique Balaté with the Maroni River just to the south of the village of Saint Laurent du Maroni. The Lower Maroni River features more Koriabo sites such as Saut Hermina and Coeswine, but also on the Surinamese banks of the Lower Maroni River such as Galibi, Bigiston, and Langamankondre, all Kalina villages today.

Crique Sparouine

This site is situated at the summit of a small rectangular Precambrian hillock overlooking Crique Sparouine, affluent of the Maroni River, covering c.7500 m² and culminates at c.40 m above MSL (Mestre 2004). By means of a mechanical shovel the dark colored top soil was removed (2002 m^2) and the archaeological material was collected in a 4 x 4m grid showing two important waste areas of ceramic and lithic debris (van den Bel 2007). Over 400 features were identified beneath and within this dark layer. The latter context

³ Further information per site can be read in the Inrap excavations reports which can be downloaded at www.dolia.fr.

consisted of four ceramic depositions and two grinding stones in situ, all found in the southern and highest part of the site. Below the dark layer, 269 post holes and 24 pits were recorded in the orange-yellow subsoil yielding possible house and burial locations (van den Bel 2010, 2015).

Radiocarbon dates

Only four charcoal samples, obtained only from the anthropogenic features, indicated na occupation between c.550 and c.1050 BP or calibrated between the end of the 10th and the second half of the 14th century AD, suggesting a span of 300 years (Table 1).

97311.120	Pointe Balaté	POZ-46912	920	30
97311.120	Pointe Balaté	KIA-36134.2	325	25
97311.120	Pointe Balaté	KIA-36134.1	55	35
97311.120	Pointe Balaté	KIA-36136	795	25
97311.120	Pointe Balaté	KIA-36137	835	35
97311.104	Saut Saillat/Crique Serpent	KIA-31239	360	25
97311.104	Saut Saillat/Crique Serpent	KIA-31242	390	20
97311.104	Saut Saillat/Crique Serpent	KIA-31240	425	20
97308.230	Pointe Morne	UGAMS-4040	390	25
97308.230	Pointe Morne	UGAMS-4035	410	25
97308.230	Pointe Morne	UGAMS-4032	450	25
97308.230	Pointe Morne	UGAMS-4030	460	30
97308.230	Pointe Morne	UGAMS-4031	470	30
97308.230	Pointe Morne	UGAMS-4026	500	30
97308.230	Pointe Morne	UGAMS-4039	520	25

Although there are only four dates, the following scenarios may have unfolded: (a) a permanent occupation lasting several centuries or (b) two short, successive occupations: an early phase around the 11th century and a second during the 13th and 14th century of which the latter option is suggested by the spatial artefact distribution and ceramic study.

Ceramic spatial distribution

The register represents nearly 4000 potsherds (c.114 kg) and mainly collected from pitfeatures. Twenty-four vessel shapes were reconstructed of which half was decorated, a relatively high percentage, which is probably related to the specific context of these vessels, possibly special purpose pits such as burial pits, despite the fact that we did not detect any burnt or un-burnt bone⁴.

⁴ Microscopical and / or chemical analysis is needed to attest for bone debris in pits and / or pots.





Although ceramic material was detected all over the excavated area, we observed a much higher density is in the northern (sectors 1-3) and a less dense area in the south just below the summit (sectors 9-11) (Figure 2). The northern part provided the bulk of the ceramic material and is considered to be the dump area located at the periphery of the dwelling area. This opinion is partially attested for by means of: (a) the diversity and quantity of the ceramics found in this particular area and (b) the absence of anthropogenic features.

The southern part is less rich in ceramics and considered to be a secondary waste area⁵. When superposing the complete ceramic vessels upon the excavation plan one can distinguish three zones of depositions with different ceramics: (a) in the north (sector 2) one observes two restricted vessels with lugs and one sinuous-rim vessel with an indented clay strip around the lower neck (F 36); (b) towards the south in sector 4 and 5, there are two large vessel interments next to each other. Both vessels contain additional complete red-painted vessels (F 102 and F 138): a restricted, pedestalled pot and a boat-shaped vessel respectively.

Another painted boat-shaped vessel was found in adjoining pit F 101. Interestingly, these boat shaped vessels are the only vessels tempered exclusively with vegetal nonplastics, therefore representing a rare component at Crique Sparouine. These may evoke a specific function and /or have an intrusive origin. As for this kwepi (burnt siliceous tree bark), grog is another rarity compared to the other temper modes and therefore the restricted grog-tempered vessel EC 47 in pit F 102 with pedestal base and red-slipped interior is exceptional; (c) To the south-west, a long the plateau edge and near the summit we observe three pits with Koriabo ceramic depositions (F 221, F 220 and F 278) of which the latter contains two flower bowls and one necked or toric pot⁶. F 221 represents a white-painted bell-shaped vessel and F 220 a so-called "eared-vessel". A little farther to the south we discovered two small necked-vessels within the dark forest layer (F 333), suggesting abandonment of these vessels since no pit was discovered below the pots.

Finally, one must remark the deposition of non-decorated sinuous-rim vessels in pits (F 210, F 149, F 52, and F 375) towards the northern half of the excavated area (sectors 1 to 6) and one in the dark layer in the south (F 329) within the Koriabo zone. Its distribution is not confined to a specific area or pit but for the sake of the analysis this group is called (d). And last, but not least, we must single out pit-deposition F 377 (e), situated between (a) and (b); this interesting vessel is painted, possibly linking it to the painted depositions to the south, but the lugs and indented clay-strip suggests it could be attached to the deposition F 36.

⁵ It must be noted here that the distribution of the lithic material ressembles the ceramic one.

⁶ The "necked pot" or pot torique in French has a doughnut shaped body. The latter term or 'toric pot' was coined by Jérôme Briand during his study of the BPS ceramic material: 'Forme C: Panse à profil torique; panse se dégageant du col et de la base par un ressaut lui donnant l'aspect d'un tor' (Vacher et al.1998:183, Table XXIII).

Conclusion

There is an obvious spatial dissimilarity between morphology and decoration modes for (a–c) with the exception of (d) as mentioned before but the latter group is eventually homogenous in vessel-shape. This particular situation led to the idea of two possible ways to conceive this picture in combination with only four radiocarbon dates. First of all, it can be suggested that one Amerindian group occupied the site for 300 years, producing sinuous rim-vessels (a+d) as well as painted vessels for more important occasions (b+e). During this occupation, a specific area was dedicated to particular events or ceremonies, as materialized by the Koriabo depositions, perhaps with the invitation of other groups. Another second possibility is that there were two occupations: a first occupation with a sinuous-rim production and painted ware preceded or followed by a Koriabo occupation. Unfortunately, the Koriabo pits were not dated because of the absence of charcoal in these pits, but other Koriabo occupations in the region suggest a late occupation from the 14th century onwards, as we shall see further. In the latter case, the Koriabo occupation of Crique Sparouine can be attributed to the latest dates or has not dated at all.

Saut-Saillat

This site is situated about 15 km south of Crique Sparouine and located on a high natural levee within the streambed of Crique Serpent near a small rapid (Mestre 2004; Hildebrand 2008). The excavation of approximately 1500 m² only touched the northern flank of the levee evidencing a small waste area at its foot which yielded the bulk of the ceramic material (N=7543).

Radiocarbon dates

Just as Crique Sparouine, only four radiocarbon dates were taken for this site of which is considered too young (Table 1). It is important to note that two samples were taken from the waste area: KIA-31239 represents a burnt palm-tree nut (Astrocarym vulgare) and another concerns burnt matter inside a ceramic sherd (KIA-31240). The third accepted sample was taken from a posthole F 141 situated at the summit of the levee (KIA-31242). The results from Saut Saillat are more recent than Crique Sparouine and when calibrated they range between AD 1445 and 1510, thus a few decades before the Encounter and just after the passage of the first Europeans.

Ceramics

When considering the repertoire of Saut Saillat, one must bear in mind that the ceramics have been found in a large dump and were not encountered in pit, such as at Crique Sparouine or Point Morne. The repertoire is dominated by small and large necked pots (F and G) and polylobed white-slipped flower-bowls (D 1d) which are predominantly sand-tempered (Figure 3). However, other vessel shapes are also present, notably small bowls (C); this ambiguity suggests possibly a local production of Koriabo ware.

				ORDINAIRE			DECORE
CLASSE		1	2	3	4	5	1
Godet hemisphérique ⊲12 cm	A	KI J					
Bol hémisphérique Ø<18 cm	B						
Ecuelle sub-sphérique 17<8≺24cm	c						
Jatte 24<ð≺32cm	٥						
Bassin hémisphérique Ø>32cm	ш						
Pot Ø<22 cm	Ľ.	£*					
Grand pot	U						A A A A A A A A A A A A A A A A A A A
Plaque	Ξ	CHILLING .					

Figure 3. Objects are represented in 10% of their real size.

La Pointe Balaté and Chemin Saint-Louis Phase 3

Both sites are located on the levee and back-fan of the same Holocene terrace of the Lower Maroni River and separated by the Crique Balaté (van den Bel 2008a-b). The Chemin Saint-Louis (CSL) site was excavated extensively and represents an important dark earth site with at least three major occupations of which the latest occupation (Phase 3) refers to the Late Ceramic Age (LCA) and yielded only a few large Koriabo rims herds (van den Bel et al.2011; van den Bel 2012; Brancier et al. 2014). The La Pointe Balaté site was also excavated by mechanical means and yielded many anthropogenic features, such as postholes and pits, yielding Koriabo depositions amongst others (Briand et al. 2016). The principal LCA occupation of Balaté and Phase three of CSL are considered contemporary.

Radiocarbon dates

In total 15 radiocarbon dates have been attributed to the Late Ceramic Age, ranging between c. AD 1000 and 1850 (table 1). The other dates of La Pointe Balaté are attributed to the ECA. The historic radiocarbon dates may be correct and suggest an historic Amerindian occupation, but European artefacts lack in order to attest for this hypothesis; however, this series suggest a double or multiple occupations of the site what is confirmed by the ceramic study of La Pointe Balaté, revealing Barbakoeba modes of decoration from eastern Suriname as described by Boomert (1993), and typically decorated Koriabo vessels.

Ceramic distribution

The LPB ceramics were hand collected during the mechanical decapage (3271 m²) and mainly taken form the black topsoil and anthropogenic features. It was evenly distributed between the dark soil and features of which the former represents 66% of the entire collection. Notably waste areas F 115 and F 123 were of particular interest because they provided the majority of the constituent elements (Figure 4). The paste consists of a mineral, vegetal, mixed, or grog temper and are all were evenly distributed; however, the vegetal temper and notably ash (kwepi) was the most popular temper (30%). Only 1% of the collected material is decorated and includes six complete vessel shapes. Despite this, the decorative repertoire is rather rich and composed of red ware (20%), incisions (11%) and modeling, such as indented clays trips (16%), anthropomorphic modeling (37%) and adjunctions (16%). Small adornos made of clay strips with nubbin eyes and indented with circular tools (a small reed?) is most popular. Generally speaking, modeling is abundant as to LPB (70%) whereas slipping or painting and incisions are minor modes of decoration. Interestingly, white painted ware is favored over red-colored ware (see 1.2) but only two fragments feature white-on-red painting.

When we take a look at figure 4, we observe that the majority of the vessels are note decorated except for one red-painted bowl as well as three Koriabo depositions (F 89, F 137, and F 138) of which two yielded historic radiocarbon dates. The Koriabo depositions are confined to the northern part of the excavation bordering the Maroni River. The other depositions, loosely scattered over the excavated area but still orientated towards



Figure 4.

the river, are represented by open vessels with everted lips (F 136, F 142, and F 155) and dated approximately 900 BP. The reconstructed vessels found in the waste area F 123, reveal more variety showing large vessels with thickened lips, boat-shaped vessels and collars dated one hundred years later as the previous lot. These two series can be attributed to the Barbakoeba complex which is thus preceding the Koriabo presence.

Conclusion

Again we must acknowledge the morphological and decorative differences according to the spatial distribution of the vessels, representing this time two ceramic assemblages. Again the Koriabo presence is latest, what appears to be congruent with other sites as discussed before. This is probably also the case for the Koriabo sherds on the left bank of the Maroni River found at Bigiston, Christiaankondre, Moricokreek (Versteeg 2003) or the Mana River (Gassies and Dauphin 2013).

The eastern region: Oyapock river

This region is represented by one archaeological site, Pointe Morne, which is situated on a Precambrian outcrop on the left bank of the Lower Oyapock River. Opposite this site, where the bridge between France and Brazil has been built, colleagues from the IEPA have excavated a contemporary site (Flores da Silva 2016).

Pointe Morne

The archaeological site of Pointe Morne was discovered by Mickaël Mestre in 2006 when realizing a mechanical survey on the future trace of the international Oyapock Bridge from France to Brazil, as demanded by the DEAL. This highly strategic point, culminating at about 40 m above the river, is where the Oyapock River is much narrower, having steep slopes as well as a ditch dug by the Amerindians in order to cut off the ridge and creating a confined area. The compliance excavations, covering approximately c. 5000 m², were realized by means of mechanical shovels and yielded 382 excavated features, mostly post holes but also by a concentration of numerous Aristé funerary pits, being contemporary with the ditch. Interestingly, this Aristé funerary site was inhabited and re-occupied in a "dominating manner" at a later stage as witnessed by the presence of Koriabo pottery.

Radiocarbon dates

A set of 20 charcoal samples has been dated in order to better comprehend the interaction between the Aristé and Koriabo occupation, notably with respect to the funerary pits. Seven radiocarbon dates have been attributed to the Koriabo occupation (Table 1). The results clearly show a long Aristé presence or usage of the funerary pits of approximately 500 years, dated in between AD 900-1400, stressing the sole ceremonial purpose for this site during this period.

By the beginning of the 15th century this funerary site is replaced and occupied by a village for about 100 years, contrasting clearly with the previous funerary occupation. However, a village related to this earlier ceremonial site was not encountered during the excavations, stressing that this Aristé occupation represents a true necropolis.

The Aristé funerary pits

The first and longest occupation of this site corresponds to a concentration of funerary pits of which 4 shaft-pits, or poços in Amapá, are the most remarkable ones (Figure 5). These tombs measure between 1.2 and 3 m in depth and have a circular opening as entrance as well as a lateral chamber orientated towards the east. In this chamber, anthropomorphic urns as well as other associated ceramic vessels have been placed by the Amerindians. The majority of the anthropomorphic urns contained human bones, stressing the function of these beautiful vessels as urns. They are adorned with polychrome painting which can be interpreted as a symbolic manifestation of the deceased individual. Their dimensions and attributes can be associated to the identity of the deceased individual, his or her age, and perhaps even a social position.

Next to these shaft-pits, simpler shaped and less deep pits have been excavated. They also contained complete vessels but no bone has been detected in these vessels, but these pits and depositions were clearly related this ceremonial site. They represent perhaps a secondary burial area of other individuals (different status) or represent a preparatory phase of the principal burial zone or perhaps even a post-mortum burial. In all cases, within this funerary area of approximately 100 m², a semi-circular structure of post-holes was identified and may be attributed to this burial zone.

The Koriabo village

The Aristé occupation clearly ends when the morne is invested by Amerindians producing Koriabo ceramics about AD 1400. The entire plateau now features many post-holes and pits, representing possibly numerous carbets or households. This Koriabo intrusion is materialized in the Aristé burial pits: first, these pits clearly reveal that the Koriabo ceramics were deposited upon the Aristé vessels. Secondly, it appears that this Aristé ceremonial sites was overtaken or de-sacrified by the Koriabo. The latter "opened" these pits and reused them simply as waste pits. On the other hand, however, we do not know much about Koriabo burial modes, except for possible ceramic depositions.

Conclusion

The results of these excavations propose certain ideas we would like to elaborate here. First, we must acknowledge that LCA sites are occupied over several hundred years. The occupation, in combination with (large) series of radiocarbon dates and ceramic analysis per feature, can most often be divided in a double occupation of which the latest occupation is often Koriabo after AD 1300, just before the Colonial Encounter. This





conclusion is not wholly new but comforts certain ideas and propositions by other researchers in the Guianas; however, they did not have sufficient archaeological data to support this hypothesis of gutfeelings and experience in Guiana archaeology. For instance, Versteeg (2003:183) already suggested that Koriabo should not be earlier than AD 1200, hereby following Evans and Meggers (1960:147-148).

Secondly, its omnipresence in combination with a multiple occupation questions the nature of this occupation, which can be viewed as imposing or rising up to surrounding or previous settlement, notably in the case of Pointe Morne where an Aristé necropolis is settled by Koriabo. Its relationship with other ceramic complexes, such as Barbakoeba and Thémire, are important future fields of research as they also reflect the importance or supremacy of Koriabo.

Thirdly, Koriabo represents an ideology shared by a number of Amerindian societies scattered over the Guianas and beyond, materialized in a few typical vessel shapes, perhaps reflecting a controlled production and distribution of highly decorated ceramics (prestige ?) (Figure 6). It may reflect a symbol of power and supremacy for socially-prominent individuals or groups; however, the absence of other (perishable) objects, next to muiraquitãs and ceramics are scarce, and obscure our ideas about how control was obtained and maintained.



Consequently, how these privileged statuses were attained is poorly known, but its vast distribution highlights the importance of exchange networks through which people, objects and ideas circulated, perhaps in moments of crisis (warfare?).

Finally, we would like to point out that the study of plain Koriabo ware, often difficult to identify due to multiple occupations, may therefore contribute to the de-mystification of this complex package which was heavily distorted by the Encounter.

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On Change and Exchange: a Review of Koriabo Contexts and Concept in the Eastern Guianas

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Over the last several decades archaeological research has demonstrated that wide exchange networks were at work during pre-colonial times on the Guianese Shield and in other parts of the Amazon, (Veersteg 2003; Boomert 2004; Rostain 2009; van den Bel 2015). Such proposition indeed echoes suggestions made by both anthropologists and historians presenting a deeper history of indigenous networks (Porro 1996; Gallois 2005; Bonillo 2015). In this chapter, we aim to evaluate the possibilities of understanding the wide dispersal of Koriabo ceramics as an indication of ancient exchange networks, not restricted to products, but also including technologies, meanings, and ideas. Drawing from our research, published reports, and the work of many colleagues, we argue that Koriabo ceramics might be understood as technologies of meaning (Thomas 1996), linking people, places and narratives through material means.

Over the last decade, we conducted intensive surveys and excavations in the state of Amapá, Eastern Guiana (Saldanha 2017; Saldanha and Cabral 2016; Saldanha et al 2016; Cabral and Saldanha 2010), furthering a local research team at IEPA - *Instituto de Pesquisas Científicas e Tecnológicas do Estado do Amapá*. Through both preventive and academic projects, we were able to work across a great diversity of archaeological sites and contexts, leading to a good improvement of archaeological data in the region.

Debates centering on established archaeological categories in Brazil, such as Traditions and Phases, have been going on since late 1990s. In the Amazon, Cristiana Barreto, Helena Lima and Carla Betancourt presented a recent discussion on limitations and potentialities of ceramic categories (Barreto et al 2016), offering a fresh account not only on Amazonian ceramic complexes, but importantly on how archaeologists are currently managing them.

This article engages with this debate and aims to problematize Koriabo as a category and explore alternative explanations to Koriabo's broad and deep-time existence, with a clear focus on Eastern Guiana and the mouth of the Amazon River. Returning to pioneer researchers, such as Nimuendaju, Hilbert, Meggers and Evans, Rostain, Boomert and Willians, we traced their comments and observations seeking to enrich our understanding

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of their intellectual projects. Through such assessments, we plan to bring to light connections and disconnections that were made with other material and archeological contexts, not always remembered when dealing with Koriabo classification in recent years. Going beyond a mere history of the term, we are interested in excavating it and exposing its multiple layers of composition, reminding ourselves of its intellectual construction as a scientific aid to our own discourses of historicity, acting as modern way of "domesticating" alien objects into our own categories.

In a complementary manner, we also analyzed a series of archaeological features containing diagnostic Koriabo material to better understanding archaeological deposition contexts. As already noted by many researchers (Evans and Meggers 1960; Boomert, 2004; Hilbert 1982; Rostain 2009; van de Bel, 2015; Vacher et. al. 1998; Willians, 2003), Koriabo material is regularly associated with other ceramic complexes. We are interested here in assessing how Koriabo material is associated to other complexes. What differences and similarities can be observed? How is material arranged inside features? Do chronological and\or spatial patterns exist?

In order to discuss the Koriabo phenomenon in a such a way, we chose to deal with a few issues, which are deeply connected but also offer specific insights into a larger understanding for the phenomenon:

- Issues of definition: First, what is Koriabo? Considering that Koriabo definition was based on specific shapes and ceramic decoration, we might consider discussing other elements of Koriabo assemblages to unfold different perspectives and meanings. Van den Bel (2010), for instance, has proposed that we should pay more attention to mundane objects, such as plain pottery. Besides that, we argue here that we should also look to depositional contexts, seeking comparisons between different sites and assemblages and questioning how homogenous (or not) are Koriabo contexts after all.
- Issues of chronology: Much of the chronology associated with Koriabo is based on samples from charcoal dispersed in the archaeological layer. However, given the intense bioturbation of tropical soils, we should ask ourselves if we can rely on such samples. One way out of this problem it is to deal with specific closed contexts, such as buried vessels and pits. This would provide more control over chronology and allow us to investigate associations between typical Koriabo material and other contextual elements.
- Issues of mixture: Previously when archaeologists applied Koriabo to describe a ceramic assemblage, they have constantly stressed its "mixture" character, interpreted sometimes as the "exchange" or "overlapping" of archaeological cultures. For instance, sites classified as "Koriabo" presented Barrancoid ceramic characteristics in Guyana (Williams 2003). On the coast of French Guiana, the repertoire shows some mixing of Barbakoeba and Themire pottery (Rostain 1994; Van Den Bel, 2015). In Amapá and Suriname, sites present elements of the Polychromic Tradition (Boomert 2004) and the Mazagão Phase (Nimuendaju, 2004; Cabral 2011). In this way, it is not by chance that there is an intense debate on the origin and diffusion of Koriabo pottery from a cultural-historical perspective. Thus, Williams (2003) identified features of Barrancoid;

Evans and Meggers (1960) and Rostain (1994) associated Koriabo with Incised-Punctuated Tradition; Vacher et al. (1998) found hybrid characteristics, which they call Koriabo-Barbakoeba assemblage; Boomert (2004) characterizes Koriabo as an element of the Polychrome Tradition, associated with the Aristé and Mazagão Phases. The question we seek to answer going forward is: it is possible to identify specific closed contexts that show Koriabo ceramics with mixing properties or contents of other ceramics, or is it really a phenomenon of diffusion or overlapping of cultures over time?

• Issues of context: To better understand what Koriabo is, we should focus on what contexts these "typical" ceramics appear and what else they are associated with.

Our goal here is not to provide a more precise or definitive understanding of the Koriabo phenomenon. Instead, we plan to present a current assessment of its use and management in the Archaeology of Eastern Guianas to highlight its limits and possibilities in constructing long-term regional histories.

To achieve this goal, we begin by presenting the history of Koriabo as an archaeological category. We focus on unravelling its genealogy and emphasizing the process of turning archaeological contexts into scientific discourse, which might be understood as "domesticating" foreign realities into our own explanative terms. Following this discussion, we address archaeological materials and contexts in three different perspectives: Koriabo ceramics and the strongly held perception of its homogeneity; Koriabo depositions in different features and contexts; and Koriabo assemblages as elements of the construction of meanings to places and people.

In the final section, we propose to examine more fluid connections between archaeological and ethnological knowledge. Drawing from pioneer archaeological work in the region, we mapped connections made between archaeological contexts and indigenous people that were overlooked by researchers. Our attempt here it to propose a more fluid understanding of the links and connections between archaeological and ethnographic contexts, discussing how this could provide rich possibilities for understanding long-term indigenous histories in the region, pushing the limits to our own concepts and ideas about other people's past.

A Genealogy of Koriabo category: domesticating shards

Koriabo Phase, Culture or Complex³, is an archaeological category first defined by Clifford Evans and Betty Meggers during the 1950s based on data acquired in the Co-operative Republic of Guyana (then British Guiana). In the past it has been interpreted as a truly regional Guyanese phenomenon and, as such, is considered an important assessment for propositions of wide exchange networks. Rostain, for instance, claimed that "[t]he

³ 'Phase' was the original term used by Evans and Meggers (1960) and it is still the standard choice in Brazilian archaeological literature. "Culture" or "Complex" have a wider presence in both English and French regional literature.

Koriabo culture is unique because it is the only truly cultural style of the Guianas; it is not found beyond this area⁴." (Rostain 2009: 47).

Through the Ford method of ceramic seriation, Evans and Meggers (1960) divided the Koriabo Phase into five types: three of them plain (Barima, Koriabo and Warapoco), and two decorated (Koriabo Incised and Koriabo Scraped). The differentiation between types was essentially based on presence and absence of decoration criteria, paste color and non-plastic elements: cariapé for Barima Plain, coarse sand for Koriabo Plain, Koriabo Incised and Koriabo Scraped, and finally coarse sand containing translucent quartz for Warapoco Plain.

Since Evans and Meggers published work in 1960, nearly 60 years ago, the presence of Koriabo sites along the Guiana Shield has proved ample and widespread. In his doctoral thesis, Stéphen Rostain identified Koriabo pottery in French Guiana (1994: 199-212). He used non-plastic elements and ceramic decoration on ceramic samples obtained through test-pits and surface collections to define the *Chaton Fantastique* type. The type includes three variations of antiplastic: white quartz sand, sand with translucent quartz, and sand containing mica. The reconstitution of the forms that Rostain presents are derived from whole or semi-whole containers derived from underwater collections made by gold miners in waterfall areas of French Guiana, especially on Approuague River. It's important to remember here that most of the ceramics of *Chaton Fantastique* type (the Koriabo guidefossil for French Guiana) represented in Rostain's thesis are decorated.

More recently, Boomert (1986, 2004), through ceramic collections derived from previous research in Suriname, applied a different classification method for Koriabo ceramics. The classification gave priority to the shape of ceramics and frequency of types of decoration, to the detriment of the temper of the pottery. With this, Boomert recognized 13 major container forms for the Koriabo Phase, such as restricted and unrestricted bowls, restricted fairing or collared bowls, restricted globular pots, and polymorphs containers. Other forms defined by Boomert are distributed throughout the Koriabo Phase occurance area and are usually the guide-fossil for assigning a particular site to it, such as the "toric" pots and the "flower pots", or polylobed bowls. Some forms were found in a special context, a cache of buried vessels, some presenting polychrome paintings. In addition to this polychromy, Boomert (2004: 254) also defined plastic patterns such as incising, scraping, simple and complex modeling. Beyond a new classification of pottery, Boomert also identifies the presence of such archaeological sites distributed all over the Guianas, and only one site in Brazil, the Cajuaçu site, on the middle course of the Cuminã-Erepecuru River, a tributary of the Trombetas River (Hilbert 1982).

Researchers have dedicated a fair amount of time debating the affiliation of the Koriabo pottery. For Boomert (1984, 2004), the Koriabo style should be affiliated to the Amazonian Polychrome Tradition, with its origin in the Lower Amazon. This hypothesis is based on

⁴ Recent research at the Mouth of Xingu River (Lima and Fernandes 2016) has brought attention back to Koriabo material in the region of the Southern Amazonian tributaries first identified by Celso Perotta in the 1990s (Rostain 1994: 211).

the stylistic similarity between Koriabo and the ancient Aristé and Mazagão-related ceramics, as defined by Meggers and Evans (1957). In constructing this relationship he inserts these three Phases (Koriabo, Mazagão and Aristé) into a subset, defined as a Koriaban sub-series, which would be inside the Marajoaroid series of the Polychrome Tradition. In a typical historical-cultural approach, which considers "one pottery assemblage-one people", Boomert also proposes that the historical ceramic productions of Kaliña, Palikur and Island Carib Indians also emanates from the Aristean sub-series, subsequent of the Koriaban.

Yet, Denis Williams (2003: 346-399) correlates archaeological data from Guayana with the linguistic distribution of Carib groups as a way to interpret the origin of Koriabo ceramics. According to this author, the linguistic subfamily Karinya entered the northwest of Guyana and would have as an archeological correlate pottery found in the Waiwaru site and Quartz Island. This pottery has very similar forms to those found in the Koriabo Phase, but with components of the Barrancoid ceramics. On the other hand, representatives of the subfamily Akawaio would have settled in the central area of Guayana, where the groups currently known as Tiriyó, Pemon, Kapon, Caxiuana, Wayana, among others (Williams 2003: 367) would have crystallized.

Stephen Rostain (1994), in turn, reaffirms the correlation of Koriabo with the Incised-Punctuated Tradition, as did Meggers and Evans (1960). However, they used an approach quite different from that of Boomert and Willians based on etnohistorical (ancient colonial maps) and archaeological data (distribution of sites and recent radiocarbon datings). The authors conclude that, in colonial times, Amerindian groups from different linguistic affiliations used typical Koriabo pottery (Rostain 1994: 70), refuting the direct association between Koriabo ceramics and Carib Speaking Indians.

More recently, researchers in Brazil have identified a further spread of Koriabo material. In Amapá, we identified a series of archaeological sites with Koriabo material, located in inland areas, such as the Wajãpi Indigenous Land, but also near to the north bank of the Amazon River such as on the Araguari River around the city of Macapá, and also on the Jari River (c.f. Cabral 2011; B. Barreto 2015; Saldanha et al. 2016). At the Trombetas-Mapuera basin, Camila Jácome (2017) and Elber Glória (2017) reported two possible Koriabo shards in the Middle Mapuera River region, located further Southwest from the Cajuaçu site studied by Peter Hilbert (1982). Furthermore, on the North bank of the Amazon River, Paulo do Canto Lopes and colleagues (2005) identified a large *Terra Preta* (or ADE) site with burials and sherds containing traces of Koriabo style at the mouth of Paru River. Finally, Cristiana Barreto and colleagues (2016) identified Koriabo material at the Monte Alegre area, in Pará state, just opposite to the mouth of the Tapajós River.

On the other margin of the Amazon River, therefore outside of Guyanese region, Koriabo materials were recently reported. In Gurupá, Pará state, on the confluence of Xingu River and Amazon River delta, Helena Lima and Glenda Fernandes (2016) reported ceramic material with Koriabo elements. Up on the Xingu River, at the Koatinemo Indigenous Land, Lorena Garcia (2017) mentioned "stylistic similarities" between ceramic assemblages from the Middle and Lower Xingu River and Koriabo material. In the 1990's,

Celso Perota collected shards from Volta Grande do Xingu, just downstream from the Koatinemo Indigenous Land, which were also related to Koriabo material (Rostain 1994) – an unpublished collection that Bruno Barreto has recently located in the State of Espírito Santo (Bruno Barreto, pers. com. 2016).

Such an increase in Koriabo related sites further to the south, especially in the states of Amapá and Pará, Brazil, has produced new data and new questions. Nevertheless, at the same time, at least for us, it has called attention to previous and pioneer works, pointing to numerous connections and voids that might enrich our insights on Koriabo, especially those of the Eastern Guianas. We will return to this theme in the final section of this chapter.

Significant pots: Past indigenous dynamics

As shown in the previous discussion, despite Evans and Meggers' initial definition and later attempts to characterize it as an important archaeological culture of the region, all the definitions sought to relate a particular ceramic assemblage to the Koriabo phase based on highly specific decorative and morphological components. A normative perspective of culture was integral to the initial definition of Koriabo, where characteristics of the ceramic material culture were seen as given and closed as a cultural package – where the presence of certain morphological and decorative types of ceramics were considered sufficient to delimit a cultural area.

From the archaeological literature of Guayanas, one understands that a Koriabo assemblage is indeed characterized by "toric" pots and "flower" bowls displaying a broad flange at the rim, many with a polylobed relief. It is also characterized by a decorative repertoire that can associate fine and broad line incising, scraping, thin fillets and small pastilled-shaped appliqués or nubbins, which can be combined to form highly complex decorative patterns. The latter are mainly found in the morphological classes of flanged bowls and toric pots, and are circumscribed to well-defined zones of these objects. These decorative sequences are usually organized around a modelled-applied, figurative (biomorph) or abstract element, arranged in the body in the case of pots, or on the flanges in the case of bowls. There is also examples of painting in the assemblages, and most of the time the painting corresponds to a slip that covers the inner wall of the vessels, mainly related to the flower forms. Polychrome paintings are also found, especially in flaring bowls or simple bowls with hollow rims.

The study of the Koriabo phenomenon always seems to deal with "case studies" that privilege local understandings and, through these, try to obtain broader visions, documenting the existence of specific material forms that would be homogeneous in wider areas. What one may ask, however, is whether such ceramics – with shared morphologies and decorations – necessarily have equally homogeneous meanings.

It is undeniable that the archaeology of the ancient Amazon is still largely written in terms of "archaeological cultures", a vision dating back more than a century and presuming a relationship between material culture and human identity.



Figure 1. Typical Koriabo forms and decorations: Upper left: Toric jar (credits: SRA-Guyane); upper right: flower bowl; lower left: thin fillet filaments and small pastilled-shaped appliqués, which can be combined to form highly complex decorative patterns; lower right: polychrome painting (credits: IEPA).

Tracing a common origin for what we conceive as Koriabo is extremely difficult given the lack of a good chronology based on precise dating, but something that seems obvious from our perspective is the operation of a long-term historical continuity over 1000 years, which spread over a region of about 100,000 km2.

Understanding the Koriabo genealogy requires an investigation of the means of descent by which such cultural characteristics were passed from one hand to another and how in this process material forms and meanings were transformed. To do so, we need to consider that the people who handled Koriabo materiality might not have been a single social unit, nor a precise linguistic or ethnic group. As such, we should be cautions on assuming what a Koriabo entity might have been (if it was an entity after all).

The work of Tim Ingold (2000) suggests how material substances are part of the understanding of the world, particularly the interrelationship between, on the one hand, materials, objects and artefacts, and, on the other, people. The author argues that the properties of the materials themselves are not important, but their qualities are, and that these may be the object of meanings in the past. This perspective has some alignments with other discussions that reject a fundamental dichotomy of Western thought, which strongly contrasts nature and culture. In fact, drawing from ethnological research with

Amerindian people from South America lowlands, anthropologist Eduardo Viveiros de Castro (1998) coined the term "Amerindian Perspectivism" referring to an indigenous philosophy that assumes that human and nonhuman worlds are not separate but interchangeable and transposable entities. In more recent years, we have seen an unfolding of such ideas into archaeology (Alberti and Bray 2009) pushing archaeological interpretation towards native perspectives.

Apart from people, animals and things, such perspective can also be broadened to the understanding of the landscape. As Fernando Santos-Granero (1998) pointed out, nonhuman agents actively participate in the construction of narratives in indigenous Amazonian groups, which connect landscape features, different subjectivities, and historical accounts. Therefore, if the construction of history occurs "through myths, oral traditions, personal memories, rituals and bodily habits" (1998: 140), such elements are embedded in the landscape in landmarks shaped by actions of certain entities in the past. In this way, when walking through the landscape one could "read" several landmarts as stories, in a narrative that may also be related to the events lived by both humans and non-humans.

From this point of view, materiality is always experienced as something significant, and societies are always composed of people and things, both of which are deeply entangled (Hodder 2012). If things are embedded in social relationships, they operate in a manner similar to human beings and may have social identities. With this, objects can reconfigure certain places, bringing, through their combination and juxtaposition, interpretive connotations to them (Thomas 1996). Through their form and association, objects in the landscape can embody and activate social memory⁵.

Following such discussion, we will now turn to the role of objects, depositions and intentionality in sites containing Koriabo pottery, seeking insights into the ways in which Amerindians have engaged with their material world from a long-term perspective.

Earth, Water and Pots: the contexts of Koriabo deposition

At this point, we will examine case studies to discuss the role of depositions and intentionality, seeking insight into the ways in which the Koriabo materiality was arranged and configured on different sites and features.

If we delve into the literature, we can see a range of different types of pottery depositions, such as funerary pits containing ceramic offerings, retention caches, ceramic caches, shards distributed as garbage on black earth and pots in the bottom of waterfalls. Taking an animistic perspective on materials, we searched for a biography of Koriabo artefacts. At first, we may say that these objects (or ideas about these objects) would move through a diversity of places, building a story through a series of connotations.

⁵ See also Santos-Granero (2009) for ethnological cases in which objects are understood as active agents.

For this, we start by considering that both things and places are capable of affecting people (Alberti and Bray 2009; Gell 2009; Santos-Granero 2009). From this perspective, we will try to understand the various depositions of Koriabo ceramics, searching for the way in which people and things interact.

To determine the structure of the depositions involving the Koriabo pottery, we will describe here the main contexts in which such ceramics were found throughout Guayana, especially on sites where large-scale mechanical excavations made possible a better contextual view of features and Koriabo pottery.

On the border of French Guiana with Suriname, van den Bel (2010, 2015) excavated the Sparouine site. This site is located on a hill plateau at the confluence of Sparouine Creek with the Maroni River. The excavation reached 2002 sq.m² of an indigenous village dated between 977 and 1368 years BC (1045 + -20 and 585 + -20 years B.P. cal. 94.5%). According to van den Bel (2010: 88), the spatial distribution of artefact structures and densities suggest the existence of at least three houses associated with three waste zones, in addition to an open space that may have functioned as a square. Van den Bel (2010: 68) distinguished three main types of pits: the first oval shaped, containing one or more containers placed randomly in the background was interpreted as funerary, possibly containing a body in the foetal position; the second contained only one vessel and was interpreted as votive; and, finally, pits containing very large vessels were taken as storage structures or funerary urns with primary or secondary burials. Possible burials are mainly concentrated north of the excavated area, which would, according to the author, evoke a sense of long-term indigenous memory.

Still in French Guiana, but in the central region, at Sinnamary River, several sites containing Koriabo ceramics were excavated before the construction of the Petit-Saut hydroelectric dam (Vacher et al. 1998). The most extensive excavations, which provided a broad view of the ancient indigenous villages in the region, were made at the BPS 223 and BPS 230 sites.

Both sites were located on the left bank of the Sinnamary River, on top of hills about 7-10 meters high in relation to the average river level. The sites were excavated in an area of more than 1ha each and showed ancient occupations marked by black earth soils with an average thickness of 15cm. The datings showed a larger Amerindian occupation between 1270 + -40 and 620 + -50 BP, with pottery that presented hybrid characteristics between the Koriabo Phase and the Barbakoeba Phase (Vacher et al. 1998). In both sites there is a coexistence of dwellings (marked by the presence of postholes, refuse concentrations and garbage pits) with possible burials (evidenced by shallow oval-shaped pits containing one or more whole or semi-whole pots).

On the border of Amapá and French Guiana, at the Oiapoque River, the Pointe Morne excavation site in the region of the international bridge connecting French Guiana to Brazil, has showed the remains of two distinct occupations, one related to the Aristé Phase and the final with Koriabo (Mestre and Hildebrandt 2010). According to Mestre and Hildebrandt (2010), the occupation related to the Koriabo pottery begins around AD 1400, when the site is apparently taken over by a new group. The new residents appear to have occupied the area for about a century as a village site, as hundreds of post holes
where found. Archaeological evidence seems to indicate that the newcomers expelled the previous Aristé occupants who had used the site as a burial ground many centuries ago. Two of the ancient Aristé funerary pits were re-used by the newcomers: Aristé funerary urns were broken (and possibly burnt) and mixed with plenty charcoal back into the pits, which also contained Koriabo toric pots. The pits were then used as ditches for debris, and users would even set them afire, as if to "discharge" them more easily from all spirits (Mestre and Hildebrandt 2010).

In Amapá there is a great number of contexts related to Koriabo ceramics, with sites near great rivers (as Jari, Amapari-Araguari and the Amazon estuary). Large rivers as Amapari-Araguari and Jari may have been used to connect the inland Guianas to the Amazon estuary since their springs are within the Tumucumaque mountain range.

At the Laranjal do Jari I and Laranjal do Jari II (southern Amapá) sites, the most common structures revealed by excavations were post holes, marking the presence of multiple houses (Saldanha and Cabral 2013). In specific parts of both dwelling sites, not in clear association with the houses, there are numerous depositions of ceramic in caches, with depositions of several "typical" Koriabo pottery inside larger pots.

Near the Amazonian estuary, around the current city of Macapá, excavation of the Curiaú Mirim site showed the presence of several funerary structures, which may appear in groups as well as in isolation. After overcoming this initial context of deposition, excavation showed a more structured, clearly arranged context of urns in association with human bones. In addition, surrounding a funerary pit, we located a series of retention caches, enclosing the funeral deposition. However, in another section of the site, rather than burials, we found many highly decorated ceramic artefacts (including typical Koriabo vessels) thrown and mixed with many charcoals and bone remains of animals inside (Gambin Jr., 2016), associated with large post-holes at the bottom of these structures. The spatial dispersion of these pits, which were signalled by wooden posts, seem to mark and celebrate the funerary space of the pit. Carbon dating of features, between 1000 and 350 years A.P., allowed verifying the long duration of this funerary space.

Having described these fine-grained contexts, we will now turn to the Koriabo objects "typically" deposited in these different contexts and their associations. We have previously emphasized the highly distinctive character of these ceramics with elaborate decorations. Furthermore, we would also like to highlight that the artefacts found in these specific depositions certainly were not made for the deposition itself, presenting a series of use-wear. This is unlike other ceramic contexts in the area (such as Aristé and Marajoara), in which vessels lack any use wear at all. In fact, for the Koriabo assemblages that we are analysing here, toric pots and seats usually exhibit dense soot on the outer surface and, not infrequently, organic deposits on the bottom of the vessels, indicating their use in the transformation of substances with the use of fire. Therefore, such artefacts had to be in circulation for some time before their final deposition. Despite the difference compared to the other ceramics that accompany the typical Koriabo assemblage in the sites, they also exhibit fundamental aspects of human sociality: fire use, processing, service, and consumption of substances (liquid or solid). Considering also that, from an animistic perspective, material things would be integral to social life, by depositing the

Koriabo pottery in a given context people would be fixing something evocative of their sociability in a given place.

In addition to structures of a more everyday character, such as waste deposits, other features indicate a more formal deposition of artefacts, which may indicate ceremonial and ritualistic behaviour. According to published data and research carried out in Amapá, we observe four types of special character depositions: depositions at waterfalls, simple pits with depositions of whole vessels, caches of whole and\or fragmented vessels, retention caches.

The depositions of Koriabo ceramics in river bottoms are in many contexts connected to the waterfalls. Given the significance of these sites for Guyanese Amerindian groups (Lézy 2000), the recurrence of the association between whole objects and these landscape features should not be seen as mere coincidence, and may be extremely significant. Most of these depositions were found by gold miners during activities of gravel extraction from river bottoms, immersed in areas of waterfalls around Approuague and Oiapoque rivers (specially at Mapaou and Canori waterfalls). The vessels were in good conditions, being whole or semi-whole pieces (Rostain 1994: Fig. 104, 105, 106). Although they could be interpreted as accidental depositions caused by unintended sinking, the fact that most of the vessels are highly decorated and that the occurrences of depositions were in geographically concentrated regions, makes us think of this as a pattern of intentionality.

Simple pits with depositions of whole vessels were found at the Maroni (Crique Sparouine), and Sinnamary River sites (BPS 223 and 230). The overall shape of the pits were round or oblong. The depth varied between 10 and 70cm, and the dimension varied between a minimum of 30-200 of maximum diameter. The functions of pits remain difficult to define, but the position of the containers found (inverted or standing) denotes a voluntary deposition. The position of the pottery inside the pits seems random. This type of pit is interpreted as funerary pit with pottery as an offering. The shape of the pit evokes a primary burial with its members folded, foetal or squatting. In fact, Lopes (2005) found a similar pit in a dark earth site in Almeirim showing deposition of two Koriabo flower bowls deposited over a human skeleton, reinforcing the interpretation of a funerary function of those features. However, in the latter case, the dark earth facilitates the organic preservation of human bones, allowing archaeological visibility.

As for ceramic caches, we can define them as a feature in which one or more objects were put together in an intentional act of burial. We interpret such intentionality as a form of offering and ritual demarcation of the space because of the occurrence of these objects. Ceramic caches associated with Koriabo ceramic are formed by a containment vessel with an opening of around 50 cm, inside which a large density of ceramic fragments and / or whole pots were placed. These caches are grouped in specific areas of the site and isolated from the post holes, indicating that they were deposited in external areas (perhaps plazas). In a few cases, charred bones were found in the interior, but an expedited analysis by Anne Rapp Py-Daniel (personal communication) indicated that these were animal bones, thus not characterized as secondary human burials. These kinds of features where found in large quantities on Jari sites, although there are also two cases in Crique Sparouine, French Guiana (van den Bel 2015).



Figure 2. Pits with whole pot deposition. Above: Creek Sparouine Site (van Den Bel 2007). Below: Pit with human bones associated with Koriabo pottery, Almeirim site (Lopes 2005).



Figure 3. Ceramic Caches: both features from Jari river sites.

The retention caches differ from the former because they are containment structures dug on earth (shallow or cylindrical pits) that contain a large amount of ceramic fragments (some quite decorated), mixed with a lot of black earth and charcoal. Such structures, also defined in other parts of the Amazon as "contexts of retention" (Gomes 2017) or "pockets of memory" (C. Barreto 2014), would have been constructed with the purpose of isolating pieces or fragments of objects derived from ceremonies, as a way to finish their agentive capacity on the individuals who manipulated them. Most of these features where registered around Jari sites. In most cases, such retention caches seem to be isolated from residential areas. In one specific situation, at the Curiaú Mirim site, Koriabo depositions in retention caches are associated with very complex funerary contexts related to the Marajoara and Mazagão assemblages on sites of the Amazon estuary (Saldanha and Cabral 2016).

In spite of the fact that Koriabo ceramics are extremely homogenous in their morphology and decorations throughout the Guianas, we can observe that they were not manipulated and deposited in the same fashion all around. For instance, one can find them as funerary offerings, as found on shallow pits at Maroni and Almeirim areas; or they may appear as whole vessels intentionally buried but not connected to funerary contexts, as seen on Jari sites. They were also found in broken shards mixed with charcoal and dark earth, such as on retention caches at Curiaú Mirim and Jari sites (at Curiaú Mirim, these caches were clearly linked to funerary depositions). At last, whole vessels can also be found underwater at waterfalls, such as on Oiapoque and Approuague rivers. Therefore, one can observe that such homogeneity in morphology and decoration does not follow homogeneity in depositions. As we stressed above, Koriabo ceramics were manipulated and deposited in very different contexts throughout the region, restraining – in our understanding – attempts to enclose such ceramic assemblage into one ethnic or linguistic group. In fact, such diversity contrasts with any normative approach to culture, pointing to the need to consider more fluid and entangled notions of culture.

An economy of Koriabo ceramics

As we have previously seen, the assemblages identified as Koriabo are actually characterized by the presence of some specific morphologies and decorations, which we could call "ceramic types". If we consider such diagnostic ceramics less as indices of ethnicity and more as meaningful social symbols, new perspectives may emerge. Anthropologist Lucia Van Velthem (2003), from the analysis of the Wayana art, a Karib group from the interior of Guyana, determined that the Amerindian aesthetics in the Guianas can be conceived in a way that allows society to structure, imagine, and express itself through specific forms. Moreover, such art could reflect, not only the changes affected over time, but could also constitute a transformative framework that allows for the absorption of new concepts – allowing certain groups to adapt to new realities. Thus, the adoption of a new aesthetic technology, whether derived from the divine and ancestors creators (demiurges) or enemies, would become an element of value, insofar as it provides an aesthetic increment: a material and ornamental valuation, but also an appreciation of the symbolic content, which expands the notions of otherness.



Figure 4. Retention caches from Curiaú Mirim site: Above: profile of a feature. Below: Funerary assemblage associated with a number of retention features.

As we showed above, archaeologists have described Koriabo pottery in connection to other archaeological assemblages, presenting different characteristics among Koriabo assemblages from different areas. First it absorbed characteristics of the Barrancoid-Mabaruma pottery (Williams 2003). With the arrival of materials from new territories, new elements entered the repertoire, such as the Barbakoeba and Themire characteristics from the coast of French Guiana (Vacher at al. 1998; Rostain 1994; van den Bel 2015) and the Polychrome Tradition and the Mazagão Phase in Amapá (Boomert 2004).

In this way, it is not by chance that the intense debate on the origin and diffusion of Koriabo pottery had a diffusionist perspective. Thus, Williams (2003) identified features of Mabaruma, Evans and Meggers (1960) and Rostain (1994) associated with Incised-punctuated Tradition; Vacher et al. (1998) found hybrid characteristics Koriabo-Barbakoeba, Boomert (2004) mentioned characteristics of the Polychrome Tradition and of the Aristé and Mazagão Phases.

Perhaps, at at the local level, one analysing these ceramic assemblages would find particular characteristics that resemble other local assemblages (Mabaruma in Guyana, Incised-Punctuaded in the Lower Amazon, Barbakoeba in French Guiana, Polychromic near the Mouth of the Amazon). Following a normative view of culture, one might understand such resemblances as traces of diffusion or representations of different people. However, one might also activate different explanations and explore other possibilities. Understanding culture as a dynamic process, in which people act in a more fluid fashion, such hybrid nature of ceramic assemblages could be explained as local absorption processes, a 'ceramophagy' of elements of local assemblages, which were then appropriated, consumed and digested into something else, perhaps similar to a predatory mode described by ethnologists as a central element to Amerindian socialities (Van Velthem 2003; Viveiros de Castro 1992).

In addition, one can also consider things and places as capable of affecting people (Gell 2009). From this perspective, we can see the various depositions of Koriabo ceramics as variations of the way in which this materiality affects people. The agency of objects, an important theme for both archaeology and ethnology (Van Velthem 2003, Gosden 2005, Thomas 2007, Witmore 2007, Lagrou 2007, Barreto 2009, Santos-Granero 2009), can contribute to Amazonian archaeological interpretations. If we understand that the way in which people and things interact is something socially learned, then we can see the different Koriabo depositions as an indication that different people were dealing with the same style of pottery in varying ways.

When these ceramics are put together in a deliberate act of deposition, it could indicate an attempt to fix or merge the social or cosmological meanings embodied by such decorated pots. In this way, places can be impregnated with symbolism due to the deposition of objects in these places.

The construction of the meaning of certain places could then be constructed through the juxtaposition of Koriabo artefacts deposited in certain locations, structuring together the connection between people, places, and things. As another way of approaching materiality, we will suggest that Koriabo would not necessarily be the passive crystallization of a

normative set of thoughts or of particular life-forms of specific groups, but rather a "Technology of Meanings: a technology that would allow the production of meanings" (Thomas, 1996). Within this perspective, material forms could be stable in time and space, but their significance would be perceived in different ways in different contexts.

Significant people and recent indigenous dynamics

When Evans and Meggers (1960) defined Koriabo Phase they had already summarized the archaeology at the mouth of the Amazon River (Meggers and Evans 1957). Among the three archaeological phases in Amapá, they created Mazagão Phase, "found throughout the region between the Rio Araguari-Amapari and the Rio Jari" (1957: 102), that is the Southern area of Amapá state. The decorated wares were mainly incised, with "curvilinear, deep, crudely incised designs", but also "well-developed, rectilinear" motifs (1957:103).

It is surprising that no further research on this material was carried out after Meggers and Evans' work in the region, with the exception of investigations regarding Maracá funerary urns (Guapindaia 2001, 2008), which were considered by Meggers and Evans as a style loosely connected to the Mazagão Phase. Although Vera Guapindaia did carry out excavations on possible Mazagão open sites, she focused on funerary urns and funerary sites.

The reason we bring forward Mazagão here is to follow a line of connections. In our initial search for Koriabo literature (Cabral 2011), the only Koriabo site mentioned on the southern portion of Acaraí-Tumucumaque ridge was the Cajuaçu site, reported by Peter Hilbert on the work of Protásio Frikel (Hilbert 1982). Cajuaçu are rapids in the middle course of Cuminá River, a tributary of the Trombetas River, and the site was adjacent to them (1982: 75).

At the time, one of the authors was working on a summary of archaeological ceramics inside and around the Wajãpi Indigenous Land, as part of a collaborative project with Wajãpi Indigenous People (Cabral 2014, 2015). The Wajãpi people were intrigued by decorated shards, with striking curvilinear incised motifs. As we have shown in an earlier study (Cabral 2011), shards from the Najaty Village site were very similar to Cajuaçu shards drawn by Hilbert (1982), presenting incisions in concentric curvilinear and parallel motifs, although lacking any other plastic adornment as nubbins or fillets. In fact, Hilbert's drawings of incised decoration, although clearly connected to Koriabo motifs and techniques, also had a great resemblance to Mazagão Phase, especially the Uxy Incised type with its "crudely incised designs" (Meggers and Evans 1957: 103).

Further work with Wajãpi indigenous people led to more shards with incised decoration, including a fragment of a flat "lid" with decoration on top. We had found similar objects though with very distinctive Koriabo decoration on Jari sites (B. Barreto 2015), and they are also reported in other Koriabo assemblages as "stools" or "trays" (Rostain 1994, Boomert 2004). Meggers and Evans also enlisted this kind of object as part of Mazagão morphological types, specifically in Uxy Incised.

As we were looking for comparisons, we went back to Meggers and Evans' presentation of the Mazagão Phase, and discovered that the Uxy Incised Type was mainly defined over a collection of shards made by Curt Nimuendaju at Iratapuru River, a tributary of Jari. Plates with Uxy Incised type shards show many examples of concentric and curvilinear motifs (Meggers and Evans 1957: Plates 13-15), some of which could easily fit into Koriabo incised decoration. But more striking was finding, among the "unclassified decorated" pieces, "two sherds representing parts of small faces with aplique nubbins and fillets forming the eyes, nose, mouth, and eyebrows" (p.68), a quite precise description of some of the more distinctive Koriabo plastic decoration. In fact, on Plate 16 (showing "Unclassified decorated sherds from the Mazagão Phase") one can find those and other Koriabo features, such as lobed rim with incised decorations.

By the time Meggers and Evans described Koriabo material for the first time in the Republic of Guiana, they had already classified the Mazagão material – although they did not make direct mentions to Mazagão Phase, nor to Iratarupu sites and Koriabo-like material present there. They suggested, however, that Koriabo should have come from the East given similarities to rim profiles with Aristé Phase. In fact, they had already proposed an "Early Mazagão-Aristé" route of migration and diffusion, starting south of the Jari River and reaching Eastern Suriname by a coastal path (Meggers and Evans 1957: 600), which would connect to a movement of the Koriabo Phase from Suriname to Republic of Guiana (Evans and Meggers 1960: 151). In a very proper Culture-Historical fashion, they were aligning ceramic traits and looking for diffusion and migration movements.

Intrigued as we were to the Iratapuru assemblages, which clearly had something very similar to Koriabo styles, we checked Nimuendaju's records (Nimuendaju 2004). He had visited the Iratapuru region in 1915 and sent pencil drawings to Nordenskiold in the early 1920's. Among his drawings (Nimuendaju 2004: Pls 41-43), one can identify many of the Uxy Incised Type sherds presented by Meggers and Evans, as much as the "unclassified decorated" material. Resemblances to Koriabo assemblages are striking (see figure below).



Figure 5 Remarkable resemblance between a fragment from Iratapuru (drawing by Nimuendaju, no scale [Stenborg 2004: PI 43]) and one from Jari (drawing by B. Barreto [2015: 249]).

However, it is interesting that Nimuendaju was also making connections to assemblages at the south bank of the Amazon. In fact, he considered pottery shards from Iratapuru very similar to material he had collected at Altamira and Volta Grande do Xingu, which he had associated to the Guayapi indigenous people. As he wrote to Nordenskiold in a letter from January 1924:

> "I think I once sent you some clay fragments from Altamira and from the 'Volta' of the Xingú. They are very similar to those from Iratapurú. In the 18th century, the tribe of the Guayapi, later extinct, were living in this region of the Xingú district. About 1800, the Ayapi (Oyampi), coming from the south, appeared on the Iratapurú and Oyapock. Perhaps these two tribes are identical, and perhaps the vessel fragments are evidence of their migration [Nimuendaju 2004: 93].

In fact, when Nimuendaju went up the Iratapuru River, in 1915, he was trying to make contact with indigenous people and reported attempting to get in good terms with rubber gatherers living in the area. He stated that "some persons who are now living among the Neo-Brazilians on the Iratapurú told me their tribe was called Ayapi" (Nimuendaju 2004: 113), although Farabee had collected their name as "Paikipiranga", stating they were Tupi speaking people (id.).

A few decades later, one can find at the "Handbook of South American Indians" (Steward 1948), a chapter on "The tribes of the Guianas" written by John Gillin (1948), in which he summarized Nimuendaju account on the Iratapuru River, stressing a straight connection made between archaeological findings and living indigenous people:

"There is only one noteworthy example of the use of archaeology to illuminate the post-Columbian movements of tribes in the Guianas. On the upper Jari (Iratapuru) River, Nimuendaju (1927) found open sites near a stream which yielded pottery of considerable excellence, bearing both incised and applied relief. One pot was anthropomorphic. The pots had convex bottoms, concave or straight sides, and were decorated in heavy horizontal bands with incised spirals, parallel lines, and quadrangular elements. Nimuendaju attributes these vessels to the *Oyampy*, who, he believes, left them on their journey northward into the Guianas in the early 18th century. The sherds are similar to material from old *Guaiapy* sites of the middle Xingu River, and *Waiapy* (*Guaiapy*) is the *Aparai* name for the *Oyampi*. The *Guaiapy* disappeared from the Xingu River about the same time that the *Oyampi* appeared in Guiana; and the trip from the Xingu River to the Jari River would be easy because the mouths of these two rivers are opposite each other on the Amazon River." (Gillin 1948: 824-825)

Besides the archaeological correspondence, Nimuendaju also used historical sources to connect the "Guayapi" from Xingu basin to the "Oyampi" in Amapá (Grenand 1982: 260). Later ethnohistorical work, done by Pierre Grenand (1982) and Dominique T. Gallois (1986), confirmed Nimuendaju's proposal, creating a careful map of Wajãpi migration to the Guyana in quite recent times (18th century).

However, archaeological radiocarbon dating so far shows a much earlier presence of Koriabo pottery around the Jari River (B. Barreto 2015; Saldanha 2017). Mazagão sites, on the other hand, were poorly investigated, and few radiocarbon datings available. Presence of glass beads in some Mazagão assemblages show a later occupation (Meggers and Evans 1957), although an earlier pre-Columbian presence was attested in recent research around Macapá town (Saldanha and Cabral 2016) and by the Araguari River,

both in archaeological sites with multiple ceramic styles. Features with Mazagão style pottery show dates from 1000 to 400 years BP (Saldanha and Cabral 2016), offering a much longer time scale than expected by Meggers and Evans (1957). In either case (Koriabo or Mazagão sites in Amapá), current archaeological evidence is much earlier than Wajãpi ethnohistorical sources indicate. Perhaps this is a good indication that our categories – either archaeological and ethnological – do not fully explain the empirical realities we deal with, and perhaps our efforts to connect material culture assemblages to ethnological groups could be in part short-sighted.

As we have shown, Nimuendaju's account from Iratapuru River had a significant impact on ethnological research in the area, fuelling the reconstruction of Wajãpi movement into Guianas. By the same token, the Iratapuru River archaeological assemblages were an important portion for the construction of the Mazagão Phase by Meggers and Evans, although Nimuendaju's propositions linking the North and South banks of the Amazon were largely ignored by archaeologists.

There is no mention of such connection in Meggers and Evans' presentation of the Mazagão Phase, and in fact they did not quote Nimuendaju's report of the expedition, published in 1927 (Gillin 1948). However, they quoted Gillin's chapter of the Handbook of South American Indians, which – as presented above – summarized Nimuendaju's account on the Iratapuru River. It seems clear that they chose not to stress such a connection while describing Mazagão Phase, but kept it in mind when venturing links between historical and precolonial times:

"All that can be said in this connection [prehistory to history] is that the ethnolinguistic classification most in accord with archaeological picture is that by Rowe (1948). His areal distribution for the Apurui conforms roughly to the Maracá ceramic tradition, the Paikipiranga to our Mazagão Phase, and the Emerillon, Palicur, and Marawan to the area included in the Aristé Phase". [Meggers and Evans 1957: 584; emphasis added]

As expected, some names used by Rowe in middle 20th century are no longer in use. According to Gallois (1986), Apurui could be either Tupi or Caribe and Marawan would be an Arawak group. Emerillon and Palikur are names still in use, related to Tupi and Arawak families. As for Paikipiranga, that is a name used by Farabee which Nimuendaju affirmed to be Wajãpi (Nimuendaju 2004: 113). As such, Meggers and Evans did reckon ethnographic and archaeological connections, and even reinforced Nimuendaju's perception of Wajãpi people and archaeological material, even though chose not to explore it further.

Assuming that Meggers and Evans were aware of resemblances between Iratapuru material and Volta Grande do Xingu shards, and noting that they confined among Mazagão Phase a series of "unclassified decorated shards" containing some of the distinctive Koriabo patterns, we can presume that their proposal of a Mazagão-Aristé migration towards Republic of Guiana was more than an intuitive guess. Whether or not they remembered Iratapuru shards while analysing Koriabo assemblages from Barima River is a more difficult question. However, today with much more data on Koriabo since then, links made a century ago by Curt Nimuendaju should no longer be overlooked. It is not just about connections between archaeological material and ethnographic groups, it is also about our own understandings and explanations of indigenous history – the way we create our categories

and try to make them work for other peoples' histories. Somehow, we are still assuming that those archaeological and ethnological constructions are real, as if our scientific approaches to other people realities were strong enough to hold them together.

Over the last decade, ethnologists working in the Guianas have shown how indigenous people do not conform to labels used by Anthropologists to name them, nor to anthropological classifications concerning their social organization or subsistence strategies (Gallois 2005, 2007; Grupioni 2009; Caixeta de Queiroz 2014, 2016). In archaeology we are indeed aware of such limits to our categories (Neves 2015; C. Barreto el al. [ed] 2016; C. Barreto et al 2016), but somehow, we still keep a short-sighted view when it comes to native perspectives. Perhaps, Nimuendaju's perception (without the burden of cultural-historical thinking) of links between people, places and pottery could help us to deconstruct our categories and to allow ourselves to perceive how these elements are fluid and dynamic, much as the indigenous peoples whose past we intend to understand.

It's time to critically rethink the very existence of our homogeneous and bounded past cultural entities, considering that the archaeological assemblages that we excavate cannot be understood as "one people-one language-one materiality", but the very materialization of dynamic, plural and fractal social bodies in a complex process of interrelationships.

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Understanding Jari and Koriabo Ceramics from Southern Amapá

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The archaeology of the eastern Guianas has received more attention in the last two decades since a new generation of researchers has produced original data through preventive archaeology projects developed in local institutions. In the last fifteen years, for example, the researches carried out in Amapá by NuPArq/IEPA modified the chronological and typological model established by Meggers and Evans (1957). These new investigations revealed a picture of greater cultural diversity for the Amazon estuary and the hinterlands, illustrated by the profusion of ceramic styles, settlement patterns and modes of deposition after AD 1000 (Saldanha and Cabral 2010; Saldanha et al. 2016).

The Koriabo assemblage is immersed in this context, being identified just last decade in the Amapá hinterland rainforests (Saldanha and Cabral 2009a, 2009b). Since it was defined by Evans and Meggers (1960) in four sites in former British Guiana, Koriabo pottery has been identified throughout the Guianas and beyond. The current dispersion covers Surinam (Boomert 2004; Versteeg 2003), French Guiana (Rostain 1994), northwest of Pará (Hilbert 1982; Sganzerla and Chymz 2006) and Amapá (Saldanha and Cabral 2009a, 2009b), as well as *Volta Grande do Xingu* (Müller et al. 2016), lower Amazon (Lima and Fernandes 2016; Barreto and Nascimento 2016) and even Lesser Antilles (Hofman and Hoogland 2016).

This wide distribution raises Koriabo to the status of ceramic assemblage with greater territorial dispersion in the Guianas. The current number of known sites reaches 126, of which 99 were considered as settlements and 27 represent trade finds (Barreto 2015:53). The relevance of this ceramic style in the Guianas led Saldanha (2017: 325) to argue that it is "almost impossible to understand the hinterland occupation without first discussing the industry itself and its possible developments and then looking at its chronological, spatial and contextual evidence." Despite the homogeneity of some vessel forms and decorations in diverse regions, there are several questions being discussed.

The wide geographic distribution and the radiocarbon dates range raised a debate about the age of the sites, pottery origin and its cultural affiliation. Most scholars place the Koriabo pottery between the 13th and the 17th centuries of the Christian era (Evans and Meggers 1960; Versteeg 2003; Rostain 1994; Rostain 2008), whereas others support an older chronology. While Boomert (2004) proposes a chronological interval between

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AD 750 to 1500 cal, Denis Williams (2003:375-376, 383) advocates dates ranging from ¹⁴C 2150 +/- 100 BP (Beta-26749) to ¹⁴C 1090 +/- 90 BP (Beta-40998) for Guyana.

Another problem consists in the definition of Koriabo ceramics based on toric and flower shaped vessels, as well as on specific decorations that include thin incisions or scrapings executed in circular motifs on the body and the labial flange of the vessels, usually accompanied by low-relief eyes appliqués (nubbins). These have been the main diagnostic elements for identifying Koriabo. Other elements associated to ceramics have not been deeply studied, such as the possible ceramic local hybridisms and details of the archaeological contexts, vessel use and deposition.

I agree with van den Bel (2010) and Cabral (2011) in considering these gaps as results of studies focused on ceramic sets from surface collections and test-pit excavations alone. For this reason, the framework for Koriabo still remains undefined. This scenario points to the need for in-depth studies in each specific context to understand the interregional variability of this ceramic assemblage.

While most of the investigations in Guyana and Suriname focused almost exclusively on ceramics, a distinct panorama has been developed in French Guiana (Vacher et al. 1998; Hildebrand et al. 2008; van den Bel 2015) and Amapá (Saldanha and Cabral 2009b, 2013; Barreto 2015; Saldanha 2017), where extensive excavations have revealed a diverse contextual data. Therefore, I consider a perspective based on the spatial patterning of the settlements as a novel contribution to the Koriabo problem, adding other dimensions of variability of the archaeological record. To discuss it, this chapter presents results from a research at the Laranjal do Jari 01 site¹, a settlement placed in the lower Jari region where large-scale excavations were undertaken by the use of machinery.

The lower Jari region: settlement research and excavation

The Laranjal do Jari 01 is an Anthropogenic Dark Earth site located in the southern region of Amapá, on the left bank of the lower Jari River. The settlement is situated about 700 meters from the river, on a flat plateau with wide visibility of the surroundings (Figure 1). Adjacent to the site, there is an alluvial floodplain about less than 20 meters of elevation. On another flat plateau, 1.6 kilometers away, a contemporaneous Koriabo settlement was found.

In 2009 and 2011, rescue archaeology surveys were carried out by NuPArq/IEPA under the coordination of Saldanha and Cabral (2009b). Machinery excavation techniques were employed in both field seasons at Laranjal do Jari 01 site, which allowed the opening of wide areas that reached 5700 square meters. The field methods offered advantages to identify anthropogenic features such as postholes, pits, hearths, refuse areas, and ceramic depositions. A total of 495 features were identified during the two campaigns, most related to postholes, pits, and ceramic deposits. The site was then classified as a settlement associated to the Koriabo pottery and to another assemblage of plain vessels later defined by Saldanha et al (2016: 88) as the "Jari ceramic complex".



Figure 1. Archaeological sites in the Jari river basin and localization of the Laranjal do Jari 01 site.

Based on five radiocarbon dates from features with plain and decorated ceramics, Saldanha (personal communication 2013) had also observed that these two ceramic assemblages (Koriabo and Jari) appeared to be chronologically distinct, which was then taken as one of the hypothesis to be tested through another eleven radiocarbon dates published in Barreto (2015). In addition, there are many differences in the pottery, especially in the vessel shapes and in the presence or absence of decoration. These aspects are brought up by the ceramic analysis.

Ceramic analysis

The ceramic study focused on modal variations in vessel shapes (Shepard 1956), performance characteristics (Sinopoli 1991; Rice 2005; Skibo 2013), use-alteration analysis (Skibo 1992, 2013) and contexts of use and deposition. This broad approach was adopted aiming to infer vessels' primary and secondary functions (Zedeño 1988). In addition, decorative and morphological aspects were employed in order to distinguish cultural affiliations, which have been also established through ceramic seriation build upon radiocarbon dates.

Based on this theoretical framework, the analysis encompassed both the whole vessels deposited in the features as well as the fragments dispersed over the archaeological layer excavated by the machinery, corresponding to a sampling universe of 51 entire vessels and 1213 fragments of rims and bases. The typology was then built with 21 ceramic types that have some shape variations represented by the letters "A", "B", "C", and "D" (Figure 2). In order to recognize the Koriabo vessels, a typology defined by Boomert (1986) has been partially followed. However, ceramic shapes not present in the analysed sample have been replaced with the particular forms found in this settlement.

From those vessels with diagnostic elements of the Koriabo pottery, the most common were the restricted and unrestricted bowls with carinated contour and thickened lip (Forms 6), inflected jars with finger-pressed lip (Form 19A), floriform bowls with lobed lip (Form 5), restricted jars called *ouriçoforme* (in the shape of the a chenut shell, Form 14) and the toric vessels (Form 11). In addition to these decorated forms, some plain vessels are also common, such as inflected jars or bowls (Form 4) and vessels or bowls with simple contours (Form 1).

The paste inclusions encompass quartz sand with black minerals (26%), *cariapé* (26%), *cariapé* with quartz sand (25%), quartz sand (16%), *cauixi* (6%), and crushed sherds (1%). Black minerals impart a shiny glaze to the pottery surface and are usually associated to red-coloured pastes, especially in the toric vessels (Form 11), *ouriçoforme* vessels (Form 14), and in the finger-pressed ceramics (Forms 19). There are still doubts as to their nature and provenance, but unpublished archaeometric analyses (Costa, 2013) have defined it as ilmenite (TiO2).



Figure 2. Vessel shapes typology of the Laranjal do Jari 01 site.

The Jari Ceramic Assemblage

Some of the elements used to define the Jari pottery were described by Saldanha *et al* (2016:88) as the "secondary burials in plain urns and large jars deposited in storage features, most of them displaying use-alteration traces of erosion and soot". This assemblage consists basically of unrestricted jars or bowls with inflected contour (Forms 4 and 10), restricted or unrestricted vessels and bowls with simple contour (Forms 1, 2B, 2C, and 8), necked and bottlenecked jars with restricted orifice (Forms 9A, 9B, and 9C), and the pottery of Form 18 often known as "griddles". It is common to observe repair holes in Forms 4/9, and some vessels of Forms 1A/4B present mammilliform appendages (in the shape of nipples) over the rim. In the same context of Jari plain vessels there are diagnostic bowls of the Zoned Hachured pottery from the Amazon mouth (Form 21, see Figure 3.h and 3.i), which presents similar decorations to the Sipó Incised type of the Ananatuba ceramics (Meggers and Evans, 1957).

In descending order of recurrence, temper modes present in the vessels paste of this assemblage are quartz sand (Forms 4, 1, 2B, 10, 9, 8, 18), *cariapé* with quartz sand (Forms 4, 18, 2B, 10, 8, 9A), *cariapé* (Form 4, 9, 1, 21, 18, 2B, 8), quartz sand with black minerals (Forms 1, 2B, 9, 4, 8, 18), and *cauixi* (Forms 4, 10A, 9 and 2C). Only one rim fragment of Form 4B has crushed sherds inclusion.

Performance characteristics, use-alteration traces, and deposition contexts indicate functions attributed to cooking (1A, 1B, 2B, 4A, 4C, 10), preparation of food without heating (4A, 8), preparation and storage of fermented beverages (4A), serving and consuming food or liquids (1C, 1D, 2C, 4C), liquids transportation and storage (9A, 9B), and dry contents storage (4A, 8). In addition to utilitarian functions, some contexts of deposition related to this assemblage indicate that the vessels used in domestic activities were deposited as offerings in burials.

Schiffer and Skibo (1997: 39) mention that, in certain archaeological contexts, many vessels used in food preparation or cooking have reached the end of their lifespan through depositions in ritualized activities such as those associated to mortuary practices. These types of depositions are what William Walker (1995: 76) refers to as "sacrificial deposits" to explain artifacts still in daily use that have been withdrawn from their systemic contexts to be directly deposited in to the context of ritual activities.

This concept may be employed to explain the ritualized burial practices associated to Jari ceramics, where the deposition of vessels employed in cooking, preparation of beverages and storage is evident. Beyond funerary practices, the other deposition contexts are quite diverse and include the presence of isolated vessels, as well as the deposition of overlapping vessels, usually placed in pits excavated on the substrate. There is also a locational pattern of pottery depositions within clusters of postholes which are the architectural remains of houses.



Figure 3. Jari ceramics and its depositional contexts. a) Form 9B, feature 245; b) Form 9C, feature 183; c) Form 9A, feature 188; d) Form 4B, feature 216; e) Form 4C, feature 216; f) Form 1A, feature 199; g) Form 9A, feature 198; h) Form 21, Zoned Hachured pottery, feature 469; i) Form 21, Zoned Hachured pottery, feature 463; j) Form 4A, feature 197; k) Form 4A, feature 196; l) Form 4A, feature 193; m) Form 4A (with repair holes), feature 216. Red dashed lines indicate use-wear erosion evidences. Photos and drawings by Fabrício Ferreira, Francisco Coutinho and Bruno Barreto. Fieldwork photos by NuPArq/IEPA.

The Koriabo Ceramic Assemblage

In several contexts, the ceramics used as diagnostic to identify an assemblage as Koriabo are the toric vessels of the Chaton Fantastique type defined by Rostain (1994) as well as the floral bowls. Although such vessels are frequent at this site, the most typical shapes are the carinated bowls with extroverted thickened or cambered rims (Forms 6 and 7). Most of these bowls present white slip on both surfaces and a few potsherds have polychrome traces of black and red paint over a white slip. In some vessels, a sequence of circular biomorphic appliqués along the careen can also be seen (Figure 4.b and 4.c). The lips are flattened or display a wide channel over which there is usually a strip of red paint. The paste inclusions may consist of *cariapé*, quartz sand, *cariapé* with quartz, or quartz sand with black minerals.

Vessels with finger-pressed lip (Forms 19) usually correspond to large unrestricted vessels with an inflected contour (the mouth diameter is usually greater than 60 cm). Other forms with finger-pressed lip are shallow bowls (Form 19D) which resemble griddles and were used as lids in the contexts of deposition of whole vessels. The outward surface of these bowls (Form 19D) is generally poorly smoothed or with unfinished coil. In all finger-pressed vessel shapes, either quartz sand or quartz sand mixed with black minerals predominate. In a lesser quantity, *cariapé* is found together with quartz.

The flower shaped bowls (Form 5) occupy the third place in the analysed sample. They are characterized by carinated contours, white slipped surfaces, and wide flaring rims or flanges with multi-lobed lips. The white slip is predominantly placed on the internal surface and it extends from the flanged lip to the beginning of the base of the bowl, while in the external surface it is limited between the careen and the beginning of the flange. There are several potsherds whose white slip is seriously eroded with only a few visible traces. The temper modes include *cariapé*, quartz sand, or *cariapé* with quartz sand.

Jars of Form 14 were called as *ouriçoforme* (Saldanha et al. 2016) due to their similarity to the shell of the Sapucaia chestnut (*Lecythis pisonis*). These vessel shapes are similar to the Guarita mesial-flanged ceramics from central Amazon (Figure 4.m), but its occurrence is a specific manifestation of the Koriabo pottery in southern Amapá. They present restricted orifice and are characterized by scraped decorations (serrated or non-serrated) executed either on the body and the rim, or on the flanged lip. The contour is carinated or complex with a careen in the middle of the body that divides it into a non-decorated lower part and a decorated upper part. The most common temper modes are quartz sand or quartz sand with black minerals.

Another diagnostic element of the *ouriçoforme* vessels is the addition of a coil over the careen, as some sort of "thickener" where short scraping decorations are made following an alternating pattern. The lip usually has two or three parallel scrapings and, in some cases, there are low-relief circular-shaped knobs over a flanged lip. While the lower part of the vessel is plain, a scraped decoration is present in its upper part, right above the careen, with design motifs resembling biomorphic faces along the vase (Figure 4.0), a pattern which is also present in the toric jars (made by scraping or incising).



Figure 4. Koriabo ceramics and its depositional contexts. a) Form 6A, feature 468; b) Form 6A, feature 476; c) Form 6A, feature 457; d) Form 5, feature 457; e) Form 11 (toric jar), feature 472; f) Form 11 (toric jar), feature 476; g) Form 15, feature 468; h) Form 15 (hollow rim bowl), feature 468; i) Form 17 (pottery stool), feature 364; j) Form 11 (toric pot), feature 476; k) Form 11 (toric pot), feature 468; l) Form 9D, feature 482; m) Form 14 (ouriçoforme), similar to the Guarita middle-flanged vessels, feature 476; n) Form 19A (finger-pressed rim), mechanic decapage level; o) Scraped motifs performed in the upper parts of an ouriçoforme vessel (Form 14, feature 476), similar to the modelled designs of the Guarita urns, known as Tiara Policroma; p) Form 19A (finger-pressed rim), feature 192; q) Form 13, feature 462; s) Erosion use-wear evidences in a Form 13 rim sherd, mechanic decapage level; t) Form 20A, feature 468; u) Form 17 (pottery stool); v) Mazagão Phase ceramic sherds (Form 2A), mechanic decapage level. Black dashed lines indicate soot evidences. Photos and drawings by Bruno Barreto, Fabrício Fereira and Francisco Coutinho. Fieldwork photos by NuPArq/IEPA.

The toric vessels correspond to complex contour ceramics with castellated or lobed labial flanges (Form 11) and other characteristic decorations from the *Chaton Fantastique* style (Rostain 1994). The flanges have serrated or non-serrated scrapings in parallel or semicircular motifs, in combination with low-relief biomorphic appliqués, such as nubbins (eyes) and fillets, as well as punctuations. While the lower portion of the body has no decorations, thin incisions or circular scrapings are seen on the upper part, sometimes together with nubbins or mammilliform appliqués. The design motifs performed by the incisions or scrapings on the upper body display faces, a pattern observed in Form 14. Almost all pieces are tempered with quartz sand or quartz sand with black minerals.

The toric ceramics present variations among their vessel shapes and are divided into jars (Figure 4.e and 4.f) and small pots (Figure 4.k and 4.l). The pots have an opening orifice measuring from 8 to 13 cm, while the orifice diameter of the jars varies from 13 to 41 cm.

Forms 11 and 14 have much in common, especially the motifs and the presence of flanged lips. The differences lie in the presence or absence of a careen in the middle of the vessel, and also in the profile of the upper parts, which are rectilinear in the *ouricoforme* and concave and/or convex in the toric ceramics.

In addition to Forms 6 and 7, the polychromic painting is also present in the bowls of Form 15, whose morphology include two variations: a) hollow-rim vessels with a quadrangular top view and b) bowls without hollow-rims, of similar vessel shape, but with an outside thickened rim. The polychromic paint, if not completely eroded, display designs in black and red over white slip, and in certain vessels there are only black traces left. The painting is performed on both surfaces of the bowl, but most of the decorative field is found in its inside. As in the other white slipped vessels, *cariapé* temper is predominant, followed by quartz sand and quartz sand with black minerals.

The pottery stools (Form 17) are less frequent in the sample analysed. They have round or rectangular flattened surfaces and annular bases. In most cases (70%), they are decorated with thin incisions, scrapings, punctuations, and low-relief appliqués performed on the ceramic flat surface, which include knobs and fillets in some patterns that resemble monkeys and serpents. Others only have the white slip (two sherds) or have no decoration (three sherds). The types of temper are *cariapé*, quartz sand, and *cariapé* with quartz.

Non-decorated vessels are uncommon and have minimal shape variability. In short, they include the necked jars of Form 13, the unrestricted vessels with inflected contour of Forms 20A and 20B, and the unrestricted carinated bowls of Form 3. Some jars of Form 13 have a thin layer of red paint on the external surface, over which there is yellow painting arranged in horizontally parallel bands. Such jars also show a variation in their dimensions. The small ones have a maximum diameter of 22 cm and a maximum height of 20 cm, while the largest ones can measure from 24 cm to 40 cm in diameter and presumably up to 50 cm in height. The paste inclusions in these plain vessels vary, alternating quartz sand with black minerals (Forms 13, 20, and 3), *cariapé* with quartz sand (Form 13 and 3), *cariapé* (Form 13 and 3), or quartz sand (Forms 13, 20, and 3).

The rare vessels correspond to Forms 16, 12, 2A, and 9D, all with plastic decorations associated with Koriabo, except for the bowls of Form 2A that have elements of the Uxy

incised type of the Mazagão pottery, sometimes with incisions filled by white paint (Figure 4.v). Restricted or unrestricted Jars/pots of Form 12 presented inflected contours with scrapings over the rims. Some vessels have biomorphic modelled appliqués and thin incisions over the body (Form 12A).

Vessels of form 16 (only rim sherds were found) present peculiar diagnostic elements, such as long incisions in sinuous lines interspersed by horizontally short incisions and low relief appliqués (nubbins or fillets), varying the location of the decorative field. The vessel shape is composed of a flange just below the lip, where it forms a channel between the flange and the rim, which usually corresponds to one of the decorative fields.

Bottlenecked jars of form 9D have complex contours with three inflection points in the upper parts of the body, where there are low relief appliqués (nubbins and fillets). These vessels are the rarest in the analysed sample, with the occurrence of just one almost entire jar and a rim sherd. The temper modes in all uncommon forms are quartz sand (Forms 2A, 12, 9D), quartz sand with black minerals (Forms 2A, 12), *cariapé* with quartz sand (Forms 2A, 16 12), *cariapé* (Form 16) or *cauixi* (Form 2A).

Regarding the inferred functions, attributes indicate uses attributed to cooking (6A, 19A, 19B, 19D), preparation of food without heating (6A, 19D), preparation and storage of fermented beverages (13, 19A), serving and consuming food or liquids (2A, 3, 5, 6A, 6B, 7, 15), liquids transportation and storage (9D, 13), dry contents storage (19A) and possible ceremonial use (9D, 11, 12A, 12B, 13, 14, 15, 16, 17).

Koriabo depositions in pits are less common. The pottery is usually found on the Anthropogenic Dark Earth layer (ADE) itself and include widely decorated vessels arranged inside a large main vessel, occasionally with other artifacts (spindle whorls or polished axes). Despite this prevailing pattern, vessels deposited side by side, both within pits and on the ADE layer, were also found. These multiple vessel depositions permitted correlating some plain vessels (Forms 13 and 20) to the diagnostic Koriabo ceramics (Forms 11, 5 and 6), and to other vessels with no remarkably typical decorations (Forms 19).

The radiocarbon dates and cultural affiliations

A sequence of sixteen radiocarbon dates (Barreto 2015; Saldanha and Cabral no published) from various types of features (Figure 5) permitted the identification of a brief gap of 120 years between the two ceramic assemblages classified as Jari and Koriabo. Jari pottery, the earliest assemblage, figures back to the 7th and 11th centuries (Cal AD 659 to 1029), while the Koriabo dates back to the 12th and 15th centuries AD (cal AD 1148 to 1449).

In this context, there are two chronological discrepancies. First, the date attributed to feature 229 (^{14}C 3070 +/- 30 BP, Beta-398073) was disregarded because it presented an ancient chronology completely isolated from the same types of vessels of the Jari pottery. In addition to feature 229, there is another date located around ^{14}C 1180 +/- 30 BP (Beta-

409496), from a deposition with several Koriabo ceramics placed inside a large plain vessel (Feature 476), which is an exception in this chronology. However, this date probably represents a context of a contaminated sample, since there is no mix of Jari and Koriabo assemblages in the pottery depositions and a clear chronological gap is seen when the dates are plotted over the atmospheric curve.

A distribution pattern of the ceramic assemblages is clearly observed in the general excavation sketch (Figure 5). Most Jari ceramics are located in the central and southern portions of the site. On the other hand, the depositions and the refuse features with Koriabo pottery are concentrated in the north and west parts of the excavated area.

Although a portion of the site shows a partial overlap between the two cultural assemblages; the excavation plan highlights two distinct areas defined as "Koriabo" and "non-Koriabo" or "Jari". In the Koriabo area, there are still two depositions of ceramics with Zoned Hachured decorations (similar to the Sipó Incised type from the Ananatuba pottery) that needed to be problematized within this context. These questions were treated through the spatial patterning analysis of the settlement.



Figure 5. Activity areas related to each occupation, household clusters established through statistical test and distribution of features by type and cultural affiliation.

Spatial patterns and household clusters

Beyond the study of the pottery in itself, the spatial analysis focused on the distribution of features in order to understand the nature of activity areas. This approach was also employed as a means to establish chrono-cultural markers within the site through the relationships between the clustering of feature types and the ceramic assemblages.

Of the 495 features identified, 370 were interpreted as postholes and pits, while 92 were ceramic deposits (funerary and non-funerary), middens, hearths and other depositions of artifacts. Postholes were considered as architectural remains of houses and other secondary structures in the houses' surroundings. Most had depths ranging from 20 to 80 cm and diameters between 15 and 55 cm. Some presented two parallel cavities and just a few contained rocks or ceramic fragments used to hold the ancient posts.

The pits consist of features with circular or rectangular top views and rounded or flatted bottoms. In general, pits had a diameter greater than their depths, but there were others with cylindrical profiles and slightly rectilinear walls. Some pits do not present archaeological depositions or contain only a few ceramic sherds eroded to its interior from the upper layer. Most of these features have no determined functions, but their locations close to the postholes alignments raises the hypothesis of being interpreted as storage pits or disposal of organic waste, a question that could be better understood through micro residual analysis. On the other hand, some pits contain a large number of ceramic sherds from diverse vessels, mixed with broken lithic implements and carbonized seeds, representing evidences of refuse areas.

Postholes and pits are clustered in specific areas of the settlement. These spatial patterns certainly correspond to the location of domestic areas, which present houses in varying dimensions. Inferences regarding the houses' layouts should be considered cautiously, since the abandonment and reconstruction of houses in other village locations may reoccur during the occupation period. This mobility results in an abundance of postholes that makes it difficult to recognize contemporaneous features. In addition, the construction of secondary buildings in their surroundings, which is reported in several ethnographic studies (Van Velthem 1983; Gallois 1983; Costa and Malhano 1987; Duin 2009; Gallois 2009; Mans 2012), is another aspect that explains the high quantity of postholes.

To understand the palimpsest generated by daily activities in the archaeological record, the concept of 'household cluster' (Winter 1976) was adopted as a unit of analysis; in this way, inferences about house locations were established. According to Flannery (1976:5), a household cluster basically "consists of the house and all the surrounding storage pits, burials, middens, and features that can be reliably associated with that same household" (Flannery 1976:5).

Although it is difficult to assign contemporaneity among non-dated features, this concept represents a way to infer the location of pre-colonial houses and secondary surrounding structures. It allows us to understand pits, burials, postholes and other features as "manifestations of a specific segment of society", instead of simply isolated cultural features (Winter 1976).

To search for patterns possibly corresponding to these household clusters, the kmeans spatial statistic test (hotspot analysis) was employed; this method examines the distribution of features in a non-hierarchical way to identify as many possible spatial relationships (Blankholm 1991). It recognizes grouping patterns and establishes ellipses representing the relationship between features, which are interpreted as specific activity areas. Sixteen clusters of features were identified through the test, representing indirect evidence of some of the houses' locations (Figure 5).

Two cultural areas were identified, called as "Koriabo" and "non-Koriabo" or "Jari". The first one corresponds to 16 ceramic depositions containing diagnostic Koriabo vessels, while the second one covers most of the excavated area and includes 60 features with plain vessel depositions associated to Jari ceramics. Despite the Zoned Hachured style appearing in three depositions in both areas, the chronological and contextual evidence demonstrates the correlation of these ceramics to the Jari pottery; thus, they are being understood as part of this specific cultural set.

The spatial analysis made it possible to construct a synthesis of the layout of the villages and an initial interpretation of the daily activities performed in different spaces. In the area where Jari ceramics are prevalent, the distribution of features illustrate a village composed by houses arranged in a circular layout around a central plaza (Figure 5). Domestic unit locations are identified by the clusters (postholes and pits), where some are accompanied by ceramic deposits within the houses.

In certain areas of the settlement, clustered ceramic depositions inside domestic units may represent storage features. At a house in household cluster 8, for instance, there were fourteen Jari ceramic depositions containing vessels attributed to domestic use (Figure 6.04), some with use-wear traces. Already elsewhere, the recurrence of two or more ceramic depositions with human bones were interpreted as evidence of places specifically intended for burial practices. In this case, the presence of these entire vessels in burials illustrates the removal of ceramics still in use at their domestic contexts and directly deposited in the archaeological record as votive offerings. Another pattern of the Jari area is the recurrence of secondary burials close to other non-funerary ceramic depositions, especially inside and around the household clusters.

In the 'Koriabo Area', domestic units did not have as many pits and ceramic deposits. The houses' layouts are apparently circular and ellipsoidal (Figure 6.01, 6.02 and 6.04), while the village layout presents a linear shape. However, this perception of the settlement layout may be due to a smaller excavation sample in this area. Unlike the Jari occupation, ceramic depositions were fewer and showed a dispersed distribution, most located outside the postholes clusters which represent the houses.

Most Koriabo depositions are composed of widely decorated vessels, usually placed like cached-vessel deposits inside a large main jar, where one can also find lithic artifacts. Funerary features are rare and some bones inside the vessels were pulverized or are possibly faunal remains.

In the Jari horizon, the absence of hearths inside the houses might suggest that cooking activities were performed on combustion features located outside the domestic units. Another explanation refers to the hearths absence as a phenomena resulting of the houses' cleaning. Regarding this hypothesis, ethnographic correlates among the Trio demonstrated that cleaning of hearth locations produces the removal of most archaeological remains from the fuel burning (Mans 2012: 67). In comparison, two domestic units attributed to Koriabo pottery presented hearths within their hypothetical limits, both possibly located in round houses.



Figure 6. Some examples of house layouts associated with Jari and Koriabo ceramics.

In comparison to the Jari horizon, refuse pits in the Koriabo area are less frequent. The unique midden presenting Koriabo pottery (feature 255, Figure 6.03) was located behind a house at household cluster 8 and had dimensions and ceramic sherds density higher than refuse pits attributed to Jari ceramics. In both occupation areas, the composition of middens includes high rates of domestic pottery from cooking and serving/consuming vessels, especially of the forms 4 (Jari) and 6 (Koriabo).

Hypothetical inferences about houses' layouts suggest that they were not randomlydesigned. In most cases, the starting point to reconstruct domestic units were the locations or alignments of postholes and pits, especially inside or around household clusters. However, the use of several ethnographic correlates could be an interesting analytical tool to understand the spatial organization of pre-colonial settlements. This is not being suggested as a direct analogy, but rather as a means of establishing relationships that could be observed in the archaeological record.

Discussion and final considerations

Considering the data presented here, radiocarbon dates and spatial patterning illustrated the recurrence of distinct ceramic assemblages at both specific places and intervals of the occupation site (Figure 7). These findings are being interpreted as two culturally distinct areas separated by a chronological gap spanning 120 years.

The Jari and Zoned Hachured ceramics of the early site occupation date back to AD 660; the contemporaneity of these ceramics were attested by the co-occurrence of diagnostic vessels mixed in ceramic deposits. Datings attributed to these ceramics extended up to AD 1030. The pottery included eight types over an occupation period of 370 years, with most of them characterized as plain vessels.

After a 120-year brief gap, Koriabo ceramics appeared around AD 1150 and extended until AD 1450 during a 300-year occupation. This period shows evidence of a greater variability of vessel shapes and decoration, represented by fourteen ceramic types. Some vessels have not been identified in other Koriabo known contexts and they are specific to the lower Jari region (forms 14 and 16).

From the sixteen radiocarbon dates performed, just two do not fit this explanatory model. However, their samples are being considered as contaminated, whereas additional more reliable evidence supports the reoccupation hypothesis. Besides the technological differences between the two cultural assemblages, Koriabo and Jari ceramics are not mixed into any feature and their distribution is well standardized at distinct areas. Likewise, no features related to Jari ceramics showed recent dates, which would represent an abrupt shift in the pottery inconsistent with the hypothesis of change by cultural transmission.

Regarding the greater questions raised for the Koriabo pottery, most of the datings from the Laranjal do Jari 01 fits within the chronology assigned by Evans and Meggers (1960), Rostain (1994) and Versteeg (2003), which starts in AD 1200 and extends up to the beginning of colonial times. The only accepted date incompatible with this model is the 880 +/- 30 BP (Beta 409484) one which refers to a deposition with polychrome pottery (Forms 6 and 15), toric (Form 11) and finger-pressed (Form 19) vessels.



Figure 7. Chronological chart with vessel shapes deposited in each dated feature.

For the Koriabo sites of Surinam, Versteeg (2003) argues that dates older than 800 BP should be disregarded because they are associated with other ceramic assemblages in the deepest strata. If we consider this, could this date of ¹⁴C 880 +/- 30 AP be interpreted as evidence of Koriabo dispersion through a south-north lower Amazon flow toward the coast of the Guianas? This hypothesis should also be tested through investigations of Koriabo pottery outside Guianas. Researchers should especially examine settlements located on tributaries from the right margin of the Amazon river, especially in the Xingu river basin where it was recently recognized (Lima and Fernandes 2016; Müller et al. 2016) and associated to mound structures (Ribeiro et al. 2016).

In the lower Xingu region, for instance, the Cacarapi pottery defined by Perota (1992: 212) shows similarities to Koriabo ceramics, which displays scraped decorations and is characterized by "restricted vessels with everted rim and half-sphere vessels of composite contour" (Perota 1992: 212). Seven radiocarbon dates were attributed to this pottery (Perota 1992: 213), ranging from ¹⁴C 910 +/- 60 (Beta 17145) to ¹⁴C 365 +/- 60 (SI 3507), and these collections are being currently reanalysed. Therefore, if we consider the Koriabo dates accepted from 1200 to 1650 AD, could this date of 910 +/- 60 BP (Beta 17145) be a reliable evidence for the existence of Cacarapi pottery on the Xingu before the Koriabo ceramics appearance in the coast of Guianas?

Besides the Xingu and the lower Amazon, other regions may provide interesting comparative data. In the lower Tocantins, for example, Simões (1981: 161-162) described Tauá pottery, which also reveals close similarities to the Koriabo ceramics.

According to Simões and Araújo-Costa (1987: 14), the decorated types of Tauá pottery include vessels with a) red and black paintings on white slipped, b) large or fine incisions performed in geometric designs over the rim and body on the external surface, c) biomorphic appliqués over the body or rim and d) finger-pressed lip. The vessels forms most similar to the Koriabo ceramics of the lower Jari are the carinated bowls with exteriorly thickened lip and the hollow-rim bowls, respectively similar to forms 6A and 15. They also mentioned the occurrence of "globular vessels with restricted necks and extroverted rims" possibly corresponding to Koriabo toric pots.

No radiocarbon dates were made for the Tauá pottery sites. This makes chronological comparisons with Amapá and Guianas coast impracticable. It also reinforces the need to revisit these regions and collections previously studied through different perspectives. In addition to chronology, the Koriabo question must also be discussed through the settlements' spatial organization patterns. Certainly, these data may provide new comparative possibilities for discussing questions regarding the cultural affiliation of the ceramics.

Evans and Meggers (1960), Rostain (1994) and Versteeg (2003), for instance, attributed Koriabo pottery to the Incised Punctuated Tradition. On the other hand, Boomert (2004: 258) supports its affiliation with the Amazonian Polychrome Tradition due to supposed similarities with the Ancestral Mazagão-Aristé from Amapá. Beyond the presence of polychromy in the Koriabo ceramics, some elements reveal pertinence to this tradition.

The ouriçoforme pottery (Form 14) from the Laranjal do Jari 01 site shows close resemblances with the Guaritan mesial-flanged vessels of the Polychrome Tradition from the Central Amazon. Similarly, scraped or incised designs on both ouriçoforme and toric vessels also resemble the faces performed by paintings and modelled appendages on the Guaritan urns, which displays in its upper parts the so-called "tiara Polícroma", or the Polychrome headdress (Oliveira 2016:10).

Koriabo ceramics have also been correlated to the Karib speaking peoples (Boomert 1986, 2004; Williams 2003). However, the main evidence to support this hypothesis is the distribution of Koriabo in regions historically occupied by Karibs (Williams 2003) and its supposed resemblance to the pottery made by the Kalinã (Boomert 2004:260). The lack of studies dedicated to detailing specific archaeological contexts, especially in Suriname and Guyana, has led to non-systematic association based almost exclusively on ceramics and their occurrences.

Intra-site settlement studies could be an interesting perspective to answer these greater questions. In discussing cultural identities and linguistic dispersions, Eduardo Neves (2011: 35) argues that variability in the archaeological record should be used as a marker of distinct ethnic groups or regional systems in the past, which would allow us to discuss linguistic boundaries beyond the traditional ceramic-based typologies. Additionally, if the co-occurrence of different types of elements could be standardized in one region, changes in pottery would also be "covaried in regional sequences with changes in the settlement layout or settlement patterns" (Neves 2011: 35).

I agree with Neves (2011) and consider the integrated study of these technologies and settlement layouts a promising way to understand long-term indigenous history, languages dispersion and cultural transmission processes in the past of Amazonia. To achieve this perspective, further research based on extensive excavations of Koriabo settlements may provide other dimensions of variability to compare regions, villages and houses.

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Lower Amazon





Halfway between the Guianas and the Lower Amazon: Archeology in the Trombetas Basin¹

Camila Jácome² Elber Lima Glória³

The research results herein presented are part of the Northern Amazonia Project⁴, created by the UFMG, which aims to bring together knowledge produced by ethnological and archeological studies in the Trombetas Basin considering the long duration of social and cultural formations of the region. It also seeks to fill an archeological "gap" between the lower Trombetas and the Guiana Highlands.

Research took place in communities and sites of two Indigenous Lands: the Trombetas-Mapuera (Caixeta de Queiróz 2008) and the Tunayana-Katxuyana, engaging the collaboration of youth residents of the Mapuera Village, the main political center of the region. Definition of the excavated archeological sites occurred through a negotiation between project team and leaders of several villages. Most villagers in these two sites speak Carib languages and live in a complex kinship system that involves trade, marriage, enemies and allies. Ethnology has discussed the importance of such *relationship networks* to constitute these collectives, perceptible only through a diachronic analysis of time (Gallois 2005). As such, an archeological discussion is still necessary, as seen below.

The pottery of the Mapuera River, located in the Trombetas River Basin, in the north of Pará state, is characterized by a diversity of paste types and decoration styles, a combination that seems to show a technical and stylistic flow. Out of the five sites studied, only one of them, the Poropu⁵, presented fragments related to the Koriabo style.⁶

In this article, we present the sites and pottery of the Mapuera, focusing on both the diversity of styles and the possibility of their being related to Koriabo pottery. Finally, we consider flows and connections between pottery styles in the regions of Essequibo River

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⁵ Reads Forofú [Forofoo]. According to Jaime Xamen and Alfredo Oliveira, both Waiwais, the term means, "What stopped".

⁶ This article is the compilation of data and reflections of two works, the doctoral thesis of Camila Jácome (2017) and graduate thesis of Elber da Glórica (2017). The pottery analysis of the two sites presented here was developed by the authors together with Igor Rodrigues and Marcony Alves.

and Mapuera River. This question is addressed through a reflection on the interface between archeology and ethnology, which begs the question if, in fact, well-defined categories of pottery traditions exist at all in this region.

Archeology in the Mapuera River

The Trombetas River Basin (Figures 1 and 2) is situated in the south region of the Guiana Highlands, where the Mapuera River is an important tributary of its right bank. After its confluence with the Nhamunda River, the Trombetas River drains into the lower Amazonas River, near Oriximiná City, in the State of Pará (PA). The source of the tributary rivers of the Trombetas is located in the frontier between Guiana and Suriname. The Mapuera River is a strategic dispersion route for indigenous groups between the lower Amazonas and the Guiana Highlands region.

The Mapuera River runs through the indigenous lands Trombetas-Mapuera and Tunayana-Kaxuyana. We can affirm that the current villages and farms are also archeological sites. An enormous diversity of groups exists in both territories and almost all are Carib speakers. The name of many of these groups is formed using the name of the place of origin (the river) and the Yana (people) suffix. For example, the Tunayana are



Figure 1. Location of indigenous lands in the northern region of Pará, the Kaxuyana-Tunayana, Nhamundá-Mapuera and Trombetas-Mapuera lands, which are bathed by the Mapuera River and inhabitated by various peoples, such as Waiwai, Kaxuyana, Tunayana, etc. Map: E.K. Tamanaha (Jácome 2017).



Figure 2. Sites identified and excavated by the Project Northern Amazonia Project (UFMG), in the Mapuera River, tributary of the Trombetas River. Map: E.K. Tamanaha (Jácome, 2017).

the people of the Turuni River. The native groups living in the Trombetas Basin are part of the Guiana ethnographic region. Like some of the sites we identified and excavated, the current pattern of opening of new villages is along the riverbanks. In this article, we present pottery pertaining to five sites, including: Tawani, Mapuim and Ewtotho 1, located in the lower course; and Takara Velho and Poropu, situated in the middle course. We carried out lines of test pits to determine concentrations of archeological material, just as $1m^2$ excavation units, and some surface collections.

Ceramic and lithic material was associated to anthropogenic dark earth (ADE). The Takara Velho and Tawanî sites had anthropic soil with a brown color. The ADE thickness varied from 25 to 60 cm, except in the Poropu site, where it was around 80 cm due to mound constructions. All sites show stratigraphic disturbances (but it was possible to collect ceramic fragments separated by 40 cm layers in depth), and high fragmentation of the ceramic material, which obstructed differentiating the occupation layers. Through radiocarbon and thermoluminescence dating of charcoal and soil samples we obtained nine dates (Table 1). These dates referred to three out of the five dark earth sites, Mapium, Takara Velho and Poropu. The chart below presents the dates, which will be set in context and discussed throughout the article.

Site	Sample	Excavation Unit	Level	Sample Type	Dating	
Mapium	7099	S 6	32-33 cm	Carbon	1100 +/- 30 BP	
	7102	S4	40-50 cm	Carbon	5790 +/- 40 BP	
	7100	S6B	84-85 cm	Carbon	6830 +/- 40 BP	
Takara*	7310	Excavation 2	5 - 12 cm	Sediment	101 +/- 0.3 pMC	
	7311	Excavation 2	25-30 cm (base da TPA)	Sediment	520 +/- 40 BP	
	7304	Excavation 1	5-10 cm	Sediment	580 +/- 30 BP	
	7306	Excavation 1	15-22 cm	Sediment	820 +/- 30 BP	
	7305	Excavation 1	25 cm	Sediment	1280 <i>+/-</i> 30 BP	
Poropu	7276	Excavation 2, Excavation Unit (mound area)	INF. F (80-90)	Carbon	111.6 +/ 0.3 pMC	

Table 1. General dating chart of the Black Earth sites researched in the Northern Amazonia Project.

The pottery from Lower Mapuera

Archaeological sites are found from the Mapuera River mouth until the Inajá village. The Tawanî site is closest to the river's mouth, only 4km away. The Mapium and Ewtotho sites are upstream, around 21 km from the mouth of the river.

In general, the pottery is characterized by the predominance of a mineral paste, followed by *caraipé* (in a similar proportion to mineral paste). Pastes with *caraipé* are scarce, and they appear associated to *caraipé*, besides a few fragments with crushed potsherds, or *caraipé* with crushed potsherds. The mineral composition⁷ presents grains of rolling quartz, iron oxide and feldspar, with an oxidized paste with orange, brown and white coloring. The white ones are less frequent and are associated to vessels with *caraipé*. The rims are thin (1 to 5 mm). The walls (6 to 5 mm) and base (16 to 20 mm) show a tendency to use *caraipé* in thicker fragments. They have simple spherical or semi-hemispheric forms, resembling pot sets, bowls and vessels. There are few items with a compound or complex shape. The rims are direct (mostly), extroverted or introverted incluiding round, pointed, flat or beveled lips. Bases are flat (mostly), concave, in pedestals or tripods. The diameter of the mouth varies between 4 cm and 66 cm, suggesting pots of small to medium sizes. Shape projections are limited due to high fragmentation of the material. Flat fragments with average thickness of 20 cm to 24 cm are also common. They are interpreted as fragments of griddles (Table 1).

Regarding decoration, plastic finishing prevail over painting, considering that most of the collection consists of undecorated pottery. Among the painting techniques, the use of slip is the most common one. With red, white or wine color applied internally or externally, and red, wine or black lines or stripes in the exterior or the interior of the rim. A greater variety of plastic decorations are observed as compared to painting techniques. There are incisions, knurled, modelled apliqué, excision, punctuation, applied coils, and edges formed by exposed coils. Decorations are generally applied to the exterior, on the

⁷ Paste analyses were done with a binocular stereoscopic microscope with magnification up to 40X.

rim or the neck inflexion towards the body. When the rim is decorated, it commonly presents incision and punctuation similar to those found in Guiana and Suriname in the Tarumã phase (Boomert 1981).

Pieces with modelled apliqués are similar to the Konduri style, while some incisions are similar to the "fishbone" style, both defined by Peter Hilbert (1955). Vera Guapindaia (2008) also verified the association between these two styles, in archeological contexts of the Trombetas Port region. In Ewtotho, the "fishbone" incision is more frequent (49% of the decorated pieces), as well as a typical globular "fishbone" vessel (Figure 4). These fragments were found in the initial layers at a 40 cm depth. They are formed by a specific paste, always mineral, with quartz associated with great amounts of feldspar and white clay acorns, poorly fired, differing from the rest of the collection. In Tawanî, "fishbone" pieces are mostly made of mineral pastes or with *caraipé*, while the Konduri mineral pastes have a different composition. In the Mapium site, the dates were obtained from charcoal samples, and they show 1100 +/- 30 BP (layer 32-33cm), 5790 +/- 40 BP (layer 40-50) and 6830 +/- 40 BP (layer 84-85). The oldest one was found in yellow oxisoil with absence of ceramic material and the presence of lithic artefacts. The second oldest was found in dark earth, however, with a smaller amount of ceramic material, which may be explained by the migration of pottery into lower layers.

Pottery of the Middle Mapuera

The middle course of the Mapuera goes from the Inajá Village until the confluence of the Acari with the Mapuera, near the Tamiuru village. The Takara Velho site is downstream, while the Poropu is upstream, near the Mapuera village. This region was likely chosen by the groups that returned from the Guiana due to abundance of resources for hunting and fishing, and because Xerwe-Katuena groups, Carib speakers, live there.

The Takara Velho, located in an abandoned village, is accessed through a port with rocky outcrop (like Tawanî, Ewtotho) and stone polishing basins. Archeological material, including lithic and pottery remains, may be found in the lower and middle hillside, and at the hilltop. The number of buried remains is insignificant when compared to surface material: 69% is surface material, while barely 31% is excavated material.

The Poropu site is located on the right bank of the middle course of the Mapuera River, on the cultivated landholdings of Pîrimaw, a resident of the Mapuera village. The area is on top of a flat hill with an altitude of 123 meters, around 1.1 km from the Mapuera River bank. The Poropu site stands out for being the only site far from the Mapuera River bank. Three sectors were excavated, including part of two mounds. These revealed a thick archeological layer, up to 1 m deep – after which archeological materials, both lithic and ceramic, decreased, with a transition from dark earth to yellow oxisoil. In addition, two features of postholes were identified in two different sectors. Together with the mound, they suggest an habitation area near a disposal area (the artificial mound).

The Takara Velho pottery assemblage is similar to the one in the lower course of the Mapuera River, while the Poropu grouping has specificities. In Takara Velho, the same



Figure 3. Sherds of Konduri pottery from the lower Mapuera river collected at the Tawanî site. Illustration reproduced from Jácome (2017).

ceramic paste types are found. The mineral paste (44%) and paste with *caraipé* (44%) have similar percentage. The rest is *caraipé* (10%) and *caraipé* with *caraipé* (1%). The mineral composition is quarts, iron oxide and feldspar, with fine grain size (grain diameter between 0.5 mm and 2 mm). The color of oxidized surfaces varies between shades of orange and brown, with rare reddish segments. White is exclusive for pastes with *caraipé*. Common

fragment thickness of mineral paste pottery is between 5 mm and 9 mm. Those with *caraipé* and *caraipé* pastes are thicker: between 20 to 27 mm. Forms are simple. Some items resemble vessels with shoulders and neck, usually done with *caraipé* or *caraipé* pastes. Some vessels done with *caraipé* have unique forms. For example, an open bowl with zoomorphic aplic and a closed pot with model and incised decoration. Flat and thick fragments (between 20 cm and 24 cm), interpreted as griddles, are also present. In general, vessel mouths vary from 4 cm to 50 cm.

In Takara Velho, painted decoration prevails (62%) over plastic decoration (38%). This proportion is alien to pottery patterns in Mapuera.⁸ Painting techniques are the same as documented in the southern sites, as well as the variety in plastic decorations like incisions, punctuation, incisions and punctuation, excision, spatula, applied coil and model aplic. These techniques may appear isolated or combined, like incision and punctuation, but this association is exclusive of pottery with *caraipé*. Pastes with *caraipé* have more variations in decorations than others, which present one technique at the most. Some incisions have a "fishbone" style, as in the lower course sites, just as the rim, which when decorated presents a sequence of drilling/carvings or punctuation. Other incisions present symmetric lozangular patterns, similar to the *Kanashén Inciso* decoration described by Evans and Meggers (1960) for the Tarumã phase in Guiana. The modeled, incised and with punctuation pieces show proximity to Konduri pottery. Dates obtained for the Takara Velho site come from sediments and show 101 +/- 0.3 pMC (layer 5-12 cm), 520 +/- 40 BP (layer 25-30 cm, base of ADE), 580 +/- 30 BP (layer 5-10 cm), 820 +/- 30 BP (layer 15-22 cm), and 1280 +/- 30 BP (25 cm).

In the Poropu site, four types of pottery were identified:⁹ mineral paste (45.2%), magnetite¹⁰ paste (23.2%), *caraipé* paste (28.6%), and *caraipé* (3%). In this way, it follows patterns from the other sites, except for the presence of magnetite $(F^2O^4)^{11}$ and the absence of the combination between *caraipé* and *caraipé*. The anti-plastic elements of the mineral paste are quartz (between 0.5 and 2 mm), feldspar (maximum 1 mm) in fresh state or altered, already decomposing in white-colored clay. The color of the oxidized paste varies between yellow, brown, orange and white. Magnetite paste is composed by high frequency iron

⁸ This could be explained by the great quantity of fragments with engobe. Since it may be applied to the entire surface of a vessel, or to most of it, the fragmentation of a single vessel could produce a great number of fragments with paint. This stands in contrast to vessels with plastic decoration, where adornments are more restricted to specific parts of the vessel.

⁹ In a specific study of the Poropu site, at least five types of clay sources could be identified, which were later combined with caraipé or crushed potsherds, resulting in 11 types of ceramic pastes. For more details, see Glória (2017). Here, we emphasize the presentation of recurrent ceramic pastes, as a way to standardize the methodology used for all sites.

¹⁰ Although the paste with magnetite is also mineral, it was separated for three reasons, specifically involving the presence of magnetite: it was only identified at the Poropu site; it is a mineral component that may indicate a different raw material source; and it is the third most frequent paste in the collection.

¹¹ The presence of Magnetite may be explained by the difference between geological formations, since the Poropu site is situated in a region with volcanic rocks, while the lower course sites are in an area with sedimentary rocks.

oxide in the magnetite form, associated with quartz grains, feldspars and, in a lesser frequency, to fragments of white clay with coloring of the oxidized paste, always red or brown-red. The magnetite grains produce shinny points in the ceramic surface, visible to the naked eye. The use of *caraipé* was preferred in the *mineral paste* composition, while it was avoided in the pastes composed by *magnetite*. Compared to the rest, the paste with *caraipé* has a small grain size, with an oxidized surfaced between white, red, orange, and gray. The gray is specific to fragments with *caraipé*.

Regarding wall thickness, fine vessels prevail, with a medium thickness between 5 and 10 mm. The few thicker fragments are griddles, 14 to 24 mm thick and exclusively with *caraipé* paste. Although the presence of *caraipé* is low in the collection, one must highlight that it is related to thicker vessels, between 10 and 16 mm.

Due to the relative preservation of fragments and semi-complete pot reassembly, it was possible to reconstitute more precise forms. There are closed spherical pots with curved contours (33 L maximum capacity), pots with necks always with extroverted rims (all with 1.5 L capacity), and pear-shaped or globular pots (all with a 4 L capacity). The open vessels are shaped like bowls (flat), basins (deep), or even smaller forms similar to small dishes. Their capacity varies between 2.7 L and 15 L and because of their already mentioned flat shapes, we interpret them as griddles.



Figure 4. Tarumã plastic decoration (a, b, c, d) and Fishbone style (e) found on the Takara Velho site, located in the middle portion of the Mapuera river. Illustration reproduced from Jácome (2017).

From the analyzed material, 21% was decorated, with plastic decoration prevailing (72%) over paint (26%). Plastic decorations are restricted to the rim and at the wall inflection towards the neck. They occur only in the upper part of the vessel. Decorations made with spatulas prevail (65%), followed by punctuation (11%) and incisions (8%). There was one single object with punctuation and incision decorations – rims with "exposed *coils*" with aplics, and a few fragments of inflection in the neck marked by carvings or punctuation. This differs from the southern sites, where the aplic is done on the rims or borders. Painting techniques are similar to those found at the other sites. Engobe prevails, and lines and stripes in a few items, highlighting red over white engobe. The only case of engobe in both faces presents incision lines with a rugged shape, identical to the *Erepoimolnciso* described by Evans and Meggers (1960) for the Waiwai phase of the Essequibo River. Compared to plastic decorations, paintings show less variety. The only date obtained was from the Poropu site was 111.6 +/- 0.3 BP pMC (layer 80-90), which is a very recent date if one considers the stratigraphic depth. Since no other dates are available, this date should be assessed carefully.

Evans and Meggers (1960) also described plastic decorations in vessels with "exposed coils" in the Guiana sites, in the upper course region of the Essequibo River, both for the Tarumã and Rupununi phases. Another type of decoration found in Suriname (Boomert, 1981) and Guiana (Evans and Meggers, 1960) are borders with tugs in the rim, forming "lobes". The few existing samples from the Poropu site are always associated with open shaped vessels. In Guiana, these fragments were found associated with the pottery of the Rupununi phase described by Evans and Meggers (1960); whereas in the Berbice River, the East coast of Guiana, Boomert (1981) associated them with a Koriabo assemblage, although, "other specimens are undoubtedly related to the Taruma Phase" (Boomert, 1979:79). In Suriname, Boomert (1981) associates them with a Tarumã set. Pottery with carved inflections and borders marked with spatulas were observed by Jens Yde (1965:287) in the upper course of the Essequibo River, in an archeological site that the Waiwai claim was formerly inhabited by Tarumã natives.

The fragment with incision and punctuation decorations is the ceramic piece we can associate with an Incised-Punctuated archeological tradition. This fragment is composed by straight and curved incision lines in the shape of a volute related to an applied coil marked by a sequence of punctuation. In addition to this particularity, it is also one of the few samples with *caraipé* and has texture similar to ceramics of the Konduri style. However, Hilbert (1955) stated that curved line incisions are not attributes of the Konduri pottery. On the other hand, volute traces are very common in pottery classified as Koriabo (Boomert 1981; Rostain 2016). Thus, we must ask: what does it mean that there is a piece with a paste identical to Konduri pottery, but with a style resource closer to the Koriabo tradition? Could this indicate a confluence of styles? In addition, the presence of a single ceramic sample presenting a multilobed rim stands out – as diagnostic element of Koriabo pottery. Indeed, could Poropu be a Koriabo site?

Despite these occurrences, we believe that are sample is not adequate to make such determinations and any statement of this sort would be premature. In the end, the excavations were limited to small interventions and there is only one sample that displays

characteristics typical of the Koriabo phase. This said, what can we say about the rest of the assembly? There is an additional issue with the Koriabo phase posed by van den Bel (2010) and Mariana Cabral (2011). The researchers question the classification scheme based only on the description of typical pottery decorations, disregarding "plain" pottery and their specific archeological context. As van de Bel observed, "domestic or plain ware is hardly known and often neglected by researchers [...] In fact, its Koriaboness is only acclaimed when the typical Koriabo decorations are observed" (Van den Bel, 2010:88-89). Thus, the Poropu site, is not a clear Koriabo settlement – as least based on the criteria upon which this phase has been described. In any case, there is much resemblance with the pottery described in the Guiana region (Evans and Meggers 1960; Boomert 1981), mainly regarding the Tarumã, Rupununi and Waiwai phases, where the Koriabo fragments are also recurrent (Evans and Meggers 1960; Boomert 1979, 1981; Williams 1978, 1996; Plew 2005). The typical Konduri pottery – at least in its decorative aspect – is absent in the Poropu site. Could the Mapuera sites represent a halfway point between the lower Amazonas and the Guiana Highlands?



Figure 5. Ceramic fragments with Tarumã painted decoration and incised-punctate and coiled plastic decoration. Ceramics can be associated with the Rupununi pottery, found in the Poropu site, located in the middle Mapuera, upstream from Takara Velho; Illustration reproduced from Jácome (2017).



Figure 6. Shapes of pots from the Poropu Site. Profiles are close to those defined as Koriabo pottery, by Evans and Meggers (1960: 133). The base for the projection of the vessel was inspired by Barreto at al (2016). Illustration reproduced from Gloria (2017).

Halfway: between the Lower Amazonas and the Guiana Highlands

Research by Evans and Meggers (1960) in the Guiana allowed for an unprecedented archeological survey and the elaboration of archeological phases according to each geographical area. In the Northeast region, the Alaka, Mabaruma and Koriabo phases were described and consolidated. In the savanna area, the Central Guiana region, the Rupununi phase. In the Southern region, throughout the upper course of the Essequibo River, the Tarumã and Waiwai phases were described. These classifications were construed based on evidence from small excavations, with the objective to verify the extension of the sites, the depth of the archeological layer and the definition of the ceramic types.

In general, the sites in this region contain thin and dispersed archeological layers. Few decorated pottery exist and those present are mostly punctuation, with linear incisions or rugged patterns or lossangular, and never with curved lines, punctuation or carved rims through exposed coils. Painted decorations are common in the Tarumã and Waiwai phases, in the form of red engobes, or geometrical red patterns with white engobe (specific of Tarumã). They also include black paint in the form of stripes and lines forming different patterns in straight lines, spiral or zigzag, etc., covering the entire external surfaces of the pot, even the lower part (specific of the Waiwai phase). The Rupununi phase presented a less-decorated collection. Pastes used are mineral or, in to a lesser degree with *caraipé* with an absence of *caraipé*.

Evans and Meggers (1960) observe that the use of *caraipé* is more common in the Tarumã ceramics, used in low frequency in Rupununi ceramics, and completely absent in Waiwai pottery. However, the use of *caraipé* in Waiwai ceramic was verified by Yde (1965), as well as in reports of the Mapuera people (Jácome 2017). Betty Meggers (2010) carried out termoluminescence dating in fragments of 15 Tarumã sites of the upper Essequibo region, obtaining a chronological sequence between 1495 AD and 1650 AD. According to Evans and Meggers (1960), the Rupununi phase would be the most recent settlement, due to the shallow depth in which the archeological materials were found and the presence of artefacts of European origin, implying a settlement of the XIX century. Mark Plew (2007) obtained a single radiocarbon date, 60+/- 40 BP, in agreement with the period suggested by Evans and Meggers. Then, the Waiwai phase referred to recent villages, around 1952 and 1953. Evans and Meggers (1960) stated that at that time the Waiwai had begun to occupy the upper Essequibo, filling the gap left by the Tarumã disappearance (1960:247).

Jens Yde (1965), who was also with the Waiwais in the 1950s, found ceramics in archeological sites. These pieces were shown by the Waiwai themselves, situated in upper Essequibo and upper Mapuera Rivers, with typical Tarumã decorations and different Waiwai pots. According to J. Yde, the Waiwai tradition affirmed that the Tarumã inhabited the villages in question. From Hilbert's (1955) studies, J. Yde states that the material from the upper Mapuera is different from that of the Trombetas and Erepecuru Rivers, where Konduri remains are common. Nonetheless, as we previously described, based on our research, we can affirm that at least in the lower Mapuera, an association between Guiana and Konduri pottery exists.

In Suriname, Boomert (1981) described Tarumã ceramics, recurrent in both Silpaliwini Savanna and tropical forest regions. He stated that, "the decorative motifs of the Suriname Tarumã material are almost identical to those on the Trauma pottery of south Guyana" (1981:131). In Guiana, to the north of the Rupununi savanna, Mark Plew (2005) identified similar ceramics to the Koriabo and Tarumã phases in sites defined as Rupununi phase. Although classifications transmit an essentialized view phases, a review of literature shows that they are not so fixed and concrete. They appear associated with one another in sites in Guyana, Suriname and lower Amazonas and include Koriabo fragments.

In Evans and Meggers (1960)'s description, all sites of the Koriabo phase presented fragments of the Mabaruma phase (Evans and Meggers, 1960:139). In the region of the Erepecuru River, tributary of the Trombetas River, P. Hilbert (1982) identified similar pottery to the Koriabo and a typical fragment of Mabaruma. In the Verbice River, eastern part of Guiana, Denis Williams (1978) excavated Tarumã and Koriabo ceramics, including contexts where the pottery was found in the surface along with European items, just as Evans and Meggers (1960) observed in the savanna region of the Guianas.

To the South of Suriname, Tarumã sites are well known. Versteeg (1980) collected Tarumã vessels in sites throughout the Sipaliwini. Furthermore, the relationship between the Tarumã and Koriabo phases reappear in the frontier region between Suriname and Brazil. Boomert (1981) described Tarumã and Koriabo artefacts in some sites of the Coeroeni area with dates of AD 1183. Analyses of the relationship between vessel shape and decoration techniques reveal a different combination than that proposed by Evans and

Meggers for the Guianas. Boomert concluded that, "regional variation apparently accounts for the uneven distribution of the decorative types" (Boomert 1981:131).

As we observed, Guianan ceramics are not limited to the Guianese countries. In 1961, Protásio Frikel compared the pottery of the Erepecuru River to the Rupununi and Tarumã phases in Guiana. In the lower course of the Negro River, Mário Simões (1974) collected pottery with Tarumã characteristics that he classified as Umari phase, associated again with Guarita material in small quantities.

Boomert (1981) suggested this verified the hypothesis that the origin of the Tarumã pottery goes back to the lower Negro River region. However, he considered that although the forms and decorations are Tarumã "a characteristic Taruma phase decorative technique such Onoro Stamped is absent in the Umari phase" (Boomert 1981:146). When we observe the descriptions of these phases, a typical decoration resource of a phase is always missing, but in another region, it is present. It seems reasonable to suppose that the phases proposed in Guyana and verified in Suriname and Brazil are not a standardized, rigid or fixed assemblage. Associations between ceramic of different phases, including the Koriabo, were described for most sites. To what extent could they be external elements obtained through exchanges, or local production? In any case, the broad distribution of these assemblages across territories is evident and suggests fluidity rather than fixed types since in each region they appear different. Based on this fluid panorama, the pottery assemblages of the Mapuera sites may be better understood.

Mapuera pottery shares technical and stylistic characteristics. In all the sites, the predominance of mineral paste is evident, followed by *caraipé* and the absence of *caraipé*. Pieces are characterized by simple, fine forms with limited mouth diameters in addition to "griddles" with an average thickness of 20 mm. Plastic decoration prevails in detriment to painting, and is mostly engobe. However, decoration types and the frequency with which they appear vary from site to site and each has its specificities within a common structure. The sites of lower Mapuera share technological and stylistic characteristics of Konduri, "fishbone" and Tarumã, approaching both lower Trombetas and the Guiana region. However, the influence of the lower Trombetas pottery only reaches Takara Velho in our site sampling. It is absent in the middle course of the Mapuera and Poropu, which are farther from the lower course.

In the midst of this framework of flows, the Poropu site actually shows proximity with the Guianan pottery, at the same time that it remains apart from the "Konduri ceramics of the lower Amazonas – at least in regards to its decoration. In a way, the geographic factor could explain this phenomenon, given the greater proximity of Poropu to the Essequibo River. However, this does not seem enough to explain the dispersion of these ceramic assemblages. The sites to the south of the Mapuera also have recurrent fragments typical of the Guiana phases; however, these are associated with the Konduri "fishbone" styles. Nonetheless, this association is not unprecedented for the lower Amazonas. In Monte Alegre, Cristiana Barreto and Hannah Nascimento (2016) excavated Koriabo, Konduri, Santarém and "fishbone" ceramics. According to the authors (2016), the pottery could be a local expression of a "stylistic hybridism". Therefore, the sites studied up to the present now seem to form a broader network, which is not limited to the Mapuera River, but contains all the Carib territory, resulting from long term dynamics.

Landscapes and pottery: Historic and cosmologic relationship networks in the Trombetas Basin

Guianan ethnology has generated great discussions on the social organization of Guianese societies, which could be useful for the analysis of past social dynamics in the archeological record. Peter Rivière (1984) defined native Guianese groups as marked by a strong tendency towards autonomy of the local group, ideally endogamous and closed. Niels Focks stated that the village was the only sociological unit possible in the region (Fock 1963: 215). This withdrawn character led to a view of atomized societies with "fear of the foreign" (Overing 1983). Such invariable characteristics would aggregate each autonomous group into a common social structure.

However, Grupioni (2005) highlights that the image of Guianese "atomism" would result from a synchronic analysis in a specific historical perspective. Based on ethno-historic and ethnographic research, the group coordinated by Dominique Gallois (2005) sustains that "openness" and "closed", "dispersion" and "isolation", "exogamy" and "endogamy", "descendent" and "alliance" are not exclusive. They are opposite to one another in a complementary way. The model of an atomized society prevailed before a synchronic reading of social life. Nonetheless, from a diachronic analysis, it "is the exogamic alliances that constitute local groups and the continuity of exchanges that generate local endogamy" (Grupioni 2005:44; our translation). Therefore, according to D. Gallois, it is possible to reveal essential structural aspects of alliances, wars, and exchange networks that allow us to understand - without resorting to the argument of the colonial impact - "the logic of the permanent transformation of relationships between small units, supposedly autonomous, and multi-community groups, in a continuous process, from historical times until today" (Gallois 2005:16-17; our translation). Considering research conducted in the Mapuera River, one may ask how these relationships could function in the long term, through landscape and material culture.

In their stories, the Mapuera people talk about the landscape of the river and they speak a lot about their relationship to specific places, particularly waterfalls and interfluves. Caixeta de Queiroz (2015)'s article discusses the signs that indicate that the interfluvial region of the Trombetas, an area of dense forest and difficult access, was once occupied, serving as a connection path between distant regions, like Pará, Roraima, Amazonas and even the countries of the Guiana Shield. Today, the waterfalls are considered dangerous places, avoided when possible. In the past, these obstacles were overcome by such interfluves. Historically, the Trombetas interfluves were used as shelter in periods of combat, with either the karaiwa (from maroons) or the pananakari (whites, North Americans).

In Protásio Frikel's work (1970), one finds narratives collected among the Katxuyana of the former Oriximiná, Óbidos and Santarém villages. These were the former villages of their ancestors, the Warikyana, who had arrived at Trombetas fleeing from the whites. Frikel's historic narrative finds endorsement in the memories of the Katxuyana and Kahyana (Girardi 2011, 2012, 2015), the Tikyana (Alcantara and Silva 2015) and the Waiwai (Xamen Waiwai, personal communication). Chronologically speaking, this would have happened before the arrival of the first Portuguese, in the XVI century and progressively

until the XIX century, when the city of Oriximiná was founded. Therefore, these migrations may have lasted for a long period. Evidently, the social and political organization of these groups were affected by conflicts and population declines due to illnesses. However, the traditions of peoples and their settlements live on throughout the Amazonas River and the lower Trombetas in the memory of the people. Before the A groups from the Amazonas took shelter in the Trombetas region, it is likely that there was a dynamic process with social and political rearrangements, also present in narratives.

We are not proposing a strict and direct relation between narratives of the Trombetas peoples, archeology of the Trombetas and Tapajós regions, and current discourses. Nonetheless, these memories and what we know about archeology in the Trombetas and Tapajós region reflects deep genealogic domination (Rivière 1984). This genealogy, however, does not take place in a classic sense, from generation to generation. It is some sort of non-chronological genealogy, where it is possible for the narrator of the present to be in the past. The main point is the relation of these narrated places with archeological sites. One may say that in the Mapuera River, there is generally a direct relationship between the places present in native stories and archeological sites (Jácome, 2017).

Thus, we see a close relationship between landscape and memory. Where this memory is both chronological, meaning it remembers places where the ancestors lived, and mythic (or historic in a different sense, depending on the understanding of history and myth). Therefore, what is archeological for us, the marks of the past, also has this meaning for the groups of the Mapuera and Cachorro Rivers, yet with different interpretations.

Nonetheless, one of the most important questions that pervades Guianese ethnology is the process of "mixture" and "differentiation" of different groups. The great villages emerged in the historic context of action by Missionaries (Protestants and Catholics), which led to the mixing of different groups, which ended up being denominated generally as: the Waiwai, Tiriyó, etc. However, within these "mixtures", differences remain, whether through marriage costumes or material culture, leading to processes of separation or division. According to Caixeta de Queiros (2015:131), these groups maintain dual and synchronic processes. They continue to mix while maintaining their difference as people (Yana), as has occurred throughout their history and is maintained in the "mythic" or "historic" memory of their people: they both mix and differentiate. This process does not seem to have a clear beginning or end. This may be because it began a long ago time ago with the "fusionfission" of the "groups" or because "interethnic" marriages have continued; finally, it also continues today through travels and homes each time more similar to those in the world of the whites and urban areas. In any case, the "peoples" (Yana) seem never to stop mixing. For many, this may be the end of a people or even the world; yet, for others, it is the dynamic imposed upon by life in the course of history and mythology.

We believe dialogues between current and past landscapes (stories and/or archeological) is also expressed in the material culture and in the archeological pottery of the Trombetas region. It seems reasonable to suppose that archeological ceramics express, from their differences, a sharing of technical and stylistic references. When Rivière (1984) proposed a common social structure for the region, he emphasized that specific groups are distinguished by cultural elements, for example, language variation, rites and material

culture. The cultural elements would be the traits of sociability more easily changed, abandoned or substituted, because "the promptness in abandoning cultural phenomenon suggests that the limits between groups are fluid, since what distinguishes them is as transitory as the cultural elements that mark their distinction" (Rivière 1984:29; our translation). Even according to Rivière, this led to a continuous flow of "new" emerging groups, verified by the stories of the region, filled with group names that appear and disappear, whether by incorporations or separations.

This image transmits a dynamic of "ethnic" "mixture", where material culture also contributes. The "mixture", however, does not emerge from the "gluing" together of parts of well-defined groups (a substantial matrix), but as the very social condition of these groups. By emphasizing the intergroup relations that lead to "fusion" or "fission", "we abandon the "substantialist" perspective held in the notion of an ethnic group or tribe and we focus on the complexities of rites, commercial relationships, marriage that binds together the organization of these groups" (Caixeta de Queiroz 2008:205). Niels Fock (1963) already stated the difficulty of identifying the frontiers of specific groups. The Waiwai case must be noted as a mixed origin from "original" Waiwai, Parukoto, Tarumã, and Mawayana groups (Caixeta de Queiroz 2008). Catherine Howard (2002:30; our translation), on the other hand, argues, "Social identity is, in this case, more conceptual and contextual than concrete and fixed". In this sense, it is reasonable to suppose, as Caixeta de Queiroz (2008:208) suggests that "in this ethnographic context, we must not seek an ethnic origin in pure state, but trace a map containing the flow of the linguistic and cultural frontiers".

If we abandon a synchronic approach, specific to anthropology, and we elaborate on the temporal depth, we may see that the Mapuera pottery reflects a less concrete and fixed character characteristic of an archeological phase. It has a more fluid character, formed from an open social dynamic and a broad relationship network, including a vast territory historically occupied by Carib populations. It is reasonable to suppose that within the specificities of each site, the confluence between pottery styles prevail, which may always result in a local expression from a common structure. In this case, we suggest that the phases proposed for the Guianas serve more to track these flows rather than upholding an essentialist ethnic occupation, as if it actually corresponded to Tarumã, Koriabo, Waiwai or Rupununi groups comprehended as some type of purity.

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Koriabo Complex from the Maicuru River in the Basa Museum

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The BASA Museum (Bonn Collection of the Americas) of the University of Bonn was founded by Hermann Trimborn in 1948 as archaeological-ethnographic teaching and studying collection of the then Seminar for Anthropology, now Department for the Anthropology of the Americas. The BASA Museum has one of the largest ethnological collections of indigenous populations from the northeast Amazon in Europe (Noack 2017), which is Manfred Rauschert's collection. The vast majority of the pieces were accumulated by Manfred Rauschert in the 1950s. Since the year 2000, this collection has been studied by the academics and students of the University of Bonn, and most recently within the research project Men-Thing-Entanglements (Cipolletti and Schreiner 2000; Hoffmann and Noack 2017; Hoffmann forthcoming), but the belonging archaeological objects have been ignored and not even inventoried until very recently. Although there is a rudimentary list of the objects created in 2007, it was only in January 2019 that they have been catalogued and systematically investigated in the framework of a practical University seminar.

Collections in European museums are still an important starting point for new investigations. Ethnographic objects, for example, were mostly collected selectively and provide some documentation about their context of origin. The circumstances of acquisition are often transparent or can be reconstructed, and in many cases, there is visual and/or audiovisual documentation of the context of the objects. Depending on the interest and professionalism of the collector, there are writings and publications on the collections, allowing a study of the objects' origins in a neat and successful way. Archaeological collections present a more daunting picture. Many of the archaeological materials have no provenance, stem from casual finds or were given to collectors, without them having been present at the moment of discovery. In this way, the objects lack specific documentation of the site and its archaeological context, thus losing almost all of their essence.

The collection of archaeological fragments corresponding to the Koriabo style were collected by Manfred Rauschert on his trip on the Maicuru River, in the northeast of the Brazilian Amazon in the years 1955 and 1956. His field diaries, drawings, photographs, descriptions, maps and unpublished manuscripts at the BASA Museum

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allow us to make a detailed provenance study and enable us to present a small part of Manfred Rauschert's archaeological legacy. The Koriabo style ceramic fragments in the Rauschert collection are the only ones with basic information, which at least permits us to conclude that these sherds were superficial findings associated with *terra preta* deposits at the Maicuru River. In addition, Rauschert's field diaries and annotations allow us to access the perceptions the Apalai and Wayana populations had regarding the archaeological objects in question. The importance of publishing an analysis of this material lies in the fact that no systematic archaeological research on the Maicuru River has been carried out yet and the study of this collection will fill a gap in the distribution of the Koriabo style. It give us the chance to learn about the technological, morphological and decorative characteristics of this material. Since this collection is held by the University of Bonn, it was possible to perform X-ray fluorescence analysis with some samples of pottery. The results facilitate a regional comparison and opens the discussion about the variability of production and dispersion of this emblematic ceramic style.

The Manfred Rauschert's archaeological legacy

Manfred Rauschert (1928-2006) was a German collector who travelled for more than three decades to the Amazon in order to stay among the Apalai and Wayana groups in Brazil. His first expedition in 1954-1955 was by order of the ethnologist Herman Trimbornn, the founder of the BASA Museum. Trimborn managed to arrange financial means for Rauschert to collect indigenous materialities. It was decided that he would explore the regions and groups in the streams of the Nhamundá and Erepecuru rivers, because the Maicuru River (Rauschert's initial idea) had numerous waterfalls, making the transport of objects unfeasible.

It was only in 1955-1956 when Rauschert navigated the Maicuru and collected the Koriabo ceramics which the BASA Museum holds. Besides these fragments, he also discovered many rock paintings, although they are not well documented, nor drawn or photographed. He undertook one last big river expedition along the Paru, Maicuru and the upper Jari rivers between 1958-1960, before he settled among the Apalai and Wayana on the upper Paru de Oeste River in 1962. The focus of this chapter is on Rauschert's first Maicuru expedition.

Although he followed the contemporary research and visited ethnology classes in Germany, Rauschert was not an ethnologist nor an archaeologist in academic terms. Karoline Noack described him as an "ethnological entrepreneur" (2017: 141-142), which means he practiced anthropology outside the institutional boundaries and consequently, as an unorthodox undertaking. This is important, because it has an impact on his whole work, the collection of Koriabo ceramics included. Being in part an ethnologist, an archaeologist, a linguist, and a collector at times, Rauschert integrates various disciplines in his descriptions, i.e. historical ethnography, cosmology, material culture, economy, etc., resuming all about the Apalai and Wayana.

Archaeology was not Rauschert's priority, so in so in none of his books he would dedicate more than one chapter than two chapters for the description of his archaeological experiences among the indigenous peoples. The present article only focusses on the excerpts that are relevant for Koriabo studies and related to Rauschert's expedition in the Maicuru area. In his book *Ethnological, cultural and development studies in the Tumucumaque area* 1968-70,² published in 1973, Rauschert describes the following types of ceramics in the Amazon:

At the Paru River, there are three clearly recognizable prehistoric cultural areas. Between the Amazon and the equator is the area of ornamented ceramics and rock engravings. To the north, there is an area with land finds that the Aparai-Wayana refer to as ancient works of their people. Further north of this is the area of a primitive, often sand-containing pottery.

The situation is similar at the neighbouring Maicuru River. Ornamented ceramics can be found in the area of the river estuary. Special features include the magnificent rock paintings of the Serra da Lua and the Serra do Sol as well as the Serra do Paituna. At the middle part of the Maicuru River, there are some rock engravings, partly in very good condition. However, they differ very much in style from those of the lower Paru River. At the Affenberg (E92), in 1955, I discovered a few small paintings, a serpent line, a bird representation, and some unidentifiable motifs.

In the sites at the upper Maicuru River, there are mixed ornamented ceramics of an ancient culture and Aparai-Wayana ceramics from more recent times. Each of the places was inhabited several times. Farming and settlements has always mixed and disorganized the remnants of ancient times.

There are still no records of the old settlements in the area between the Maicuru and Paru. My attempts to carry out trial excavations there failed twice: Forest people appeared. (Rauschert 1973: 275-76, translation by author)

Three different types or "zones" of ceramics are defined here. In the lower Maicuru, Rauschert observed ornamented ceramics, while in the middle part of the river, he found archaeological sites where ceramics appeared associated to rock paintings. Along the upper Maicuru and Paru, he found ceramics that the Apalai and Wayana recognize as belonging to their ancestors, and these fragments have sand in its composition and are mixed with more recent ceramics. Rauschert defines this last ceramic as "primitive". In the same book he also provides maps in indigenous languages. These maps were spoken to him: the informants told him where some important spatial locations were. Unfortunately, Rauschert did not indicate any archaeological sites in these spoken maps, only the indigenous communities. However, archaeological sites in the Amazon are usually associated with settlements and the occurence of terra preta do índio, which contributes to agrobiodiversity conservation in second growth forests and active homegardens (Junqueira et al. 2010; Lins 2015). This can also be clearly understood in the following passage found in his book Die Indianer am Maicuru (Rauschert 1963), where he describes his stay among the Apalai from the Maicuru River and dedicates two chapters to archaeology. Rauschert reports:

² Original title: Völkerkundliche, landeskundliche und entwicklungskundliche Untersuchungen im Tumucumaque-Gebiet 1968-70.

My Aparai friends knew a lot of black earth fields along the Maicuru. They had occasionally found clay sherds and stone tools in the ground while setting up plantations. When I asked, they explained that there must have once been villages of some people there. Nobody had thought about it much before. This was also true of the rock paintings. They knew a number of them, but had never paid much attention to them. Only through my presence did all these things become relevant, and people asked the old people about them (Rauschert 1963: 236, translation by author).

Further down in the text he describes another archaeological site:

Near the village Jorge, on a walking expedition searching for the forest Indians [non-contacted Indians], we happened to find a cultural layer. The soil there was slightly blackened down to a depth of about 50 cm. Below it, there was white sand. There were numerous clay sherds, which corresponded exactly to the current Aparai pottery. (Rauschert 1963: 240, translation by author)

The comparison to the present Apalai and Wayana pottery is very often mentioned in his writings, as in the following passage:

Almost everywhere we dug, we came across fragments of large baking plates that almost exactly correspond to those currently being used by the Aparai. They have an average thickness of 15 mm and differ from the modern ones only by the more or less carefully dented rims. Numerous were also the sherds of larger slanted neck pots, which were noticeably smoothed inside with more care than on the outside. The wall thickness was on average 10 mm. In each case the rim was dented in the same way as in the described baking plates (Rauschert 1963: 242, translation by author).

The Zeitschrift für Ethnologie published in 1957 a short article written by Rauschert and ordered by Trimborn, entitled "First Report on my Maicurú Expedition 1955/56"³. This article is important, because it is the first report to take into account the identification of indigenous (Apalai) people to the archaeological ceramics. Besides, it also informs about appliqués in such ceramics.

In addition, I undertook some excursions to black earth fields known to the Aparai. I only found culture layers of shallow depth. The found pottery showed in parts striking resemblance to the current Aparai pottery. To my great astonishment, the two oldest women assured me with certainty that these things had been made by their people. Also fragments with 'Cabezinhas' (= little heads) and other applied or excised patterns were presented to me as Aparai work. (Rauschert 1957: 258, translation by author).

Probably one of the most important insights of Rauschert's works are found in the unpublished manuscript "The Aparai-Wajana. Ethnic and Cultural Development of an Indian People of South America" written in 1991.⁴ In this general work about the Apalai and Wayana, Rauschert reunites the results, experiences, and observations from the past 40 years of field research among these indigenous groups. After mentioning a specific kind of pot he found in the Maicuru area during the 1955-56 expedition in *Die Indianer am Maicurú* (1963), decades later, he would describe this specificity as typical of the Maicuru

³ Original title: "Erster Bericht über meine Maicurú-Reise 1955/56".

⁴ Original title: "Die Aparai-Wajana.Völkische und Kulturelle Entwicklung eines Indianervolks Südamerikas".

area: "Often we found fragments of small, unornamented pots with an inverted conical neck and folded horizontal rim. Possibly this is a special feature of the Maicuru area. I have never seen vessels of this type or their remains on any other river." (Rauschert 1991: 433, translation by author).

It is also in this manuscript that Rauschert explains what he understands under the already mentioned "cabezinhas", some anthropomorphic and zoomorphic fragments:

Several sherds that we found, had put on 'heads' that were more or less skilfully decorated with faces. The smallest one has a diameter of twenty-three millimetres, the largest one being one of twenty-seven millimetres. One of my Indian companions knew that such 'Kabesinjas' = Portuguese 'cabezinhas' = little heads, as they are called by the rubber tappers, are also found in the deforestation zone of the Kaboklos on the Amazon, there even more often than in the land of the Aparai. (Rauschert 1991: 433, translation by author).

The common ceramic typologies known in archaeology of the Amazon did not exist until the early 1960s, so it makes sense to affirm that in his first publications, Rauschert had not yet been aware of them. However, he managed to describe some characteristics, such as the appliqués mentioned above, without knowing their nomenclature. In the following sentences, he describes the Incised-Punctuated tradition: "Unfortunately, applied relief patterns were only found on a few sherds. They were indistinguishable from those from the area of Monte Alegre. The free areas between the applied decorations were sometimes filled with impressed or carved lines" (Rauschert 1991: 434). Although this statement is from 1991, it seems as if he were not familiar with the archaeological typology yet.

The mentions of the ceramic from Monte Alegre at the lower Amazon are very frequent in Rauschert's works. In his comparison he distinguishes two kinds of ceramics: the sandy and simple-patterned ones and the ornamented ones. Those from Monte Alegre would be the ornamented ceramics. "In addition to these utility ceramics, various fragments of beautifully ornamented vessels were found, some of which were reminiscent of similar pieces from the Monte Alegre area" (Rauschert 1963: 243, translation by author).

However, the comparison to the Monte Alegre archaeological legacy was not only about ceramic fragments. Rauschert found many rock paintings in the Maicuru area, and one attracted his attention in particular: "In the rapids of Manuel Raimundo we also found some rock paintings, among them beautifully preserved 'suns' similar to those in the mountains of Monte Alegre" (Rauschert 1963: 239, translation by author).

In the middle part of Maicuru river we were able to identify two rock paintings through the IPHAN database (Figure 1). According to the document, they are located in protected areas; the northern one in Flota Paru and the southern in Flona de Mulata. Both were identified by the ICMBio in 2012. As there wasn't any description nor photographs of these sites, it is not possible to ascertain if they are the same described by Rauschert.

An important fragment that Rauschert found near the Apalai village is what his indigenous colleagues call "Mukuschi". He drew this fragment and brought it to Bonn (Figure 4e), describing it in the following way:

In addition to the described utility ceramics or – to put it more cautiously – simpler pottery, we found many sherds of beautifully ornamented vessels, some of which being reminiscent of corresponding pieces from the area Monte Alegre - Erere - Paitunare. One of the most interesting pieces is the already mentioned handle of a small pot. Old people, to whom I showed the piece, said that it surely came from a sorcerer's pot 'Mukuschi'. The diameter ought to have been about eight centimetres. Its wall thickness was six millimetres. The handle represents a 'small man' with a clearly set-off head and slightly raised arms and legs. (Rauschert 1991: 433, translation by author)

The last fragments of his manuscript mention Boa Sorte and its archaeological area (Figure 1). It matters to us because half of the Koriabo ceramics that are present at the BASA Museum stem from the area of Boa Sorte. This area encompasses a rapid, a river and a village, and he found ceramics and rock paintings there: "In the rapids Pänäppi (Caboclo name: Cachoeira Boa Sorte) we discovered by coincidence an easily reconstructable face on the vertical right front side of a large upright rock. On a block immediately next to it were unrecognisable figures" (Rauschert 1963: 238).

Decades later, Rauschert continues to describe the discoveries of Boa Sorte:

At the embouchure of the Boa Sorte stream into the Maicuru River I examined a find spot, which stood out by the richness of ornamented pottery – again mixed with lying sherds of younger date. Unfortunately, it was impossible to carry out excavations because of the appearance of millions of fire ants. I had to confine myself to taking samples from a few holes dug in a hurry, in order to hastily make off with my booty into the distance again.

That at least one clay figure was found in Boa Sorte at the last settlement, I learned a few years later from former residents, who had since moved to the Paru River. (Rauschert 1991: 431, translation by author)

Rauschert's legacy of ethnographic and archaeological research is full of ambiguities. Although he has skilfully described some fragments, he did not work with typologies that archaeologists were using at the time he was writing his books (with the exception of the first article, written in 1957). Although he mentions the names of villages or rivers near archaeological sites, we could not identify them in any map or ethnographical monography. For our research that means a possibility to identify important ceramic traditions and a general area where these fragments might have been found in, but unfortunately it was not possible to identify these sites.

Another problem is the lack of information about the ceramics we have at the BASA Museum. Only two boxes contained geographical information: one entitled "Boa Sorte", and the other one "the findings from the Maicuru area", and, unfortunately, the collection is incomplete. There had been more boxes, registered in 2007, before the cataloguing of his archaeological collection. Years ago, in 2012, his daughter claimed these objects back for her family.

Besides Koriabo, Rauschert brought Konduri and Santarém ceramics to Germany. He mentions the Konduri in an article published in the *Zeitschrift für Ethnologie*, and as mentioned above, those fragments and other materialities were on ordered by Trimborn. The Santarém ceramics, however, have never been mentioned under this nomenclature. From all his archaeological reports, we know that he only conducted excavations or



Figure. 1 Location map showing the archaeological area of Boa Sorte, the Iphan sites and Rauschert's Journey 1955-1056, 1958-1959 (Made by Tagliati Souza).

archaeological expeditions (outside French Guiana) in the areas where he found Konduri fragments (Trombetas and Nhamundá) or the region between the Maicuru and Jari rivers. For lack of proper documentation, it is not possible to know if the Santarém ceramics were found at the same site as the Koriabo.

Koriabo Complex in Maicuru

Out of the 251 archaeological fragments of the Rauschert collection existing at the BASA Museum, 56 diagnostic fragments correspond to the Koriabo complex and origin in sites associated with *terra preta* in the area of Boa Sorte, on the Maicuru River. It seems that his collection of material was quite selective and that he prioritized rims and decorated bodies. Since the sample is not representative enough, we will concentrate on describing the most relevant attributes of this set of ceramics, without mentioning the number or percentage that exists in the sample.

Figure 2 shows a diversity of models of anthropomorphic faces. All of them have eyes, eyebrows, nose and mouth. Some of them (Figure 2 a-d) are distinguished because the eyes were marked by deep round incisions possibly made with a hollow reed, the central part of which allows the iris of the eyes to stand out. A thin modelled and applied band demarcates the eyebrows and nose. In the case of the hollowed concave modelled faces, the thin band also marks the lateral extremities of the face, as if it were part of the headdress. The face in Figure 2b has a mole-like mark on the side of the nose. The face of Figure 2f differs by having a kind of fringe or tuft on the forehead. Figure 2e has a very different shape; it seems to function as a handle, the face has the band on the sides applied of a possible headdress.

In the collection there is a very low representation of open vessels. Bowls and plates with everted bevelled rims can be seen in Figures 3a-b, one of them has thin bands applied on the inner rim in the manner of upper extremities that end in representations of hands, associated with the horizontal representation of a face with incisions and appliqués that form the eyes, nose and mouth. Representations of crossed hands can also be seen in the fragment of Figure 3d, which seems to correspond to a body of a closed vessel.

In the collection, we could also identify necks of vessels that possibly had anthropomorphic decoration (Figure 3f), pedestal bases of open vessels, with incised decoration of spirals (Figure 3e) and bases of strainers.

The globular vessels have a closed and straight neck, with direct round rims (Figure 4 c, e) and thickened rims towards the outside (Figure 4 a, b, d). In some cases, they are provided with vertical handles coming from the rim of the vessel, which may be cylindrical (Figure 4c), made by means of two impellers, or a flat handle decorated by anthropomorphic modelling. (Figure 4e).

The neckless globular vessels have thickened rims with incised lips (Figure 4 g-h). In this form of vessel, the decoration of dotted lines interspersed or divided by vertically and horizontally incised lines stands out (Figure 4h, j, 5 a-b). The most common decorative



Figure. 2 Koriabo ceramics from the Maicuru River. Diversity of anthropomorphic faces. BASA-Museum Collection (photos: Tagliati Souza; drawing: Rauschert).

motif in the entire collection consists of incised spirals (Figure 5e-f), which combines with small applications form a face composed of eyes and nose (Figure 5g). In other cases, the spirals end in applications of small schematic faces (Figure 3g, 4c).

The Koriabo collection of the Maicuru river is homogeneous in terms of its production. This reinforces the idea of ceramic production as a local activity. Almost all ceramics correspond to paste 1 (21 fragments) and 2 (25 fragments), which are quite similar in their mineral inventory (see Table 1). Both contain predominantly quartz and similar amounts of feldspars, albite, and plagioclase. The difference is based on the fact that paste 1 additionally contains kaolinite. Paste 3 is much less frequent and contains pyroxene





Figure. 4 Koriabo ceramics from the Maicuru River. Globular vessels. BASA-Museum Collection (photos: Tagliati Souza; drawing: Rauschert & Jaimes Betancourt).



Figure. 5 Koriabo ceramics from the Maicuru River. BASA-Museum Collection (photos: Tagliati Souza; drawing: Jaimes Betancourt).

(actinolite) instead of kaolinite (Figure 6). Only 5 fragments correspond to this group. Although all of them have Koriabo characteristics, we could consider that they were elaborated with material from another source (Figure 3b, e, g). Paste 5 shows similar mineral composition to paste 2 but with marked differences in the amount of quartz and plagioclase. Only one example that corresponds to this group is the fragment of rims of a globular vessel (Figure 4f). All the ceramics were burned at low temperatures.

A flat body fragment, which could be from a lid, has a zoomorphic decoration modelled and applied. This fragment was the only one to present a different paste with a large number of different minerals compared to other pastes in the collection (Figure 3c). As we can see in table 1 and Figure 6, paste 4 contains completely different minerals to those identified in most Koriabo pottery from the Maicuru river, so we could consider that this fragment was imported from another region. Table 1. Mineral phase inventory of paste 1 to 5 (Made by Euler).

Sample No.	Quartz Iow SiO2	K-feldspars KAISi ₃ 0 ⁸	Albite NaAlSi ₃ 0®	Plagiclase (Na, Ca) (Al, Si4) O ^s	Pyroxene	Amphibole	Muscovite dehydroxy KAI3Si3O11	Phyllosilicate	Kaolinite Al4[(OH) ₈ I Si4O10]	Amorphous Phase Wght. %	Total Wght. %
Alfar_1	49	13	10	11			2		5	10	100,0
Alfar_2	52	12	11	9			7			9	100,0
Alfar_3	29	9	9	27		11	2			14	100,0
Alfar_4	10			28	16	8	10	9	5	14	100,0
Alfar_5	22	18	12	22			5			20	100,0

Results of X-ray phase analysis of Alfar 1 to 5





Figure. 6 X-ray powder diffraction pattern from paste 1 to 5. (Made by Euler).

In the collection, rhomboidal whorls were documented, indicating the production of cotton thread and circular pots, of small diameter and possibly functioning as lids.

None of the fragments had slips. The surfaces are eroded and in very few cases were detected remnant of slip or black or red paint. The only evident decoration is through incisions, modelling and appliqué.

Discussion

The ceramics of the Maicuru River show a series of stylistic traces characteristic of Koriabo ceramics found in Surinam (Evans and Meggers 1960), French Guiana (Van del Bel 2010, Rostain 2016), Amapa (Cabral 2011; Saldanha 2016), Monte Alegre and Almerim (Barreto 2016) and the lower Xingu (Lima 2016; Fernandes 2018), of which the chronology is still being discussed. Koriabo ceramics are directly associated with Carib groups and correspond to a late precolonial period. In Guyana between 750 AD and 1100 AD (Rostain 2016: 68) or more specifically 900 - 1300 AD, which is interpreted as one continuous occupation of approximately 400 years in this territory (Van del Bel 2010: 87). In some places like French Guyana, authors like Rostain (2016) and Boomert (2004) extend this chronology until colonial times (1500 - 1700 d. C.).

Authors such as Rostain (2016: 68) emphasize the existence of a stylistic unity in the shapes of the ceramic decors across the whole of Guyana, from the Oyapock to the Orinoco and from central Guyana to the coast, suggest that Koriabo ceramics throughout this immense region are very distinctive both in their shape and in their decorations. The temper changes much from one region to another: more or less fine sand, crushed quartz, mica, ground shell, cariape (burnt and ground tree bark), etc. Van del Bel (2010) supposes that there exists an obvious difference between the modes of decoration and the morphology of the vessels between cooking and storage ceramics, serving and food preparation ceramics, and decorative and ceremonial vessels. The last ones, have played an important ceremonial role in specific (inter)social group activities.

Koriabo ceramics are widely distributed in the northeastern Amazon and have specific decorative and morphological components that allow for easy characterization. However, not all decorative or morphological attributes are observed in the collection of the Maicuru River, for example the poly-lobed rind (the "flower pot") is absent.

The jaguar and/ or ocelot motifs, as well as the faces modelled in the internal decoration on the straight rims of open vessels appearing in the Koriabo style of Suriname (Rostain 2016: 69) do not appear in the Maicuru collection, although they are presented in other parts of the Rauschert collection, for which we do not have any specific source information and which could stem from the Paru River.

The collection from the Maicuru River shares some attributes to the ceramics from Amapá, like the small appliqués inserted to some complex (modelled-applied), figurative or symbolic decorations (Saldanha 2016: 95), and incised spirals with small circular appliqués from the site of Laranjal do Jari, Amapá (Cabral 2010: 96, Figure 4). Pottery
with similar characteristics were found in the confluence of the Xingu and Amazonas rivers (Lima 2016) and at the Carrazedo archaeological site on the right bank of the Xingu River (Fernandes et al. 2018: 414-415). In all these collections, the presence of external reinforced rims, incised lips and the association of fine incisions and circular appliqués stand out.

Modelled faces of the collection at the Museo Paraense Emilio Goeldi in Belém, Brazil, coming from Monte Alegre (Barreto 2016: 268) are very similar to those of the analyzed collection of the Maicuru River (Figure 2). Vessels with thickened neck and rim and cut lip (Figure 4), with previously mentioned decoration patterns were also found in the Coroatá site (Barreto and Nascimento 2016: 274).

The distribution of Koriabo-styled ceramics stretching from north-western Guyana to western Amapá, have been interpreted to have had an exchange function and represent an enormous social interaction sphere of nearly one million square kilometers (Van del Bel 2010: 89, Boomert, 2004: 266). Boomert (2004) proposes the presence of Koriabo ceramics in all of the countries in the Guyana Shield: Venezuela, Suriname, French Guyana, Brazil and Guyana itself. According to Fernandes (et al. 2018), the appearance of these ceramics in archaeological sites is related to the intellectual exchanges of the North-South flows, since they originate in Guyana, but also appear at the lower Xingu.

The presence of Koriabo pottery in the Maicuru River supports the hypothesis that the fluvial routes existing since pre-Hispanic times, which originate in the Guayanense plateau and flow into the Amazon River, acted as communication and exchange corridors (Lima et al. 2016: 26).

Unfortunately, the Maicuru collection presented here cannot contribute to the discussion of the associated archaeological context, especially burials in the Boa Sorte area, for which extensive archaeological excavations and research are required to corroborate the functional differences in which this Koriabo pottery appears.

It is generally assumed that the technological production of the Koriabo style is changing according to the region and availability of the raw material. The Koriabo collection of the Maicuru river is homogeneous in terms of its production and reinforces the idea of ceramic production as a local activity. That is to say, the shapes and decorations related to a more symbolic use of ceramics are adopted.

Koriabo ceramics have a predominance of sand as an antiplastic, which produces a shiny effect on some of these objects due to mica, a component normally present in sand. However, it is important to note that the composition of the paste used in the Koriabo complex varies from one region to the other, and it is possible to find pastes with caraipé and sand or coarse pastes with sand mixed with transparent quartz (Van den Bel 2015).

Rauschert noticed that the fragments from the upper Maicuru were sandy and without ornaments, while from the middle part to the lower Maicuru, they were ornamented and very similar to those from Monte Alegre. This indicates that the Koriabo ceramics adapted to social materiality of the environment, but also to local cultural traditions.

Koriabo ceramic in Maicuru were not known before, although they have already been mentioned at the neighbouring rivers. Rostain (2008) proposes that Koriabo has its origin in the region of the Guyana Shield, and from there to have expanded to other areas, using rivers such as the Oyapock, Sinnamary, Maroni, and Essequibo as cultural highways towards the sea. Following the same logic, rivers like the Paru, Jari and Maicuru would also work as cultural highways towards the Amazon River.

The multidisciplinary approach that Rauschert realized, allowed him many times to conciliate ethnography and archaeology. He made important contributions to the debate of a correlation between the dispersion Carib-speaking groups and ceramicist traditions. His Apalai and Wayana colleagues identified the zoomorphic and anthropomorphic fragments from the Maicuru as produced by their ancestors, while rejecting other archaeological findings as related to their people. In fact, the ethno-archaeological research by Duin (2014: 348) in the Upper Maroni Basin, shows that most of the contemporary Wayana villages (Aloïke, Elahe, Kumakahpan, and Pilima) are located on archaeological sites with decorated potsherds attributed to the Koriabo phase.

As Barreto and Lima (this volume) observe, there are many ethnographic studies among Carib-speaking peoples affirming how travel and displacement play an important social role in these societies. It helps archaeologists to understand the dynamics among these peoples and how it influences their materiality. Rauschert also mentions an old Apalai woman who spent the last twenty years of her life travelling from one village to another, visiting relatives. This ethnoarchaeological research clarifies how not only things, but also ideas, knowledge, and tendencies travel from one place to another, and in which level those travels are associated to relations and communication between different indigenous linguistic groups.

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Understanding the Dispersion of Ceramic Styles in the Lower Amazon: what is Koriabo?

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The Koriabo ceramic complex and communities of practice

Ceramics are part of both everyday life and ritual practices of Amazonian peoples, playing multiple roles, including the visual expression of identities, cosmologies, territorial identification and local and regional communication (see for instance Barreto 2009, Rostain 2009, Schaan 2007, Silva 2000).

This paper explores possibilities of defining communities of practice who share a particular ceramic style distributed across an immense geographic area (Figure 1). The so called Koriabo ceramics, even displaying some (yet poorly documented) techno-stylistic variability, has been identified in the Caribbean, the Guianas region, and more recently in the Lower Amazon. Here we present data from recently excavated sites with Koriabo ceramics located along the Lower Amazon, between Santarém (at the mouth of the Tapajós River) and Marajó (in the Amazon estuary).

Theories about communities of practice, as used in Cultural Anthropology, might be particularly enlightening for the study of Koriabo ceramics, since one of its core concepts is the idea of a "shared repertoire", when a community produces a set of communal resources in the pursuit of their joint enterprise that can include both literal and symbolic meanings (Wenger 1998).

Until very recently, Santarém and Marajoara ceramics, associated with two different Amazonian ceramic traditions (Incised Punctate and Polychrome traditions, respectively) were the main complexes known along the Lower Amazon. Since the 1980s, the complexity of both ceramic styles, together with settlement data, raised hypotheses about long lasting chiefdoms and the rise of social complexity in the Amazon, especially during the 500 years before European invasion. Although other ceramic complexes also appear in the estuarine area, such as the ones identified in Amapá (Brazilian Guiana), including Koriabo ceramics, they were thought to be an extension of archaeological history of the cultures which developed along the Guianas coast and plateau, and not so much a Lower Amazon style. Rostain (2016), for instance, considers Koriabo a true Guianese tradition which developed first in the interior uplands around AD 750 and expanded to the coast and the Antilles later on.

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Figure 1. Distribuition of Koriabo ceramics in the lower Amazon, showing location of Coroatá and Ibama sites. (Map by Bruno Moraes).

Koriabo ceramics display very distinctive diagnostic traits, with at least two typical vessel forms: bowls with everted, lobed rims, sometimes called "flower pots"; and globular pots with restricted necks and a four-section cambered body, sometimes called "toric" pots. But, the most characteristic traits are the decorative appliqués and appendages, with incised and punctate nubbins, small fillets, and geometric incised lines forming anthropomorphic or zoomorphic beings. Examples of these shapes and decorations are well illustrated in the articles in this book by Rostain and van den Bel for the Guianas, and by B. Barreto and Saldanha and Cabral for Amapá.

Discussions about the affiliations and interpretation of the Koriabo ceramics are complex and might reflect the fragility of such typological classifications in northeastern Amazonia, where the dynamics of stylistic flow and regional boundaries seem very fluid and are still poorly understood (Barreto 2016).

Koriabo was first defined by Evans and Meggers (1960) as a phase of the Polychrome Tradition in the Guianas. They describe two major plain pottery types with pastes tempered with sand and cariapé. Two other decorated types are very distinct from one another: "Koriabo incised" presents sharp V shaped incisions, sometimes combined with low apliqué ridges, nubbins and small faces, and "Koriabo scraped" presents wide, shallow incised grooves, also combined with nubbins, eyes, and small faces placed on the edge of wide everted rims, with the grooves in between (Evans and Meggers 1960: 144-145). No polychrome painting was mentionned for Koriabo ceramics at all, although white slip is described for some trade Koriabo sherds found within Mabaruma assemblages. In the sites described by Evans and Meggers, most Koriabo ceramics is found in association with sherds from another complex, in their case Mabaruma or Abary phases. This association of Koriabo with other ceramic complexes is also being confirmed by recent studies, as we can see for instance in Monte Alegre (Barreto et al. 2016), in the Trombetas area (Jacome and Glória this volume) and in Amapá (B. Barreto this volume). But we need to aknowledge that, in other areas of the lower Amazon (such as in Caxiuanã and Gurupá), Koriabo materials are the only cultural component at the sites. What also seems problematic in the Evans and Meggers description is the association with Mabaruma phase, seen today as a much older complex than Koriabo.

Considering its affinity with other phases of the Amazonian Polychrome Tradition in Amapá, Boomert (2004: 258) reinforced that Koriabo should be part of this tradition's dispersal throughout the lower Amazon. However, more recent studies have attributed Koriabo to the Incised-Punctate tradition (Saldanha et al 2016; Barreto et al 2016a), while Rostain has argued in favor of the unique aspect of the Koriabo ceramics, a legitimately "Guianense" complex, not directly affiliated to the Polychrome nor the Incised-Punctate traditions.

Questions about its dispersal and chronology have been debated in a rather diffusionist perspective, about directions and timing of its spread, and whether from the coast to the interior or vice-versa, and if it was a quick event with a horizon-like archaeological signature (Hilbert 1982; Boomert 2004; Rostain 1994; Versteeg 2003).

In 2011 Cabral has compiled a considerable chronological variation in the dates available for Koriabo, with the most consistent dates falling within the AD 800-1400 period (Cabral 2011). More recently, the recognition of a certain stylistic unity across such an extensive geographic area has given rise to hypotheses about Koriabo ceramics representing a regional trade ware (van den Bel 2015) and to questions about what this would represent in terms of its systemic context (Cabral 2011). Barreto (et al. 2016b) have pointed out the potential of ethnographic data gathered for Amapá and northern Pará Amerindian groups which display very extended and horizontal social networks, involving a series of practices which establish social and exchange ties between very distant communities, as documented in Gallois (2005).

Koriabo in the Lower Amazon: a tale of two sites

I am unable to explain a series of flat fragments with white coating and with traces of red painting. These fragments are provided with a rim divided into big lobes (Plate 126:J-N). Curt Nimuendaju (2004).

This quote was taken from Nimuendaju's report on the archaeological ceramics he found in the Monte Alegre region in 1924, briefly characterized by him as very similar to Santarém pottery and yet with "several apparent dissimilarities" (Nimuendaju 2004:141). Almost a century later, finding similar flat fragments with lobbed rims, the same puzzlement occurred to us while analyzing dug materials from Monte Alegre and Caxiuanã. At that time, at

Museu Goeldi, two beautiful bowls coming from a funerary site named *Jaburu do rio Paru* near Almeirim, at the Jari river mouth, were out being restored, and looking at them we soon realized from what type of pot the fragmented lobed rims came from (Figures 5b1 and 5b2). Further research led us to the typical Koriabo bowls with everted lobed rims, described in findings from the Guianas as reported by Versteeg (2003) in Suriname, Rostain (2008) and van den Bel (2010) in French Guiana, and Cabral (2011) in Amapá.

During these last years, the exchange of information provided by the two ceramic workshops held at Museu Goeldi (in 2014 and 2017) which gathered many ceramic specialists working in the lower Amazon (Barreto et al. 2016c), together with the advancement of research projects in Gurupá and Caxiuanã by Helena Lima and colaborators (Lima et al. 2016; Lima and Fernandes 2016), brought to our attention the presence of Koriabo ceramics in a much wider area than previously known. Soon, what was thought to be as a strictly Guianese phenomenon, rapidly turned into a widespread Koriabo presence, ranging in a North-South axis from Caribbean islands to the lower and mid Xingu, and in and West-East axis, from the Amazon mouth till the Trombetas River.

In this chapter we will focus on two sites with Koriabo ceramics which are quite distinct: the Coroatá site, on the northern shore of the Amazon, in the Monte Alegre municipality, northeast of Santarém, a site with Koriabo ceramics associated to a local complex; and the Ibama site, in the Caxiuanã National Forest, in the municipality of Melgaço, south of Marajó, a site composed by mounds with exclusively Koriabo ceramics (see Figure 1 for location).

The Coroatá site was found in the context of a recent research project developed in the Monte Alegre area in order to not only contextualize the already known sites in caves and rockshelters, (among which the famous 12,000 years old Caverna da Pedra Pintada), but also to understand the complete occupational sequence, up until the European conquest. This led to the identification of 29 open air sites, villages which flourished in great numbers as of AD 1200 and lasted up to the contact period. These villages display great quantities of ceramics in a fairly superficial matrix of dark anthropogenic earth, ADE, or *terra preta de índio* (Figure 2).

Given the proximity to Santarém, for this more recent period, we aimed at exploring the relationship between such villages and the well known Santarém chiefdom to the west, known to hve been in place as of AD 900. The great territorial extension of this chiefdom, with large and dense settlements around the mouth of the Tapajós River, has been known since Nimuendaju's survey in the 1920's, covering an area of 20,000 km2 (Nimuendaju 1949). The territorial limits of Santarém influence are still a matter of debate, but because of the wide distribution of ceramics with similar styles (basically showing the diagnostic traits of the Incise Punctate Tradition), some authors believe it could have spread eastwards, along the Amazon floodplains, to the mouth of the Xingu River (Palmatary 1960; Gomes e Luiz 2013). Such a dispersion of course, would include the Monte Alegre area.

However, the ceramics found in open air sites at Monte Alegre indicate that, despite the proximity to Santarém, the materials display local characteristics, a style named Pariçó (after the first descriptions of a ceramic site by Nimuendaju). It shares many common



Figura 2. Monte Alegre area and archaeological sites

elements with the Santarém ceramics, such as the neck vases, figurines, and plastic decoration with incisions and punctations. But most pieces show a much coarser paste and finishing than the fine Santarém pottery, indicating that the Santarém style was probably being copied or emulated by people using a different ceramic technology (Barreto et al. 2016a), (Figure 3).



Figure 3. Pariçó and Santarém ceramics. a) Pariçó style sherds. b) Santerem typical vessels. c) Santarém-like ceramics found in Monte Alegre sites. (Photos by C. Barreto, Museu Paraense Emílio Goeldi collection).

Also, in Monte Alegre sites, a few elements seem to have been selected from the Incise Punctate Tradition repertoire to be reproduced in profusion, such as the everted, flanged rims forming angles, or decorated with parallel incisions, finger or nail pressed, and small anthropomorphic appliqués.

Within this context the Coroatá site, at first glance, is similar to the many other open-air sites/villages found in the area. It is located on a slightly elevated area along the margins of a lake that extends inland from the Amazon várzea. It has a good layer of ADE (*terra preta*) within which the ceramics are denser, and has been dated between AD 1300 and 1550, corresponding to other villages in the area. Two aspects differ from the regular local village pattern:

a) it displays a number of sandstone blocks and boulders detached from the main rock formations where most sites, shelters and caves with painted petroglyphs have been found; one of these blocks shows complex painted motifs;

b) ceramics display a number of stylistic traits related to the Koriabo complex, although no technological differences on the composition of the paste with the local Pariçó has been observed (Figure 4).

These and other aspects led us to suggest possible ritual use of this site, especially because the Koriabo sherds seem to belong to the type of vessel, with lobbed rims, which has been associated with ritual contexts elsewhere, as for example the Almeirim bowls found near a human burial (Lopes 2005).

The fact that Koriabo ceramics are found along the northern tributaries of the Amazon, with its headwaters in the Guiana plateau, might indicate that stylistic flow is not necessarily restricted to the main river west-east axis, but that north-south interactions might have occurred between settlements along the Amazon floodplains and the Guianas. The presence of Koriabo ceramics in the Monte Alegre area made us realize that different processes of sharing of ceramic styles might have been in place, other than the influence of Santarém chiefdom to the west. Interaction with groups living on the Guianas plateau might have occurred through the sharing of some ceremonial practice, involving Koriabo ceramics, or some types of Koriabo vessels. It is possible that some ritual items such us the lobed rim bowls have undergone some local adaptation, as we can see in the three versions in Figure 5, with bolws from the Guianas, Almeirim and Santarém (Figure 5). It is interesting that Koriabo ceramics have noe been identified in a collection from the upper Maicuru River (see Betancourt and Tagliati this volume), as this river flows from the Guiana highlands into the Lago Grande and the Amazon River, right next to Monte Alegre.

This idea may evolve when looking at the second site and context we present here, where Koriabo ceramics have been identified in massive profusion on an apparently unicomponential site. The Ibama site is located in the Caxiuanã National Forest, a conservation area in the municipality of Melgaço, state of Pará. It is situated between two major tributaries of the Amazon River, the Xingu and the Tocantins. This area conceal a large bay, the *Baía de Caxiuanã*, a broad segment of the Anapu River around which many archaeological sites have been identified.



Figure 4. The Coroatá site and its ceramics. (Photos by Monte Alegre project).



Figure 5. a) Bowls from the Guyanas; b1-b2) Almeirim; c) Santarém. (Photos by S. Rostain, C. Barreto and Wagner Silva).

Archaeological surveys have thus far identified 33 sites in the research area, most of which are characterized by an anthropogenic soil matrix, ADEs. Several sites present concentrations of freshwater shells, known locally as ostras, uruás and caracóis, which were likely consumed by the former inhabitants of Caxiuanã. These bivalves are no longer commonly found in the area, possibly because of overharvesting in the past, or changes in climate and water composition in the last millennium (Kern et al. 2013).

The Ibama site is located at the entrance of a small stream in the Caxiuanã bay (Anapu River), in a low river terrace. It displays a series of smooth semicircular shaped mounds with flat terraces between them. The estimated area is about 200x80 meters (1.60 hectares) of anthropogenic dark earth with variable depths, reaching up to 1 m in mounds and 20-40 cm on the lower areas of the terraces. This area is currently occupied by the *Instituto Chico Mendes de Conservação da Biodiversidade (ICMBio)*, the Brazilian government environmental division, which supervises the Caxiuanã National Forest.

Excavations at this site in 2016 and in 2017 yielded a large amount of ceramics from two mounds of dark earth and shell matrixes (Figure 6). We interpreted these structures as intentionally built mounds with layered shells, ceramics, and *terras pretas*, all used as constructive materials. Radiocarbon dates at the site range from AD 1110 to 1440. These dates are fairly similar to the ones obtained for the Monte Alegre region.

The ceramics recovered at this site are well preserved, showing large and assembled fragments. One can see very distinctive characteristics of the Koriabo complex. They include open white slipped or painted flower shped vessels with lobbed cut rims, and numerous fragments with incisions, small fillets and nubbins, sometimes featuring zoomorphic figures, as well as flanged constricted vessels and zoomorphic and anthropomorphic appendages with eyes formed by concentric circles.

The appendages are in fact a very distinctive trait of these ceramics, displaying dual representations of humans and animals. Many of the faces when turned upside down display yet another face or body. This dual perspective is very common on the Konduri and Santarém ceramics, and could be seen now as a common or shared symbolic universe between these peoples, which seem to be contemporaneous and possibly part of a shared network or interaction sphere (Figure 7).

Koriabo ceramics in lower Amazon

Coroatá and Ibama sites are just part of the recent discoveries related to the Koriabo complex in the lower Amazon region. Current archaeological work in the Xingu river, at the Volta grande do Xingu in the area of the Belomonte dam (in Altamira), and at the mouth of Xingu River (in Gurupá) have also revealed sites with ceramics displaying these stylistic characteristics. Radiocarbon dates for Koriabo occupation in this region range from 1310 to AD 1510 (Muller 2016; Lima and Fernandes 2016; Fernandes et al. 2018).



Figure 6. Ibama site. a) Map of Caxiuanã archaeologcal sites highlighting Ibama location; b) Ibama site: topography, mound profile and excavation details.



Figure 7. Ibama ceramics. (Photos by OCA project).

These dates, when related to the Caxiuanã and Monte Alegre areas, allows us to propose a chronology for Koriabo related occupations Iduring the late pre-colonial period throughout the lower Amazon and Xingu areas.

A survey of ceramic collections and surface site materials along the lower Amazon has yielded samples of Koriabo ceramics in a few sites in both Monte Alegre and Almeirim municipalities, along the Paru de Leste or the Jari Rivers, northern tributaries of the Amazon with headwaters in the Guyanas plateau (Pereira et al 2013). A private colletion in the municipality of Portel (state of Pará) recently identified displays at least three toric vessels featuring the main Koriabo stylistic features. In Barcarena (also in Pará) the Goeldi Museum archaeological crew recovered a feature containing four Koriabo vessels. We also found Koriabo ceramics in collections from the Belém area, previously not identified as such (Marques 2003). In fact, many ceramics previously identified as "Santarém like", now, under better trained eyes, seem to fit perfectly into the repertoire of Koriabo style.

In sum, data on material variability, contexts and chronology, when put together, show a continuous presence of a very long distance network linking peoples who produced and used (or shared the idea of) Koriabo style ceramics during a few centuries just before the European invasion. These unprecedented information may help understand this interaction sphere on a broader area outside the Guianas.

What is Koriabo? What is being shared? The technological data x stylistic data

As mentioned before, the most remarkable aspect of Koriabo ceramics is its stylistic unity in both form and decoration, across a vast region including Guiana's interior and coast and the lower Amazon (Amapá and Pará). However, technological aspects seem to vary a lot. Rostain (2016) has noticed that the paste composition varies from one area to another depending on the sources, but decorative attributes applied on specific vessel forms is very similar in several areas, even hundreds of kilometers away.

Aiming to compare the paste composition across the lower Amazon Koriabo samples, we used thin-section petrography to better understand and compare ceramic pastes from these regions and thus try to detect details that might be otherwise overlooked or misinterpreted with regular/traditional macroscopic methods. We chose samples from the two most specific Koriabo forms/styles from five different sites across this region: Coroatá in Monte Alegre (#2); Ibama in Caxiuanã (#3); Jacupi in Gurupá (#2); Ananaí (#1) and Pedral (#1) from Almeirim. From each site or region, we selected one white slipped, lobed rim vessel fragment, and one of the many incised-punctate vessels.

Petrography informs on the character of the ceramic ware and the materials used as well as on the choices made during the manufacturing process (Peterson and Betancourt 2009). It helps us understand whether these ceramic stylistic traits really represented structural traditions passed on through generations, or just in a circumstantial fashion due to some regional interaction process. The results from petrographic analysis confirmed the great variation of pastes amongst the different sites, and a consistent similarity between samples from the same site, even from different vessel morphologies (Table 1). It suggests a pattern with a strong covariation of pastes (clays and tempers) and sites/regions. For instance, Coroatá site presented only mineral nonplastic inclusions, mainly feldspar, which is consistent with all other ceramic materials from the Monte Alegre area. Ibama site presented a very different composition, with major shell inclusions (25% of the ware paste). The composition of the inclusions is also very variable amongst the sites. Quartz is the only mineral present in all sites, but with different distributions. Because it is likely that the quartz is part of the clay, it cannot be taken as a common point for the samples.

The analysis of pastes shows that ceramic production is a local activity. In addition from the availability of the resources and differences of raw materials, we infer that the selections, cultural choices or 'recipes' differ from area to area. The vessels were produced locally, suggesting an exchange of ideas rather than an exchange of the objects themselves. Thus technical variability along with a strong stylistic unity could be considered here as a learning model, where technical resources are selected and combined to specific forms and decorations that are shared within a larger "community of practice" (Wenger 2006). In this sense, we see shared material traits as a means to reinforce another sphere of shared identity that we hypothesize relates to Carib-speaking peoples.

Ceramic distribution and the dispersion of Carib speaking groups

Ethnohistorical and archaeological data have associated Carib speaking peoples with Santarém and Konduri ceramics (Cruxent and Rouse 1958; Lathrap 1970). Thus we can associate the "ceramics with K" (e.g. Koriabo and Konduri) and also Santarém, with what Lathrap has identified long ago with the expansion of Carib speakers in the northeastern quadrant of the Amazon Basin (1970: 198-199). (See also maps of Carib speaking groups over Incise Punctate Tradition distribution in Lima et al. this volume).

Ethnohistoric data suggest that, by the time of the European invasion, the Lower Amazon was connected with other regions through long-distance exchange networks oriented to the north, by the rivers and probably interfluvial trails. The networks with an east-west axis, along the Amazon itself, seems indeed to be more limited (Harris 2015:40). It is worth noting this information in the light of the dispersal and chronology of the Koriabo ceramic complex.

Nimuendaju has documented Arawak-Carib mixed groups scattered throughout the Guianas coast from Trinidad to the mouth of the Amazon (ca. 1850) (Nimuendaju 2004: 95). Despite the necessary care in the correlation of material culture and languages, the presence of Koriabo sites in the south of the Amazon suggest that long-distance networks also connected the northern and lower Amazon. It can also help to explain the frontiers that separated Marajó and Santarém in pre-colonial times, an issue that has not yet been fully understood.

M.Alegre Coroatá	M.Alegre Coroatá	Gurupá Jacupi	Gurupá Jacupi	Gurupá Jacupi	Gurupá G.Miri	Gurupá G.Miri	Gurupá F.Gurupá	Gurupá Carrazedo	Gurupá Carrazedo	Caxiuanã Ibama	Caxiaunã Ibama	Almeirim Pedral	Almeirim Ananaí	LOCALITY SITE
apliqué	flower pot rim	flower pot rim	apliqué	apliqué	flower pot rim	apliqué	apliqué	apliqué	flower pot rim	apliqué	flower pot rim	flower pot rim	flower pot rim	CERAMIC
62%	61%	65%	70%	65%	60%	45%	60%	82%	80%	60%	60%	37%	62%	CLAY MATRIX
21%	24%	35%	30%	35%	40%	55%	35%	18%	20%	38%	40%	38%	38%	TEMPER
3%	5%	5%	15%	15%	3%	5%	15%	2%	5%	5%	5%	22%	10%	Quartz
13%	13%													Augithe
<1%	<1%	<1%												Hemathite
5%	6%													Basalt Fragments
		10%	10%	8%			10%					5%		Sericithe
			5%	12%	37%	3%			15%			1%	25%	Charcoal
			<1%							10%	10%	<1%	1%	Laterite
		<1%												Goethite
		20%						3%						Ceramic fragments
						40%				23%	25%			Shell
						2%							2%	Grog
													<1%	Ilmenite
												10%		Orthoclase
						5%		13%						Cauixi
							10%							Microcline

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Recent ethnographies of Carib speaking groups and others still living in the Guianas, Amapá, and northern Pará, such the Wayana/Apalai, the Tiryió and the Wai Wai, have documented different processes of interaction between villages connecting them along very extensive and horizontal territorial networks. Chiefs or commoners often engage in very long trips to "visit" counterparts in distant villages; such visits almost always entail long preparations with ritual festivities at the village of origin; rituals are also celebrated at the visited village, entailing the production of fermented beverages, food and artefacts involved in the rituals. Although there is exchange of actual goods (food and artefacts), these connections cannot be explained simply on the basis of local non-availability or economic shortage of such goods, and seem to be more related to the establishment of social ties. Such visits are often the basis of long life reciprocal relations, establishing regular social commitments and exchange, and act as a way to reaffirm their identities and extend their influence throughout a large territory, to establish peaceful relations with near and distant neighbors, and maintain political harmony and equilibrium throughout the region (Gallois 2005; Grupioni, 2005; Andrade 2007; Barbosa 2007).

Many rituals are still shared by these groups; in general, they perform collective shamanistic rituals to promote several types of cure, and to receive outside visitors. This is a moment when many outsiders bring presents, and the intensive fabrication of beverages, food and artefacts are carried out. Rituals have been known as important moments to reconceptualize and pass on a series of cultural values and knowledge to the next generations. Artifacts with particular designs act as mnemonic elements to bring information to the performance arena. One example is the Turé ritual, performed among Oyapock Amerindians, with very strict rules about the fabrication and use of certain artefacts (Andrade 2009).

The archaeological distribution Koriabo style ceramics could well be part of the material paraphernalia involved in such rituals, which help to maintain and strengthen important regional ties, maybe within groups also bounded by the same linguistic matrices, nevertheless allowing also for local, autonomous village life to develop along other social and cultural practices.

So, in addition to the recognition of stylistic similarities among ceramics from various regions and sites, it is also important to highlight the differences and particularities of these contexts and regions. Particular characteristics may raise opportunities to understand how these dynamics worked in the past and thus be able to improve knowledge about the nature of these interregional connections.

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The Koriabo Pottery at the Volta Grande do Rio Xingu

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Amazonia attracts worldwide attention due to its great potential for generating knowledge in many fields, to its vast territorial area and, in many cases, to the dearth of research being carried out in several regions. One such area is the archaeology of the middle and lower Xingu River³ (Figure 1), especially when compared to the Upper Xingu River (Simonsen and Oliveira.1980; Becquelin 1993; Heckenberger 1999; Toney 2012) and other portions of the Amazon and Tapajós rivers (Barreto et al. 2016), where archaeological research has been the focus of systematic research projects. Before the studies carried out in the context of the environmental licensing process for the Babaquara and Kararaô Hydroeletric Power Plants (Costa and Caldarelli 1988) and later Belo Monte Hydroeletric Power Plant (Belo Monte HPP) (Pereira 2001), the Volta Grande do Rio Xingu region (Figure 1) had been surveyed by Perota in the context of the National Program for Archaeological Research in the Amazon Basin (PRONAPABA) (Perota 1992). During one month, Perota surveyed the lower Xingu region around the town of Altamira and nearby areas, where he recorded several archaeological sites. Simões and colleagues (Simões, Corrêa and Machado 1973) also surveyed this region, and were the firsts to present impressions on the material culture found in the archaeological sites. Simões and colleagues associated the ceramic material analyzed from the Middle Xingu River to the Tupiguarani, Polychrome and Incised-and-Punctuated traditions (Costa and Caldarelli 1988; Simões, Corrêa and Machado 1973; Perota 1992; Barreto 2001; Perota 1977).

Recently, systematic research carried out in the context of the environmental licensing process of the Belo Monte HPP (Scientia 2010) included controlled interventions on 198 archaeological sites, that varied from a simple site registration into the National Register of Archaeological Sites (CNSA-Iphan), to the recording and 3D modelling of rock-art

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³ The archaeological findings discussed here were recovered within the scope of the project entitled Preventive Archeology in the Areas of Intervention of the Belo Monte Hydroelectric Complex, located ate the Volta Grande do Rio Xingu, PA, carried out by Scientia under the coordination of Dr. Solange Bezerra Caldarelli, Dr. Maria do Carmo Mattos Monteiro dos Santos and Dr. Renato Kipnis. This enterprise is located in the Northern Region of Brazil, in the state of Pará, occupying an area called Volta Grande do Xingu of the Xingu river, located between the parallels 3° oo 'and 3° 40' S and the meridians 51° 30 'and 52° 30' W.



Figure 1. Location of the research area and archaeological sites.

engravings and polished outcrops, sampling excavations, and wide-surface areas excavations. These activities resulted in the formation of an archaeological collection with more than three million artefacts, and a great amount of field record. This vast database presents a huge potential for detailed studies on the context of human occupation of the Middle Xingu River territory, and to generate explanatory models based on the archaeological record. Within this context, analyses performed on specific subsets of the collection have identified a variety of ceramic complexes, among them, the presence of Koriabo complex in the Middle Xingu River region (Müller et al 2016). The Koriabo complex has been also identified at the mouth of the Xingu River (Lima and Fernandes 2016).

The Koriabo complex

The Koriabo pottery was initially identified in the Guiana (former British Guiana) by Betty Meggers and Clifford Evans (1960). In the following decades, its formal and stylistic attributes were related to ceramic complexes within a vast, but coherent territory that included several countries along the Atlantic coast, having its occupation located in the Guiana Shield. Such distribution led Rostain to claim that the Koriabo culture was unique to the Guianas (Rostain 2009), although it had been recorded, based on its distinctive attributes, in the Cuminá River, on the left margins of the Amazon river in the state of Pará, by Klaus Hilbert (1982). In the past decades, this scenario has generated a debate

on the origin and dispersion of the Koriabo complex, and on its cultural affiliation. More recently, Rostain (2013) acknowledges the wide distribution of Koriabo ceramics, suggesting with uncertainty that its place of origin could be in the Middle Amazon or even the center of the Guiana (Rostain 2013:125).

In general, there is a consensus in associating the Koriabo complex with the Incised Punctuated Tradition (Rostain 2009), since only Boomert (2004) had suggested a Polychromic genesis for the Koriabo complex. The divergency emphasis on the stylistic uniformity of the shapes and decoration of this complex, which holds rigidly certain attributes and exhibits fluidity in others, despite its vast spatial distribution it seems tempting to focus on the shared attributes and ignore the unique ones. The diversity is not only present in the ceramics, but also on the morphology of the archaeological sites, spatial arrangements, the presence/absence of burial structures and their contexts, the occurrence or not of Anthropogenic Black Earth (TPA), among other features.

The diversity observed in the set of characteristics that constitutes the sites presenting Koriabo ceramics is also noticed in the research carried out by Lima and Fernandes (Lima and Fernandes 2016) in the mouth of the Xingu, and by Barreto and colleagues in the lower Amazon (Barreto, Nascimento and Pereira 2016). Lima and Fernandes point out that part of the ceramic repertoire of the Lower Xingu River share characteristics of Koriabo ceramics, mainly in relation to decoration, however, the authors call attention to the characteristics of Gurupá ceramics, such as frequent use of white/gray slip, red slip, beige/orange slip, and *barbotina*, polishing on the surfaces of some ceramic pieces, and the presence of non-plastic additives such as crushed pottery mixed with crushed rock and *cauixí* present in the most superficial stratigraphic levels; and in the deeper stratigraphic levels the presence of coal and *cariapé*, crushed pottery, crushed rock and *cauixi* (Lima and Fernandes 2016: 222).

In the lower Amazonas river, Barreto and colleagues also observed the combination of Koriabo's features with pottery classified as exhibiting local technology varying in intensity; suggesting a differentiated use of space and the possibility of Koriabo ceramics being a ceremonial ceramic type shared throughout the Lower Amazon region, rather than a ceramic style of a particular cultural group (Barreto, Nascimento and Pereira 2016: 277), hypothesis also presented by Van Den Bel in French Guiana (2010).

Thus, in addition to the typical Koriabo stylistic features that unite these sites, ranging from the Guianas to the Lower Xingu River, it is present, on several publications, references to ceramic features that are not shared with other Koriabo sites, sometimes identified as characteristics of the local pottery, a fact that also occurs in our research area.

The Koriabo pottery at the Volta Grande do Rio Xingu region

Pottery with piriform morphology, with lobed flanges and/or cut flanges, with incised plastic decoration similar to the Koriabo vessels of the Guianas (Rostain 2016) were identified on different archaeological sites of the Volta Grande do Rio Xingu, raising new research questions to the study being carried out. These sites also do not present uniform

characteristics regarding the spatial distribution of the material, and the composition of archaeological strata; reinforcing the fluidity that characterizes this complex. In the present study, we compare the ceramic collections and spatial distribution of two archaeological sites containing Koriabo ceramics, Sabiá 2 and Vila Rica 2, both located in the municipality of Vitória do Xingu (Figure 1).

The analysis of the ceramic collections from both sites included the investigation of the technology and decoration employed in the production of the ceramic vessels, as well as the morphological reconstruction of 12 vessel shape types (Table 1).

SHAPE	DESCRIPTION
\sim	Shape A: Vessel with carina, flatted profile, everted rim thickened to the interior, circular opening, and maximum diameter at the carina.
\ <i>}</i>	Shape B: Vessel with complex and unrestricted shape, with three distinct corner points, everted rim, and rectangular/square opening contour.
Profile Opening	Shape C: Carinated shape, everted and unrestricted rim, shallow profile, as in a serving bowl, rectangular/square opening contour with lobes of different shapes. It is very frequent the present of white slip in the interior surface and worn out white and black paint. Ceramic fragments without painting or smudged are rare. The vessel morphology is similar to the one described by Evans and Meggers for the Koriabo ceramic in the Guiana, named Decorated Koriabo. This type presents everted and lobed rim, made with segments of different size (Evans & Meggers, 1960: 133).
Profile Opening	Shape D: Pyriform shape vessel with neck marked by abrupt change at the corner point. Opening is circular, but lobes present on the vessel's body create protruding chambers. The morphology is particularly diagnostic of Koriabo complex. It presents figurative decorations by means of incisions and appliqués over the lobes on the vessel's body. A similar vessel was found in the French Guiana, it is "a toric vessel, with five layers, each one representing an excised circle, on which a human face was modeled with eyes and nose" (VAN DEN BEL, 2015, p. 20).
Profile Opening	Shape E: Unrestricted vessel with pyriform shape, neck marked by abrupt change at the corner point and circular opening.

Table 1. Morphology of identified vessels.

SHAPE	DESCRIPTION
\searrow \checkmark	Shape F: Unrestricted vessel with carinated shape, everted rim, shallow profiles like a serving bowl, and circular opening.
\smile	Shape a G: Vessel with complex bicarinated morphology, with boat shape, sloping plain, everted rim, and rectangular/square opening.
	Shape H: Vessel with globular morphology with neck, carinated contour, everted rim and circular opening.
< >	Shape I: Vessel with restrict complex shape, with abrupt change at the corner point, everted rim, circular opening, and maximum diameter at the carina.
	Shape J: Vessel with simple morphology, sloping plain, upright rime and circular opening.
] [Shape L: Vessel with carinated shape, with flared rim, sloping plain and circular opening.
	Shape M: Unrestricted vessel with simple morphology, possibly a griddle.
23	Shape N: Vessel with complex and composite morphology, with neck showing abrupt angle changes marked by carinas and/or inflections. Opening is circular and rim can be everted or upright.
$\langle \rangle$	Shape O: Vessel with composite morphology, restricted slope, inverted rim, and circular opening.

Table 1 (cont.). Morphology of identified vessels.

The Sabiá 2 site

The open air archaeological Sabiá-2 site is inserted on a mountain top and slope, in the micro-basin of Cajueiro river, a tributary of the left bank of the Xingu river. The archaeological site covers an area of 49,950m², presenting mainly ceramic and lithic artefacts. Archaeological excavations at the site generated a collection of 16,652 ceramic fragments; and revealed an archaeological stratum predominantly between the surface and 30cm in depth, but that can vary between 20 and 70 cm in thickness. Areas presenting denser quantities of archaeological material are associated with the presence of black anthropogenic soil (TPA), where the main excavations took place (Figure 2 - TPA1 and TPA2). The TPA was present in the central and southeast region of the site, reaching up to 30cm in depth.



Figure 2. Horizontal dispersion of the vessel shape types identified in the Sabiá 2 collection.

Diagnostic ceramic artefacts comprise 3,746 pieces, represented by fragments belonging to ceramic vessels, adornments and spindle whorls. The latter made specifically for this purpose or reused from vessels' base. The ceramic sample consists of fragments with wall thickness ranging from 6 to 10 mm, made of exclusively mineral clay (ground quartz, mica, iron oxide and feldspar in large proportions) of medium inclusions, manufacture by coiling technique, with specific occurrence of plaques for correction or reinforcement of thickness and corner points, prevalence of oxidant burning and frequent use of burnish and soot. Plastic decorative techniques include nail indentation and fingernail impression on the lip or over clay rolls appliqués, buttons appliqués composing stylized features. Also present are fine or broad superficial incisions, grooved and spatulated with punctuation and punctuations composing features or over clay rolls appliqués. Appliqués can be stylized anthropomorphic or zoomorphic representations. Noteworthy are chromic decorations, with bi-chromatic and polychromic presence of black, red, and yellow on white slip; and less common, yellow, or monochromatic lines or bands.

Part of the Sabiá-2 ceramic collection is comprised by white-on-red sherds, presenting geometric motifs with horizontal, vertical, oblique and circular concentric lines. Although the morphological identification of these specimens was not possible due to the fragmentation of the pieces, the thickness of the walls, between 10 and 18 mm, indicates large containers found throughout the site. Quite common in these fragments are nonabrasive attritions on the interior surface, resulted from fermentation processes (Skibo and Schiffer 2008: 50-51). With the partial reconstruction of the motifs of the bichromic pieces and the presence of a few fragments with negative painting, it is possible to relate them with the Saladoid series of the Orinoco river basin (Cruxent and Rouse 1961), which in turn seems to be similar to the later pottery of the Polychrome Tradition. The latter presents the widest geographical dispersion in the Amazon. Two strands of polychrome ceramic producers are observed. One related to the Tupi-Guarani speakers, probably of western Amazonia origin, and another, that would have developed in hybrid styles like the Marajoara complex, associated with Saladoid ceramics (Saldanha 2017). Almeida (2016) in turn, suggests the possibility that both strands, Tupi and not Tupi, have Saladoid attributes incorporated in their styles. It is interesting to note that white paint on red wash is also common in the Tupi ceramics of the Amazon, which fills with geometric motifs its specific containers for the production of cauim.

Regarding the morphologies of the identified vessels, we can observe (Figure 3)⁴:

Group A: comprised by vessel that present complete profile (cat. n° 2662), lacking only the base. It is possible to observe that the carina limits the decorative field to the upper portion of the exterior surface, where a white band that advances to the rim was applied. Red and black paint over the band is noticeable at several points of the vessel as vestigial form. Soot is noticeable in some parts of the exterior surface, and more homogeneous in the interior surface. White slip is present in residual form on the interior surface. The

⁴ See attachment 1 table with catalog numbers of the pieces corresponding to each group, both for Sabiá 2 and Vila Rica 2 sites.



Figure 3. Vessel shapes identified at Sabiá 2 site. 1) cat. n° 2298: group E 2) cat. n° 1183: group H 3) cat. n° 3270: group D 4) cat. n° 486: group C 5 e 6) cat. n° 1422: group G 7) cat. n° 2662: group A 8) cat. n° 2477: group G 9) cat. n° 2580: group G 10) cat. n° 2474: group F 11) cat. n° 2292: rim with parallel horizontal black lines and worn off red on white slip painting. 12) cat. n° 1066: vessel with assymetrical body, comprise of concave and convex sections, with incision all around the rim 13) cat. n° 2444: incisions marked with punctuations 14) cat. n° 2175: finger marking on horizontal thin line 15) cat. n° 3106: negative white lines with black painting and re lines 16) cat. n° 3675 spindel whorl made from reused vessel base.

vessel presents a restricted shape, flattened profile, carinate morphology, with everted rim thickened externally, flat lip and 22cm in diameter⁵.

Group B: typified by the vessel cat. n° 2370, which consists of a complete profile with the exception of the base. It is a vessel of rectangular/quadrangular opening, identified from the sinuosity of the contour of the piece, mainly in the rim portion and in the two carinas. In this sense, the vessel has complex morphology, with rounded lip and everted wall. Both surfaces received fine smoothing. Due to the asymmetrical rim opening it was not possible to determine the diameter of the vessel, although it is safe to say that it is a large vessel.

Group C: represented by vessel cat. n° 486 with lobed rim of different sizes and contours, sometimes with instrument-marked lobes made when the clay was still wet, probably with a spatula-like instrument, marking the piece with a deformation on the rim. It is, therefore, an unrestricted and everted vessel, with a composite contour with sinuosity in the carina, indicating a rectangular/quadrangular opening. On the exterior surface, just above the ridge, pressure was made with the fingers on the still wet clay resulting in a small circular bulging on the interior surface with a diameter of 72mm. The interior surface received black on white paint that starts just below the carina and advances to the lip. The diameter of the vessel is 34cm. The vessel cat. n° 2701 has the same characteristics as vessel cat. n° 486. It has unrestricted inclination, everted morphology with flat lip, lobed rim with asymmetrical lobes. The entire exterior surface received white slip, while the vestigial red wash seems to indicate the occurrence of bands.

Group D: represented by vessel cat. n° 3270, comprised of a profile without the rim and without the base. It presents a pyriform shape and plastic decoration separated into two zones. The upper zone, below the carina (possible neck), is formed by crosshatch incisions, with beginning and end of the movement marked by punctuate. Below, a thin horizontally line with successive punctuations all around the vessel's contour works by separating the two decorative fields. The lower zone is characterized by a convex body with chambers⁶ where concentric incisions were made defining anthropomorphic features with three globular appliqués with central punctuation forming eyes and nose, some with only negative marks. A small applique in the form of a coffee bean was inserted between the circular incisions. The vessel cat. n° 3270 has a complex morphology and its decoration is considerably weathered. Sherds from this same vessel don't refit, and it was not possible to determine its diameter. Another vessel belonging to Group D type was identified from a body fragment (cat. n° 2073) which shows chambers, similar to vessel cat. n° 3270, caused by bulging of the interior surface. On the exterior surface, on these chambers, spiral incisions were made divided by a vertical incision line. In the upper portion are rounded depressions made by finger-pressure. It is possible that the spirals incisions are biomorphic representations.

⁵ For 3D visualization of the reconstituted part, see: https://sketchfab.com/models/a4e09c91957d45c 799aoabc321bdo812.

⁶ Classification for Santarém vessels that show a body with four lobed divisions (BARATA, 1953, p. 194).

Group E: this group is represented by two specimens excavated from different units. The vessel cat. n° 2298 has the characteristic pyriform shape of the Koriabo complex, although the rim and base are missing. The decorative space is located below the carina (possible neck), with oblique parallel incisions lines, creating a concentric V-shape filled with horizontal incision lines. Both surfaces received the fine smoothing. The vessel has a complex contour, and 42cm of maximum diameter. It has soot mark on the lower part of the vessel up to the corner point. The second piece, cat. cat. n° 3608, has a decorative zone below the carina (possible neck) composed of oblique parallel incisions lines in opposite directions, filled by parallel horizontal and semicircular incisions, with the beginning of the line marked by punctuation.

Group F: three specimens represent this group. With a profile missing only the base, vessel cat. n° 2474 presents polychromy on the interior surface at the corner point, constituted by parallel orange and red lines on a white band that begins below the carina and advances until the lip. It has rounded lip, everted and constricted rim, with composite contour, and 36 cm in diameter. Vessel cat. no. 3626, has an unrestricted shape, and 42 cm in diameter, has a broad white band slightly below the carina that advances to the edge on the interior surface, with red bands at the corner point, and at the lip. It also presents vestigial red paint at the rim, and soot on both surfaces. On the exterior surface the piece presents horizontal incisions around the vessel. The vessel presents a carinated contour, and everted and constricted lip with groove. Vessel cat. n° 1131 has an unrestricted shape, everted shape, and rounded lip. In the interior surface there is white slip, and remains of red paint on various parts of the piece.

Group G: this type shows high frequencies in the sample, with 41 specimens present in the collection comprised by vessels showing one or two carinas, with complex contour. It presents everted rim, groove lips, and less frequent, rounded lips, and white band beginning at the exterior carina. At least 11 pieces present a square/rectangular opening with more or less abrupt sinuousness. Rare small appliqués may occur in the outer exterior carina. Worn off black and white paintings appear to be part of the decorative expression over the white. Vessel cat. nº 14227, comprises a complete profile and it is a carina type container⁸, where punctuations were made all around the piece. It also presents an interior carina at the rim. The finishing of the interior surface is a fine smoothing and of the exterior surface is a white slip. Also, on the exterior surface there is a red band at the corner point. external white slip, where red strip was inserted in the change of angle. The pigment probably underwent post-depositional process and became partially black. It is also possible to observe that the vessel has a slightly square opening. It has grooved lip, everted and constricted sloping plain rim, and flat base. The piece has a complex contour and 26cm of diameter. Specimen cat. nº 2477 is an unrestricted shape vessel with simple painted decoration, comprised by white band limited between the rim and the carina. Worn off red paint is present on the lip. It has a flat lip, everted and constricted rim, composite contour, and 30 cm in diameter.

⁷ For 3D visualization - https://sketchfab.com/models/359d53b2b897443c80463ad11643e5a0

⁸ The carina shape type consists of vessels in which "the corner point present on the body is the result of an addition or application of clay, forming angular lobe on the body of the pot" (Garcia 2012).

Group H: a single large sample (cat. n° 1183) constitutes this type. It is a globular and everted vessel, possibly with a neck, having a minimum thickness of 12mm and a maximum of 22mm. The entire upper part of the piece is decorated with anthropomorphic features, consisting of incisions, punctuations and appliqués. Two spherical appliqués with central punctuation form the eyes, from which spiral incision lines emerge in opposite directions that join in a vertical line limited by triangular applique with three punctuations forming the nose. Above and below the eyes, two equidistant elliptical appliqués with three vertical incisions each complete the feature. On the side there is another feature, composed by concentric lines remains, curvilinear and angular lines, like small Greek motif. The entire decoration is limited by an upper incision made just below the corner point, where a worn off red band is present. It is possible to observe corrosion due to chemical abrasion by fermentation. It may be suggested, therefore, that certain types of vessels with elaborated decoration are appropriate for the production of fermented beverages used in rituals, and it is also possible that they were reused.

Group I: with three specimens having diameters of 44 cm, 38 cm and 22 cm, these are everted vessels, showing a complex bicarinated contour, with distinct corner point and groove, flat or rounded lip.

Group J: this group is composed by four large specimens, characterized by sloping plain, unrestricted shape, grooved lip, where fingernail marking decoration occurs twice. Two vessels have a diameter of 46 cm, one of 48 cm and one of 28 cm. In all pieces the interior surface is well smoothed and the exterior surface has a coarse smoothing, sometimes only the rim presents smoothing. At the same time, cooking marks indicate that this group is used for utilitarian purposes in the preparation of foods.

Group L: comprised by two specimens with flared lip. Vessel cat. n° 3405 was refitted in its upper profile, with carina and incision circumventing the corner point. Of everted rim with rounded lip, it has sloping plain and 20 cm of diameter. Both surfaces have been finely smoothed, and the negative of a circular applique is visible just below the flare.

In the Sabiá-2 site, at least nine morphological types are very similar to those presented by Boomert, associated to the Suriname Koriabo complex (see Boomert 1986). Only types B and I differ because they have exterior carina and a more distinct corner point. These two types, both with a bicaranted morphology, can be analogous to the Form 12 presented by the author. It is even more symptomatic the presence of vessels with rectangular openings, both in the classic Koriabo vessels as well as in the collection from the middle Xingu River, the latter associated with the food serving. This characteristic, as Boomert admits, is missing in the Koriabo pottery of the Suriname. Another set of features with low frequencies in Suriname, are the vessels with the classic black and red paint on white slip. In Sabiá 2's sample, more than one vessel presents this decoration, including pieces associated with everyday activities such as for serving and preparing food (Figure 4).

On the other hand, some more recurring features of the collection could easily be related to the Tupiguarani Tradition of the Amazon (Almeida, 2016), such as 1) the occurrence of black and red paint on white slip, 2) white or red bands, 3) composite (carinated) or complex morphologies (bicarinated or shoulders), 4) decorative zone limited at the


Figure 4. White-on-red paintings and geometric motifs identified in the Sabiá 2 collection.

corner point or only on the upper portion of the exterior surface, while the interior surface could be completely filled by painting, 5) decorations on the exterior surface or on the lip in the form of incised, fingernail markings and nail indentation, 6) occurrence of reuse of vessel bottoms for making spindle whorls, and the use of plates to better structure fragile areas of the vessel as the corner point. However, it is still premature to make any direct association between the two complexes, since Sabiá-2 site presents several decorative attributes that are not part of the Tupi repertoire, besides, it is absent from Sabiá-2 collection the classic corrugated.

Despite the presence of two distinct ceramic sets (i.e., Koriabo and Tupiguarani), the stratigraphic context and spatial dispersion doesn't show any pattern that could suggest two different occupation. On the other hand, post-depositional process that could potentially have mixed the material from two distinct occupations cannot be ruled out. The greatest diversity of vessel shapes is clustered in the TPA2 located on the northern part of the site (Figure 2), which presents all 11 morphological types. In the TPA1 located on the southern part of the site, only three of the 11 shapes were identified (Figure 2), of which two forms can be considered typical of the Koriabo complex. This apparent higher concentration of varieties in the TPA2 may be due to the size of the excavation carried out at this location to the detriment of the TPA1: the first with six units of 1m² and the second with two units of 1m² each. In summary, it is plausible that the pattern observed for the horizontal dispersion of the ceramic material is consistent with the intensity of the excavation undertaken in the different areas of the site, and that the mixed up vertical dispersion corroborates the idea that there was only one occupation at the site.

The site Vila Rica 2

The open air archaeological site Vila Rica 2 is located on a plateau, surrounded by drainage, a tributary of the left bank of the Xingu river, on its west and northwest limits, The archaeological site covers an area of 40,000 m² presenting mainly ceramic and lithic artefacts. Archaeological excavations at the site generated a collection of approximately 88,040 ceramic fragments and revealed an archaeological stratum predominantly between the surface and 40cm in depth, but that can vary between 20 and 100 cm in thickness.

The site is circular in shape, with a central plaza where there was a complex funeral context. As in the Sabiá 2 site, there was also soil with archeological black-soil characteristics (TPA), where there was the presence of black anthropogenic soil (TPA), with high concentration of archaeological material.

Diagnostic ceramic artefacts comprise 8,251 pieces, representing fragments belonging to ceramic vessels, complete vessels, spindle whorls, appliqués, and adornments. Coiling technique was used for producing vessels, with prevalence of oxidant burning. Temper was almost exclusively mineral, with predominance of quartz, feldspar, and mica. Only two organic temper were identified, *cauixi* and *cariapé*, present in 0.46% and 0.06% of analyzed samples, respectively.

As in the Sabiá 2 site, the plastic decoration includes nail indentation, digit impression, digit impression on the lip or on clay rolls appliqués, appliqués in the of buttons composing stylized features, thin or wide and superficial incisions with varied graphic patterns, grooved and spatulated with end or beginning of the movement marked by punctuation, and punctuation composing features or over clay rolls appliqués. Lobe parts are also frequent, usually with plastic decoration over the lobes. Appliqués can be stylized anthropomorphic or zoomorphic representations. The motifs used to make the plastic decorations in the Vila Rica 2 collection are quite varied, with predominantly the incidence of horizontal lines, vertical lines, horizontal and vertical criss-cross lines, and transverse or oblique lines, with great variability of associations, forming simple and complex decorations.

Conspicuous is the colored surface of some pieces, with intense presence of white slip or red wash on the exterior surface. The artefacts with surface treatment slip or wash type could be: white, red or black, with a higher frequency of pieces decorated with white bands. It is noteworthy that among the fragments with chromic decoration was also noted the presence of two decorative elements concomitantly: white band with black lines and white band with worn out red paint.

When the morphological aspects of the vessel fragments were observed, nine forms were identified:

Group A: comprised by four specimens with carinated morphology, circular opening contour and everted rim, presenting maximum diameter at the carina. Its main representative is vessel cat. n° 3208, which shows black slip on the interior surface and on the exterior surface worn off red paint on black slip. It presents composite morphology (having an abrupt corner point change), with unrestricted shape. The rim is everted/ constricted, the lip is flat and the opening has a diameter of 16 cm.

Group B: comprised by 15 specimens with circular opening. The rim can be everted, inverted or upright. Its main representative is an upper profile (cat. n° 3252) with a circular opening. It presents a complex contour (with three abrupt corner point changes) and an estimated volume of 28.65 liters. It has an everted rim, and a flat lip (containing finger marking decoration). The opening diameter is 42 cm. The surfaces of this piece were smoothed with medium intensity. It is important to note the presence of soot deposit on the interior and exterior surfaces of the vessel.

Group F: comprised by six pieces, with everted rim, circular opening and white slip on the interior surface. The main representative is vessel cat. n° 5405. It has a composite contour (showing a carina) and an estimated volume of 7.00 liters. The opening diameter is 34 cm, with grooved lip. On the interior surface there is a white band measuring approximately 92 mm in width. The surface treatment observed is medium smoothing.

Group G: comprised by 18 specimens with everted rim, circular or square/rectangular opening contour. Its main representative is vessel cat. n° 7906 which has an everted rim, a flat lip, a complex contour with more than one abrupt corner point change, and an estimated volume of 5.31 liters. The opening diameter is 26 cm. Burnishing is medium, and the exterior surface presents a white band with approximately 45mm in width.

Group I: comprised by four pieces with circular opening. Its main representative is vessel cat. n° 2839 with a complex outline (showing two abrupt corner point changes) and an inclination between 45° and 90° (unrestricted). The opening diameter is 22 cm. It presents everted/constricted rim, and groove lip. Medium smoothing was the treatment applied on the interior surface, while the exterior surface presents red wash over white slip.

Group J: comprised by 25 specimens with simple morphology. The rim is upright or inverted, and the outline of the opening is circular. Its main representative is vessel cat. n° 8159, which has a flat lip, and an estimated volume of 10,82 liters. The opening diameter is 38 cm. The base is flat with a diameter of 21 cm. The treatment applied to the surfaces of this artefact was medium smoothing. On the interior surface there are evidences of fire reduction, and on the exterior surface the presence of a soot deposit (caused by the exposure of the piece to fire). Thus, it is possible to infer that this vessel was of domestic use, for cooking purpose.

Group L: comprised by part cat .n° 7276, which has a flared rim, decorated on the exterior surface (body) with thin, transverse and horizontal incisions measuring 1 mm in width. On the flared rim there are horizontal and vertical incisions measuring between 1mm and 3mm. The slope is vertical and the opening is circular. Burnishing applied on both surfaces is medium smoothing.

Group O: comprised by 18 specimens showing abrupt corner points marked by carinas and/or inflections. Rim can be everted or upright, with a circular opening. Its main representative is the vessel cat. n° 5921, with neck. On the exterior surface there is finger marking decoration on clay roll appliqués (on the rim). On the body there are large incisions (measuring approximately 8mm in width) around lobes caused by the pressure of the fingers on the interior of the vessel. It presents upright rim, rounded lip, complex contour, unrestricted shape (between 45° and 90° inclination), circular opening and a volume estimated of 3.06 liters. The opening diameter is 13 cm. Burnishing applied on both surfaces is medium smoothing.

Group P: comprised by an upper profile (cat. n° 5729) with inverted rim, flat lip, and circular composite contour opening with a diameter of 36 cm. The morphology of the border is introverted and the lip is flat. Burnishing applied on both surfaces is medium smoothing.

The presence in this collection of adornments, appliqués (in the form of zoomorphic, anthropomorphic, and biomorphic effigies), spindle whorls, vessels with use-wear marks, and vessels with plastic and chromatic decorations, suggest the use for different daily activities. Vessels used for burial have varied morphologies and dimensions, not appearing to have a preferred shape for this purpose.

In short, as in the Sabiá 2 site, we can see features of both the Koriabo and Tupi complexes, despite the absence of corrugated ceramic. Thus, the significant frequency of fragments exhibiting punctuated applied fillets, thin and/or broad incisions associated with clay modelled appliqués, lobed rim, lobes caused by the pressure of the fingers on the interior surface of the vessel, as well as vessels with morphology of Group O, all combined suggests an affiliation with the Koriabo complex. On the other hand, the pieces that present digit

impressions, painted decorations with white, red and black paintings in the form of bands and/or geometric motifs, and the significant frequencies of composite and complex vessesls (groups A, B and I) indicate the presence polychrome ceramic features, conceivably Tupi, in the collection from Vila Rica 2.

Based on the data presented above and looking at the density and distribution map of the archaeological material at Vila Rica 2 (Figure 5), it is possible to infer that the site is spatially configured as an old circular village, and it represents one occupation only; for there are no horizontally or vertically differences in the distribution of the different vessels groups associated with Koriabo or Tupi complex. The site may be the result of one long occupation; or successive short occupations by groups manufacturing similar material culturre⁹.

In short, what do the Sabiá 2 and Vila Rica 2 sites tell us?

Based on the discussion above, it seems logical to associate our results with Boomert's association between Koriabo and Polychrome Tradition. The author justifies the Marajoaroid series based on the affinity between the Koriabo pottery and the old Mazagan-Aristé pottery, of the Polychromic Tradition (Boomert 2004:258). The affiliation of this complex is based mainly on the typology of excavated vessels, polichromy, and the occurrence of ceramic stools (van den Bel 2015)¹⁰. On the other hand, the monochromatic and polychromatic decorations are less common in other sites of this complex and are associated mostly with ceremonial artefacts. Also, there is no mention of the presence of a vessel with a square or rectangular opening in the Koriabo context according to Boomert. These items are very common in the archaeological sites we studied¹¹.

Boomert (2004) suggests, from the dates obtained, that the Koriabo chronology would last for about 750 years, until the European contact period. A compilation of the available dates for this complex made by Cabral (2011) indicated a possible occupation of up to ten centuries, lasting much more than initially proposed by Meggers and Evans (1960)¹². According Hilbert (1982), the Koriabo pottery producers may have established a northsouth dispersion precisely because of the pressure put under European invaders. Such temporal maintenance is quite significant, similar to other chronologies of the Polychrome Tradition, such as the Marajoara pottery that lasted about 1000 years. However, with the recent findings of the Koriabo complex scattered throughout the Xingu region, this chronology may be even longer.

⁹ The Sabiá 2 and Vila Rica 2 sites have not been dated yet.

¹⁰ We have found fragmented ceramic stools on some of the sites escavated at the Xingu Big Bend, as in the Santo Antônio 11 site for example (Scientia 2016).

¹¹ Stools, vessels, rectangular opening, and polichromy have been also found in the Amapá Koriabo context (Barreto 2015).

¹² Meggers and Evans didn't have absolute dates at the time of their work, having to rely on relative chronology, and they suggested a late ceramic period for the Koriabo context (AD 1250-1500).



Figure 5. Ceramic vessels from Vila Rica 2. Group F: vessel with white slip on the interior surface. Group L: vessel with lobed rim, decoration on the exterior surface of vessel body with fine horizontal and transversal incisions. Horizontal and transversal incisions are also present of the lobe.



Figure 6. Vessel shapes identified at Vila Rica 2 site: Group B) Cat.n°5337: digit impression on the lip. Group F) Cat.n°5460 white band on the interior surface Grup N) cat.n°2970: lobes on the exterior surface caused by the pressure of the fingers on the interior surface of the vessel, and nubbins with central punctuation. Cat.n°7880: punctations over clay rolls appliqués on the exterior surface, vertical and transversal incisions. Cat.n°4963: exterior surface decoration in the form of punctation on carina. A: Cat.n°7252 lobes on the exterior surface caused by the pressure of the fingers on the interior surface of the vessel. Appliqués represents eyes, mouth and nose, probably a biomorph motif. B: Cat.n°2559 lobes on the exterior surface caused by the pressure of the fingers on the interior surface caused by the pressure of the fingers on the exterior surface caused by the pressure of the fingers on the exterior surface caused by the pressure of the fingers on the exterior surface caused by the pressure of the vessel. Zoomorphic motifs, with appliqués symbolizing eyes, mouth and nose. C: Cat.n°2621 lobes on the exterior surface caused by the pressure of the interior surface of the vessel. D: Cat.n°7955 Appliqués on the exterior surface symbolizing eyes, mouth and nose, representing a biomorph motif. Punctates over clay rolls appliqués and punctates followed by broad incisions are present on the inferior part of the vessel. E: Cat.n°5075 two lobes on the exterior surface caused by the pressure of the fingers on the interior surface, horizontal lines and horizontal and vertical criss-cross incisions. G: Cat.n°6888 and Cat.n°570 lobed rim with whit slip on the interior surface.



Figure 7. Horizontal dispersion of the vessel shape types identified in the Vila Rica 2 collection

When associating the Koriabo complex to the Polychrome Tradition, Boomer (2004) creates a discomfort, and this exemplifies a recurrent problem in relation to the classic typologies of culture-historical approach in pre-colonial Amazon, which creates archaeological traditions (Schaan 2007) based mainly on the different patterns of elements of the ceramic sets. The debate on the complexes found in the middle Xingu contributes to this problem, since some Tupiguarani material in the region was identified (Perota 1977, 1992), albeit obtained by unsystematic fieldwork. However, based on a more intensive and systematic research in the UHE Belo Monte project, classic site of this Tradition has not yet been identified. On the other hand, there seems to be a hybridization between a polychrome pottery - either Tupiguarani or Saladoid matrix - with the Koriabo complex, whose distinctive attributes of its material culture are easily perceived despite its widespread geographic dispersion. It is necessary to rethink the association of this complex with two apparently quite different traditions Incised-Punctuate and Polychrome. Some Koriabo traits seem to be more rigid, not inclined to any change, especially regarding the morphology of vessels, which contributes to material association in very distant spaces. Others present greater freedom, especially regarding decorations, consonant aspect with Lathrap's proposal (1970), used to compare ceramic complexes from the Amazon, mainly the morphology of vessels.

Finally, it is necessary to problematize the possibility that the Koriabo pottery was not produced by a specific group, but rather by a set of ideas shared by several groups established in the Amazon basin. This idea is very attractive based on the observation of the significant trading aspect with other ceramist groups, raising the possibility that such testimonies are the result of intertribal relations and used in diverse activities (van den Bel 2010; Cabral 2011). The socio-political relationship established between groups that produce the Arauquinoid¹³ and Koriabo complex is evident on the Atlantic coast (Rostain 2009:47) and not necessarily peaceful, since the chronological interruption of the Barbakoeba phase seems to be associated with the assimilation by the producer group of the Koriabo pottery (Boomert 1993).

In the lower Xingu River, ceramic fragments were also identified with stylistic features related to Arauquinoid groups, whose pottery is adorned with anthropomorphic appliqués, sometimes identical ones, simple paintings, fine and punctuated incisions, as well as the classic somewhat more stylized anthropomorphic representation (Rostain 2012, 2016), exhumed on the Palmeiras site (Scientia Consultoria Científica, 2016). In the upper river course, the Arauquinoid presence is not a novelty (Toney 2012, 2016), although there is no record of Koriabo pottery. The relationship between the two groups is not yet clear in the region, however it is possible to perceive the presence of diagnostic fragments of the two complexes on the same site. In the Sabiá-2 and Vila Rica 2 sites, pieces with a punctuated or digit impression decoration on clay roll applique applied horizontally on the rim of these vessels are common, similar to the one described by Rostain and Versteeg associated with an Arauquinoid influence (Rostain and Versteeg 2004: 247).

If the Koriabo pottery is the result of an integration between different groups, the relationship recorded between the producers of the Arauquinoid pottery can help clarify how the logics of this incorporation occurred, based on comparisons between settlement patterns, morphology and function of the sites, both intra and inter site pottery variability between the local context and that recorded for the Atlantic coast. This phenomenon is perceived as gradual and perfectly possible, in spite of what was postulated for ceramist groups of the Amazon with little possibility of alterations in the pottery that are static in previously established cultural horizons (Meggers and Evans 1961). In this context, the middle Xingu region seems a key region not only for a better understanding of the Koriabo pottery, but also as an important place for debating the major archaeological Traditions of the Amazon, as well as the relationship between the different producers of pottery of the pre-contact period, which still make it difficult to classify some complexes. Cases such as the one found by Garcia (2012) in Southeastern Pará, where the mixture between an Incised-Rim/ Barrancoid and Tupiguarani pottery on the same site became a classification problem, are quite common in the region. However, they call less attention than Koriabo because of their easily identified stylistic specificity and huge interaction sphere. We have, therefore, a classification problem whose unfolding process does not translate in a classification by itself, but rather in a debate about the relationship of

¹³ The Incised-Punctuate Tradition is known as Arauquinoid in the Orinoco-Guianas region (Eriksen 2011: 28).

material culture to the Amazonian Traditions. There is in the Koriabo pottery of the middle Xingu a stylistic matrix that can be associated with the Incised-Punctuated Tradition, but its unusual common decoration and some morphologies refer to the Polychrome Tradition. Such problematic issue seems to be part of the social conformation of the producing groups of this pottery. Their material culture and dispersion indicate a strong expansionist character, with a domination relation and assimilation in the different occupied spaces very noticeable in the ceramics, helping to express the relationships between these groups and their hypothetical dispersion routes. It is also possible to notice that because of groups that have previously shared expressive and visible political and cultural relations in their material culture, the region of the middle course of the river was integrated to a wider cultural universe of the Amazon.

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Tupi-Carib Histories in the Middle-Lower Xingu

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In Amazonia, based on the ethnoarchaeological and archaeological contexts, it is observed that stylistic variations may be correlated to both the scale of political and social relations and the scale of linguistic and territorial formations as overlapping and expressive categories in the configuration of the formal variability of ceramics over time (e.g., Lathrap 1970; Wüst 1999; Neves 1999; Bowser and Patton 2008; Barreto 2013; Heckenberger 2005; Almeida 2013; Rocha 2017; Silva and Noelli 2017). In the past years, archaeology in the middle-lower Xingu has offered a picture different from that of Nimuendajú's (1948) ethnohistorical map. Most indigenous territorial configurations show temporal depth and, from an archaeological point of view, the colors on the map would transform into broad, overlapping, and much more blurred patches. And it is exactly this overlapping of colors that makes possible to perceive the technological style of the indigenous ceramics of the past as a fragment of the history of contemporary populations.

For more than two decades, studies on technological style have been taken as conceptual and methodological tools to measure social boundaries and the meanings of the patterns identified in the archaeological record (Stark et al 2000). From this perspective, the technological style results from choices that rest on individuals knowledge of the structural principles of the technological tradition in which they have been encultured as members of a certain social group. For this reason, the technological style is recognized as an expression of cultural identity (Stark, Bowser and Horne 2008; Gosselain 2000). In this sense, the formal variability of the ceramics will be understood here as part of the technological style, which resides not only in the form, but fundamentally in the choices and technical abilities of the populations that produced the ceramic vessels and in the social network in which these vessels were, and are, included. By correlating the formal variability of the archaeological ceramics, the historical sources, and the studies on historical linguistics, this article takes the first steps toward reflecting on the histories of the Tupi² and Carib peoples of the middle-lower Xingu, whose cultural continuities would be less marked for ruptures than for transformations over time.

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² The name Tupi will be used here to refer more broadly to the ancestors of the Tupi-Guarani and Juruna linguistic families. From an archaeological point of view, the settlement contexts associated with these populations are recognized based on the formal variability and temporal persistence of perceivable aspects in ceramic technologies and on the centuries-old dialogue between Archaeology, History, Anthropology, and Linguistics (see Lathrap 1970; Brochado 1984; Noelli 1996; Heckenberger 2005; Corrêa 2014; Silva and Noelli 2017; Garcia 2017; among many others).

Karl von den Steinen and the history of the Tupi [Juruna] and Carib languages

Just as Alexander von Humboldt strongly influenced the German expeditioners who came to Amazonia, it can be considered that Carl Friedrich Philipp von Martius inaugurates this tradition of German expeditions to the Xingu. Karl von den Steinen produced the most detailed cartography and ethnography of xinguano peoples. The toponym "Catarata de Martius" [Martius Falls] became the signature of von den Steinen and his fellow researchers' expedition to the Xingu. Setting off from the headwaters of the Xingu and reaching the Volta Grande do Xingu, von den Steinen's expedition had an objective and theoretical orientations stemming from a long academic tradition (Thieme 1993). His studies on linguistics and ethnology in the Xingu raised hypotheses still discussed today (Meira and Franchetto 2005; Meira 2006).

Von den Steinen's experience in the multiethnic and plurilinguistic context of the upper Xingu has probably influenced his critical position concerning the hegemony of studies on the Tupi in the nineteenth century (Corrêa 2014:82). As a critic, von den Steinen followed closely the studies on Tupi peoples, and the formal proposition of the name Tupi-Guarani is attributed to him (Corrêa 2014:43; Noelli 1996:12), as well as the idea of a radiation point in terms of population (Noelli 1996:12). For von den Steinen, the upper Xingu (Culiseu River) would be the radiation point of the Tupi, a hypothesis based on the widespread use of words of Tupi origin among the upper-xinguanos (e.g, *beijú* – manioc bread).

The identification of the Bakairi as a "pure" Carib language was, for von den Steinen, the most important result from his scientific expedition to the Xingu (von den Steinen [1886] 1942:341). As Meira (2006) shows, with von den Steinen's ethnographies about the Bakairi and Kuikuro (*Nahuquá*) languages, and the data collected by Paul Ehrenreich among the Apiaká of the lower Tocantins and by Wilhelm von den Steinen and Hermann Meyer among the Yarumá of the upper-middle Xingu and Araguaia, the discussion persists about the origin of the Carib in the south of Amazonia (von den Steinen [1886] 1942; Rodrigues 1985; Meira and Franchetto 2005; Meira 2006).

It may be considered that the historical and ethnographic descriptions of the nineteenth century resulted in the first groups of the Tupi and Carib languages. At the beginning of the twentieth century, ethnologists as Alfred Métraux (1928) and Curt Nimuendajú (1948) will add to the knowledge of languages the systematized study of material culture and historical sources. As widely known, Métraux formulates the hypothesis of a Tupi-Guarani origin between the Tapajós and the Xingu (Métraux [1928] 2012:440). On the other hand, based on his experience among the Xipaya-Juruna, Nimuendajú pointed out that these languages might be classified as having a Tupi origin, but greatly modified by the Arawak influence, with a lesser Carib influence, and a more recent influence of the *Língua Geral Amazônica* [General Amazonian Language], which led him to classify the Juruna as *impure tupis*. If the ecological configuration of the area of origin of the Tupi-Guarani, proposed by Métraux, matched the social morphology attributed to them as *terra firme* peoples, the Juruna, known as canoemen, would originated from navigable rivers, like the Arawak peoples (Nimuendajú 1948).

The origin of the Juruna and Tupi-Guarani peoples started to be considered differently. Based on several studies on historical linguistics, Correa-da-Silva (2010a) proposes that these linguistic families are part of the division of the eastern proto-Tupi, whose subdivision would result in the formation of the linguistic families Tupi-Guarani, Awetí, Mawé, Mundurucu, and Juruna. The latter are considered as part of an earlier division in the regions of the rivers Tapajós and Xingu, respectively. In this process, the definition proto-Tupi-Guarani would have been happened about 2500 years ago, near the upper Arinos River, a region where these populations would be in contact with Carib speakers.

In the Juruna case, Correa-da-Silva (2010b) observes that there are few studies on these languages (Juruna/Yudjá and Shipaya). Therefore, the linguistic questions Nimuendajú (1948) pointed out are still unanswered. However, concerning the influence of other languages, the Juruna protolanguage is indirectly correlated to linguistic influences from the proto-Carib (Rodrigues 2005a apud Corrêa-da-Silva 2010b:67-76). Yet, when considering historical-ethnographic information about the contact and the war conflicts among the populations of the middle-lower Xingu, Corrêa-da-Silva (2010a:358) also indicates that the interethnic contact with Carib peoples, and the consequent lexical loan by the Juruna family, may have happened independently.

Contrary to what von den Steinen proposed, the updated study on the languages of the Carib family of the Xingu-Tocantins reinforces the origin of this family to the north of the Amazon (Meira and Franchetto 2005; Meira 2006). By comparing the Carib languages, Meira and Franchetto (2005) demonstrate that the languages spoken to the south of the Amazon form different groups and, as opposed to the linguistic diversity presumed earlier, that the Carib languages of the Xingu-Tocantins can be placed in two subgroups: Bakairi-Ikpeng (Arara/Yarumá/Apiaká) and Kuikuro (Matipu/Kalapalo/Nahukwa). With this result, the authors (op.cit.) corroborate the hypothesis of the origin of the Carib languages to the north of the Amazon, a geographic area that would start to have the higher number of independent linguistic branches within the Carib family (Meira and Franchetto 2005:39-40). At the same time, Meira (2006) suggest that the linguistic loans between Carib-Tupi-Guarani are subject to a Carib ancestor whose influence would be unidirectional – with modification in the Tupi-Guarani languages.

From von den Steinen to the most recent linguistic propositions, an old discussion about the Tupi-Carib histories in eastern Amazonia can be followed. From an archaeological (and linguistic) point of view, this region is known as an area of origin and cultural diversification for the Tupi-Guarani peoples (Almeida and Neves 2015; Corrêa 2014; Garcia 2016). The oldest archaeological dating known up to this moment place the onset of this process at the beginning of the first millennium of the Christian era (*ca.* 150 A.D.) (Silveira et al 2008; Garcia 2016). In the middle-lower Xingu, the ceramics show formal characteristics that distinguish them from the Tupi-Guarani ceramic complexes of eastern Amazonia. Therefore, it is necessary to rethink the Tupi history in the middle-lower Xingu. Archaeological research of the 1970s and 1980s revealed two questions: 1) the existence of different technological traditions (e.g., Incise-Punctate, Tupiguarani, Polychrome traditions); 2) the existence of ceramics with characteristics from different traditions (e.g., Tupiguarani/Itacaiúnas traditions). However, these investigations did not establish a significant dialogue with the ideas formulated by the *first investigators* (von den Steinen [1886] 1942; Métraux [1928] 2012; Nimuendajú 1948).

Nimuendajú and the "indigenous preciosities"

Nimuendajú's expedition to the middle-lower Xingu in the beginning of the XXth century is documented in his observations about the gathering of "indigenous preciosities", an expression he had employed to refer to the ceramics of Santarém (Amoroso 2001:176). Nimuendajú ([1927] 2004) observes that the ceramics found in Volta Grande do Xingu (Igarapé³ Panelas, Altamira) were simpler and more heterogeneous, and similar to those found in Iratapurú, near the left margin of the Jari River, a route linking the Xingu and the left margin of the Amazon and the Guianas (Nimuendajú [1927] 2004:112-114). As for his observations in the lower Xingu (Porto de Mós) and the lower Iriri, he realizes that the ceramics of these areas were different, richer in plastic decorations when compared to those gathered upstream of the Volta Grande waterfall. Nimuendajú associated the ceramics found in the lower Xingu and Iriri to the ceramics from Monte Alegre and to the Santarém style of the lower Tapajós. This observation leads him to the conclusion that, before the Juruna and Shipaya peoples (Juruna family languages), other populations producing highly sophisticated ceramics had inhabited the Xingu. Nimuendajú had an interpretation for the archaeological and ethnographic context of the middle-lower Xingu. For him, there is a rupture between these two contexts (Nimuendajú 1948:216-217), therefore, what one observes archaeologically is associated with Tupi populations already extinct or that migrated to other regions in the post-colonial period (Figure 1).



Figure 1. Map with archaeological sites and ceramics of lower Iriri River produced by Nimuendajú ([1927] 2004: 112-227).

³ Small navigable river in the Amazon region.

The similarities Nimuendajú (op.cit.) pointed out between the ceramics of the Xingu and of the lower Amazon have been shown by Deböer et al (1977) based on the ceramic collection gathered by Nigel Smith (1980) decades later. Between 1970 and 1980, broad archaeological surveys were undertaken in the middle-lower Xingu (Perota 1992; Meggers et al. 1988; Araújo Costa and Caldarelli 1988; Brochado and Lathrap 1982). The research conducted within the scope of the National Program of Archaeological Research in the Amazon Basin (Programa Nacional de Pesquisas Arqueológicas na Bacia Amazônica – PRONAPABA) designed an initial picture of the configuration, geographical distribution, and chronology of the sites. Most of them have been classified as belonging to the Amazon Polychrome Tradition (APT), but this association is being more and more invalidated, because there is no stylistic correspondence between the ceramics of the middle-lower Xingu and the APT complexes (Almeida 2013; Garcia 2017). Over and above that, recent reviews contextualized the APT based on ceramic complexes identified in the upper-middle Amazon (Neves 2008; Moraes and Neves 2012; Almeida 2013; Belletti 2016). When analyzing ceramic collections from sites of the middle-lower Xingu, I consider that quite probably the sites classified in previous research as part of the APT, as well as of the Tupiguarani and Incise-Punctate traditions, correspond to contexts of ancestral occupation by Tupi and Carib-speaking peoples, whose chronology available for ceramics and archaeological sites are situated predominantly as of the tenth century.

Archaeology in the Koatinemo Indigenous Land

In the Koatinemo Indigenous Land live the Asurini do Xingu, a Tupi-Guarani-speaking population whose traditional territory covered a central area between the rivers Bacajá, Xingu and Igarapé Ipixuna, later reduced by the indigenous land demarcation (Müller 1993; Silva and Noelli 2015). The Asurini language is probably one of the oldest branches of the Tupi-Guarani languages of the interfluve Xingu-Tocantins (cf. Michael et al 2015). Therefore, the study on the archaeological ceramics of Koatinemo dialogues with a comprehensive research context, in which deep historical links are observed between several indigenous peoples and the lands where they live today (see Silva and Noelli 2015; Heckenberger 2006; Neves 1999; Wüst 1999; among many others) (Figure 2).

A collaborative archaeological research with the Asurini do Xingu has been carried out since 2009. As a result of its survey stages, up to 2014 fifty archaeological sites were recorded, associated with post-colonial indigenous settlements, previous to biographical and autobiographical accounts of the Asurini (between the seventeenth and the nineteenth centuries); with ancient Asurini villages of periods before and after official contact in the second half of the twentieth century; with rubber-tapper camps of the same period; and with a large majority of pre-colonial sites (Silva and Garcia, 2015). Most of these sites have complex configurations associated with different settlement processes, deep deposits of anthropogenic *terra preta* [anthropogenic dark earth (ADE)], and diversified contexts of archaeological site implantation – on terraces, on high hilltops, islands, and in lithic workshops with polishing and sharpening stones.



Figure 2. Location Map of the Koatinemo Indigenous Land, by Eduardo Kazuo Tamanaha.

Out of the fifty archaeological sites recorded, twenty-eight are composed of ceramic collections⁴. The following summarized description is founded on the analysis of two sites whose collections are representative of the question addressed in this article. They are the ceramic collections of the sites: Aldeia Kwatinemu (*ca.* AD 1350) and Yvytyrapitera (*ca.* AD 1000). The sites Aldeia Kwatinemu and Yvytyrapitera are villages inhabited today by the Asurini, situated on the right margin of the Xingu River. These sites have different topographic configurations. The former is situated on a vast non-inundated terrace and the latter, on a high hilltop, with a view to the mouth of the Iriri River (Figure 3).

The most expressive characteristics of the ceramics from these sites can be summarized as follows: ceramics made of a paste rich in mineral grains, coiled-made, and fired with complete oxidation as observed in most fragments. The vessels have slightly thicker walls (around 0.7 cm) when compared to the Asurini ceramics (around 0.5 cm), which can be observed more specifically in the morphologies usually employed for cooking (pans). However, thickness seems to change more in relation to the size of the vessel and less along the longitudinal profile. The morphological structure is based on spherical, hemispherical, conical, and plane shapes. Angles in the vessel body are an expressive characteristic in these complexes, with angled profiles at the rim (i.e., lip reinforced and flanges set horizontally) and medium body (i.e., sharply angled carination and forms with alternated

⁴ The collections total 14,240 ceramic fragments/vessels.



Figure 3. Map with archaeological sites identified at the Koatinemo Indigenous Land with the indication of the sites mentioned in this text.

inflections). Surface finishing is diverse, but a predominance of red engobe, white and red paintings, incisions, and additions of zoomorphic and anthropomorphic figures can be observed. These ceramics are not polychromic and their graphic designs may have been added by incisions. As to certain morphologies, these technical elements repeat, that is, they appear in virtually all the collections analyzed. Such characteristics would be common to ceramics of different technological traditions and stylistically related to ancestral Tupi [Juruna] and Carib settlements in the middle-lower Xingu.

From a macroscopic perspective, the differences between the Tupi and Carib ceramic styles are noted basically in their form and surface treatments. The Tupi ceramics show corrugated, coiled, finger-marked, and fingertip punctated finishings in the lips, and incisions with motifs in angular, spiral, and wavy designs. Graphic designs combining volutes and wavy strokes are frequent, and can be seen in the motif of the Juruna's body painting and ethnographic ceramic (see Vidal 1985:76). Most ceramics, however, have just smoothed surfaces or surfaces with red engobe. These surface finishing would be used in plane or shallow vessels, such as plates and roasters (except for incisions); simple bowls, with discreet carination or flanges; large bowls (in general, painted), pans and pots with conoidal base and superior body with inflected walls, besides forms of simple profiles and extroverted rims. In the Tupi ceramics of the middle-lower Xingu, it is possible to recognize morphologies similar to the types *yapepó*, *ñaetá* and *cambuchi* of the Guarani ceramics (Brochado 1984; Noelli 1993; Corrêa 2014) (Figure 4 and 5).



Figure 4. Ceramics from Aldeia Kwatinemo (photos 1 and 2) and Yvytyrapitera sites (photos 3-10). 1) bowl similar to *cambuchi caguâba* type; 2) pan with carination and discreet flange; 3) rim fragment with typed lip; 4) coiled decoration rim; 5) fragment of the superior body with inflected walls; 6) fragment of superior body with carination; 7) corrugated rim; 8) fragment with painting inside; 9) fragment with external painting; 10) anthropomorphic appliquéd.



Figure 5. Ceramics from Yvytyrapitera site. 1) rim with fine smoothing; 2) fragment of the superior body with incision of circular design; 3) fragment of the superior body with incised and punctued; 4) rim with fine smoothing; 5) rim with flange and incision; 6, 7 and 10) fragments with figurines in high relief; 11 and 12) zoomorphic appliquéd.

The Carib ceramics are, in general, thinner, well smoothed, with angular finishing, especially at the rim – with reinforced lips or flanges and carination. The surface finishing might display incisions, excisions, punctate, grooves, red engobe, carvings, fingertip punctate, and fillets, besides more visible figures modeled or appliquéd, depicting human faces or animals added to the upper body of the vessels. Incised/excised graphic designs combine labyrinth and circular patterns. These ceramics have predominantly simple forms for bowls, pans with flange, and pots with extroverted rims. Broadly speaking, in the archaeological collections of sites situated on the right margin of the Xingu and Iriri rivers and in Volta Grande do Xingu, the presence of ceramics with characteristics common to the Carib and Tupi styles is a constant. However, as opposed to the Tupi ceramics – with discreet flanges that do not draw more attention than the carination and the shoulder -, in the Carib ceramics, flanges stand out and the rims are floriform or lobulated, features that do not exist in the collections of the sites Aldeia Kwatinemo and Yvytyrapitera, but appear in other sites of the region (Araújo-Costa and Caldarelli 1988). These technological attributes are recognized in both the Incise-Punctuate Tradition – linked to ceramic complexes already identified in the lower Amazon, Tapajós, Xingu, and Tocantins rivers (e.g., Lathrap 1970; Simões and Araújo-Costa 1987; Meggers et al 1988; Rocha 2017) and in the Koriabo phase, contextualized on archaeological sites situated in the interior of Amapá, in the Guianas (e.g. Rostain 2009; van den Bel 2010; Cabral 2011; Saldanha et al 2016), and more recently in the lower Xingu (Browne et al 2016) (Figure 6).

Chronology and historical processes

The table of dates below corresponds to the dating of twelve sites identified by the archaeologist Celso Perota (1992), and includes the sites of the Koatinemo Indigenous Land (in bold). The datings for the sites are linked to the Tupi and Carib ceramics, and dialogue with the broader table kindly provided by Perota. This chronology refers to the predominance of settlements occurred as of the second millennium of the Christian era. However, it should be considered that there are old ceramic complexes in this region, such as the ceramics linked to the Mina Tradition (3000±120 BP - Beta 27418/1650±70 BP - SI 3417) (Oliveira and Silveira 2016) and to the Incised Rim/Incise-Punctuate Tradition (3010±70 BP – Beta 236417/1750±40 BP – Beta 236418) (Garcia 2012; Silveira et al 2008), that should not be ignored. After all, if the linguistic propositions are correct, it is expected that there will be sites with more remote chronologies in the Tupi and Carib settlements of the middle-lower Xingu.



Figure 6. Examples of ceramics that came from archaeological sites in the lower-middle Xingu and Iriri river (Museu ParaenseEmílio Goeldi): Photos 1, 5 and 8) Collection T-876 Iriri-Xingu - anthropomorphic and zoomorphic figurines; 2) PA-AL-109 site – rim with angular contour; 3) PA-AL-163 site – rim with lobulated aspect; 4 and 13) PA-AL-19 site - fragments with figurines in high relief and zoomorphic appliquéd; 6) PA-AL-57 site – rim with fillets in relief on the external side; 7) PA-AL-102 site – rim with flange and incisions; 9) PA-AL-67 site – rim with fillets; 10) PA-AL-69 site - corrugated rim; 11) PA-AL-47 – ceramic fragment with incisions and beads forming a face; 13) PA-AL-19 site - zoomorphic modeling, alligator.

Sites/initials	Sites/names	Sample code (Lab)	Date		Method
PA-AL-39	Itapinima	Beta 17127	90±80	BP	¹⁴ C
PA-AL-13	Boa Vista II	SI 3508	105±55	BP	¹⁴ C
PA-AL-10	Primavera	SI 3505	125±60	BP	¹⁴ C
KTM-17-01	Myrina	Beta - 391905	150±30	BP	¹⁴ C
PA-AL-6	Prainha	SI 3511	175±55	BP	¹⁴ C
KTM-19-01	Ytapytiuu	Beta - 391906	210±30	BP	¹⁴ C
PA-AL-39	Itapinima	Beta 17134	220±70	BP	¹⁴ C
PA-AL-39	Itapinima	Beta 17129	270±60	BP	¹⁴ C
PA-AL-39	Itapinima	SI 4345	275±75	BP	¹⁴ C
PA-AL-9	Primavera	Beta 17139	300±80	BP	¹⁴ C
KTM 3 – 359	Kwatinemu Velho	Datação 4108	350±40	BP	TL/2014
PA-AL-13	Boa Vista II	SI 3507	365±60	BP	¹⁴ C
PA-AL-39	Itapinima	Beta 17128	400±80	BP	¹⁴ C
PA-AL-39	Itapinima	SI 4344	485±90	BP	¹⁴ C
PA-AL-39	Itapinima	SI 4342	510±70	BP	¹⁴ C
PA-AL-15	Cacarapi II	SI 3512	520±55	BP	¹⁴ C
PA-AL-17	Criajó	SI 3514	530±60	BP	¹⁴ C
PA-AL-39	Itapinima	Beta 1732	570±80	BP	¹⁴ C
PA-AL-39	Itapinima	SI 4343	575±70	BP	¹⁴ C
PA-AL-13	Boa Vista II	SI3509	585±60	BP	¹⁴ C
PA-AL-39	Itapinima	Beta 17133	600±70	BP	¹⁴ C
PA-BI-4	Cachoeira Grande	SI 4351	600±60	BP	¹⁴ C
PA-AL-17	Criajó	SI 3513	610±60	BP	¹⁴ C
PA-AL-17	Criajó	Beta 17144	620±70	BP	¹⁴ C
PA-BI-2	Largo do Souza	SI 4349	625±60	BP	¹⁴ C
PA-AL-39	Itapinima	Beta 17130	640±80	BP	¹⁴ C
PA-BI-2	Largo do Souza	SI 4350	645±60	BP	¹⁴ C
PA-KTM-01	Aldeia Kwatinemu	-	650	BP	TL/2004
PA-AL-31	Largo Bacabal	SI 4346	690±90	BP	¹⁴ C
PA-AL-9	Primavera	Beta 17137	690±70	BP	¹⁴ C
PA-AL-13	Boa Vista II	Beta 17124	770±80	BP	¹⁴ C
PA-AL-8	Independência	SI 3515	780±60	BP	¹⁴ C
PA-AL-17	Criajó	Beta 17146	790±80	BP	¹⁴ C
PA-AL-15	Cacarapi II	Beta 17126	800±70	BP	¹⁴ C
PA-AL-9	Primavera	Beta 17138	850±100	BP	¹⁴ C
PA-AL-17	Criajó	Beta 17147	890±70	BP	¹⁴ C
PA-AL-17	Criajó	Beta 17145	910±60	BP	¹⁴ C
PA-AL-9	Primavera	Beta 17136	980±70	BP	¹⁴ C
PA-AL-34	Costa Junior	SI 4347	980±80	BP	¹⁴ C
PA-KTM-20	Yvytirapitera	Beta 391907	1000±30	BP	¹⁴ C

Table 1. Chronology of the occupation of the middle-lower Xingu throughout the second millennium of the Christian era.

Source for datings: datings for the PRONAPA sites – provided by the researcher Celso Perota; datings for the sites of the Koatinemo IL in bold are part of the project "Territory and History of the Asurini of the Xingu", coordinated by Fabíola A. Silva (see Silva et al 2011; Silva and Garcia 2015; Silva and Noelli 2015; Silva et al 2004).

Dates around the year AD 1000 are very emblematic in the transformation of Amazonian landscapes. Several indications point to a higher population density associated with the intensification of human occupation all over the Amazon basin (e.g., Heckenberger 2005; Neves 2008; Moraes and Neves 2012; Schaan 2012). Barreto (2016) proposes that the convergence of certain topics and figurative [re]productions observed in more recent ceramic complexes (AD 700 a.C. – 1500) might be related to stylistic flows connected to the expansion of indigenous social networks at a pan-Amazonian scale (Barreto 2016:116), an aspect contextualized after the development of ceramics recognized as part of the Polychrome Tradition and the growth of populations that speak languages of the Tupi stock in Amazonia (Cf. Barreto, 2013; Moraes and Neves 2012; Almeida 2013).

In the middle-lower Xingu, and in eastern Amazonia in general, there is not much doubt that this historical process was related to the settlement of the Tupi peoples. It seems that, from a regional point of view, the settlement of these populations was responsible for the emergence of large villages, an intense modification of soils, and the long-term dominance of territories (e.g., Garcia 2016; Almeida 2016; Kern et al 2015; Silva and Noelli 2015; Balée and Moore 1994). This process would be correlated to both the occupation of the best areas and ecosystems of diversified niches – as Noelli (1993) observed for the Guarani – and the existence of social and political boundaries established between the speakers of languages of the Tupi stock in eastern Amazonia (i.e., Juruna, Munduruku, Tupi-Guarani linguistic families), with historical and linguistic precedence in the vast region understood as the interfluve Tapajós-Xingu.

Final remarks

The Tupi ceramics have characteristics in common with the ceramics associated with the technological style of the Carib peoples, and the most important of these characteristics is the [re]production of shoulders and flanges in the body of vessels. At first, such morphological characteristics would not exist in the Tupi ceramics of western Amazonia (Almeida 2013; Corrêa 2014). The appropriation of technical attributes of the Carib style is observed in a different way in the Tupi-Guarani ceramics and in the Tupi-Juruna ceramics (Garcia 2017). The collections of the sites Aldeia Kwatinemo and Yvytyrapitera characterize what is archaeologically recognized as Tupi-Juruna ceramics. As opposed to the Tupi-Guarani ceramics, whose angled profiles would have been gradually replaced by curved profiles at the mid-body and the rim of the vessels, in the Tupi-Juruna ceramics it can be observed that the angled profiles have been preserved.

Historically, carination may be considered as a distinctive mark of the Juruna pans. This characteristic is well represented in illustrations found in von den Steinen ([1886] 1942) and can be seen in the nineteenth-century Juruna ceramics of the collection of the Museu Paraense Emílio Goeldi. Sharp angles at the body of vessels can be a structural problem – especially in vessels designed to be heated, whose angles would concentrate the heat to a particular point causing a thermal stress that might abbreviate the life of pans (e.g., Rice 2005:229). According to the oral tradition of the Yudjá-Juruna, in the past, their pans would break easily! (Stolze-Lima 2005:283). As Longacre et al (2000) would say, not all technological

choice is dictated by its efficiency in the process of production and use. Therefore, the visual quality of the ceramics evokes values from the symbolic and cosmological universe, appropriations and manipulation of expressions of identity and ethnicity.

The archaeological Tupi [Juruna] ceramics are closer to the Carib style, which can be seen in the maintenance of little pronounced or wide lip flanges, "chestnut bur" morphologies, and certain surface finishings that seem to reflect the most varied aspects of the technological tradition. Differently from what is observed in linguistics, in which loans and influences between the Carib and Tupi languages (especially the Tupi-Guarani languages) would be unidirectional, with modification only in the languages of the latter (Meira 2006; Correa-da-Silva 2011), the archaeological contexts observed in the middle-lower Xingu indicate that the Carib ceramics have morphological aspects correlated to the Tupi [Juruna] ceramics. From a morphological point of view, the Carib ceramic complexes are composed of bowls similar to the type cambuchí Iguaba, which would be produced with wide flanges and painted inside – as observed in the Koriabo style. In these ceramics, the flanges, and not the shoulders, would be more pronounced. Something similar might also have occurred in the formation of shoulders and protruding belly in the Carib vessels (Rostain 2016; Saldanha et al 2016). At first, the technical elements shared between these technological traditions (Carib, Tupi-Juruna, Tupi-Guarani) refer to vessels used to prepare and drink fermented beverages. And, as indicated in the Yudjá-Juruna oral tradition, their enemies of the lower Xingu belonged to the "civilization of *cauim*⁵" (Stolze-Lima 2005:104) (Figure 7).



Figure 7. Pots from archaeological site PA-AL-176 Dos Arara, identified in T.I. Arara da Volta Grande do Xingu, where the Arara people live. Photo courtesy: Sandra Amenomori, 2007.

⁵ Beverage made of fermented manioc or fruit.

In the middle-lower Xingu, the archaeological ceramics are similar to ceramic complexes associated with the Incise-Punctuate Tradition and the Koriabo phase. I consider the use of these preestablished classifications as important typological references to a dialogue with diversified contexts of occupation in pre-colonial Amazonia. These classifications contextualizing archaeologically the *longue-durée* history of the Carib peoples (Braudel 1980; Heckenberger 2005), whose trajectories gain specific regional contours, observed in the spatial configuration of sites, in chronologies and ceramic styles. However, just as it has been discussed for centuries in relation to the Tupi archaeology, these classifications hinder the dialogue with historical linguistic models is, often, the only point of contact between the archaeological information and the ethno-historical information. As the historian John Monteiro (2007, p. 43) pointed out, the origin of historical designations are directly linked to the most diverse situations of contact and indigenous narratives, in which the very name Tupi refers to the creator hero *Maíra Tupã* and to the myth of the division of languages.

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1999 Etnicidade e Tradições Ceramistas: Algumas reflexões a partir das antigas aldeias Bororo do Mato Grosso. Revista do Museu de Arqueologia e Etnologia, São Paulo, Supl. 3: 303-317. Koriabo Ceramics, Carib Multiethnic Interaction Spheres and the Colonial Enterprise in the Lower Amazon

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"A relação portuguesa de fronteira, de 1787, aponta Karaibes, lado a lado com os aparentados, embora hostis, Caripunas. Ambas as tribos mantiveram um intenso comercio de escravos com os holandeses" Koch Grümberg 2006 [1922] p. 54

The Koriabo problem and our working hypothesis

Most of the papers on this book discuss the Koriabo complex which, until very recently, was regarded as a highly local phenomenon. Recently we have begun to recognize that the Koriabo complex was part of a broad interaction sphere that reveals important aspects of the late pre-colonial and early colonial cultural history of the lower Amazon and lower Xingu regions (Lima and Fernandes 2016; Muller et al. 2016; Barreto et al. 2016). In this chapter, we describe and interpret Koriabo pottery found at the mouth of the Xingu River area, in the municipality of Gurupá (Pará state, Brazil), which connects the lower Amazon River with the intricate estuarine complexes of Marajo Island. The chronology for Koriabo occupations in the Gurupá region places them from late pre-colonial to early colonial times, thus highlighting a period of coexistence between indigenous Amazonian peoples and European colonizers in the region. If the Koriabo ceramic complex can be linked to Cariban speaking peoples, archaeological evidence for ubiquitous Koriabo-like wares at sites along the mouth of the Xingu River suggests a movement of peoples, ideas, and goods between the Guianas and the Southeastern

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Amazon. As we will discuss below, our working hypothesis is that Carib-Koriabo networks potentially played an important role in the early Dutch colonial exploitation of this region.

Our overarching approach is to examine how persistent interregional attributes (or styles) track deep-time networks of relationships among Amerindian societies in the region. We thus consider stylistic and contextual aspects of archaeological pottery collected from the mouth of Xingu River, and as far as possible, we offer inferences about their meaning in the broader context of long-term indigenous occupations at local and regional scales. We are also interested in understanding if intercultural contact prompted by the colonial enterprise in the Lower Amazon was related to preexisting pre-colonial networks and interaction spheres, and more specifically, how material culture and Koriabo wares relate to this historiographic interpretation.

By ascertaining a stylistic unity (in terms of form and decoration) in different Koriabo sets of locally-produced wares, we explore the broad regional distribution of Koriabo-related pottery and its implication for the Koriabo-Carib hypothesis, that is, whether our maps for archaeological evidence correlate to linguistic and ethnohistorical data for Carib peoples. Following the argument that Koriabo ceramic complex relates to Cariban speaking peoples, we suggest that the ubiquitous and massive presence of Koriabo sites in the Guianas, lower Amazon and the Xingu help us explain both the movements of Cariban-related peoples in the late pre-colonial times, as well as the networks engaged by the early colonial commerce. By presenting new chronological data from the mouth of Xingu area we argue that the same Amerindian networks present in late pre-colonial and colonial encounter times were the channels that permitted or facilitated the entrance of early colonial Dutch explorers in the lower Amazon.

Our focal research area is the Lower Xingu in the municipality of Gurupá. The aim is to illuminate both the broader regional history and the local history of Gurupá, a region that connects the Xingu and the Amazon Rivers with the intricated Marajó estuarine complex. Because of its strategic geographic position, this was a prominent and very disputed region by the European colonial forces. The ceramic analysis presented here (Silva 2017), combined with broader archaeological, ethnohistoric and linguistic information, frames a new account of the cultural history of this region (Neves 2008; Heckenberger 2008; Neves and Heckenberger 2009).

Koriabo at the Mouth of Xingu River

The municipality of Gurupá embraces an area of 8.540 Km² and comprises one of the largest islands of the Marajó Estuarine Complex (*Ilha Grande de Gurupá*). Although part of the general archaeological context of Marajó, which has a long and intense history of archeological research, very little archaeological research had been conducted in the Gurupá region until the start of the OCA (Origin, Culture and Environment) project in 2014, by the archaeology team from Emilio Goeldi Museum. The goal of the OCA project in Gurupá is to collect spatial and chronological data to characterize and contextualize archaeological sites in the region, thus placing Gurupá in the temporal and spatial

framework of lower Amazon archaeology. The project has collected ethnographic, historical, archaeological and environmental data with the intention of developing a specific deep cultural and environmental history for this region, a crossroads of cultural and economic activity from ancient to modern times (Lima et al. 2018).

The municipality is located between two important 'cultural areas' of the Amazon in the late pre-colonial period, Santarém (at the mouth of Tapajos River) and Eastern Marajó (the savannah-like fields where the well-known Marajoara ceramics originated). Our initial archaeological research hypothesis in 2014 stated that this region was a strategic area since pre-colonial times – a nexus in a border region, or perhaps even an yet unknown cultural center. From 2014-2018, OCA carried out extensive studies at sites including Carrazedo (Browne-Ribeiro et al. 2016, Lima and Fernandes 2016, Fernandes et al 2019), Gurupá-Miri (Lima et al. 2018a), Fort St. Anthony of Gurupá (Lima et al. 2018b), and Jacupi (Silva 2017).

Prior studies in this region include the work of Celso Perota in the 1990s (Perota 1992; Perota and Botelho 1994) and the brief inventory carried out in 2008-2009 by the Federal University of Pará (Schaan and Martins 2010), which registered some 40 archaeological sites. Most of the Amerindian pottery we have recovered at these sites show similar characteristics that we now identify as related to the Koriabo complex. Although Perota had made this point decades ago (1992), this is relatively new for this area and hasn't been properly explained. Previous research by Schaan and Martins noted a "very curious"



Figure 1. Map of the OCA research area and archaeological sites (Map by Bruno Moraes).

pottery decoration consisting of small circular nubbins and fillets over a modeled appliqué close to the rim. They observed that this kind of ceramics was not yet known in the Marajó region (2010: 119).

The Koriabo ceramic complex was previously described for the Guianas area, and according to Rostain, it might have appeared in the inland Guianas ca. AD 750 and then spread among all the Guianas, including the Brazilian state of Amapá (Rostain 2008; 2016). Recent works (including this one) have demonstrated that this distribution is broader, including the lower Amazon and the lower Xingu areas. Since the beginning of OCA investigation in this region, much has been advanced in the archaeology and the ceramics from adjacent regions (Muller et al. 2016; Barreto et al. 2016; Saldanha et al. 2016), providing an interpretative framework and sets of hypotheses that guided our study of the sites and materials from Gurupá, as well as further inquiries to museum collections from other related regions.

Koriabo ceramics are present in prominence at all sites we excavated or surface collected. With exception of Fort of St. Anthony of Gurupá, which is very diverse in material culture, the Koriabo style was the main Amerindian ceramic complex identified in most sites, but always co-occurring with more recent (colonial-post colonial historic) materials, such as stoneware, fine earthenwares, etc. The Koriabo complex includes diagnostic wares, such as the a) Flower shaped bowls, with cut lobed rims and white or gray slip and/or red pigments; b) "Toric" globular vessels with short necks and everted rims, as the styles found in the Lower Amazon in Monte Alegre (Barreto et al. 2016), and in the Guianese shield (van den Bel 2012; Evans and Meggers 1960); c) Open, medium sized to big sized simple contour bolws with direct rim and digitized lip decoration. These tree vessel types have also been identified as funerary urns: the first, in Almeirim in the Lower Amazon (Barreto and Nascimento 2016), and the third in the lower Xingu at Carrazedo site: the burial that was recovered was in a simple bowl with digitized lips (Harper 2019).

These types, or ways of meaking pottery, are very distinctive in terms of combination of form and decoration, that makes them clear units in terms of technological styles (Silva 2000). Our argument is that by identifying technological styles for Koriabo vessels in our research area – persistent and recurrent combined attributes of morphology and decoration – and by comparing them to other Koriabo known contexts, we may shed light on the cultural processes that led to its dispersion, and better understand its local occurrence.

The analyzed sherds from all sites show that the vessels were mainly produced by the coiling technique, in some cases combined with plaques and some of them present modeled appliqués. Paste variation is significant from site to site across the region (see Barreto and Lima this volume). Wares also feature thickened rim flanges, cut lips, carens, fine line or broad parallel incisions or scrapings with geometric motifs and/or concentric circles, that were also identified by Evans and Meggers (1960) in the Guianas, and applied nubbins and fillets. Sometimes these decorative techniques were used to design biomorphic figures.



Figure 2. Koriabo ceramic fragments and vessels recoverd at Gurupá archaeological sites. (Photos: Nigel Smith, OCA Project).
Koriabo ceramics, indigenous multi-ethnic interaction spheres and regional Carib network

Since the wares are locally produced (see Barreto and Lima, this volume), we don't suggest Koriabo was a traded ceramic ware (e.g. van den Bell 2012). We infer this set of material culture as an index of a specific Cariban-oriented interaction sphere (that likely may have been multiethnic-multilinguistic, as seen in ethnographic examples). Moreover, the European travelers who documented the lower Amazon region during early colonial times mention densely populated settlements interconnected through networks of alliances that warranted provisions for the villagers and guarded their strategic territories (Porro 1996).

The co-occurrence of Koriabo wares with other ceramic sets, as described by Castro and colleagues in the Xingu Volta Grande, Garcia in the middle Xingu, and Rocha in the Tapajos (all in this volume), is clearer at the Fort of St. Anthony of Gurupá more than any other site in our research area. Nevertheless, we can interpret such co-occurrences as a possible Carib – Tupi interaction. Rocha (this volume) acknowledges the contacts and mutual influences between Caribans and Tupians at the upper Tapajós region. Castro and colleagues (this volume) acknowledge a similar situation on the material culture recovered in the middle Xingu. In a similar sense, this can be suggested for the Fort of St. Anthony of Gurupá⁷, located at the mouth of this river, an area that connects the Xingu system to the estuarine Amazon. Ethnohistory also acknowledges similar interethnic relations at the mouth of Xingu and Tocantins Rivers: "we also verify this nature of contacts at the mouth of the Xingu - Curupa and Sapana - Carib language Karipuna and Tupinamba – during colonial times" (Ibañes-Bonillo 2016: 346). Following ethnohistorical information, we also make further arguments on contacts between Cariban and Arawakan peoples, as presumed by linguistic borrowings documented by Goeje (1928) in the Guiana Shield and the lower Amazon regions.

When comparing the geographical information about: a) the location of current Cariban settlements (Meira 2006), b) ethnohistorical evidence of Carib settlements (Nimuendajú 1981 [1944]), c) the location of known Koriabo sites, and, d) the dispersion of the Incised Punctuated ceramic tradition that is dated between the AD 900-1700 (Moraes 2016), we can clearly see an overlap of archaeological, historical and current settlements. Despite the aknowledged risks of a simplistic association between languages and material culture, this geographical coincidence strongly supports our interpretation of a cultural affinity of Koriabo ceramics and Cariban-related population (for further discussion, see Lima et al. 2016). Forthermore, although this question is still under debate, most archaeologists now agree that Koriabo ceramics are associated with the ancestors of current speakers of the Carib language family: current and historical Carib settlements consistently cooccur with Koriabo ceramics (Saldanha et al. 2016; Lima and Fernandes 2016; Barreto et al. 2016).

⁷ A detailed description of the material culture recovered at the excavations at the fort can be found in Botelho (2017).



Linguists have debated the center of origin of Cariban languages, as well as potential routes of dispersion. Based on the presence of Carib speakers like the Kuikuro on the upper Xingu to the south, Aryon Rodrigues had proposed the south Amazon as the center of origin for Cariban languages. However, according to a more recent and systematic analysis by Meira (2006), the Guiana region would be the center for the language family, while the southern Cariban languages would have resulted from more recent expansions. The archaeological evidence on Koriabo ceramics from the Gurupá region, along the route of such suggested migrations, should help resolve these debates and establish the chronology and direction of the southern Carib expansion. Radiocarbon dates for the Gurupá area place the Koriabo occupations in the late pre-colonial period, 680 and 370 years before present (cal. BP) (that corresponds to approximately AD 1270 to 1580) slightly coincident with the arrival of Europeans.

Ethnohistorical studies suggest that, at the time of European invasion, the lower Amazon was connected with other regions through long-distance exchange networks (both riverine and terrestrial) oriented in a north-south direction (Harris 2015: 40). By contrast, networks with an east-west axis, along the Amazon itself, would have been more limited, thus explaining the distinctiveness of Marajoara and Santarém cultures. An example of the kinds of goods traded in such networks can be found in the 1843 chronicle by Everard Im Thurn about the Indians from Guiana:

"To interchange their manufactures the Indians make long journeys. The Macusis visit the Wapiana settlements to obtain graters and dogs, for which they give ourali-poison and cotton hammocks; and they again carry these graters and dogs... to other Indians – to the Arecunas, who give in return balls of cotton or blow-pipes; or to True Caribs, who pay in pottery" (Thurn 1843, p. 273).

The recent ethnography of the Guianas has also stressed the particular importance of short and long distance networks, that were both multi-local and multi-ethnic, and which acted not only for purposes of mobilization and trading resources, but mostly as an organizing principle of social relations, uniting villages which can be hundreds of kilometers apart (Gallois 2005).

The nature of such intercultural (multiethnic and multilinguistic) interactions can be diverse from region to region. Rostain, for instance, suggests a cultural division in the pre-colonial Guianas that, in his view, persisted after the European conquest. Accordingly, the permanent state of war that opposed the Palikur (Aruak) and the Kali'na (Carib), created a situation of two contiguous territories (Rostain 2011:12).

Each one of these local systems had their own rhythms and dynamics, presented autonomous trajectories, and ultimately contributed to a larger framework of cultural continuities between different ethnic groups. According to Ibáñez-Bonillo, in the Amazon River, it is exactly the strength of such interactions that, instead of creating a territorial division, held the two banks of the Amazon together through successive processes of intermediation, and allowed an integration of continental scope thanks to the flexibility of Amazonian sociability (Ibáñez-Bonillo 2016: 346). Still following this argument,

"we must not believe that the relationships within this macro-system exhausted the social possibilities of the different groups since at the borders of the different local and regional systems produced new mediations that allowed contacts with very diverse cultural forms. (...) in the Parú river or in Gurupá the worlds of Curupa and Sapana came into contact, as was also the case in other regions through of the activity of groups supposedly of the Caribbean language (karipuna) or of the Tupinambás peoples" (Ibáñez-Bonillo 2016: 346, our translation).

Information of such nature reinforces the idea that Gurupá (as in other parts of the Amazon) is marked by sturdy intercultural interactions on pre-colonial and early colonial times.

Koriabo during the colonial encounter: The Dutch enterprise and indigenous networks

Koriabo dispersion in the lower Xingu may have been part of a network or interaction sphere that connected the Caribbean, the Guianas and the lower Amazon region, including the Xingu River by early colonial times (ca. 1600s), when private English, French, and Dutch traders entered the region. The Dutch established forts on the lower Xingu, including the Mariocay (or Mariocai) fort in Gurupá. These 'forts' were in fact trading posts, at first with no interest in a permanent occupation of the territory, but for establishing commercial relations with the local peoples. As early as 1595, two forts were built into the inlands of the Xingu river; Robert Dudley's map⁸, who travelled to the Amazon in 1595, shows a fort named Nassau (or Materoo) at least 80 leagues from its mouth, and another named Orange (or Gormarou) was some seven leagues lower. According to Edmunson (1903) "the erection of fortified trading stations so far inland at this early date is a proof that these [Flushing] merchants already contemplated the establishment of permanent commercial relations with the natives of the interior" (Edmunson 1903: 643).

The primary interest of these early European traders was the exploitation of tobacco, wood, and sugar cane. They apparently first established themselves in the Guianas and later entered the Amazon estuary along a route likely defined by the Koriabo-Carib network. In the early colonialist enterprise, this territory involved various disputes between European nations, which in their turn, established different alliances with native groups, taking advantadge of the precolonial warfare practices in the region.

The first settlement at Gurupá was a wooden fortification originally constructed by the Dutch as early as 1609. The Dutch named the fort *Mariocai*, supposedly after the local indigenous populations inhabiting the area (Kelly 198: 25; Lorimer 1989: 78). This strategic outpost, located on a high bluff within the southern limits of the present-day town of Gurupá, served not only as a vantage point from which Europeans could monitor the comings and goings of river traffic, but would also serve as a jumping off point for slave raids and missionary expeditions into the interior (Hemming 1978; Kelly 1984; Kiemen 1954).

⁸ Robert Dudley made a voyage to Trinidad, Guiana, &c., in 1595. A narrative of this voyage may be found in Hakluyt's Collection, IV.56. [It was re edited, with two other accounts of the voyage by Mr. G. F. Warner for the Hakluyt Society in 1899. — Ed. E. H. R.] Dudley at a later time settled in Italy. The map appears in his book, Dell' Arcano del Mare, 2nd ed., 2 tom. (Firenze 1661).

The Dutch most likely constructed the fort using local hardwoods, using the Old Netherlands System of Fortification, which according to Oscar Hefting (2010:197) also "was an export product taken by the Dutch on their overseas voyages in the first half of the seventeenth century" (see also Hulsman 2009:18). In the Amazonian environment, the Dutch would have had to take into consideration the rapid tropical decay of organic material. In these harsh environments, Hefting (2010:195) argues that "since there was no local natural stone available, a completely different building tradition grew up. Sand and clay were used to build dikes and forts, deep-rooting plants were planned as reinforcements and to prevent decay." This particular environmental adaptation to fort construction may have aided the Dutch in their fort constructions in Amazonia.

In the first half of the seventeenth century, the Dutch had a more solid presence in the lower Amazon and Xingu region as a part of a colonialist project that aimed to establish a colony in the region (da Silva 2017). Figure 4 below shows a map by Hessel Gerritz (1625), Amsterdam cartographer from the West India Company (WIC) entitled "Guiana: between the Provinces of Rio de las Amazonas using the Rivers Yuiapari e Orinoque". Yuiapari might be current Essequibo river. Note that it may refer to the location of the Lower Xingu.

The way in which Europeans felt compelled to put forts on their maps shows the meaning of such presence, and how mapping was also a colonialist practice. Additionally, by emphasizing the importance of maps as abstractions of space, one is better able to understand the "process whereby land became abstract space that was measured and then sold and the way people,... became commodities for exchange" (Mrozowski 1999: 154). Mrozowski (1999) argues that processes such as colonialism and emergent capitalism, coupled with the increased use of abstract space in the creation of maps, enabled the commodification of colonial landscapes by Europeans. Central to Mrozowski's argument is the way in which Europeans viewed not only themselves as "the apex of world culture" (1999:153) but also the ways in which they came to view their new environments and its inhabitants



The early colonial process towards the interior of the Amazon region aimed to recognize the natural resources and the fluvial routes, both with the assistance of local indigenous populations. The European enterprises at the mouth of the Amazon were more stable than the ones in other Amazonian regions because the estuarine system offered a wide variety of islands, bays and rivers, where a number of interactions between Europeans and Natives were carried out (Ibañes-Bonillo 2016: 248).

The Dutch, in particular, sought to establish close relations with indigenous societies, recognizing the strength of native knowledge and the power this conveyed in their desire to exploit the region and to contest the primacy of Portuguese, Spanish and other "enemy nations" in the Amazon region. The Dutch maintained close relations with local peoples and occasionally provided them with military and economic support (Ibañes-Bonillo 2016: 346). Aside from the relations with the Tupians, the Caribans may have been incorporated in the Dutch trading strategy from the Guianas and into the Amazon.

This strategy was systematically used by the Dutch in other areas of the Amazon, as described by the friar São Manços in 1728 Porro (2008) for the interfluvial area between the Nhamundá and Trombetas rivers. There, they took advantage of the intertribal warfare to established their commercial network and obtain slaves which, in turn were traded for their merchandise (Gloria 2019: 45-46). The same is true for the Guianas (Dreyfus 1993). Farage (1991: 182) also stresses that a diversity of groups referred to by Europeans as *caripuna* or *carib* had in common the bellicosity, cannibalism and alliance with the Dutch for whom they obtained slaves.

Indeed, regarding the nature of the relationship between the Dutch and Amerindian populations, other than slave, there were also cases of indigenous women being offered to the Dutch by the Indians themselves: "the Indians also tried to ensure peaceful relations with Dutch newcomers using women as diplomatic symbols of friendship" (Meuwese 2003: 44). These sorts of relations reveal the interest on the part of the Indians to also create ties with the Dutch, since the trade of women was an indigenous practice used to establish social and trust bonds with other groups. We can then speak of a certain indigenous "protagonism" during the Dutch colonial phase. It is also important to consider this movement of women along trading networks as a medium to spread ceramic styles, since women were the potters. Perhaps this could also explain the wide dispersion of Koriabo ceramics with recurrent vessel forms and decorations, which seem to have been made locally.

At the beginning of the 17th century, the Dutch presence on the Amazon River was intensified due to their increasing knowledge of the region and the closer relations with natives. During this period, historiographic documents show an increase of private investment by several trading companies based in the Netherlands, most notably the Dutch West India Company, for their colonies in the Americas and West Indies (da Silva 2017). In this context, the Mariocay fort in Gurupá probably originated from such private investments made from the Netherlands. We lack specific information about the Mariocay fortification in Gurupá, but historiographic sources reveal that the structures were rather ephemeral, being built primarily with wood (Treccani 2006), whereas later Portuguese forts were built with stone.

The Dutch colonial project achieved significant coverage in parts of the lower Amazon, including the lower Xingu River and the Gurupá (Mariocay) region. The Dutch fort in Gurupá was built in 1616 at the village of Mariocay, and was most likely built just after the construction of the two other forts previously mentioned along the Xingu River. The fortification was destroyed by the Portuguese in the 17th century: "in 1623, Bento Maciel Parente, chief captain of Pará, devastated Mariocay's Dutch fort" (ABAPP 1968, p. 279).

Throughout the early 17th century, Dutch ships headed to the Amazon were loaded with goods (axes, iron, glass beads, mirrors, etc.) to trade with the locals (Hulsman 2011), which served as both a commercial strategy and also as a form of insertion in the territory (bartering with locals).



Figure 5. St. Anthony of Gurupá Fort and ceramic fragments recovered there. (Photos: OCA project).

Aside from preexisting trade routes, the establishment of settlements was a direct strategy for obtaining control over the region. As opposed to Portuguese settlements, many of the Dutch settlements were small in size and had a short duration. Nevertheless, they enabled the Dutch to connect to a network of local villages. The Dutch settlement built in Gurupá in 1616 was possibly inserted in this context, situated among other settlements and commercial outposts from 1600-1620 (Hulsman 2009: 198). One question that should be further explored is to which degree the location of other Dutch forts or outposts was in fact determined by the location of previous indigenous settlements. The coincidence between the distribution of sites with Koriabo ceramics and Dutch outposts might indicate a particular trading strategy in which Koriabo vessels, or Carib peoples, played a role in the movements of goods and people, especially in the organization of slave trade.

The Dutch occupation of the fort was short lived, however, as the Portuguese captured it in 1623. According to several accounts the fort was razed, but by 1646, after the Portuguese had established full control of lower Amazonia, the fort underwent reconstruction, transforming it into the permanent settlement that can be seen today overlooking the Amazon River (Daniel 1976; Hemming 1978; Kelly 1984; Kiemen 1954; Wagley 2014).

This turned into a strategic military and control unit during the Portuguese colonialism. Pursuing the expulsion of the Dutch from Gurupá and the Lower Xingu in 1623, the Iberian colonial project introduced new actors and established different relations with local populations and new cultural negotiations (da Silva 2017). Thus, the Portuguese colonial project established more complex features, with commercial exchanges, in addition to the establishment of commercial outposts and reductions (centralized settlements to gather different indigenous populations for slave trade). But in both models, alliances and nego4tiations with indigenous groups was fundamental (Meuwese 2003), deeply impacting indigenous lives and culture, and consequently the archaeological record.

While Portugal officially established the captaincy of Maranhão in 1534 at the mouth of the Amazon and its surrounding environs, other European powers took Portugal's virtual absence in this region as an opportunity to exploit its people and resources. The natural resources most lucrative to European traders for export were restricted primarily to the *drogas do sertão* (extractive forest products), such as hardwoods, cacao, tobacco, rubber, cotton, animal products, and dyes, to name a few (Cleary 2001; Hulsman 2009). While Europeans went to great lengths to establish trade relations with native Amazonians, colonizing efforts were minimal and settlements remained limited to sparsely placed and poorly constructed trading outposts or forts (Hulsman 2009; Kelly 1984; Lorimer 1989). The French and Dutch had the largest presence, establishing forts and trading posts in the Amazon delta and at the confluence of the Xingu River, respectively. Both the English and the Irish also sought to exploit the riches of the region, establishing small mining camps, trading posts, and sugar plantations, which almost always ended in failure (Kelly 1984; Lorimer 1989).



Dutch Fortifications from the Early XVII Century

Figure 6. Early Dutch Fortifications in the Lower Amazon and Xingu River. (Map by Bruno Moraes).

With the emergence of these ephemeral settlements, came a new network of trade that not only introduced Europeans to Amazonian goods, but also brought into the lives of Amerindians the multifaceted uses of steel in the form of axes, knives, fish hooks and guns (Cleary 2001). These new trade items, along with the emergence of an extractivist agricultural economy, had profound consequences for precontact trade networks that had previously been composed of a "Labyrinthine river system [which] had operated to connect the floodplains with the uplands" (Cleary 2001, p. 84). Yet, with the arrival of Europeans "trade links that had integrated the lowlands with the Andean highlands for millennia were ruptured, and the Amazon became more isolated within the continent while a network of external relationships... tenuously began to bind it to Europe" (Cleary 2001, p. 84).

By the turn of the century, Portugal had established a highly lucrative sugar industry on the Brazilian coast, and sought to replicate this success in the Amazon. In order to do this, however, they would have to root out the other European powers who had established themselves in this region. Beginning with the French in 1615, and then further upriver with the Dutch in the 1620s, the Portuguese spent nearly three decades in their conquest of Amazonia. In many cases, the fortifications left by the French and Dutch had become so valuable to their previous owners that the Portuguese rebuilt these settlements, many of which became the foundations of modern day Amazonian cities and towns (Hulsman 2009; Kelly 1984).

Final Remarks

We first defined what is been called Koriabo in terms of modes of ceramic production that highlight a close relation between vessel morphology and decoration, that is widespread, it's occurrence goes beyond the Guiana and includes the Lower Xingu to the Amazon estuary. Secondly, in Barreto and Lima (this volume) we examined ceramic paste differences to advocate local ware production. By this, we explored the possible nature of the suggested interactions, connecting it to a Carib interaction sphere. Such assumption accepts a relation of language and material culture, although in an open perspective, within a multiethnic and multilingual system. Finally, we advanced on the hypothesis that this trade-interaction- network was appropriated by European colonial enterprises in the Amazon, understanding that such interaction spheres and associated trade networks may have had a crucial role during the colonial encounter.

We also suggest a validation procedure for this model: if it is correct, we would expect to find Koriabo-related pottery in other Dutch settlements/fortresses in the Guianas and in the Lower Amazon, a research theme that has not yet been exploited by historical archaeologists and ethnohistorians. The current hypothesis of Koriabo/Carib/Dutch connection is yet to be further tested, and represents a bridge between data gathered coming from archaeology, historical linguistics, and ethnohistory research. Further integrated analysis on these research fields are promising to illuminate late pre-colonial and early colonial indigenous history, in this case, for Cariban populations.

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Ceramics, Cultural Identity And Territories







The Incised Punctate Tradition: Evidence of a 'Lingua Franca' in Operation? A View from One of its Peripheries

Bruna Cigaran Rocha¹

One of the latest pre-Columbian ceramic traditions (which extended into the post-Conquest period in some areas) in the Amazon region is referred to as the Incised and Punctate Tradition (hereafter abbreviated to IPT), which dates between c. AD 900-1700. Ceramics belonging to the IPT are often found in multicomponent sites, usually within upper archaeological layers. It is often hard to distinguish a 'cut off' point between this pottery and that which precedes it. Meggers and Evans described the IPT through recurrent combinations of solely decorative features:

... the use of incision, punctation and modelling in several consistent ways... alternating elements in bands occupying the interior of bowl rims or the exterior of jar necks... the filling of areas with finely drawn, evenly parallel and closely spaced incised lines... Adornos are also common and varied, including anthropomorphic, zoomorphic and geometric forms [Meggers and Evans 1961: 381].

The IPT has been identified from the middle to lower Amazon, on the Tapajós², Xingu³ and Tocantins⁴ drainages to its south; along the Urubu and Trombetas basins⁵ to the north. The lower Urubu River represents a cultural boundary area to the west (Bassi 2016; Lima *et al.* 2016), while to the east it extends to the Brazilian state of Amapá⁶ and French Guyana.⁷

The IPT tradition is closely associated with the Arauquinoid and Valloid series of Venezuela and the Guianas because of shared technological and stylistic elements (Cruxent and Rouse 1958; Roosevelt 1980; Tarble and Zucchi 1984; Rostain and Versteeg 2004).

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 ² E.g. Barata (1953; 1968); Gomes (2002; 2005; 2008); Guapindaia (1993); Martins (2012); Nimuendaju (2004); Palmatary (1960); Perota (1979); Rocha (2012); Schaan (2016).

³ E.g. Garcia (2012); Perota (1990); Schaan and Amaral Lima (2012); Simões and Araújo-Costa (1978; 1987); Stenborg (2016); Toney (2012; 2016).

⁴ E.g. Araújo Costa (1983); Garcia (2012).

⁵ E.g. Guapindaia (2008); Hilbert (1955); Hilbert and Hilbert (1980).

⁶ E.g. Pardi and Silveira (2005); Saldanha and Cabral (2010).

⁷ E.g. van den Bel (2015); Rostain (1994).

The Incised Punctate Tradition and Carib languages

A graet advantage of the fact that the IPT was still produced following the European invasion of the Americas is that we have clues as to potential linguistic affiliation. The Tapajó Indians were initially postulated as the makers of Santarém ceramics – i.e. the best-known example of IPT wares in Brazilian Amazonia - by the Brazilian naturalist Barbosa Rodrigues (1875). Curt Nimuendaju (1952: 6) noted that the Jesuit João Felipe Bettendorf, who in the seventeenth century authored texts in the Tupian-based lingua franca of northern Brazil, called Língua Geral,⁸ required an interpreter to communicate with the Tapajó Indians.⁹ Seventeenth-century layman Maurício de Heriarte also distinguished the language of the "Orucucuzes and Condurizes" (the latter being regarded as the makers of IPT Konduri pottery from the Trombetas River) from the Tupian Língua Geral (Heriarte [1662] cited in Nimuendaju 1952: 6). Nimuendaju adds that the name of the 'cacique' of the Tapajó mentioned by Gaspar de Carvajal was "Chipayo" and that this "has no meaning in the Lingua Geral," belonging rather - "like so many other geographical names along the Amazon and on the north coast of Brazil which end in -jó and -yú, to a now extinct language which was evidently dominant in these regions before the expansion of the Tupí language" (Nimuendaju 1952: 5). Nimuendaju writes that:

> Of the Tapajó language we know only three proper names, that of the tribe, that of the chief, Orucurá, and that of 'the devil,' Aura (Heriarte, 1874: 36). None of these can be interpreted in Tupí. The last suggests the "awirá" (post-palatal i) with which the Aparaí designate the yellow headed buzzard (*Cathartes aura*, Linn.), and it is noteworthy that the Aparaí name of the black headed buzzard (*Coragyps atratus*, Bechst), "kurumú", is found in this area as the name of a range of hills near the mouth of the Trombetas. According to de Goeje, these two names designate mythological beings among the Wayána Indians. It is true that the great majority of the native place names of the region are from the Lingua Geral, which is still not entirely extinct in Alter do Chão. Others, however, doubtless belong to non-Tupí languages, and among these are some which have interpretations in Carib languages [Nimuendaju 1952: 6].

Lathrap (1970) and Zucchi (1985) correlated the dissemination of Arauquinoid and Valloid potteries respectively with movements of Carib speakers. Lathrap also affirmed that he was not claiming that "all the fine-line incised styles... discussed were made by Carib groups or that all Carib groups, as of contact time, made ceramics which could be accommodated within the broad stylistic tradition outlined" (Lathrap 1970: 170). Yet "the general timing and direction of expansion of this stylistic tradition correspond remarkably well to the known fact of Carib expansion" (Ibid.: 170). Extrapolating from ethnohistoric accounts of Carib warfare in the Guyana and Orinoco regions and St. Vincent

⁸ The Língua Geral Amazônica (or Nheengatu, meaning 'good speech') started in the seventeenth century in Maranhão and Pará, as a semi-creolized variety of Tupinambá. It was adopted by missionaries who implemented it as a major language of inter-ethnic communication, and spread it to the rest of the Amazon from the seventeenth to the nineteenth century (Aikhenvald 2012: 30).

⁹ This observation could be misleading, however – Bettendorf may not have spoken the Língua Geral himself when he first arrived in Santarém, as he was then very new to the region (Mark Harris, personal communication 2016). But Bettendorf did describe the Tapajó's language as distinct from the Língua Geral when he wrote about translating the catechism (Bettendorf 1909 [1693-1699]: 168; Nimuendaju 1952: 6).

and Grenada in the Lesser Antilles (José Oliver, personal communication 2017), Lathrap described Carib expansion into Amazonia through the perspective of the dominating male, as happening through "raiding parties of young men who attacked the neighbouring peoples. All adult males of the conquered villages were barbequed and eaten while the more desirable women were taken as wives" (Lathrap 1970: 164). We shall return to this below.

The Incised and Punctate Tradition on the Tapajós River

The Tapajós basin arguably contains the most famous and the least known archaeology of Amazonia. Early historical accounts, the presence of ADEs¹⁰ and incredibly sophisticated ceramics have led scholars to view the present-day town of Santarém, situated on the confluence of the Tapajós and Amazon Rivers, as a pre-Columbian political centre dominated by the Tapajó Indians. Smaller sites in the vicinity, containing simpler ceramics that nonetheless bear techno-stylistic attributes that express a shared vessel 'grammar,' are often alluded to as belonging to the periphery of the Tapajó domain.

The limits of Tapajó political influence have been an archaeological concern since the nineteenth century (Rodrigues 1875), more recently taken up by Gomes (2005; 2008), Guapindaia (1993), Martins (2012) and by Stenborg, Schaan and Amaral Lima (2012), among others. In the 1920s Nimuendaju identified dozens of sites to the east and west of the Tapajós whose ceramics could be associated with those of Santarém (see Palmatary 1960: Map 3). Meanwhile, the lowermost rapids of the Tapajós represent the known southern limits of this 'periphery.'

Referring to the IPT, Stenborg, Schaan and Amaral Lima (2012: 232) postulate that "To the extent that homogenisation of material culture also implied the spreading of properties such as modes of production, land use, socio-political organization and the like it also renders a development towards political unity quite likely". Quite what that unity would be, however, is open to debate. Martins (2012) believes that, while similarities can be detected in the ceramic assemblages of the Tapajós, certain morphological differences suggest a level of local autonomy (2012: 52). Schaan does not identify technological and iconographic differences between the ceramics of Santarém and the inland sites. She writes that within the Tapajó 'domain,' "feasting and ceremonies appear pervasive pointing to social equality and solidarity instead of a rigid hierarchy" (2016: 34). Because our knowledge of the archaeology of the Tapajós proper is still limited, we cannot yet be sure whether other late pre-Columbian "centres" existed in the region, or even whether, as Martins (2012: 171) and Schaan (2016) suggest, we may in fact be before a heterarchical system of peer societies.

¹⁰ Amazonian Dark Earth, or terra preta.

A view from the southern periphery: ceramics and lithics from Sawre Muybu

The present-day Munduruku village and ADE site of Sawre Muybu is situated on a high bluff (approximately 40m above high water level, in March) on the eastern margin of the middle section of the Tapajós River, below its confluence with the Jamanxim, slightly above (i.e. to the south) of its lowermost rapids **(Map 1)**. The village of Sawre Muybu is within the Sawre Muybu Indigenous Land, a territory know to the Munduruku as Dace Kapap Eipi, where there are currently another 7 villages.

The stratigraphy of the Sawre Muybu site is complex, presenting features and bioturbations. Two of the features are of interest here, labelled F3 and F4. We interpret F3, situated between N1000/E957 and E958 test pits (see Map 1 and Figure 1), as an area initially used for food preparation that later became a pit for secondary disposal of pottery. F4, located within N1008/E1113 test pit (see Map 1) contained a large amount of lithic material (chunky cores as well as flakes), leading us to think this could have been part of a stone tool workshop area.

Dated charcoal indicates that the Sawre Muybu site was occupied for at least ~175 years from the late ninth or early tenth century AD. The earliest of the three ¹⁴C dates so far obtained at Sawre Muybu came from test pit N1000/E958, at 34cm depth, and is associated



SAWRE MUYBU VILLAGE AND ARCHAEOLOGICAL SITE • Itaituba - Pará - Brazil

Map 1. Sawre Muybu village and archaeological site. Map by Vinicius Honorato and Guilherme Mongeló.



Figure 1. Excavation profile of N1000/E957-958.5 test pits. Graphic art by Marcos Brito Castro.

with what appears to be an in-situ kitchen area. It places occupation at the site to at least 1039±26BP (UBA-29070). The intermediary date of 913±30BP (UBA-29071) came from beneath a large ceramic griddle found at the bottom of feature F3 from adjacent pit N1000/E957, at 70-80cm depth. The latest of the three dates, of 865±30BP (UBA-29072), was sourced from Feature F4, identified in test pit N1008/E1113. Thus, the Sawre Muybu site was abandoned was likely abandoned in the first half of the twelfth century AD, though it may still have been occupied as part of a larger territory, as a hunting ground, for instance.

The results of the ceramic analysis and the dated charcoal samples point to the existence of one ceramic complex at the Sawre Muybu site.¹¹ The Sawre Muybu ceramic complex contains two, or possibly three, distinctive wares (SM-1, SM-2 and SM-3) (Figure 2).¹² Both SM-1 and SM-2 are associated with the IPT; they are generally cohesive in terms of their technological dimensions, which link the initial (i.e. temper and paste selection) and final stages (firing in particular) of their manufacture. We have found that formal and decorative features can vary accordingly. This means that temper allows for a reasonably confident prediction of other attributes or modes related to firing, and allows for some idea of which formal or decorative attributes can be expected.

The evidence at hand (the stratigraphic location of diagnostic sherds and radiocarbon dates) suggests that SM-1 is a locally-made coarse ware, which existed prior to the arrival of diagnostic (stylistic) elements associated with the IPT. It is tempered principally with poorlysorted quartz sand. This ware is associated with unrestricted vessel body forms with simple contours and also to independent restricted, inflected vessel contours. Externally thickened, 'folded' rims that often display plastic displacement decorative techniques are a salient characteristic (Figure 3). Slip is often present and the employment of rectilinear and curvilinear geometric designs points to a repertoire that goes beyond elements normally associated with the IPT (Figure 4). Excision occurs with some constancy while modelling and impressions are only seen infrequently. Applied nubbins, which are usually incised or punctated, are not regular, but stand out. One of the 'signature' embellishments for the SM-1 ware are 'chains' created by applied and punctated clay strips or ridges – this is the most obvious manifestation of the IPT. But the apparent absence of the 'chain' motif from the deeper levels of the site seems to indicate that this element was incorporated into the potters' stylistic grammar at a later moment.

Meanwhile, SM-2 ceramics are interpreted as an imported fine ware. They have cauixí (sponge spicule) as their principal temper, while grog is on occasion a secondary temper. These materials are invariably associated with blackened cores suggestive of firings conducted in reducing atmospheres. Fireclouds can also be seen on sherds. Most horizontal cross-sections (i.e., if we were to look at the vessels from above) relating to SM-2 are circular, but there are notable exceptions (Figures 5 and 6). Vessel wall thickness is more standardised and generally thinner than with SM-1. SM-2 is solely associated with unrestricted forms. Regarding appendages, labial extensions provide the platform for the application of plastic and painted decorative elements. These are exclusively associated with SM-2 and appear on the inner rims of unrestricted vessels. In contrast to SM-1 pottery, with SM-2, paint is more commonly seen than slip. Punctated or incised appliqué nubbins create zoomorphic representations, especially on the inner surface of labial extensions. Only one instance of a punctated clay strip was identified. This strip is considerably thinner and more discreet than the equivalent decorative technique applied to SM-1 pottery. Lips can be notched or modelled. We believe ware SM-2 represents decorated fine wares used for serving.

¹¹ For details on the sample studied, methods of analysis and results, see Rocha (2017).

¹² SM-3 is at this stage a hypothetical ware and will not be mentioned further.



Figure 2. Summary of vessel forms and associated rims belonging to Sawre Muybu vessel set. Includes wares SM-1, SM-2 and SM-3. Compilation of forms by Manuel Arroyo-Kalin. Illustrations by V. Honorato and Marcos Brito Castro.



Figure 3. Ware SM-1 specimen (PN: SM-308-25). Note combination of 'signature' IPT chain motif and 'folded' and excised rim, the latter being a local attribute. Illustration by Marcos Brito Castro.



Figure 4. Ware SM-1 displays repertoire that goes beyond what is usually associated with IPT, such as the use of paint to produce geometric designs (PN: SM-333-29). Illustration by Marcos Brito Castro.



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Figure 5. Unique specimen belonging to ware SM-2 (PN: SM-522-1) found in F3. Note ellipsoid horizontal cross section, labial extension used as platform for application of punctated nubbins (producing biomorphic motif), notching along lip and use of red paint. Illustration by Marcos Brito Castro.



Figure 6. Unique specimen belonging to ware SM-2 (PN: SM-529-01) also found in F3. Below the rim this vessel has a circular cross section, yet the vessel's mouth has both curved and straight sides. Though punctated clay strip ('chain' motif) is present (see arrow), this is considerably thinner and more discreet than the equivalent decorative technique applied to SM-1 pottery. This specimen contains a singular polychromic design of interlocking scrolls. Photograph by Victor Rotiv Almeida.

SM-2 sherds appear to be concentrated in Feature F3, where semi-integral vessels were encountered. Few sherds belonging to this ware were identified among the augered material analysed from the post holes dug elsewhere in the site (Tavares 2017).

Though both SM-1 and SM-2 share a common insignia of the IPT (applied and punctated clay strips and nubbins), their overall appearance and finish is distinct, pointing to a difference in materials and in technique used. On the *cauixí*-tempered material (ware SM-2), the sole clay strip identified and its concomitant punctations are more refined, with formal and stylistic attributes more controlled, lending it a more 'sober' appearance in comparison to the rough-and-ready, less disciplined application of designs observed on the quartz sand-tempered material (ware SM-1). The distinction is similar to that described between the Arauquín and Matraquero styles defined by Cruxent and Rouse (1958); with Matraquero, ridges were well worked into the vessel surface but in a cruder, more irregular manner in comparison to the Arauquín style. Matraquero materials were punctated with a blunter tool, which made the sides of the ridges bulge, producing a chain-like effect.

The presence of SM-2 and the "chain" motif on SM-1 signal the participation of the community living at Sawre Muybu at the turn of the second millennium AD with networks that extended northwards. The production of the sponge spicule wares involved a greater degree of specialisation and the forms seen would likely have been intended for more specific, serving functions. Heriarte (1874 [1662]: 39) made reference to the Tapajó exportation of ceramic vessels. Though the SM-2 vessels we found at Sawre Muybu did not necessarily come from the mouth of the Tapajós, the statement confirms that exchange in ceramics during the late pre-colonial period did take place in the region. Our proposition is reinforced by the fact that neither the flint nor the fine sandstone lithics located at Sawre Muybu seem to be local (Honorato de Oliveira 2015: 75), indicating either direct sourcing of raw materials from areas downstream or involvement in exchange networks with peoples from these areas.

Participation in this far-reaching network probably occurred at a later moment in the site's occupation. Feature F4, which contained imported lithic material, offered the latest date of the site.

Bearing our local data in mind, we can now return to thinking about the IPT on a wider scale.

The role of potters within the Incised and Punctate tradition

Considering gender and ceramic production, Sassaman and Rudolphi (2001) state that cross-cultural comparisons show that "when pottery production is household based, nonspecialized, and part-time, women exclusively are the potters" (Ibid.: 420). They argue that this ethnographic scenario can be extrapolated to the past. Though social roles and relations were transformed in several – often radical – ways following the European invasion of the Americas, continuities also ensued. Similarly, we assume that women produced most, if not all the ceramics analysed from Sawre Muybu.

Sassaman and Rudolphi (2001: 408) write that women potters would have participated in at least two communities of practice – "their natal communities, as mothers, daughters, and sisters, and their marital communities, as daughters-in-law and wives". They write that "Recognition of these varied social identities not only helps to explain regional variation in early pottery but also provides a basis for explaining change in communities of practice arising from the potential conflicts of contradictory social obligations and responsibilities" (Ibid.: 408). This view does however place the emphasis on women attending to external obligations and responsibilities without apparently being able to determine the outcome of their ceramic production. Still, it is far more nuanced and considerate of female perspectives in comparison with Lathrap's (1970) formulations. The IPT elements within SM-1 are perhaps what he would have described as a "poorly understood and garbled" version of Carib culture, produced by the "more desirable women" chosen as wives by the "raiding parties of young men" (1970: 65, 164, 170).

Placing the agency of the potters in the foreground, Brenda Bowser and John Patton (2008) offer further elements for an alternative interpretation of SM-1 pottery (and by extension the IPT). By analysing the development of women's pottery styles in the context of their political life stages through the lens of community of practice and situated learning concepts, ethnoarchaeological investigations conducted by Bowser and Patton (2008) along the Conambo River basin of the Ecuadorian Amazon stress that learners are legitimate peripheral participants: neophytes who at first take part as peripheral members and eventually become full members through a process of socialisation. Dynamic tension follows the process of transition and eventual displacement as newcomers endeavour to affirm their own identities through practice: "This phenomenon is precisely where explanations of discontinuity and change may lie" (Ibid.: 108). The authors notice that women's domestic pottery style in Conambo "may be understood as part of their motivated political strategies and the active processes of constructing, maintaining, and negotiating social identity, social group membership, and group boundaries" (Bowser 2000; 2002 cited in Bowser and Patton 2008: 106). They show how women's political strategies change during different moments of their lives and that, as they become competent in recognising stylistic symbols of group membership, they accordingly apply different strategies of stylistic behaviour (2008: 107). Bowser and Patton surmise that ceramic style is associated "strongly with women's political relationships and only weakly with ethnicity, even though ethnicity is a more heritable dimension of social identity" (Ibid.: 2008: 105).

In Santarém, early IPT ceramics are dated to c. AD 900 (e.g. Quinn 2004). The arrival of IPT elements in the Sawre Muybu area do not seem to signal violent, partial ethnic displacement, as Lathrap (1970) suggested, but rather networks of negotiation and exchange and the circulation of people, perhaps along similar lines to what was proposed by Schaan (2016: 34). Carib speakers may well have participated and circulated within these networks.

Yet if there was movement of Carib speakers from the north to the south, people were already living at Sawre Muybu. Considering the available linguistic information and hypotheses that cover the Tapajós, the likelihood is that the early occupants of Sawre Muybu were Tupians.

Evidence of Tupi-Carib relationships?

Several Tupian speakers would have traversed the Tapajós from the present-day state of Rondônia in eastwards expansions towards the Xingu and Araguaia-Tocantins basins. These include speakers of Kuruáya (Munduruku language family), members of the Juruna language family (Juruna and Xipáya) (Rodrigues and Cabral 2012: 500-501) as well as speakers of Tupi-Guarani languages. Others remained in the Tapajós basin, or in the Tapajós-Madeira and Tapajós-Xingu interfluves; these include speakers of the Mawé family, the Munduruku family, and speakers of the (Tupi-Guarani) Kawahíb branch of languages (Apiaká, Parintintín) (Ibid.: 500).

As mentioned earlier, the IPT in Brazil encompasses what in Venezuela was classified as two separate, though related, series. While Tarble (1985), Tarble and Zucchi (1984) and Zucchi (1985) would initially relate the Valloid series to specific speakers of Carib languages, such as the Mapoyo (Tarble and Zucchi 1984), Lathrap (1970) made the connection between the Arauquinoid series and IPT and explained this in terms of a Carib 'invasion' of Amazonia. Tarble de Scaramelli and Scaramelli would later affirm that the ample distribution of Valloid materials goes "far beyond the limits of any one ethnic group and there is no reason to believe that this style was necessarily related to any specific language stock" (2011: 110-111), however. Commenting on Nimuendaju's assessment of the Tapajó and the likelihood of their language being a Carib language, Palmatary (1960: 14) reports Frederico Barata's difference of opinion on the matter. Though he believed that the Tapajó had a specific language, which was conserved by their chiefs and their elders, he also noted that the area over which Nimuendajú found Tapajó pottery was vast. He proposed that through ordinary commerce as well as through the slave trade the Tapajó must have had relations with Tupí-speaking peoples, and that the lingua geral¹³ was also in common use among them (Palmatary 1960: 14):

¹³ This use of lingua geral is anachronistic, since the lingua geral would only come into being the dissemination of missionary influence in Amazonia. By using this term Palmatary would have meant a Tupian language.

He also notes that, in addition to the common nouns *putabas* and *atoassanâ*, previously referred to (which he states are Tupí), there are five other Tupí words in the Betendorf record of the Tapajó. These are: *Moaçara*, superior, chief. *Monhangarypy*, dried body of an ancestor. *Payassu*, great father. *Poracé*, a dance. *Xerimiréco-atê*, legitimate wife" [Palmatary 1960: 14].

In spite of his gross stereotypes of speakers of Carib languages and their processes of expansion into Amazonia (Lathrap 1970, pp. 164, 170), Lathrap put forward an interesting perspective when he stated that the IPT "is a tradition that cross-cuts several of the other horizons and traditions recognized" (1970: 165). A number of processes are likely to have been involved with the transmission of IPT elements, including migration, but also expansion (*sensu* Noelli 1996; 1998), intermarriage, trade and emulation, related to decisions taken by potters themselves, as Bowser and Patton have highlighted (2008). Perhaps we can liken the widespread geographical amplitude of these materials to the operation of a lingua franca or pidgin in the region, overlaying and fusing with underlying local traditions and elements, without entirely replacing them.

It is worth noting that, having established regular phonological correspondences based on lexical equations encompassing areas such as kinship, body and plant parts, nature, non-cultural and cultural items, qualities, actions and states, as well as grammatical morphemes (inclusive of person markers), Aryon Rodrigues would endorse the potential existence of a genetic relationship between some languages of the Tupí stock and languages of the Carib family (1985: 374) proposed by de Goeje (1909 cited in Rodrigues 1985). Leaving this issue aside, however, the high degree of similarity between cognates of Tupian and Carib languages at least point to intensive historical interactions. Of note is the resonance Rodrigues detected between the cognates for 'dish/pot', 'calabash' and 'calabash bottle' between three Tupian and one Carib language:

Tupí-Carib cognates for dish/pot/calabash.				
Language	Tupinambá (Tupi)	Tuparí (Tupi)	Munduruku (Tupi)	Taulipang ¹⁴ (Carib)
Cognate	ya?½	wa?½	wa?e	wai
Translation	'dish, pot'	'pot'	'calabash'	'calabash bottle'

Table 1. Tupí-Carib cognates for dish/pot/calabash (Reproduced from Rodrigues 1985: 385).

Constellations of practice and network models

Working in Central America, Rosemary Joyce has found that while the concept of *community of practice* (Wenger 2000) points toward a 'scope of engagement' not on a geographic scale, but in the sense of a level of interaction that can be understood as a

¹⁴ I believe this corresponds to the language spoken by the Pemon/Taurepang, whose language belongs to the Carib family of languages and who today live in the savanna areas between the Brazilian state of Roraima, Venezuela and Guiana. See: https://pib.socioambiental.org/pt/povo/taurepang/113.

"grouping of people working together and understanding each other as in some sense an identified collectivity" (Joyce 2015: 10), a *constellation of practice* is composed of disparate groups of people sharing certain elements of the norms of production of their distinct products, due to historical conditions (Ibid.: 9). This is useful because "some configurations are too far removed from the scope of engagement of participants, too broad, too diverse, or too diffuse to be usefully treated as communities of practice" (Wenger 1998: 126-127 cited in Joyce 2015: 9-10). Thus focus shifts to interactions between groups inserted in "complex, overlapping landscapes and constellations of interconnected practices" (Wenger In: Omidvar and Kislov 2014: 267).

This is a fruitful way to view the IPT. It enables us to identify traces that go beyond any recognisable scope of direct interaction, but where signs resulting from some degree of connection are present (Joyce 2015: 10). "That 'something' can be visualized as a network" (Ibid.: 10).

Networks can comprise different scales and forms – such as corridors and directions of movement of people, things and knowledge – and can circumvent places while reaching from one node to another. Participants engaged at different ends of these routes could employ the objects in question in ways that made sense in their own local settings. Rather than taken to represent entire "cultures", the study of material culture within network models allows for the demonstration of manufacturing and consumption practices in specific ways (Joyce 2015: 11).

Writing about gift exchange in the Guianas, Barbosa (2005) emphasises that instead of one large interaction network, diverse multi-centred networks can be traced, which are more or less overlapping and articulated, with tenuous and fluid boundaries (2005: 59).¹⁵

These propositions seem pertinent to the case in point and can in future provide us with helpful tools through which to consider the IPT.

Boundaries as spaces of interaction and negotiation

Lowland archaeologists (e.g. Meggers et al. 1988; Miller 2009) have long considered rapids as potential cultural boundaries, following J.M. Cruxent, who frequently espoused this proposition after his expedition to the Ventuari River with Meggers and Evans in the 1950s (José Oliver, personal communication 2016). In this sense, a

¹⁵ Clearly, distinctions exist between pre- and post-Columbian networks: disease- and war-induced depopulation, migrations and territorial compression, processes of fission and fusion between groups, the introduction of industrialised goods and specific policies undertaken by nation states have caused transformation – and frequent disarticulation – of regional networks, so that current networks appear to be more limited in extent in comparison to those described in the past. This does not mean that current networks should be seen as simple remnants of those described in the past by travellers and chroniclers; they have acquired other facets, relative to the presence of nation states and their actors' familiarity and engagement with the outside world's technology, writing and monetised economy (Barbosa 2005: 60).

'boundary' would imply a sort of frontier or border, separating different peoples. More recently, Almeida (2013) has proposed we view Amazonian rapids differently, as *persistent places* (sensu Bowser and Zedeño 2009), which are meeting places or areas of potential cultural interaction.

Concerned with "how past others regarded their others" and defending the idea that alterity must be considered a central dimension affecting archaeological variability (Lau 2013: 2), Lau articulates postulates based on South Americanist anthropological studies. He argues that since alterity functions as a "basic human principle now... there is no reason to believe that it did not for past cultures", and that the person is formed by recognition of and relations with unlike selves – "we constantly develop personal statuses through engagements with others" (2013: 1). Lau further posits that there are different kinds of alterity residing in multiple scales and at different times: "The notion of others is rarely fixed or in the singular: it is always contested, perspectival and changing" (2013: 4).

Identity is possibly more fluid than alterity (Lau 2013: 9); by identity is meant the understandings that structure "a person's recognition of self and those shared understandings of belonging to a particular collective" (2013: 6). On the dialectic relationship between identity and alterity, Lau writes of how alterity frames identity (Lau 2013: 8). This may be related with what Lévi-Strauss called "openness to the Other" (Grupioni 2009: 26) and has also been defined as a shared "Amerindian mode of relatedness" (Lau 2013: 11). Grupioni (2005: 39) asserts that this openness "is related to the impossibility of indifference before the experience of encounter/confrontation with whomever it may be". Lau posits that "If what produces identity are shared norms, things and practices we term 'culture' and the generative framework for learned dispositions, evaluation and change which we term the *habitus* (Bourdieu 1977), these same frameworks ought to characterize the processes of alterity" (2013: 8).

Recent ethnographic investigations in the Guianas (see Gallois 2005) have proposed that rather than focus solely on local groups as entities bound within a circumscribed space, multi-local networks can be studied. Gallois *et al.* define boundaries as a *meeting of interests*, or auspicious spaces for the construction of new social formations and representations – as spaces of connection, intersection or transition, in which interactions occur.

Grupioni (2009), for instance, observes that:

In an unassuming survey of graphic art of the peoples of the region that encompasses Amapá and northern Pará states, it is possible to observe that many patterns that compose the Tiriyó repertoire are recurrent, be this among the Wayana, Aparai and Wajãpi, only to mention the nearest, but similar patterns are also found among the Waiwai and other groups of northern Amazonia. Such recurrences do not reveal anything but the existence of a specifically Amerindian dynamic, of constant circulation and exchanges of peoples, goods and knowledge that do not fit within the interior of any ethnic, linguistic, or territorial boundary, but that overcomes all of these boundaries and belong to a common cultural scheme. In this scheme in which people, goods and knowledge circulate from one place to the other, graphic designs follow, being incorporated by different peoples, but the names and meanings attributed to them normally change because they are locally constructed with each new incorporation [Grupioni 2009: 32-33]. If our interpretation of the ceramic materials at Sawre Muybu is correct, this is what is attested by ware SM-1, which seems to acquire IPT (decorative) elements over time. It may also to be the case for sites and areas where IPT elements are noted in connection with disparate materials.

For such circulation and exchange to exist in the first place, an underlying, shared 'language' (e.g., pidgin or trade language) between these peoples would have needed to exist (J. Oliver, personal communication 2016); it is noteworthy that Grupioni makes reference to both Tupian (Wajãpi) and Carib-speaking peoples.

Closing remarks

I partly agree with Guapindaia (1993) when she posits that the IPT "places under the same criteria cultures that, in spite of their use of incised and punctated decorative motifs, had as a final result of their work completely distinct artefacts. Considering that incision and punctation techniques are universal, it is extremely vague to adopt them as diagnostic characteristics of a tradition" (1993: 40). Labelling often disparate assemblages as "incised and punctate" and leaving it at that flattens and homogenises this centuries-long period of the region's history.

But the chronology and diagnostic decorative features of the IPT do have a coherence that merits attention. We need to study local assemblages and stratigraphy at a more detailed level, to see if we can detect and distinguish underlying local elements in order to tease out potential processes involved. At any rate, it seems reasonable to relate the IPT with processes of ethnogenesis from around 1000 BP in a vast region, stimulated by the increase in demography (which is testified by a large number of *terra preta* sites dated at around this time), landscape management and a greater intensity of social networks. At present, Sawre Muybu is the southernmost site associated to the IPT on the Tapajós – further work beyond the Jamanxim River is needed to verify whether this postulated limit still holds.¹⁶

It seems plausible that the diffusion of features of Arauquinoid, Valloid and IPT potteries within the Guianas (Rostain and Versteeg 2004) and the Amazon Basin can, in overall terms, be associated with Carib speakers. Ethnographic maps of the Guianas and the contemporary presence of Carib speakers to the south of the Amazon basin, including the upper Teles Pires (Bakairi) and Xingu (Arara, Ikpeng, Kalapalo, Kuikuro, Matipu, Nahukwá and Naruvotu) Rivers indeed testify to the extent to which Carib speakers have migrated and expanded.

But the apparent absence of the 'chain' motif from the deeper levels of the Sawre Muybu site could be an indication of this element being incorporated into the stylistic grammar applied by the site's potters at a later moment, and might suggest processes of

¹⁶ Perota makes reference to the IPT further upstream (Simões 1983), but we chose to wait for further confirmation of this.

ethnogenesis. This remains to be tested, but could provide insight into the timing of involvement of this community with IPT networks, denoted by the presence of the *cauixí* finewares and foreign lithic material and by the development of a hybrid ceramic style.

This finding can help illuminate a current problem for the Munduruku of Dace Kapap Eïpi, who have been fighting for official recognition of their collective right to the territory from the Brazilian government for several years. In the drawn-out legal process, within the arguments raised by the enemies of the Munduruku who challenge their land claim is the insinuation that they are somehow illegitimate – and therefore not entitled to the land. Their use of industrialised products is held up as an example of this. Months after our first excavation of the site in 2014, we returned to Sawre Muybu. At the request of the Munduruku, we had left the pit that had contained F3 half empty, as it was to become a turtle pen. On our return, we found it filled to the brim with plastic bottles. Plastic is obviously not as attractive as IPT fine wares, but this example perhaps illustrates how connectivity and engagement with alterity are perhaps one of the most enduring characteristics of Tupian peoples.

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An Ethnic Style? The Kali'na Ceramic in The Cooking Pot...

Gérard Collomb¹

Investigating the Cayo ceramic complex, island of Saint Vincent, Arie Boomert (1986) emphazised the proximity between the Koriabo tradition and the historical Kali'na (carib) ceramic production of the coastal regions of the Guianas, which would borrow its characteristics from both this tradition and the late polychrome traditions (Arua, Ariste) of the lower Amazon. The proposal is convincing, but one question still remains: what continuity could be established between the populations that characterize these archaeological "phases" and the current indigenous peoples in this same region? Between the peoples which made "Koriabo ceramics" and the Kali'na of the modern period? There are no datas that would make it possible to establish a sound correspondence between these archaeological cultures, even those closest to contact, and the present peoples, which are products of a history of disappearances, recompositions, mergers, and who experienced multiple cultural influences since the XVIIth century on the Guianas coasts. More than three centuries, poor in informations and deeply disturbed by colonial history, separate the few late Koriabo sites (Rostain 2008) from an ethnographically accessible Kali'na universe, at the very beginning of the XXth century (de Goeje 1906; Penard and Penard 1907; Ahlbrinck 1931).

We therefore suggest here to leave aside this question, and since the gap seems really difficult to fill, to propose another exercise. Starting from what we know of a human group that defines itself today as "Kali'na" in french Guiana and Suriname, by its language, its social practices, its symbolic referents, we would like to make a contribution to this question of the "ethnic style" that archaeology and ethnology raise, each in its own way, and try to shed some light on what a "kali'na ceramic style" might represent. We will focus for that on the collections of Kali'na ceramics stored in European museums, since the mid-XIXth century – deposits that often offers some similarities with the shards and pots excavated by the archaeologist...

It was only in the mid-XIXth century that the production of Amerindian potteries in the Guianas drew interest of travellers, in addition to the feather ornaments or the weapons evocative of "wild" worlds. At that time, collections of Kali' na pottery, from the coast line or nearby areas, in French Guyana, Suriname and British Guiana, were included in

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the main ethnographic museums, but also in the collections of many museums and natural history museums in the small towns of the colonising countries, France, the Netherlands and Great Britain. While woodworking and basketry were significant activities in the life of the villagers, while featherwork is unquestionably a central concern in Amerindian aesthetics, they are not really present in these museums collections of kali'na artefacts. By contrast, the potteries are strongly over-represented, composing often more than 50% of the Kali'na items in many of them (Collomb 2017), building thus an amazing image of a people of passionate potters (Figure 1). However, among these ceramic collections there are very few of the containers in daily use to store water or manioc beer, nor pots for cooking, and few potteries intended for a ceremonial use, which were often well decorated. It appears that the travellers were not much interested in such objects, they have rather brought in Europe and donated to the museums a quantity of quite different potteries.

Produce in the colony

In the beginning of the XXth century, missionary Wilhelmus G. Ahlbrinck (1931) noticed a range of utilitarian pottery among the Kali'na of western French Guiana and eastern Suriname. The shape of these pots was very much like those found among the Palikur in the east of French Guiana and neighboring Brazil (Nimuendaju 1925; van den Bel 2009), the Waiwai of southern British Guiana (Yde 1965), and the Caribs of the Barama River in the west of the same country (Gillin 1936). This type of pottery was also similar to those manufactured by the Caribs of the Lesser Antilles at the time of European contact, as described by travelers and chroniclers of the time (Allaire 1984; Boomert 1986). The Kali'na, as is quite generally the case among other peoples throughout this area (Roth 1924; Ribeiro 1988), use a set of ceramic forms that respond to a number of functional requirements : large vessels (samaku, maka, waresa) used for the cooking of great quantities of food, the production of manioc beer (casili), and, in an earlier historical period, possibly used as burial jars. A range of smaller pots forms the set of cookware (tumayeni) and large wide-necked vessels (tukuali) are intended for storage of water. Lastly, bowls of different sizes are employed both for the consumption of the casili (sapera) and for other uses (parapi). Until recently these forms were produced by the Kali'na potters for domestic and ritual use, the characteristics of each type being able to vary slightly according to the family or village tradition.² By contrast, from the mid 19th century onwards, and in parallel with this production, potters expressed new formal creativity in response to the demands of a market that was set up in the western part of French Guiana and eastern Surinam, in the context of the second colonization. In the economic exchanges that occurred between the Amerindian villages established on the coast and

² A significant change in the shapes (difficult to date, but probably late) must be noted, which led to abandon the spherical or conical bases, such as those described in 1684 by Jean de la Mousse on the Sinnamary River (Collomb 2006). Gillin (1936) could still see these spherical potteries among the Caribs of the Barama River.



Figure 1. The "Karaïbische" (Kali'na) pottery showcase in the Koloniaal Instituut, in Amsterdam, circa 1930 (Goslings 1934:99).

the Europeans that the colonization brought into the Guianas, the pottery has held a significant place. This history has led the Kali'na ceramic towards a quite different evolution from the other Amerindian peoples settled in the forest of the south, the potters shaped unexpected shapes, played baroque variations on the traditional ceramic forms, in search of inventions and borrowings (Tricornot 2007).

Indeed, since the XVIIth century, the history of the eastern Kali'na³, settled on the Atlantic coast in French Guiana and Suriname, cannot be separated from the colonial history of the two countries. Their ethnic identification (either self-constructed or ascribed) and their territorial inscription became more or less linked to the European colonial expansion in the region. In this history, the middle of the XIXth century represented a turning point, when French Guiana and Suriname have opened to a new stage of their colonial development, up to their borders. At that time, in French Guyana, an agricultural settlement has been implemented in Mana, in the western part of the colony, and since 1858 the penitentiary colony (« le Bagne ») had developed in the lower Maroni, giving rise to the creation of Saint-Laurent du Maroni, facing Albina which itself had been founded a little earlier on the Surinamese bank. Further west, the Dutch colony had established since the XVIIIth century a dense network of plantations on the Suriname and Commewijne rivers, and the Ndjyuka maroon populations had settled in the forests west of the Marowijne, becoming *de facto* competitors of the Amerindians in the same areas. A few years later, the discovery of alluvial gold in some places sparked a real gold rush, provoking a strong immigration and the development of an important economic activity in the towns situated at the mouth of the rivers. These events, that prevented the Kali'na to maintain a distance with the colonial places, as they long used to do, occurred at a moment when they were at their lowest demographic level, only a few hundreds people. They became more and more limited in their collective mobility, and their economy became more dependent of the colony's activities. From then on, they had only very few relationships with other Amerindian groups, and in the second half of the century, they ended up in a new world that they had to share with foreign populations, French and Surinamese Creoles, Maroons, Europeans.

In many Kali'na villages, most of them being settled not too far from to colonial centers of activity, the pottery production grew and diversified. While men could benefit from odd jobs in the small towns, or sell cassava and hunting or fishing products, women found in the trade of their pottery a way to obtain a small monetary income that had become indispensable for making some purchases in the shops of Mana, Saint Laurent du Maroni, Albina or Paramaribo. Colonial archaeology in Guyana brought to light, together with pottery of European origin, numerous shards of Amerindian pottery (Coutet and Losier 2014; van den Bel 2014), and one can reasonnably think that during the eighteenth century a significant part of the Kali'na pottery was already being manufactured

³ We will focus here on the eastern Kali'na, settled near the coast in western French Guiana and in eastern Suriname. Other kali'na groups, living in the English and Spanish colonies, on either side of Lower Orinoco, enjoyed a different history and had very few or no contacts with the eastern Kali'na since at least the mid-19th century (Collomb and Lescure 2014).

for the colonial settlers in French Guiana and Suriname. So was the *watalakan*, a narrownecked carafe, usually with a small stopper, sometimes with a lateral handle, widely used by the Creoles and Europeans since the XVIIIth as a container for drinking water, whose shape likely derives from European glass bottles imported in great numbers into the Guianas (Klein 1966) (Figure 2). Its name in Kali'na, composed of two words of Surinamese Creole meaning "water" and "can", suggests a foreign cultural origin, as does also its use: the Kali'na habit is, usually, to draw a liquid from a wide-necked jar, while the watalakan is used to pour the liquid into a container such as a drinking glass. Produced in large quantities by the Kali'na potters, the *watalakan* became in the XIXth century, both in french Guyana and in Surinam, a privileged support of their creativity, making amazing bottles with superimposed, distorted and sometimes twinned shapes (Collomb 2003; Tricornot 2007) (Figure 3).

More generally, as one traveler pointed out on the Maroni in the early XXth, « perhaps the major portion of the earthenware is made to sell or trade at the white settlements. Here it brings good prices as the French and other travelers desire to get the articles for souvenir and decorations. The pottery is also used for domestic purpose by many of the white settlers of the region » (Merwin 1917). A multitude of civil servants, penitentiary or colonial administrators, doctors, military men, merchants and travellers, returning from their posts, brought back to Europe numerous indigenous artefacts and especially Kali'na potteries, many of them ending up in museums.



Figure 2. Serial production of watalakan in Lelydorp, Suriname, circa 1920 (Ahlbrinck 1931).



Figure 3. Twinned shaped *watalakan*, French Guyana, circa 1905. Musée national de la Céramique, Sèvres (Tricornot 2007:125).

The consequences of this new market demand, combined in the same time with a reduced importance of the traditional domestic equipment due to progressive use of European products, induced a transformation of the Kali'na pottery production. The potters responded to the demand by offering other objects, inventing diversified shapes that were largely free of functional concerns, and by adding handles or spouts (Figure 4), which were exceptional in traditional potteries. Sometimes, they were copies of European objects or utilitarian ceramics, that the potters could see in shops or in creole houses in nearby small towns, they became teapots or European shaped carafes. They diminished in size, becoming miniature replicas of benches, canoes, houses or even European shoes, in the manner of these small decorative porcelain objects that the European bourgeoisie valued in the late nineteenth century (Collomb 2003; Tricornot 2007)(Figure 5). At the same period, the potters manufactured small zoomorphic figures, generally featuring a duck⁴, about which the same traveler wrote: "these duck vessels are frequently made because some of the first buyers expressed a preference for them" (Merwin 1917) (Figure 6). And, but much more rarely, anthropomorphic figurines were made, which – as far as we know - never occurred in traditional production.

⁴ Or, according to the Kali'na, a teal (kawi:li).



of the Pithiviers museum.

As we pointed out, the shapes of the utilitarian kali'na potteries are shared by many of the indigenous cultures throughout the Guianese region, which does not make them very useful in answering the question we have asked. By contrast, these amazing shapes produced as responses to an European demand appear to be more discriminating : they do not appear, or only in a non-significant way, in contemporary ceramic productions of other Amerindian cultures in the same region. As such, they might constitute a first criterion making it possible to approach what can be described as a "kali'na style". The decor that the potters apply on of most of their production is also the place of a true specificity, which will be maintained until today in kali'na pottery in spite of the transformations of the production since the mid-XIXth.



Figure 5. A part of Maurice Guffroy's collection, from the Maroni river, in the Musée de l'Homme (Paris), circa 1900 (Tricornot 2007:98).



Figure 6. Duck shaped pots from the Maroni river, end of the 19th century (Joest 1893).

The painted decoration

The addition of shapped figures (adornos) or the decoration of the pots by incision would be interesting in respect of a possible koriabo origin because of the proximity that they could suggest with certain decorations of archaeological pieces, but they are quite exceptional on modern (since mid XIXth) potteries; in contrast, the painted decoration, present on most poteries, seems to be more relevant. Vessels intended for an ordinary domestic use were generally not ou poorly decorated, but the potters generally used to carefully paint ceramics made at the occasion of the mourning ceremonies, as well as the pieces that were crafted to be sold. One can notice several ways of doing, that differ in the patterns, the technique used, and the area in which the drawings are inscribed on the pottery.

We can sketch a schematic classification, which masks a greater diversity of aesthetic choices on the part of potters, but makes it possible to define three main classes of decorations.⁵ A first type of drawings uses thick lines to forms curves or crosiers, rhombuses or triangles, often associated with dots (Figure 7). Beyond the diversity of motives, the particularity of this decoration is to appear mostly on the external side of the objects (sapera, samaku) associated with the preparation or consumption of the kasili [manioc beer] during the epekotonon ceremony, which ends a period of mourning (Collomb 2007). These thick lines are drawn with the kumeti (a brown dye extracted from the bark of a shrub) on a background of tawa (white kaolin) or kaweyu, an orangecoloured earth, using a brush made for example of a tuft of cotton attached to a stick. Another drawing made with the *kumeti*, alternates in simple geometrical patterns a thick line and a fine line punctuated by dots, a motif which is freely inscribed on the surface of the pottery (Figure 8). This drawing does not appear on the sapera or on the samaku, but is often applied to pottery crafted for sale. The potters also make a limited use of a simple motif, with crossed lines forming rhombs - wether a pictorial invention or a painted reminiscence of the incised decorations of archaeological ceramics.



Figure 7. External decoration of a sapera, circa 1950. Mana River, French Guyana (Delawarde 1967:342).





Figure 8. Interior decoration of a plate, Maroni River, circa 1905. Drawing from Wack 1988.

The motifs that usually adorn the objects used for the epekotonon ceremony, drawn with fine curvilinear lines organized under complex patterns, represent a third type of decoration and deserve special attention. Not fixed in formal rules, but strongly structured in their principles, this decorative vocabulary and the organization of motifs have been maintained until today with great stability and often with quality. It is applied on some objects (drums, benches...) that play an important role during *epekotonon*, on the bodies of the participants (Figure 9), as well as on the inside of the finely worked and decorated potteries prepared since long for the event : bowls (*sapera*) used for the consumption of *kasili*, and large bowls (*palapi*) containing the necklaces and other ornaments worn by mourners on the morning of the ceremony. During the second half of the XIXth century, this decoration has been also increasingly used to decorate the potteries manufactured for sale.

The inscription of these drawings on the surface of the pottery obeys a certain number of implicit compositional rules. When the pottery has been polished, it is partially covered with a red clay slip, the kuli, delineating one or several cartouches. Once the piece is dry, the potter polishes it again thoroughly to give it a glossy surface appearance, and after firing she applies kumeti on the parts coated with kuli to darken the colour and to give it a light shine. The parts of the pottery that are not coated with kuli can remain without decoration or receive the curvilinear motifs. The potter uses for that a thin brush made of a long feather of the bird agami (Psophia crepitans), tied to a small stick to draw motifs with the dye extracted from the kalawilu liana (Bignonia chica), of a dark red colour, or sometimes from tapulupo (Genipa americana). It is not used to draw a continuous line, but by successive applications on the surface to be decorated, a technique that allows a regular line drawing and the execution of curves. When these decorations are applied on the inside surface of a container intended to receive cassava beer, they are protected by applying a vegetal varnish made from the resin of the simili tree (Hymenea Courbaril): a resin loaf, rubbed on the hot surface of a sapera that has been exposed to fire, melts and deposits a film of varnish that hardens as it cools, of a more or less regular thickness depending on the potter's skill. Sometimes the engobe can cover more or less the whole surface of the pottery, but usually the potter draws a broad line of kuli to underline the architecture of the form: lip and base, zones of rupture between the different parts of the vessel, changes in the profile, connection of a handle, etc.



Figure 9. Body paints before the *epekotonon* ceremony, by Noeline François (1997), Mana, French Guyana.

This Kali'na drawing is difficult to understand through an analysis that would attempt to divide it into elementary units, and it seems better to read its construction as a process: it begins with a simple motif drawn inside the cartouche, that constitutes a matrix. From this, according to the expression of one potter, one "fills" the surface to decorate, by amplifying the motif with a serie of parallel lines, sometimes punctuated with small decorative elements **[FIG.10/11]** The range of the decorative patterns used by potters is extensive, and broadly shared by most women who know the work of pottery, passed down from mother to daughter. However part of them may be specific to a family group, or the result of individual invention, observation of nature or revelation given to the potter in a dream. These drawings are nowadays only recognized through denominations refering to a naturalistic lexicon that lost most of its symbolic background (Ahlbrinck 1931). But the importance that this art of drawing still has within the ritual of epekotonon, as well as the memory of mythical narratives associating this or that motif with cosmogonic or astronomical knowledges (Magaña 1988), suggests that they probably were in the past components of a symbolic world today forgotten by most of the potters.

A "kali'na style"?

Perhaps are we, now, a little further ahead in the knowledge of a "Kali'na ceramic style" – not considered in a broad or generic sense, but as it can be described in a given place and a given time, i.e. from the mid XIXth onwards, among these eastern Kali'na settled west of french Guiana and east of Suriname, from both sides of the Maroni river. A first characteristic deserves to be emphasized, the remarkable development of pottery production as a response to the opening of a new market in the heart of the "Kali'na country", and the diversification of shapes it entailed - a process similar to that studied by T. Myers (2002) among the Shipibo in similar historical conditions. However, this was not that new for the Kali'na potters, who had been selling part of their production in the colony for a long time, and what is really noticeable at the end of the XIXth century is not



Figure 10. Interior decoration of two sapera, circa 1980, Galibi, Suriname.

so much the existence of this production as its considerable growth, and the deep changes in the pots shapes that potters produced: they have taken note of the demand addressed to them, and they have also become more sensitive to the european patterns that the colonial world was putting before their eyes.

Another relevant characteristic for defining a "Kali'na ceramic style" might be the existence of a very specific type of decoration, the curvilinear drawing, which is in a marked contrast from the decorative practices of most Amerindian populations in the Guyana region: these peoples generally favour straight lines and angles rather than curves in the ornamenting of ceramics as in body paintings, mobilizing sometimes a decorative vocabulary close to that of the basketry (Roth 1924; Vidal 1992). However, this design is not known throughout the historical area in which natives define themselves as "Kali'na", which extends in the XIXth century from the Sinnamary River in French Guiana to the mid-Orinoco, forming several sub-sets separated by colonial zones or by Lokono/Arawak settlements. The locus of this decor stretches from both sides of the Maroni River, between Sinnamary River and eastern Suriname, from where most the pieces decorated in this way come from. Beyond this area, westward, the aesthetic choices of the Kali'na in central and west Suriname and even more in british Guiana follow generally a different tradition (Collomb 2003), that favors geometric figures, such as those that E. Th. Hamy (1887:50) saw when visiting the British Guyana pavilion at the 1887 London Exhibition: "except for the decoration of the terracotta vases, composed of dots and lines," he writes, "all this reminds us the production of the Kalina of Suriname or the Galibis of our French Guyana". (Figures 11 and 12).

This specificity of what can be seen as pertaining to an eastern Kali'na culture, compared to a western Kali'na culture, is not surprising if one link it to what we know about the history of the Kali'na during the last centuries. A relative proximity with the colonial world has gradually formed this bi-polarity, building cultural borders and modeling an "ethnic" feeling specific to the eastern Kali'na (Collomb and Lescure 2014). Leaving aside the issue of Guyana, whose history has distanced the Kali'na settled near the Venezuelan border from those living in French Guiana and Suriname, such a partition reflects the history of the groups present in the territory of the Dutch and French colonies since the end of the XVIIth century: relative isolation of these Kali'na, to whom colonial partitions made it



Figure 11. External drawings on a *parapi*, circa 1930, Cayenne, Musée Franconie. Courtesy of the Franconie Museum.



Figure 12. Watalakan bottle. A label indicates "Charibee Indians", circa 1825, British Guyana. Bristol City Museum (UK). Courtesy of the Bristol City Museum.

more difficult to maintain ties with the groups of central and western Suriname and even more with those of British Guyana, and who had been attracted by the Jesuit missions of French Guyana during the 18th century; effects of the slavery system that has led to the formation of Maroon populations in Surinam, whose presence has resulted in forms of interbreeding with the Kali'na populations in the central and western regions of the country. The term *Kali'na milato* (mixed) is applied to them by the eastern Kali'na, who refer to themselves as *Kali'na tilewuyu*, a syntagm that they would translate as the "true kali'na". This dual polarity of the Kali'na culture is relevant up to nowadays to understand a number of significant cultural features, for example the existence of two dialectal forms of the language (Hoff 1968). And, as suggested, it is also visible in the decorative vocabulary of ceramics and body paintings.

The ethnographic and historical available data seem insufficient to shed light on the processes that led to the appropriation of the curvilinear decor by the eastern Kali'na. But one must insist on the proximity of this design to the painted or incised styles which are linked to the polychrome tradition of the lower Amazon – and in particular the Ariste tradition. This observation gives weight to the hypothesis formulated by Y. Wack (1988) which suggested an influence of this polychrome tradition on the Kali'na ceramic decoration, perhaps through the encounter - in the Jesuit missions of Kourou, but also earlier – with the Amerindian groups fleeing the Portuguese pressure in Amapa. Among these groups, the Aruã (Grenand 1987), one of the Arawak peoples of the left bank of the Amazon and Amapa, who were for Meggers and Evans (1957) the last historical custodians of the Ariste ceramic tradition. Their presence in Cayenne was mentioned in 1686 by Father Jean de la Mousse (Collomb 2006), and at the beginning of the following century the Aruã formed an important population of the jesuit mission of Kourou created by Father Lombard.

The diversity of the decoration of the "kali'na potteries" composing the corpus studied here would thus receive a beginning of explanation. An eastern tradition of curvilinear pattern drawn with a fine line, often inscribed in a cartouche and built on the principle of amplifying an initial motif, would contrast with another aesthetic choice, relinquishing the curvilinear decor, whose extension can be followed in the western branch of the Kali'na cultural set, up to British Guiana (Figures 12 and 13). The encounter of these two "styles" might then be seen as a modern avatar of the intersecting influences observed by archaeologists in this part of the Guyanese coastline that constitutes a zone of convergence and fusion between the western and southern Guyanas cultures (Arauquinoide, Koriabo) and the more oriental cultures (late Aruã and Aristé), spreading the polychrome tradition of the lower Amazon (Rostain 1994).

To conclude, and even if the idea is not completely new it deserves to be recalled, if one can talk of a "Kali'na style" in respect to ceramics, it would be less as a cultural expression linked to an "ethnicity", grounded in a cultural heritage, than as the result of the interactions and influences that this group experienced before and especially after the European arrival. The art of Kali'na pottery in the XIXth and XXth centuries, in western French Guiana and eastern Suriname, is certainly inherited from a long ceramic tradition in the north-east Amazonian, but it is also the result of a history that linked the villages

with the colonial populations, through circulation and transmission, borrowing or exclusion, collective and/or individual choices. Far from provoking a loss of know-how, this history has on the contrary formed a space of invention, adaptation and borrowing, that has allowed this production to develop as what could be considered nowadays as an "ethnic art", specific to this set of the Kali' na people, settled on the border of the French and Dutch colonies.



Figure 13. Painted plate, circa 1825, British Guyana. Bristol City Museum (UK). Courtesy of the Bristol City Museum.

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An Approach to the Analysis of Ethnographic Ceramics in the Amazon: a Kari'na Case Study from the XIX and XX Century¹

Meliam Viganó Gaspar²

Questions regarding the distribution, variability, and chronology of ceramic artefacts and their relationship to specific language branches and families have been extensively researched in the Amazon. How native languages have "diversified, spread, were maintained, and influenced each other over time" is closely related to "how their speakers moved, stayed put, and exchanged marriage partners, objects, and ideas" (Epps 2009:582).

A first general mapping of the archaeological ceramic variability in the Brazilian Amazon, was provided by the PRONAPA (National Program of Archaeological Research) led by Betty Meggers and Clifford Evans in the 1950's and 1960's, with a classification system based on Traditions and Phases. In the Guianas, this was combined with the system created by Irving Rouse for northern South America and the Caribbean, based on the Series concept.

These classification systems have been widely criticized (Barreto 1999-2000; Dias and Silva 2001; Dias 2007; Schaan 2007; Silva 2007; Wilson 2007; Neves 2010; Keegan and Hofman 2017), for becoming a goal rather than a means to describe and systematize data. Also, ceramic Phases, Traditions, and Series were associated with indigenous language families and branches without analyzing the implications of the variability in these sets. Recent research has revised these classifications, with a more specific characterization of the ceramics and their relationship to other elements of the archaeological context (e.g. Lima et al. 2006; Coutet 2009; van den Bel 2010; Garcia 2012; Zuse 2014; Beletti 2015).

There is little doubt that the movement of peoples of different languages is related to the material culture they created, used, exchanged, etc. However, this relationship is fluid, and different aspects of object production and use can be related to different aspects of social identities (Hegmon 1998:274, 1992; Carr and Neitzel 1995).

¹ This article presents the approaches used in the analysis of ethnographic ceramic vessels of Cariban speaking peoples in museum collections for my PhD dissertation. All ideas discussed here are preliminary.

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In the Amazonian context, the interpretation of the variability in archaeological ceramic sets and its relation to social identities needs to be improved. To accomplish this, it is important to understand how such processes occur in more recent times, to conceptualize archaeological settings, and to comprehend the deep history of indigenous peoples. Understanding the ceramic production of present day indigenous peoples in the Guianas can elucidate how they relate to archaeological ceramic styles, such as the Koriabo discussed in this book. This article proposes the use of the *chaîne opératoire* approach, interpreting it at different levels for the ceramic production in the XIX and XX century of the Kari'na, a Cariban speaking group that inhabits territories in the coastal areas of Guyana, Suriname, French Guiana, and Venezuela (not included in this research)³.

Technological traditions, styles, and the chaîne opératoire

The *chaîne opératoire* approach is used here to understand the choices made in the ceramic production sequence as different technological styles.

The construction of a vessel, including the choice of materials and production techniques, impacts the appearance and function of the final product, and can be defined as a technological style (Reedy and Reedy 1995:304), which can relate to individual creativity, different functions of the vessels, different social groups, or even different peoples.

Distinguishing a technological style can be the first step towards identifying a Technological Tradition: a set of characteristics, observable in the production sequence of an artefact, which are perpetuated through time and space, potentially related to specific cultural groups, or shared by different groups (van der Leeuw 1993).

Following Valentine Roux (2016), the *chaîne opératoire* can be studied at two levels. First, by observing the general production sequence, as defined by Cresswell (1976[2010]:26): "une chaîne opératoire est une série d'opérations qui transforment une matière première en un produit, que celui-ci soit objet de consommation ou outil". Second, by describing the detailed sequence involved in each of these steps, with specific analyses and levels of detail. The choices made during this production process depend on what the artisans perceive as available to them, in a way that was culturally learned, both from the symbolic point of view and for the performance of materials (Lemonnier 1992, 1993; Schiffer and Skibo 1997; Silva 2000; Sillar and Tite 2000; Roux 2011, 2016).

Though the steps in the *chaîne opératoire* are relatively independent, so that changes at one point do not imply changes in the whole sequence, there are steps that are more resistant to change than others. As observed in the Sub-Saharan African context by Gosselain (2000:190-191) and colleagues, they also relate to different aspects of potter's

³ Though the article often treats "the Kari'na" as a single group, apparently homogeneous in their identity, different groups have different historical trajectories, especially during the colonial period. This is one of the reasons for omitting Venezuela from the current research. When there is a difference between the groups, it is pointed out in the article.

identities, "according to salience, technical malleability, and the social context in which the techniques are learned and conducted". The relationship between ceramic vessels, languages, and identities can be complex, urging us "to consider that artefacts and *chaînes opératoires*, like individuals and socials groups, are not clearly bounded and monolithic units, but complex, dynamic, and profoundly mixed constructions" (Gosselain 2000: 208).

Material culture and pottery in the Amazon

Anthropological research on the Amazonian indigenous peoples has contributed to our understanding of their relationship with material culture. Here we focus mostly on examples from the Brazilian Amazon and the Guianas, which have shown how both objects of daily use (pottery, arrows, fishing nets, etc.) and other ephemeral and even immaterial productions (body painting, music, dance, etc.) circulate cosmological and social meanings which are important to the reproduction of livelihood of these populations (Ribeiro 1980; Vidal 2001; Velthem 2003; Lagrou 2010).

Material culture has a very important role among indigenous peoples, because different objects (ritualistic and of daily use) are used to communicate cosmological aspects and social structures to the members of the group, circulating meanings intrinsic to their lifeways (Vidal and Lopes da Silva 1992, 1995; Velthem 1994, 2003; Vidal 2001; Vredenbregt 2002; Gallois 2005; Lagrou 2010). Essential to this process is the concept that artefacts should be beautiful, good, and made according to the traditions of the group (Vidal 2001). For them, "não há distinção entre a beleza produtiva de uma panela feita para cozinhar alimentos, uma criança bem cuidada e decorada e um banco esculpido com esmero" (Lagrou 2010:17).

As an example (Vidal 2001), amongst the Craó a properly made basket is one that is skillfully braided with fiber that was well prepared and finished with the correct ornament. This way of making baskets can then be identified as a specific technological style of the Craó. Additionally, the baskets communicate social messages, such as the clan division of their owner on the strap patterns, and on an individual level the most skilled artisans in the group can be identified.

A ceramic vessel, fundamental in the preparation and consumption of food, can also be a source of knowledge about the social organization, cosmology, and cultural transformation processes of the people who produced it. Fragments of information on pottery production in the Amazon can be found in ethnographic and historical accounts, and few ethnoarchaeological or even ethnological works focus specifically on them, e.g.: Cornette (1992), Collomb (2003), Tricornot (2007) for the Kari'na in French Guiana; van den Bel (2009) for the Palikur; Coutet (2009) for the Kari'na and Palikur; Silva (2000) for the Asurini; Vidal (2011) for the Surui; Duin (2000-2001) for the Wayana in French Guiana; Velthem (this volume) for the Wayana and Aparai in Brazil.

From these and other general works on pottery in Brazil (Andrade Lima 1986; Willey 1986; Ribeiro B. 1988), we can extract an overview of the general pottery *chaine opératoire* in this part of the Amazon. Usually, ceramic production is a female task done within the

household (with a few exceptions), though men can help with certain tasks (such as gathering of raw materials). If the clay depends on local availability, different non-plastic materials (or even none) can be used: crushed ceramic, *caraipé* or *kwepi* (burned bark), cauixi (sponge), shells, ashes, or sand. In general, ceramic fashioning is done by coiling and smoothing, though sometimes parts of the vessel are modeled (base, appendages). Firing is usually done in open structures, with no records of the use of ovens. Vessel shapes are varied and have even changed to appeal to Europeans, when produced for selling. Surface treatment also varies, with the use of painted graphic patterns. These patterns could be a good indicator of current ethnolinguistic groups, since they are part of the groups *répertoire* in other materials (body, basketry, leather, wood) and are deeply imbued with meanings (cosmological, social, aesthetical) (Vidal 2000).

Despite carrying all these meanings and being a product of specific technological styles, indigenous Amazonian cooking pots were quickly replaced by industrialized pots. The adoption of technology, tools and artefacts of the European societies can be seen as an example of how these peoples continuously incorporate external resources into their own cultural reproduction (Ribeiro 1980; Sahlins 1997; Vidal 2001; Gallois 2005; Velthem 2010; Coutet and Loisier 2014). Some vessel types do remain in production for their own use due to their social importance, e.g. big ritual vessels among the Asurini (Silva 2000) and the *sapera* vessels among the Kari'na (see below).

Kari'na pottery in the Guianas

The description of Kari'na ceramic vessel production is structured according to the choices made by the potters in some steps of the *chaîne opératoire*, as described in different bibliographic sources, and preliminary observations of ethnographic vessels in museum collections.

Among the Kari'na, it is women who make pottery (Collomb 2006:52; Cornette 1992; Vredenbregt 2002), a craft transmitted by observation and imitation in the domestic space, from the mother, grandmother, aunt, older sister to the younger generation, usually belonging to the same household. In the 1990's, new ways of learning were introduced in French Guiana, with the creation of family or community workshops (Tricornot 2007:19-20). Men often help by collecting the clay and other necessary materials (bark, stones, pigments).

Bibliographic accounts (im Thurn 1883:275; Ahlbrinck 1931:343; Cornette 1992:85; Vredenbregt 2002:115; Tricornot 2007:19; Coutet 2009:132-133) mention that the Kari'na collect clay (*olino*) on riverbanks, sometimes far away, but also obtain it by digging in the savanna or forest. This task can be done by men during their excursions, but also by women, following certain rules, to please the spirit of the clay. Though there are no clear criteria for clay quality, a source in the river Cuyuni, in Guyana, was valued (im Thurn 1883:275; Roth 1924:130).

The Kari'na women leave the clay to dry, shaped as balls, and then crush it with a stick and their bare hands, or in a wooden pestle, while cleaning it of impurities (pebbles, leaves, roots, etc.). The clay is then sieved in a *palapi* vessel or a plastic pot (Roth 1924:131; Ahlbrinck 1931:343; Cornette 1992:85; Vredenbregt 2002:116).

Although the missionary Jean de la Mousse describes the addition of grog (Collomb 2006:52-53), and im Thurn (1883) and Roth (1924) do not mention any non-plastic added among the Kari'na in Guyana, at least since the accounts of Ahlbrinck (1931) the *kwepi*⁴ is the only non-plastic added in the clay among the Kari'na in Suriname and French Guiana. An exception would be a potter in Bellevue, French Guiana, who still uses grog if *kwepi* is not at hand (Coutet 2009:14). This tree bark is left to dry in the sun, named *iraka*, and then burnt and crushed in a wooden pestle. It is then sieved in the same pot as the clay, mixed with it in a proportion measured by the potter's eye. This dry mixture is called *koi*, to which water is added progressively until the desired consistency is achieved, which is then called *olino*, clay, again (Ahlbrinck 1931:343; Cornette 1992:86).

The prepared clay is then fashioned into a vessel (Figure 1). This step has changed very little among the Kari'na during the last century of observations (Collomb 2006:52-53; Roth 1924:131-133; Ahlbrinck 1931:344-345; Cornette 1992:86-87; Vredenbregt 2002:119; Tricornot 2007:32-41), although some variations were observed by Coutet (2009) in French Guiana.



Figure 1. Fashioning of a vessel among the Kari'na in Guyana. From Roth 1924:131.

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⁴ Tree bark from Couepia guianensis Aubl, Couepia glandulosa or Licania apetala, is sometimes found far away from the villages (Cornette 1992:47).

On a wooden plank on the potter's knees, the base of the vessel is modeled as a flat circle. Jean de la Mousse mentions that the bases are slightly pointed (convex), Roth describes everted edges on the circle's perimeter, and Coutet mentions that it is also done by pinching. The first coil is placed on the outer edge of the base circle, making its ends meet, and pinched between thumb and fingers to connect with the base. Coils are added one on top of the other, to then be joined, thinned and shaped by smoothing and scraping with the movement of the hands, aided by a piece of cloth, calabash, or other object. In Bellevue, Coutet describes that the coil junctions are erased by applying clay on them, before smoothing. This process is repeated until the desired height is reached. If the pot is too big, it is left to dry before new coils are applied, so that the walls do not collapse under their own weight. For the neck, smaller coils are placed, closing the opening of the vessel. Roth describes the addition of a coil on the outside and on the inside of the everted wall edge to create the rim. The lip was finished with a piece of shell or calabash, cut on the inside in the desired shape and passed throughout the whole mouth opening to mold the lip. Nowadays, this is done with a small sharp knife.

To smoothen the surface, women use a piece of calabash with water, or even pebbles. The vessel is left to dry in the shade, and later in the sun. After drying, the surfaces are polished (or rather burnished, as observed by Coutet 2009:160) with a pebble or a red stone, *topu* or *takua*⁵, leaving visible traces on the surface (Ahlbrinck 1931; Cornette 1992:87; Roth 1924:132).

With some variations, firing (*uka*) is generally done in an open atmosphere. Roth (1924:133) describes that vessels are put inside a shallow hole in the ground, and covered with a pile of dried wood which is set on fire. Ahlbrinck (1931:345) mentions that first a layer of broken vessels is laid on the ground, followed by a layer of bark and then the pots. When the bark is set on fire, a cone of wood is arranged on top of the pots. Cornette (1992:88-93) mentions that the vessels are put on the ashes of the previously fired layer of barks, and that only then the pile of wood is added for a second stage of the firing process. Afterwards, the pots are left in the hot ashes for a while, and if necessary more wood is burned to finish firing the black spots. Many vessels can be fired at once, either by the same woman or several potters. Nowadays, firing can also be done by putting the vessels inside of a metal can (open on the top and bottom), with fuel around it (Cornette 1992; Coutet 2009).

Even though smoothing and polishing are considered part of the final stages of the fashioning of the vessel, other surface treatments used to make the surface uniform (like slip) and to alter it for functional or aesthetical reasons (incisions, designs, paints, etc.) are here considered in the same category of surface treatment, regardless of the motivation behind them. Nowadays almost 90% of the Kari'na vessels have painted surface treatment, but this might be because of their production for sale (Cornette 1992:72-83).

⁵ This stone is so appreciated that people traveled from eastern French Guiana all the way to the upper Essequibo, in Guyana, to find them (Collomb 2003:38). It is now passed from generation to generation, since they are no longer collected (Vredenbregt 2002:120).

Plastic treatments (Figure 2) are done before firing while the clay is still humid (Cornette 1992:72-83). The rim and lip can be molded by impression with the fingers or a knife, creating curlings, saliences, or depressions. Holes and incisions, often to enhance the paintings, are rarer. Modeled elements can be added to the vessels, like handles, or wavy lines, animals, or even letters. Nubbins were created on the body of the vessel itself, with the help of a shell or calabash (im Thurn 1883:276).

Most common, though, is the application of paint (Figure 2). Usually, a red slip *kuli*, made from clay pigment dissolved in water, is applied with the finger or a cloth after burnishing and drying. The dry painted surface is burnished again, this time with a softer instrument,



Figure 2. Plastic and painted surface treatment, and cover basketry. a) modeled elements added and handle; b) incisions; c) lip curlings and holes; d) red slip and designs, covered with resin; e) lip saliences and impressions, nubbins, resin designs over yellow slip; f) Style 1: resin designs directly on the surface, scorpion tale motive on the left; g) Style 1: resign designs over white slip, large lines and dots motive; h) Style 1: black designs over white slip, cover basketry; i) Style 2: black designs directly on the surface; j) Style 3: fine black designs over red slip, covered with resin. Photos by the author from Collection Nationaal Museum van Wereldculturen (RV and TM numbers) and Collection Wereldmuseum (WM numbers), the Netherlands.

like the *maripa* palm pit, a ball of resin *simili*, or a cloth. The slip rarely cover the entire surface. It is applied to some parts of the vessel to enhance aspects of their shape, like the base, rim, largest body diameter, handles; or painted as designs (Cornette 1992:87-88; Collomb 2003:13). It is possible that in the past this was only applied in the interior of *sapera* vessels (Coutet 2009:161).

Other pigments of clay (Collomb 2006:53; Cornette 1992; Collomb 2003:10; Tricornot 2007:40) can be found in black, white (*tawa*), and yellow (*kamuyu* or *kawèyu*) slips. The white and yellow slips are applied after firing and mixed with manioc juice instead of water (Vredenbregt 2002:121).

After firing, designs can be painted with vegetable pigments in red, black, or white, directly on the vessel surface or on top of slips (Cornette 1992:72-79,93; Ahlbrinck 1931; Tricornot 2007:42; Coutet 2009:165-166). On top of the red paint *kuli*, the resin of the *kumeti* is applied with a cloth, and it can also be used to make designs over the white slip or directly on the surface. The transparent resin of the *simili* is directly applied over some designs to protect them, especially the ones made in black in the interior of the *sapera* vessel.

Roth (1924:134) also describes the use of "cover basketry" on the outside of big vessels to ferment the *kasiri*, a manioc beverage, to minimize breaks from impact or from the pressure of the fermentation process.

Though the designs (*meri*) seem varied and arbitrary, many can be recognized and named by the Kari'na, and most refer to animals or other elements of nature (Roth 1924:133; Ahblrinck 1931). Vredenbregt (2002:126-127) is convinced that they are clear representations of the Kari'na world, including natural and mythical elements. Some design motives are unique to family workshops, transmitted from mother to daughter, but most are shared by all potters. According to Roth, the scorpion tail is a persistent and characteristic motive. New motives originate in individual creativity, observations of nature, archaeological materials, European or African motives, or dream revelations by different spirits, which was more common in the past (Collomb 2003:13; Vredenbregt 2002; Coutet and Losier 2014).

According to Collomb (2003:10-14), there are at least three styles of painting among the Kari'na, the first one more related to the groups in the West of the Maroni river and the second and third to the ones in in the East:

- 1) Large lines and dots, crossing and curving, made with the brown resin *kumeti*, applied with a large cotton brush on the painted exterior (white slip *tawa* or orange clay *kawèyu*) of the *sapera*, *prapi*, and *samaku* vessels;
- 2) *Kumeti* applied directly on the outer surface of the *sapera* and *samaku* vessels, also with designs of thick lines and dots, sometimes with crossing lines forming triangles;
- 3) Designs made with the black or dark red vegetable paint *kalawilu*, with a fine brush from the feathers of the *agami* bird. Placed on the interior of the drinking vessels *prapi* and *sapera*, these motives start from a basic shape and are then replicated with parallel lines from the inside out, filling the whole space.

As for the shapes of vessels (closely linked to their intended use), they have become extremely varied in at least the second half of the 19th century, because of the selling to Europeans. However, even before this period, the Kari'na were willing to experiment with different shapes and produced pottery to be used in the colonizer's houses and plantations, as well as by African descendent communities (Collomb 2006:54; im Thurn 1883:278; Collomb 2003:6).

A few typical traditional types of vessel, classified by the Kari'na according to their shape and use, were described by several authors. A deeper typological study including modern shapes and comparison with traditional types was made by Cornette (1992). Figure 3 summarizes these typologies, accompanied by a short description of the types.

- Samaku (samako, maka, waresa): big vessel, reaching more than 1 meter of height, used to ferment the kasiri, also used earlier as a funerary urn (Ahlbrinck 1931:263, 423). Could also have been used to store water (Roth 1924:306-307). Sometimes with cover basketry (Cornette 1992:68);
- 2)Tukuwale (tokowari, tucuwari, tukuwali, tukuali): a vessel used by the Kari'na to store water for cooking and drinking, with large body and mouth opening, to allow users to scoop up water with a small calabash (Ahlbrinck 1931:346,471; Collomb 2003:5);
- 3) Tuma yenë (tumayen, tomaien): big or small vessels with large and extroverted rims, used for daily cooking and to hold the fermented *kasiri*. They can have a lid, shaped like a half circle, also used as a saucer underneath it (im Thurn 1883:274; Roth 1924: 306-307; Ahlbrinck 1931:472; Collomb 2003:5);
- 4) Watrakan (watalakan): according to Ahlbrinck (1931:346,510), this name is derived from the Surinamese créole language (literally "water" and "can"). They are vessels for fresh water, with globular bodies and long necks. Occasionally they have a convex base and appliques around the body, often with a lid flat on one side and with a curved projection on the other (Roth 1924:306-307). According to Collomb (2003:6), they could have been a copy of the "bouteilles oignon", made of glass and brought to the Guianas during the XVIII century;
- 5) Asemunusi: two, three, or four vessels with globular bodies and thin necks connected to each other, made in Suriname. Literally means "of the same blood" (Ahlbrinck 1931:106,346). It could be a variation of the *watrakan*, or have its origins in Andean pottery (Collomb 2003:7), as a similar connected vessel made by the Palikur (Arawak speakers) (Rostain 1991-1992);
- 6) Sapera (sappora, sapela, sapura, sabela): semi-globular vessel with slightly inverted rims, with small elevations on the lip on opposite sides (Roth 1924:306-307). It has complex designs in the interior surface (Ahlbrinck 1931:427). Used for drinking *kasiri* (*tapana*, as the Kari'na call it) in the *epekono* ritual, the mourning of the dead (Collomb 2003; Tricornot 2007);
- 7) Prapi (palapi, parapi) or tasipi: a semi-globular vessel with everted rim. Used mainly to serve food (Roth 1924:306-307, Ahlbrinck 1931:388, 458), but also to bathe the newborns, and nowadays as a flower pot (Tricornot 2007:55);



Figure 3. Vessel typology based on morphology and use. Drawings from Ahlbrink 1931. Photos by the author from Collection Nationaal Museum van Wereldculturen (RV numbers) and Collection Wereldmuseum (WM numbers), Netherlands.

- 8) Vessels in a variety of shapes (oval, animals, often birds), used to store water, but mostly to sell (Roth 1924:306-307);
- 9) Many imitations of European objects, like tea pots, glasses, money pots, flower pots, etc., in response to market demands in French Guiana and Suriname (Collomb 2003:5-6).

The Kari'na also make ceramic figurines of animals and a musical instrument, a trumpet (Ahlbrinck 1931; Cornette 1992; Collomb 2003; Tricornot 2007). Even though they are absent from museum collections, ceramic griddles were made in the past as observed by Gillin (1936:17), and the iron griddles are still named a*rinatu* according to Ahlbrinck (1931:103).

Kloos (1971:20) observed that the Kari'na in the Maroni river, in Suriname, still made *samaku*, *sapera* and *prapi* vessels. They are increasingly using aluminum and iron pans, plastic pots and plates, and even barrels to ferment *kasiri*. The only vessel actually made for use today is the *sapera* (Vredenbregt 2002; Collomb 2003; Tricornot 2007).

A preliminary discussion

In the Guianas, indigenous groups, speakers of Cariban, Arawakan, and Tupian languages have long interacted through complex relationships. Conglomerations of peoples (by marriage, war, emigration, etc.) seem to have always taken place, and people activated different identities depending on their context of interaction. Colonization had a great impact in this process, as different groups were ascribed a single ethnonym, followed by linguistic and ethnic fusions, creating clearer ethnic boundaries and identities (Carlin and Mans 2014, Collomb and Tiouka 2000).

Carib was a generic ethnonym given by Europeans to groups who spoke similar languages and did not submit to them. They were considered dangerous cannibal warriors, as opposed to the peaceful and submissive Arawak (Durbin 1977). *Carib* also referred to specific groups at the coast, named according to the language of the colonizers: Karaïben or Caraïben by the Dutch, Caribs or Caribisce by the English, Caribes by the Spanish, and Galibi by the French (Vredenbregt 2002:45).

Even if some groups no longer exist, or if other groups were integrated with them, their descendants, the Kari'na, nowadays consider themselves as belonging to the same people, with a common language and cultural background (Collomb and Tiouka 2000:13). Since probably the XIX century, the Kari'na have had a specific way of making ceramic vessels, easily recognizable and distinguishable from their neighbors. Still, the different groups in French Guiana, Suriname, and Guyana have followed different trajectories, which may also be visible in their ceramic production.

Making pottery was a general skill learned by women by observation and imitation in the daily routine, since it was a pre-requisite for them to get married (as basketry was for men). Because of the adoption of industrialized containers, and children spending more time away from their homes (at schools and in the cities), the importance and necessity of these objects has diminished (Vredenbregt 2002:91-95). Still, it is possible to observe how their material culture was deeply connected to their way of perceiving the world:

"Indeed, the entire production process, permeated as it is with beliefs that are attached to the different materials and their uses, should be seen in relation to the symbolic content of the eventual object and its accompanying decoration and use. And not only are represented in artefacts, but many myths explain the origin of certain artefacts, and relate how, when, and by whom, it should be used." (Vredenbregt 2002:145)

From bibliographic accounts, observations can be made regarding the changes, continuities, and innovations in ceramic production among the Kari'na, highlighting some differences between groups. Comparing this case with general observations from Sub-Saharan Africa (in Gosselain 2000) can also contribute to a broader picture for the relation between pottery and identities in the Amazon in general.

In the ceramic production sequence, there are techniques that do not leave visible traces on the finished products and are more resistant to change, because they were incorporated during the learning process (Gosselain 2000:192-193). The fashioning stage, or pre-forming and roughing out (Roux 2011, 2016), which can be considered a central element to the characterization of technological traditions (van der Leeuw 1993) and marking of social boundaries is one of these techniques (Degoy 2008; Roux 2011, 2016).

The modeling of a flat (or convex) base with the addition of coils one on top of the other, seems to be consistently used by the Kari'na throughout the years of observation. The variations in fashioning observed by Coutet (2009) may not yet be sufficient to separate them into different styles.

Roughing out by coiling and finishing by smoothing and scraping seems to be a very widespread fashioning technique in the Amazon. It could be argued that this step is not central to the characterization of ceramic traditions in the Amazon, but before such conclusion is drawn, the description of this stage should be refined so that more detailed comparisons can be made.

On the other hand, there are also techniques that do not leave visible traces but which can be modified after learning, by changing the raw materials used or by the influence of a smaller community of potters that produce together (Gosselain 2000:192).

More than one century (end of the XVII to the middle of the XIX century) separates the use of crushed ceramics combined with *kwepi*, from the use of only of *kwepi* as non-plastic, and in in Guyana no non-plastics were added. Clay recipes can be passed from generation to generation, but they can also be adapted to the availability of clay and materials that might be added to it. It seems that the diversity of recipes in the past was reduced to only two, possibly because of the predominance of a certain group, or the abandonment of pottery production for their own use that required other clay recipes⁶.

⁶ Kwepi could have been added to make the vessels more porous, so that water stored in them can be kept cooler; but also to make the clay plastic enough to be worked with. Grog could have been added to increase thermal conduction and strength in thermal stress for cooking vessels (more info in van den Bel et. al. 1995; Coutet 2009).

Though firing structures can vary geographically and temporally, it was and still is done in an open atmosphere. This is also a widespread technique among indigenous groups in the Amazon, with small variations. The introduction of other techniques, such as the firing inside metal cans, is very recent.

Finally, there are techniques that do leave visible traces on the finished products, producing visual qualities that can be more consciously manipulated, ascribed to different meanings, copied, and changed (Gosselain 2000:191).

Morphological aspects are included here, since different fashioning techniques can obtain similar shapes. The changing production focus from own consumption to selling to Europeans greatly increased shape diversity of Kari'na vessels, often to copy European products (e.g. *watrakan*, money-box, tea pots, cups). African descendent communities, like the Maroon in Suriname, may have also influenced morphologies. Although they also make *watrakan* vessels, the groups in Guyana do not seem to make the same diversity of shapes as the ones in Suriname and French Guyana. The diversity of shapes presented by the eastern Kari'na is rarely found among other groups in the Amazon.

One important type of vessel continues to be produced and used until today, at least in Suriname and French Guiana: the *sapera*, for its importance in the mourning ritual *epekono* for drinking *kasiri*, as well as a privileged support for their designs.

A smaller change in the morphological aspects, is the replacement of a convex base by a flat one, probably because of stability requirements for the new market. Europeans used vessels on flat surfaces, whereas the Kari'na used them on sand or stone supports. The use of lids for the *watrakan* vessels might also be because of the demands of European use.

The origins and uses of the connected vessels, *asemunusi*, also need further research. Although it might be a variation of the *watrakan*, the Palikur (Arawakan language) also produce a kind of connected vessels, *kutu*, to drink the *kasiri* (Rostain 1991-1992), which might suggest some kind of relationship between these types (Collomb 2003).

If the visible and malleable aspects of shape are varied and adapt easily to external demands, the surface treatment (equally visible and malleable) appears to make a stronger statement of Kari'na identity. Even the vessels made for selling have a traditional surface treatment: the red paint enhancing aspects of the shape, leaving parts to be painted with designs in red, white, or black; the white slip on the outside, covered with designs of resin; the complex motives painted in fine black lines on the inside.

Though motives are shared by all Kari'na, there are variations and specificities per household, village, or country, and Collomb (2003) even observed a potential division between an Eastern and a Western style. The Western style of Guyana can be combined with the absence of non-plastic added to the clay, and less diversity of shapes. Some motives might have been borrowed from Europeans, African descendants, and even archaeological materials (Coutet and Losier 2014), indicating the importance of graphic patterns for communication between groups. Still, they are reproduced according to Kari'na patterns and incorporated in their *répertoire*.

Surface treatment does seem to be more recognizable as marker of ethnic identity for the Kari'na, contrary to the Sub-Saharan African context where they cross boundaries more easily to be produced according to a market taste. The use of design patterns as marker of ethnic identity could be a general aspect for the Amazonian context in the last couple of centuries.

Concluding remarks

The Kari'na ceramic style, consistent since the middle of the XIX century, has come to this point along with the strengthening of their identity as Kari'na in their different historical trajectories. The existence of a Western and Eastern style must be further studied to see how they connect to each other as part of a same tradition, or even form different traditions. These characteristics and changes through time must be considered when comparing recent ceramic with archaeological ceramic sets.

Confirmed Kari'na sites from colonial times are rare. An example of this kind might be Eva 2, in French Guiana (van den Bel et al. 2014). It appears to be dated back to the XVII century, as described in the accounts of father Jean de la Mousse: the use of crushed ceramics giving place to the use of only *kwepi* as non-plastic; the convex bases; the increased preference for red slip and paint.

Even before that, it is possible that there is a connection between archaeological ceramic traditions (as Koriabo) and the Kari'na pottery, but more research is needed to understand in what ways these ceramics are connected. As has been suggested elsewhere, the Koriabo complex and styles of the Polychrome Tradition might have influenced both the Kari'na and the Palikur pottery, despite them belonging to different linguistic groups. Ethnic and linguistic reconfiguration after colonization must also be considered when such comparisons are made (Collomb 2003; Coutet 2009; van den Bel et. al., 2014:138). This illustrates that any comparison between ethnographic and archaeological ceramics in this context must be done very carefully.

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Vision and Gesture: the Ceramics of the Wayana and Aparai, Karib Peoples of Amazonia¹

Lucia Hussak van Velthem²

Among Amazonian indigenous peoples, different objects are produced, used, traded, recycled and discarded. Objects, however, have more than utilitarian purposes, thus our perceptions of them should be expanded, as they extend beyond the realm of the "inanimate". Representing the tangible part of worldly experience, the objects encapsulate specific conceptions and allow human relationships of different ranks to be established through their mediation.

Recent studies have reformulated the existing relationship between ethnographic methods and anthropological theory in order to broaden approaches to material culture in diverse contexts. Emerging analyses³ connect objects to world composition, to socio-cosmological systems, to differentiated intentions and agent capacities, to subjectivity, and to the consideration of artefacts as bodies and sharing with humans a series of faculties, such as anthropomorphism, and the existence of a social life. Along with this contribution is the conception of chimerical⁴ representation, as an interpretative mode of graphic figurations. These analyses represent an effective basis for understanding the materiality of Amazonian indigenous societies, yet they also highlight a recently established distance in relation to studies on technology of object production.

Classical anthropological studies focusing on material culture prioritized technical aspects – materials and forms, allowing to establish classificatory bases to group objects in artisanal categories, such as basketry, ceramics, featherwork, weaving, carving (Ribeiro, 1988). It is frequently mentioned that indigenous peoples' most refined material creations are represented by ceramics, basketry and featherwork, and therefore, complex forms, intricate graphic art, and the exuberance of materials are invariably emphasized. Excluding feather works, few objects have been more studied than ceramics, both recently and in the past, given that clay artefacts and technologies are of interest to archeologists, ethnologists, museologists, art historians and artists.

¹ Translated by Angela Steward.

² Museu Paraense Emílio Goeldi.

³ See Barcelos Neto, (2002,2008) and especially Santos-Granero (2009) for an explanation on the subjectivity and life cycle of objects. Consult Gomes (2016) for detailed references on these contributions.

⁴ As developed by Severi (2013) who supported with examples of Wayana art the argument that through the act of looking, the invisible supplants the visible and appears to conform to the context.

Despite this interest, contemporary indigenous ceramics remain little known regarding their general aspects, except for those produced by the Asurini, Karajá, Kadiwéu, and Waujá⁵. The above list does not include a single group from the Karib language family, such as the case of the Wayana (Wajana) and Aparai of Brazil, the subject of the current article. The main objective of this paper is to advance scholarly knowledge on ceramic arts, and to this end, technical production procedures, how ceramics articulate with the 'meaning of fabrication', and cosmological representations are all discussed. Another goal is to provide support for archeologists who work on cultural reconstitutions of northern Amazonian indigenous cultures and to aid museologists in the documentation of Wayana and Aparai ethnographic collections, or in research on comparative aspects of this topic.

The Wayana and Aparai and their ceramic art

The Wayana and Aparai are indigenous peoples who live in Suriname, French Guiana and Brazil. In Brazil they live in villages established on the margins of the Paru de Leste River, north of Pará state, delimited by the Indigenous Lands (*Terra Indígena*) of Parque Tumucumaque and the Rio Paru d'Este. They share this territory with other groups speaking diverse languages, including the Tiriyó, Akuriyó and Wajãpi. The fluid nature of sociological units and a guiding principle, where "mixing is essential to the lives of indigenous groups in the Guianan highlands (plateau) (Gallois 2005:12) resulted in fusion between the Wayana and Aparai by way of marriage arrangements operating since the 19th century. This historic and tight coexistence led to the exchange of many cultural elements whose incorporation generated a certain degree of homogeneity among the groups; yet, it did not eliminate the cultural specificity of each people.

At the beginning the 20th century, the Aparai villages of the Paru de Leste River and one of its tributaries was visited by Curt Nimuendajú (1915) and, ten years later, by Félix Speiser (1924); both visits resulted in extensive collections. The collections of the first research trip were divided between the University of Pennsylvania Museum and the Museu Paraense Emilio Goeldi; however, Speiser's collections were all sent to the Museum der Kulturen Basel. The Aparai, who live on the Jari River received the Otto Schulz Kampfhenkel expedition from 1935-1937, which also resulted in collections later divided among the Staatliche Museen zu Berlin and the Museu Paraense Emilio Goeldi⁶. All these collections include ceramic artefacts; Museu Goeldi's research indicates that Nimuandajú donated eight artifacts and Schulz-Kampfhenkel eleven. In his travel reports, Speiser (1926: 288) presents illustrations of seven ceramic objects indicating that the "two old clay pots [came] from a tomb"; however, collection procedures are not specified.

⁵ Refer to Bardi (1980), Barcelos Neto (2000, 2011); Coelho (1993); Costa (1978); Lima (1986); Müller (1990, 2009); Ribeiro (1980); Siqueira (1992), among others.

⁶ Cf. Schulz-Kampfhenkel (1938) and Speizer (1926). Publication on Nimuendajú's travels do not exist, only documental references from a report. See Hoffmann and Noack (2017).



Plate 1. Steps in the making of Wayana ceramics. a) Raw materials. b) Making a griddle. c) Making a pot. d) Smoothing out the internal surface. e) Drying the griddle. f) Drying the pot. g) Drying next to the fire. h) Preparing the fire. i) Firing the ceramics.

References of Wayana peoples' ceramics from French Guiana are found in Rostain (1991-1992) and Hurault's works (1960, 1965, 1968), whose manuscripts provide summary notes on this artisanal category, emphasizing their rudimentary character and the absence of artistic characteristics. In contrast to this negative evaluation, is Schoepfs (1976) text written as part of an exhibition catalog dedicated to the Wayana culinary and way of life. Different ceramic utensils are presented along with contextualized information on their use in daily life and in ceremonies, highlighting their formal and decorative refinement. Based on this catalog, Lima (1986) defines the occurrence of ceramic technologies for the Northern Amazonian region. However, vessels are attributed to the Aparai and not to the Wayana, where the group is referred to as Urukuyâna in this classification, which shows the absence of data on their ceramic art.

More recently two articles on Wayana ceramics in Suriname were published. In one of these, Maganã (1992) outlines an ethnographic introduction of this group and describes shortly the production techniques and ceramic types. In the other, Duin (2000/2001) presents a detailed description of the successive steps of ceramic production, decorative techniques and types of utensils and their use. Supported by bibliographic research, the author briefly mentions ceramic symbolism, highlighting mythical relationships (Duin 2000/2001: 55).

In her approach of Wayana material culture, Velthem (2003) seeks to understand the aesthetic experience of the group and its relationship with cosmology, and thus does not limit her analysis to the technical aspects of ceramic production. Above all, complex representations attributed to certain clay objects stand out – since these are inserted in the reference frame of other objects produced by the Wayana. In another publication some of the characteristics of Wayana and Aparai objects are described within the context of Amazonian indigenous ceramics via the Museu Goeldi collections (Velthem 1999). In two other books, Wayana and Aparai ceramic production is described and the complexity of their graphisms is emphasized (Velthem and Linke 2010; Linke and Velthem 2017).

Pioneer studies, which present a broad framework of this artisanal category among indigenous peoples of South America, such as, "An introductory study of the arts, crafts and customs of the Guiana Indians" (Roth 1924) and "Handbook of South American Indians" (Willey 1949)⁷ do not mention Wayana and Aparai ceramics. Similarly, the "Ceramics" item of the Indigenous Handicrafts Dictionary (*Dicionário do Artesanato Indígena* [Ribeiro 1988]) does not highlight a single ceramic artefact of these peoples; the same is true for the classification of this category in the "Brazilian Indian Material Culture Treasure" (*Tesauro de Cultura Material dos Índios no Brasil* [Motta 2006]).

⁷ Willey (1986; 241) presents a classification of different ceramic levels that allows us to include Wayana and Aparai ceramics in the category of "Plastic and/or Controlled Painted" per the use of polychromic decoration.

Vision and tact: ceramic techniques

Ceramics as an artisanal category is referred to in the Wayana language as *ëliwë* and in Aparai as *orino*, expressions which identify the raw material – clay. Both Wayana and Aparai women traditionally produce two sets of ceramic artefacts, which differ from one to another in shape, decoration and function.

One of the sets is indicated generically as *tumainë/oripo⁸*, terms that also designate a special type of recipient used to prepare tucupi-based soups with bits of meat or fish. It is considered one of the most important household ceramic item and for this reason it provides the name for other objects made from the same raw material.

Everyday use vessels, of different shapes and sizes, also make-up this category and include a cassava cake griddle, *ëlinat/ orinato*, different pots and pans to cook game meat and fish, such as *tumainë/oripo*; *tïmulikem/mykyhmano*; *eliwë kaphem/orino kahsemy*, where the last refers to a pot specifically used to cook alligator meat. There are pots used to cook tubers, *kïjawëkman/kaokomano*, and others to cook porridges and sauces *tumainë/ oripo*, and even some for fermented drinks *oha/apipa*. Vessels with narrow necks are used for food storage, especially for melted monkey fat, like *mukusi/mukuxi*; *upotakili/ upotakirikikihmano*. Food is served on platters *ëlimak/paratu*. Two specific kinds of recipients, *ilak akatop/irako akatopo* and *ohamunkë/apipamunkuru*, while pertaining to this set of ceramics are used in the preparatory phases of initiation rituals, for keeping the *tocandeira* ants or for storing drinks.

Household-use utensils have a waterproof coating, which gives them a red coloration before use; after use, however, they turn black. Household utensils are used in the domestic space of kitchens, which the Wayana refer to as *uapot pakoron*, and are stored on wooden stands. In the past they were used in great numbers during community meals in the village plazas; today, however, they are rare and have been replaced by pots and pans brought from urban centers.

The other set is made-up of ceramic artefacts for use in ritual or ceremonial contexts. This set is generically referred to as *kalipo/tumeri*, named after a specific and highly valued recipient painted with distinctive polychrome patterns, covered by a protective varnish on the inside, and plain white on the outside.

The clay objects used during celebration ceremonies are those for storage of fermented beverages, withdrawn with a small calabash, *kalimata/kasanamano; tëpïnkem/ typerykemy; peimiliman/peimirimano,* and those that are used to offer these drinks *kalapiman/ kasanamano; kalipo/tumeri; ëhenematop/osenematopo,* which differ from those that serve water *tuna opkatop/tuna arykatopo.* A piece of zoomorphic appearance, *pëtïman / utukumano,* figures the pale-vented pigeon carrying a ceramic container on its back. This element appears on the covering of community houses, *tukusipan/porohtoh,* present in most Wayana and Aparai villages.

⁸ Throughout the text when there are no further specifications, the first term is in the Wayana language and the second in Aparai.

Indigenous ceramic production techniques generally obey the same operational sequence, except for a few small local variations; however, the coiled technique is widespread (Lima 1986: 174). This is true for the ceramic manufacturing processes among the Wayana and Aparai, which is close to what Roth (1924: 131-133) and Ahlbrink (1931: 335-339) describe for the indigenous peoples of the Guianas.

Among the Wayana and Aparai, ceramic production pertains exclusively to the feminine domain; its use is associated with the production and distribution of food and beverages – women's activities. Even though the confection and use of ceramic artefacts are in decline⁹, as they are being replaced by metal or plastic pots and pans in villages of the Paru de Leste River, clay pans and griddles used to bake and roast certain types of fish and prepare *beijus* (large cassava bread) can still be found. In almost all communities, women who know how to make and paint ceramic objects are found; however, only 11 were identified as specialists in this art form.

The knowledge and technical abilities of a basket or ceramic artist are related to the eyes and vision, as this constitutes the main way of acquiring such knowledge. This is something the Wayana and Aparai share with other Amazonian peoples, such as the Piro, Piaroa and Waiwai¹⁰. Hands also play an important role; between vision and gesture, a fluid continuous exchange is established, and in this way, according to Wayana beliefs, the eyes guide hands to make artefacts, including clay objects (Velthem 2009). Tact allows ceramists to check if the surface is smooth, or on the contrary, too rough, or to examine the rounded form of clay recipients. Hands ensure that artists' knowledge is not lost when fingers brush over the contours of a recently-made object, retaining its shape.

The technique of making ceramic artefacts is referred to as *tikaphë/tapuhse*, words also used to designate basketry and tight-mesh weaving techniques. The term is the same for the Wayana and Aparai because these procedures require the use both hands, which for the most part execute the same coordinated movements (Velthem 2003: 133). Due to this specificity, the work of producing a pot, a basket or a hammock is known as being "doubled". Other manufacturing techniques, which use the hands in a different way are considered less arduous, such as carving a bench where only one hand works and the other holds the piece of wood.

Women ceramists collect raw material during summer months. Working in group or simply accompanied by their husbands, they go by canoe to clay sources close to their villages. In the upper and middle Paru Rivers, the most known clay deposits are situated on the Eparé, Tyaritakemy, Pãmo, Ximarikuru or Tapekuru creeks (*igarapés*); important sources are also along the Citaré River and its upper course tributary, the Kuliwelui creek. Collection trips can take two or more days and are generally associated with fishing and hunting activities. The collected clay is cleaned at the source, removing leaves and sticks; large clay balls are formed, which are slightly elongated and rolled in *sororoca* leaves and deposited in a cargo basket made with vines or *açaí* or *bacaba*¹¹ leaves, all of which are specially made to transport these materials.

⁹ As also mentioned by Duin (2000-2001) for the Wayana in Suriname.

¹⁰ On this subject see Fock 1963, Gow 1988, 1999a; Overing 2006.

¹¹ Ravenala guianensis, Euterpe oleracea, Oenocarpus bacaba.

Women must collect clay in fasting and cannot speak loud or moan. Menstruating and pregnant women, as well as those with newborn children, are forbidden from collecting this raw material; such interdictions are always respected. Disrespect of these rules has serious consequences; ceramists can be swallowed by clay deposits, which can act as supernatural anthropophagical beings. Additionally, the use of clay collected by a pregnant woman causes undesirable effects, such as the excessive dilation of the vessel produced, which generally breaks when fired, which no ceramist desires.

In the village, clay is stowed in palm sheaths or left in the cargo basket. If it is to be used in the following days, it is placed in a shaded spot, and wet with water to prevent drying out. Clay can also be stored for future use; however, it will inevitably dry out. To be used it must then be crumbled with a stick (as a kind of pestle), and then sieved, re-hydrated and vigorously kneaded¹².

Ceramists begin working before the first meal of the day; they need to be in complete fasting so that their artefacts do not break when they dry. The ceramist sets up her work near her home or has a shelter built especially for this purpose – since noisy and busy places must be avoided. Sick people do not come near ceramists' work places, so as not to become "heavy" under the effect of this raw material, which is harmful to his/her recovery.

The ceramist's first task is to surround herself with necessary work material: clay, waterfilled calabashes, scrapers, straighteners and polishers and a support, which might be a wooden board or a rigid and worn-out woven mat. When making a ceramic griddle, this must be covered with banana leaves. Initially the ceramist separates two pellets of dry clay, which she hydrates and kneads slowly, while carefully extracting impurities: small rocks, wood fragments and white particles, identified as the ground bones of women who were once devoured by clay deposits. Wayana and Aparai ceramists do not add any type of temper to their clay since many substances, such as mica and quartz grains are already naturally present in this raw material, allowing it to be worked with¹³.

To begin working on an artefact, the ceramist produces a thick coil arranged in spiral on the support, which is then flatted with hands, making up the base of the piece *ine/atykyry*. Using the coiled technique, *tïpukhe/tapuhse*, thinner coils are placed on top of this base, and other coils produced and added on top of one another until the wall reaches the desired height. The overlapping of subsequent rollers, *tïmelemai/tymerehmase*, is done while stretching the wall from both the inside and the outside, using fingers and a rectangular scrapper made from calabash, *pelo/pezapeza*, which is constantly wet with water. When the coils are too long, they are cut. In order to form the expanded body of the vessel coils are placed externally, while to make necks and restricted rims, they are placed internally.

¹² Duin (2000-2001: 46) indicates that Wayana ceramists in Suriname let the clay to dry for two months before working it.

¹³ Other groups of the Karib languague family, such as the Kali'na add the ashes of bark pieces of *kwepi*, not identified (Ahlbrink 1931) and the Tiriyó, add the charcoal powder of a non-identified timber species o *paripó* (Frikel, 1973).

When the artefact reaches its desired size, it is smoothed carefully with a piece of calabash or a corn cod scrapper, *ernai putpë/oxinase upuhpo*, both internally and externally, acquiring its definitive shape. The rim is smoothed separately with a very wet fragment of a hard fungus (*orelha-de-pau*), *piupiu/piupiu*. Next, the artefact, still on its support, is put in the shade to dry either on a wooden stand or on the ground, in the kitchen or in a shelter, many times supported by short rods. Drying generally lasts two to three days and is quicker during summer months. At the end of this period, the artefact is polished with a round pebble, *mele/mere*¹⁴; this is repeated the next day as a last finishing. If the object breaks when drying out, it is immediately crumbled, wetted and kneaded so that the raw material can be used again.

When the vessel is almost dry, some domestic-use pots receive specific motifs using pointed rods. Those designated for ceremonial use are externally coated with a white kaolim based dye, *nënuwë/tawa*, using a ball of native cotton. When this paint dries, it is burnished with pebbles. When the vessel is completely dry, it is prepared for firing, which is made-up of two steps.

The first step, *tïwïkai/tywynase*, consists of bringing artefacts to the domestic fire – the same used to cook food – over the course of two days, to reduce the possibility of breaking during the definitive firing. During this process, ceramic objects are constantly inspected, being brought to or from the fire. Definitive clay firing, called *tukai/tukase*, takes places in the open at the village edge, far from people's transit. Most ceramic pieces are fired individually, and to prevent internal blackening, each vessel is bent over a support. Next, the piece is encased with bark from one of four tree species: *kalapa/azawa; palialai/pariarai; kanawa imë/kanawa imo; kuwepi/kuepi*¹⁵. These are placed in conical arrangements, with a chimney on the back where the embers are inserted in order to fire the pieces. This firing lasts over a half hour. When the piece is well burned, it will make a specific sound when struck with a twig or fingernails.

Pregnant, menstruating and post-partum women are prohibited from clay firing tasks. Those who participate in the firing cannot bathe, eat, drink or speak loudly. Domestic animals should be kept away since a quiet environment favors a good firing, preventing artefacts from breaking – all these measures are followed with even more care when it comes to the firing of *beiju* griddles. After cooling, domestic pots are entirely covered with a waterproofing coating, *aputlukum/apurukuni*, whose name is the same as the vegetable mordant, *ingá do mato*¹⁶, used in its production. To obtain this agent, the bark of *ingá do mato* is scrapped and the juice is mixed with a little water and often with annatto, acquiring a highly valued reddish color. Some ritual-use artefacts merely have their bases waterproofed, while the interior parts receive complex paintings done with mineral dyes, which are detailed below. Ceramic artefacts of everyday and ritual use are only complete after the application of these dyes.

¹⁴ According to Roth (1924:132), the rounded pebbles used by the Karib is made of porphyre and highly valued, being obtained through large extensive trade networks.

¹⁵ These species could not be identified.

¹⁶ Inga paraensis.

Inscribing images, painting ceramics

The Wayana and Aparai use three techniques to paint graphisms on people's bodies and objects: by painting, tonophe/tonohse, by making incisions/grooves, pahieh/merie, or by tying cords, tïpumuheh/tipuisse¹⁷; regarding ceramic objects, the first two techniques are employed. Polychromatic paintings are characteristic of ceremonial vases, while monochromatic painting and incisions are reserved for every day-use recipients.

Graphic incisions are not applied to pots and pans used to cook food; this being reserved for specific recipients, such as bottles with narrow necks, which are used to store melted *coatá* monkey fat. These graphisms are applied on the outer surfaces before they are entirely dry. The repertoire includes isolated graphic elements, as well as graphic bands around the neck. After drying, the vessels and their graphisms are entirely covered with an impermeable reddish toned paint. This same paint is applied to the external bottom of ritual use recipients, and before it dries, the ceramist may use her nails to make specific graphisms called, *tëwupkai/iwynatopo*, conceived as a form of incision since they replicate jaguar claw marks. Based on a narrative myth, these marks were carved in the *tauari* trees when these animals/people took out rolling paper bark for their shamanic cigarettes.

Painting ceramics involves the use of mineral dyes of a palette that contains white colored clays, *nënuwë/tawa*; ochre, *kuli/araraymo*, gray-blue, *pulunë/kurumoto*; reddishbrown, *ëliwakpiu/xuhpary*, from a type of sedimentary rock. The pigments used by Wayana and Aparai ceramists are withdrawn from the following stream beds, Hawahhawah, Karaunaman, Namparinamë and Karapaeuku (Velthem e Linke 2010). After they are gathered, they are cleaned and arranged into small rolls, put out to dry and carefully put away.

Painting should occur in a clear and calm place, and to do her task, the ceramist needs a palette – a flat rock – coloring minerals, paint brushes and even calabashes with water and cotton balls (of native cotton). To produce the paint, *anon/zonone*, a piece of the coloring agent should be shredded on the rock and mixed with a little water. Each way of applying the paints – with fingers, with cotton balls, brushes – entails and produces different technical and aesthetic effects, but also provides the artefact with its completeness.

There are two types of brushes used in painting – which can be made a little before they are used. One is made from palm leaf nerves and cotton, *ititikmatop/itikyrytopo*, and the other from clay pellets and the ceramist's hair, which is indicated in its designation as: *umhetpë/usehpo*¹⁸. Finger painting or painting with cotton balls is specific to recipients' internal walls and aims at entirely cover these surfaces, as if the vessels were bathed in paint. Plant nerve brushes produce small round spots while the brushes of human hair allow artists to trace fine lines and graphisms.

¹⁷ See in (Velthem, 2003) a description of graphism reproduction forms among the Wayana.

¹⁸ From umhet, hair, and pë, a suffix that identifies what is of the past or old.



Plate 2. Steps in the painting of ceramics. a) Preparing the paint from mineral rocks and stone used as palette. b) Mineral paints. c) Painting of *karapiman*. d) Painting the inside of the pot. e) Applying protective varnish on the outside of the pot.

To paint the inside of a vessel, cotton balls are enmeshed in paint, which is spread uniformly throughout. Today, the insides of pots are always painted in ochre, however, until the middle of the 20th century they were also painted with other colors, such as black or reddish-brown¹⁹ tones. When this paint is still wet, graphic patterns are traced with brushes made from hair. Next, these designs are colored using the nerve brush, producing a tight dotted. This task is generally given to ceramists' adolescent daughters who are seeking training. A wider nerve brush allows for corrections of the graphic tracing, and when they are completed, yet considered ugly or incorrect, they can be erased by washing the vessel's surface with water, which will be repainted after it dries (Velthem e Linke 2010: 63). After applying different paints to the internal surface, the vessel will dry for a short period and then be coated with a vegetable-based varnish *mëpuk/mapuku*, to prevent pealing. The varnish is named after the *jutaí* or *jutaicica*²⁰ tree – from where the sap is extracted, being and afterwards is processed into rods for future use.

Varnishing is an activity that requires several restrictions, such as the ceramist entirely abstaining from food. Restrictions are required so that satisfactory results are obtained – specifically that the varnish completely adheres to the artefact. This task ideally takes place in the morning, before the early meal. Thus, the artist preferably works in the early morning in a place protected from wind and village hubbub. A chipped clay pot with embers (the brazier) will heat the vessel, allowing the *jutaicica* rod to melt and slide over its surface. The brazier needs to be constantly activated (stoked) since the ceramic must be very hot for the varnish to remain uniform and transparent like water, as it is fully appreciated and valued.

For the Wayana and Aparai each graphism applied to the human body and to artefacts constitutes an image because "they make visible a reality that is not present" (Descola 2014: 276). In this case, the author is referring to visualizing body paintings – red and black – belonging to a serpent, the supernatural anaconda/caterpillar, referred to as *Tulupele/Turupere*, which were copied in distant times according to a well-known narrative myth²¹. These graphisms, patterns, designs, marks are individually designated as *milikut/menuru*, and each constitutes a figuration that can be inscribed via technical means on a surface, such as in body painting or on ceramics²².

For the Wayana, as for other indigenous groups²³, the graphisms and their inspiration originate from a source exterior to that of the human world, they relate to alterity, to the animal world or to that of enemies or supernatural beings. These aspects were explored in various publications (Velthem 1992, 1995, 2003, 2014) and are taken on here in a summary explanation.

¹⁹ Containers with black or reddish-brown bottoms are found in the Museu Goeldi collections.

²⁰ Hymenaea courbaril.

²¹ See Velthem, 1995, 2003 for more information.

²² In weaves and braids, the reproduction of graphisms is simultaneously elaborated on objects; the same occurs with writing learned in school.

²³ As Lagrou, (2005:77) also highlights.



Plate 3. Graphic motifs. a) "Heron beak" motif. b) "crab" motif (drawing by Tokanairu, 2016). c) "Samaúma spikes" incised motif. d) "marks of the peccary's snout" motif. e) "Frog" motif. f) "Spider monkey's tail" motif (drawing by Alemau, 2016).

Graphisms on ceramics are either isolated or composed of strips that continuously multiply. Isolated elements are inside the recipient, uniting in varying compositions, some of which are almost symmetrical. Inside patterns are filled with lines or dotted lines that appear on body paintings of the spotted jaguar. When individually observed, many graphisms appear abstract, however, according to Wayana explanations, they have an iconographic reference, which means that there is a similarity between the mode and its figuration. This characteristic shows that designs have a semantic importance, and in this way, clearly express crucial aspects that identify their own models of inspiration.

There are two modes of presentation; in one, the graphism present the whole inspiring element; in the other, only this element element accupy the entire figurative space. This difference originates in the arrangement of body designs of the supernatural snake previously mentioned, from where the designs were copied: the first from its trunk and face, and the rest from its long tail.

In each graphism, meanings and the figure consist a unit, but this same design can present subsidiary components that combine, each possessing specific names and characteristics. These components offer information on attitudes, anatomy, body painting, food, the dwelling places of the design, which allow us to identify it with precision and in some cases, highlight a narrative.

The sense of the image found within graphisms extends beyond this realm since among the Wayana other terms that refer to the image connect to other meanings, such as *amole*, which identifies images reproduced in mirrors, in photos or in films, or also a person's shadow. The term *ukuktop* is another reference, which means that something was made in the image of another element^{24.} In this case the image preferentially applies to three dimensional things, such as everyday use objects, including ceramic pots, baskets and above all, ritual artefacts such as masks – where this notion acquires a more complex meaning.

According to Wayana belief, objects are not just things, but rather images that exist since primordial times, and their reproduction in the present is understood as an "imitation" of the bodies of these beings and, therefore, should present formal and esthetic characteristics (Velthem 2003:127-129). In this way, "body are artefacts, artefacts are bodies" as correctly mentioned by Lagrou (2011:763). Associations between people and objects extends to the fact that both reveal in their bodies, the formal characteristics of their models. The Wayana emphasize the fact that people and artefacts can be interchangeable; in this way, just as artefacts can have a body, humans can possess something of artefacts, since their constitutive parts are referred to figuratively as objects – those like the uterus that is compared to a ceramic recipient, the womb to a basket with a circular rim, and the skull to a gourd (Velthem 2003:119).

²⁴ Multiple meanings of images are found in other Amazonian indigenous groups; regarding this, see Lagrou (2007, 2011).

Images from other times and the beiju griddle

The Wayana describe what happened during "the time of the ancestors" in a long narrative description, known as the creation myth²⁵. The main references are cultural heroes, their arrival on earth and their great creative effervescence, since this is when humans, villages, objects, animals, rivers, mountains and many other things were instituted. One of the demiurges, Umale, one day decides to make a person in order to have a sister who would produce the fermented beverages that he consumed. A first woman is modelled with wax, another with clay and the third with *arumã* fiber. The woman made from clay receives the same name as her substance: *Ëliwë*. When she is completed, she awakes, but is not able to prepare food for the demiurges; she cannot move given her excessive weight, which entails her destruction.

The characteristic of clay – a dense and heavy material – is transmitted to the artefacts made from this material. Clay's deleterious effects can also be passed on to people, especially the sick and old who become excessively heavy. This same line of thinking extends to other fields, all truly performative in nature. In this way during rituals, the reproduction of graphisms usually applied to clay vessels are avoided on dancers' body paintings. If painted with these patterns, young dancers would become heavy and slow and would not dance with the necessary enthusiasm (Linke and Velthem 2017).

Mythic narratives are important to understand the status of Wayana material objects because they describe their emergence, the ways in which they act and the changes that they have endured – aspects that extend to clay artefacts. During primordial times, different sets of ceramic vessels constituted the possessions of demiurges who used them both in the production and consumption of foods pertaining to them and to other heroes, and which corresponded to fermented beverages *okë*, *sakura*, *umani*, prepared from bitter cassava root or from *beijus*. Today, the Wayana and Aparai consume these beverages during festive times and traditionally use the same recipients created and used by the demiurges.

Another important and highly valued ceramic artefact is the *beiju* griddle, *ëlinat/orinotó*. Its production and use require special abilities and knowledge of the Wayana and Aparai women ceramists and *beiju* producers. However, the importance of the griddle surpasses functional and technical questions, as its assimilation must run a longer course, where bodies and artefacts become more and more similar because each are images of the other.

As with various artefacts, multiple and intricate images are contained in the *beiju* griddle. For the Wayana, the *beiju* griddle constitutes the first image of a nest wasp, *ëlinatwale*, which goes back to primordial times when it was created. In addition, its form indicates that it deals with a body of colossal size, and therefore of supernatural characteristics, a being named *Elinatimë*, which presents a uniformly black body painting. Nevertheless, it is important to emphasize that the griddle does represent

²⁵ For a transcription of the creation myth see Schoepf (1987) and Velthem (2003).

the entire body of this being, but simply certain parts, such as the circular womb and the lips that correspond to the surrounding rim, and the penis, materialized by the central supporting cylinder. It must also be pointed out that the supernatural being is not alone, but rather is accompanied by its four wives, the four cracked pans that support the griddle (Velthem 2003: 189).

The display of primeval beings bodies through artefacts of everyday use, such as in the *beiju* griddle, must be partial, in order to control the agency of such beings. This precaution allows artefacts to be used as artefacts, and thus women can use the *beiju* griddle when making cassava *beijus* and not become targets of anthropophagic supernatural threats. According to Wayana belief, *Ëlinatimë* would come back to life if its body were entirely reproduced through the artefact (Velthem 2003: 124).

The narrative myth mentioned indicates that $P\ddot{e}le^{26}$, identified as the primordial grandmother, was in possession of the utilitarian ceramics and knew how to produce cassava *beijus*, also a main ingredient of a special drink. To complete this task, she used a circular ceramic griddle, an utensil also associated with other objects, such as the *tipiti* (strainer), a round sieve (*peneira*) and a spatula, all which were stored and used in her kitchen to prepare fermented beverages (Velthem 2003, 2015). She was also in possession of fire, which corresponded to her feces, carefully kept in her anus and captured by the first humans, as recounted in the sequence of the creation myth (Schoepf 1987).

During primordial times, utilitarian artefacts acquired the power emanated by techniques – essentially transformative – that the cultural heroes used in their creations. Thus, *Pële's* kitchen objects were capable of metamorphism, able to change in aspect and category, and therefore, moving incessantly from one state to another: animal to utensil and again to animal. From this perspective, the griddle was also a wasp's nest, the *tipiti* was the sucurijú snake, the circular sieve was an entangled serpent, and the spatula was a wild duck with a spatula-like beak. These elements were used as objects by the demiurge who prepared foods, but as they were kept in racks they would go back to their true appearance; however, they remained just inert as they soon became "asleep" in the racks in which they were kept (Velthem 2003, 2014).

Specific containers used to serve and consume fermented beverages played an important role in primordial times. They pertained to another cultural hero, *Sulalapanan*, the creator and protector of crop fields, where the most important crop is found, the bitter cassava used to make *beiju* and fermented beverages. This elderly woman was not, however, the potter of her ceramic artefacts. She collected pots that molded themselves in clay deposits, as a result of her transformative technologies. This fact is recounted in the creation myth that further explains how this spontaneous fabrication passed onto the first humans was lost because a menstruating woman came close to the clay deposits of the cassava fields' creator.

²⁶ Identified as a female cururu frog.



Plate 4. Pots and pans. a) Cassava cake and griddle. b) Ceramic and aluminum pans in a kitchen area. c) *Tumainë* pan. d) Waterproof paint on *tumainë*. e) *Kalapiman* vessel. f) *Peimiliman* vessel. g) Kalipo bowl. h) *Mukuxi* pot. Objects of the MPEG collection.

Ceramics, the present and the future

This article sought to describe the technical processes of making and decorating clay recipients, and in this way presented references on the meaning of fabrication and on the mythology and cosmology connected to Wayana and Aparai ceramic art. The text mentions the semantic dimension, showing that what a ceramic object such as the griddle visibly displays does not correspond entirely to what it expresses. These discussions can help us broaden studies on indigenous peoples' material culture, and in this way, help cultural reconstitution studies undertaken by archeologists, and museum researchers engaged in documenting ethnographic collections.

For the Wayana and Aparai, and for many indigenous peoples, forms of material and artistic expression are constantly under threat. Factors that undermine the necessary conditions needed to uphold these traditions (significance, use and transmission) include: broadening relations with non-indigenous society, frequent and longer visits to urban centers, incessant missionary actions – above all evangelicals – and the presence of schools in villages. Maintaining indigenous arts depends on the social, territorial and environmental stability of each group; this stability ensures the ability of groups' own dynamics, communication and experimentation of these age-old knowledge systems and practices in Amazonia.

In Wayana and Aparai villages we observe the constant and growing introduction of aluminum and plastic containers and utensils, considered useful because they do not break or heat too quickly or too much. Additionally, the decline of certain food habits²⁷ associated with specific ceramic recipients constitute other factors that lead to abandoning the production of ceramic artefacts. The great difficulties in maintaining access to the territories inhabited by these groups must also be considered; this prevents the trading of clay goods, which would enliven and perpetuate this art form. The fact that ceramic recipients generally arrive broken and chipped at their destination also discourages their production for sale.

Moreover, and of equal importance, is the ending of making and using ceramic artefacts during ritual events. For a long time, the Wayana and Aparai abandoned flute and mask ritual due to evangelical missionary teachings. These practices were revived in 2012 and fermented beverages were offered in great quantities, however ceramic artefacts were not used and instead were substituted by calabashes. During this solemn occasion, various statements indicates that many women were saddened by the abandonment of beautifully-painted ceramic vessels.

Today, various strategic options related to heritage delineate the conduct of indigenous groups. Among the Wayana and Aparai the scenario is no different and the production of clay objects could change, be reinforced or (re) constructed, resulting in situations that could obtain other internal and external meanings. One recently adopted strategy, for example, sought to guarantee knowledge transfer from traditional ceramists to a broader

²⁷ As is the case among the Wayana and Aparai, of the *coatá* monkey fat, ingested with *beiju*.

group of youth through workshops that transcended the community context and family relationships. These initiatives sought to give value to and perpetuate ceramic art, as stated by a resident of the Kurupohpano village: "a well painted pot is beautiful to see and very important and necessary in festivities. During celebrations, when people dance, they should drink from painted pots and the chief of the feast should have a special one" (Velthem e Linke 2010: 65).

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1986 Cerâmica. In Suma Etnológica Brasileira. 2 Tecnologia Indígena, edited by Ribeiro B., pp. 27-49. Vozes/ FINEP, Petrópolis. Indigenous Meshes and Networks: Ethnographic Data to Think at the (Dis) Junctions Between Ethnology, Linguistics, History And Archaeology In The Guianas

Ruben Caixeta de Queiroz¹

Unlike communication networks, for example, the strands of a spider's web do not connect points or link things. They are woven through materials oozed by the spider's body and laid out according to its movements. In this respect they are extensions of the spider's own being as it moves across the environment. They are the lines the spider lives along and drive her action and perception of the world. (Ingold 2012: 40)

The aim of this essay is to understand the indigenous groups in Central and interfluvial Guiana from the perspective of ethnology, while nonetheless engaging in a dialogue with history, linguistics and archaeology. The region can be described as hosting a meshwork of indigenous groups, constituted as either paths (or lines) presently and simultaneously intersecting and interconnecting, or as the result of a series of breakups and continuities with their pasts. If those lines could be represented through different colours to make up a mosaic of these groups (from a linguistic or "ethnic" standpoint), the emerging image would not be a dichotomic one revealing the contrast between mutually exclusive groups, but rather a chromatic image of undefined units, of blurred boundaries. This is what we see as the great difficulty in trying to articulate a map of the dispersion of materials from any particular archaeological tradition (such as, say, Koriabo ceramics) with any specific linguistic family, branch or group.

Before presenting the data, it must be recognised that the study region's contours are relatively artificial, and more closely related to the boundaries of my own research (and the places I have become more familiar with through fieldwork) than to any intrinsic ecological or cultural limits- despite the fact that the area has been (quite vaguely) described as an ethno-linguistic frontier, as will be described below. The region cited in this work is thus an "isle" within a geographically greater "island" (Figure 1)². Inside the latter island lies what ethnologists refer to as the "ethnographic area of the

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² Figure 1: inside the yellow line, the "artificial island" (the Central and interfluvial Guianas region), and inside the red line the more realistic "island" (the ethnographic and geographical area of the Guianas). This map also shows the main cities of the Amazon basin and the Guiana islands, located in the northern part of South America, as well as the main villages cited in the text.

Guianas", consisting of indigenous groups which, while presenting a great cultural and linguistic diversity, also display what struck Peter Rivière (1984) as a remarkable uniformity in their social organization.

The "artificial island" referred to here as the Central and interfluvial Guiana (C-iG) is roughly limited by the Acari mountain range (standing between the borders of Brazil, Guiana and Surinam), the headwaters of rivers flowing from this border towards the Atlantic (the rivers Essequibo, Corentyne and Sipaliwini), and the headwaters of rivers flowing towards the Amazon river from this same border (the rivers Jatapu, Nhamundá, Mapuera and Trombetas). This vast area is generally covered by tropical forests, flanked by two open grassland or savannah areas to the east of Roraima state and the north of the state of Pará (Brazil). The C-iG is still quite well-preserved from an environmental standpoint, and presently includes some 50 indigenous villages. Considering what I have been able to collect from the region's scarce historical and ethno-historical sources, the presence of these contemporary indigenous groups is the result of older (prior to eighteenth century) fusions and fissions between groups fleeing the Portuguese and Neo-Brazilian colonization of the Amazon floodplains (as it moved forth from the river mouth, and past today's cities of Santarém, Óbidos, Nhamundá into present-day Manaus) and local indigenous groups from the mainland and headwaters. In this rather remote area, access is even more complicated by the many waterfalls, leading some groups to remain isolated from Western civilization or with no access to industrial goods of any kind for a long period of time³.

In the present work I use the category indigenous "group" (elsewhere referred to as a "tribe", "subgroup", "people" or "society") quite freely to refer somewhat "equivocally" to what Karib-speaking indigenous people from Guiana call a *yana* – Katxuyana, for example, meaning 'people who live by the Katxouru river; Tunayana meaning people of the water. Indeed, one of the aims of this article is to break up the alleged unity of such fixed and territorialized social units, as we shall readdress in the final considerations, in the light of Roy Wagner's (1974) now old contributions to the Melanesian context. For the Amazon, the deconstruction of the category of a "group" or society as a totality began at least in the mid-1970s⁴, as Joanna Overing (1977: 10) reminds us in her introduction to the Annals of the Congress of Americanists:

³ Many of these groups were only contacted between 1940 and 1970. Some of them remain in the forest, in voluntary isolation.

⁴ In fact, there is nothing new about criticisms to the conventional image of society invented by anthropology – especially the functionalist and structural-functionalist schools- as a totalized, internallycongruent unit bounded by territorial and linguistic borders, and sharing ethical and cultural boundaries. Viveiros de Castro (1996) traces the earliest demolition of such an image back to Leach and his monographic work on the political systems of Highland Burma. The ethnology of the South American lowlands has also developed theories that question and transcend such an image, although they seem to operate with reference to specific historic-geographical areas: the multi-ethnic and multi-lingual complex of the Amazonian Northeast; the multi-ethnic political system of the Xingu; and the "networks of relationships" in the Guianas.

From my reading of much of the data in South America, society recreates itself anew every generation and 'group' is almost as elusive a concept as 'descent' – which is expected given the fact we rarely find a true logic, an explicit one, for perpetuation.



Figure 1. Ethnographic Region of Guyana, by Ruben Caixeta from Google Earth.

A short history and archaeology of Central and interfluvial Guiana

Very few trustworthy historical sources exist for this region, among which one can mention the early-eighteenth-century accounts of São Manços (1903) in 1725-1727 and Robert Hermann Schomburgk's⁵ in 1835-1844. There are incredibly few archaeological studies of the region, with the almost single exception of Evans and Meggers (1960)' exploratory excavations of the upper Mapuera/Essequibo in 1952-1953, the Museum of Denmark's works under the direction of archaeologist Jens Yde (1965) in 1954-1955, and Camila Jácome's (2017) present study of the Mapuera river⁶. In contrast, much more in-depth excavations and studies exist for sites on the Amazon floodplains, among which those located in Santarém, Monte Alegre, Marajó island, as well as the Atlantic coast. More consistent studies in this area's interfluvial sector may establish possible (although not likely) connections and (material-culture based) networks between the Amazon wetland areas, the C-iG sectors and the Atlantic coast.

⁵ This traveller's work was organized and published as a collection by Peter Rivière (2006).

⁶ The research that originated Jacome's thesis was carried out in the context of a joint-project coordinated by myself and Prof. André Prous, financed by the Brazilian National Council for Research Development (CNPq), the Franco-Brazilian Archaeological Mission and the the Foundation for Research of the State of Minas Gerais (FAPEMIG), between 2010 and 2014. Partial results of these works have been published as final graduation projects, and Ma. Dissertations, as well as no. 2 of volume 25 of the journal Arquivos do Museu de História Natural e Jardim Botânico (archives of the Natural History Museum and Botanical Garden) of the Federal University of Minas Gerais (UFMG).

The most solid historical document about the indigenous people in the ethnographic region under consideration, from the start of European conquest to the early nineteenth century, was the one written by brother Francisco São Manços (1903). In a recent work, I provided a detailed overview of the three expeditions (1725, 1726, and 1727) commanded by this missionary in the upper stretches of the river Mapuera, as he sought to locate and attract indigenous peoples towards village-missions established in the lower stretches of rivers Trombetas and Nhamundá (Caixeta de Queiroz 2014: 168-181). In his account, São Manços names over 50 indigenous "nations", most of them unknown to later historical and ethnographic sources, as well as mentioning many of their own village names and those of their chiefs, according to ethnohistorian Porro (2008).

From that analysis of this seventeenth-century document (Caixeta de Queiroz 2014: 172), four fundamental conclusions emerged: 1) Trombetas and Mapuera rivers and their main tributaries were inhabited by large numbers of different groups or "nations"; 2) this constitutes the territorial and ethnographic area of occupation of different indigenous groups speaking different languages or dialects (which some scholars went so far as to – incorrectly- consider the lineages or tribes of a larger nation called the Parukoto); 3) these groups remained relatively isolated from Portuguese colonizing fronts departing from the mouth of the Trombetas and from the Amazon, but at least since the eighteenth century found themselves under the pressure of the Dutch, who were seeking slave labour force in exchange for their manufactured commodities.

Over a century later, British naturalist and researcher Robert Schomburgk justified the need to carry out an exploratory investigation into the limits between Guiana, Venezuela, Brazil and the former Dutch colony (present-day Surinam), among other reasons on the grounds that he had verified the enslavement and extermination of indigenous groups by Neo-Brazilians (Farage 1991: 15-16). Living in the upper Essequibo river himself, Schomburgk found villages of the Waiwai and Tarumã indigenous people. The latter were supposed to be the same ones inhabiting the mouth of the Rio Negro river back in 1668, when they were employed as labour-force in construction works of the Fortaleza da Barra (the Port Fortress) where the present-day city of Manaus stands.⁷ According to the work of Colson and Morton (apud Howard 2002: 30-31), from 1675 and over the following century, the Jesuits and Carmelites founded missions among the Tarumã of the Rio Negro, the likely ancestors of the Tarumã, who later appeared in the upper Essequibo." According to Guppy (1958-32-33), having been converted to Christianity and attacked by epidemics, many of these indigenous people fled the mission and travelled some 800 km through the rainforest, to found a new home in the Guiana.

Reviewing Schomburgk's 1837-1839 data, Yde (1965: 280) states that, at the time of these expeditions, there were some 500 Tarumã indigenous people living on the banks of the river Essequibo. Shortly after, in 1844, Schomburgk returned to the region and found the Tarumã population in a steep decline: there were barely 150 inhabitants left. Among

⁷ I myself touched on this point in Caixeta de Queiroz (2008). See also the works of Fock (1963:237), Evans and Meggers (1960: 263), Colson and Morton (1982), and Howard (2002: 30-31).

them was a foreign man of the Parukoto group, married to a Tarumã woman, leading a population severely affected by the epidemics brought by white people, particularly smallpox.⁸ Schomburgk also noted that some twenty Tarumã people were migrating towards the region of the Mawayana – a group inhabiting the area around the Urucurim, a right-bank tributary of the river Mapuera.

In 1925, the colonial administrator and anthropologist Walter Edmund Roth visited a Tarumã village called Wannawantuk on the right bank of the Essequibo river, where a Catholic mission had been established, with disastrous consequences for the local indigenous people, who suffered a flu epidemic that almost caused them to disappear altogether (Yde 1965: 281). Based on the work of Farabee (1924), Ogilvie (1942) and Roth (1924), Catherine Howard (2002: 31) states that *after the Tarumã people almost completely disappeared due to a flu epidemic in 1920, the Waiwai married the few survivors of that group and moved to their land.*⁹

At the same time as Schomburgk visited the headwaters of the rivers Essequibo and Mapuera and described the impact of colonization from the north (both in the form of contact with the Dutch and through the savannah region of Roraima on the Brazilian side), an event was unfolding which would prove of important consequences for indigenous people in the region. From the south and the Amazon River basin came the effects of a popular uprising called the Cabanagem: a movement described in Caixeta de Querioz (2014: 173-174), which took place between 1831 and 1840 in what was then known as the province of Grão Pará. This post-independence (1822) revolt involved indigenous people and slaves, who were mobilized to fight against the newly-established Brazilian government. Their masters having died in the military repression unleashed against the insurgents, many slaves fled and established maroon communities beyond the waterfalls of the main tributaries of the Trombetas River, in turn forcing indigenous people to move further beyond these waterfalls. The grip of persecution against these maroon communities was only loosened after the abolition of slavery (1888), when their inhabitants were able to return to the "stiller waters" (below the waterfalls) of Trombetas, and relieved the territory occupied by indigenous people at the headwaters from these pressures.

When the USA missionaries of former Unevangilized Fields Mission arrived in the upper Essequibo region, around 1949, they found the Tarumã in a process of steep demographic decline and mixture through inter-marriage with Mawayana and Waiwai indigenous people,

⁸ According to Howard (2002: 31) "white people's infectious diseases reached even the most remote villages through such interactions. Infections contracted by the Wapixana [who inhabited the region with more savannah-type landscape further north-east] slowly decimated the Tarumã and, at the turn of the [nineteenth] century, reached the Waiwai of the Essequibo, causing their temporary escape towards the South of Brazil".

⁹ Importantly, both missionaries and anthropologists have shared assumptions about the end of the Tarumã peoples for a long time. In the year 2002 at the village Jatapuzinho, I encountered Yukumá, who considered himself Tarumã, as did other families in both this village and that of Mapuera. Unlike them, Yukumá was fluent in this language, and confirmed a long history of epidemics and deaths among his relatives in the Essequibo river region, since the early twentieth century. He added that many survivors had joined the Wapixana and other Waiwai and had stopped being "Tarumã".

themselves already "mixed" with the Parukoto. This means that, at this point there was a very intense process of marriage arrangements, which activated a process of demographic survival through the association of groups and families. The solution was not without precedents in older practices or ways of living and establishing relations prior to the (disastrous) effects of contacts with white people. The missionaries built an airstrip and established a base in southern Guiana, which was eventually to become the Kanashen village. They later created another village-mission in south Surinam (Kwamalasamutu or Kwamará). Several indigenous groups on the Brazilian side were then attracted to these two villages: as well as the (already mixed) Waiwai and the Tarumã, Mawayana, Xereu, Katuena, Tunayana, Hixkaryana and others who joined them over the twenty years following 1950.

Missionary practices in the Kanashen village (which, as Kwamará, continues to exist today), on the Guianese side, came under the opposition of the socialist-tendency government established in the country from 1970. A new dispersion movement followed towards Brazil, by which indigenous groups founded the Mapuera village, on the left bank of the river it is named after. For almost two decades, Mapuera was an important safe post for indigenous peoples, where infrastructures were provided by the Brazilian government, including an airstrip, a school and a first-aid medical centre (as well as a missionary outpost). Thus, by the end of the 1980s, the different indigenous groups gathered there, and totalled over 1,000 people, in a new and different pattern for the region, where villages had so far tended to be smaller (usually of no more than 50 people). From the end of the 1990s, and especially at the start of the twenty-first century, a new dispersion process began from Mapuera and all the main villages in the region, with a trend towards the descent from the great waterfalls (which hamper fluvial access) and a greater proximity to health-centres and to points of access to financial aid from the state, notably the cities of Oriximiná and Santarém. Today it can be safely estimated that some fifty villages dot the margins of the region's main rivers: Mapuera, Nhamundá, Jatapu, Trombetas, Anauá, the upper Sipawlini, and the upper Essequibo (Figure 2).



Figure 2. Central and interfluvial Guiana (C-iG), by Ruben Caixeta from Google Earth.

As I have already pointed out, the archaeological data collected in the region and which might be more properly in dialogue with this socially and linguistically diverse context is scarce. The scenario has often become even more confusing when archaeologists, trying to differentiate the region's ceramic types, have appropriated the very same terms used by travellers and ethnographers to define its ethnic groups. Such is the exact case of Waiwai and Tarumã phases as proposed by Evans and Meggers' (1960) attempt to classify the ceramic materials of the archaeological sites of the upper Essequibo river. In addition, such classifications rely on the precarious ethno-historical sources of Farabee (1924) and Roth (1924), often badly studied or misunderstood at the time. The sites from the Waiwai phase would, allegedly and by such classifications, be shallower and lie above the richer and deeper materials of the Tarumã phase. Some historical accounts about the Waiwai people's later arrival and their occupation of the area inhabited by the Tarumã people would undoubtedly have informed an association of the Waiwai phase to the "Waiwai ethnic group", and the Tarumã phase to the "Tarumã ethnic group".

Considering with this argument, I would like to raise what I see as the important question of how the presence of the Tarumã phase could be explained (especially from an analysis of vessel shape and decorations) outside those areas supposedly inhabited by the Tarumã. This fact has been revealed by Boomert (1981), who found very similar fragments to those of the Tarumã phase of the river Essequibo in south Surinam and in the savannah Sipaliwini area. Does this mean that the Tarumã would at some point (other than the historically documented phase of their travels from the Amazon basin to the region of the Guiana highlands) have migrated from the upper Essequibo to the headwaters of the Sipaliwini? Or could the same ceramic type have been used by different groups? Would objects have circulated around the region through regional exchanges and trade?

These questions still appear to be open, and no conclusive answer seems to have been provided. In any case – as I will try to prove below, comparisons based on such unit concepts as those linking "ethnic group / language / archaeological culture or tradition (or phase)" are misleading, and the validity of their limits ought to be tested. In the case analysed here, it is hard to ascertain whether (Karib language- speaking) Waiwai peoples in fact appropriated the material culture elements of the (isolated language-speaking) Tarumã people, or vice versa. In the contemporary ethnographic context, when these groups mixed and fused, only a return to the past (through archaeological or ethnoarchaeological research) could allow us to suppose such separations from an archaeological perspective. But the question remains: if what we find today is a "multi-ethnic" and "multi-lingual" community, what would have prevented a similar multivariable composition, through the association of perhaps different terms from today's? If since the colonial period there has been an intense network or meshwork of communications and exchanges or encounters (whether of rituals, marriages, objects...) in space and time, could not a similar one have taken place in precolonial times?

In any case, historical sources and ethnographic accounts make it quite clear that such a meshwork was often cut or rearranged in other ways through the fusion and dispersion of the region's indigenous groups or villages (at times dispersing at the river headwaters, only to agglomerate further downstream), in a process similar to that described by Fausto

and Heckenberger (2007: 17) as a *tidal movement*. In such movements, indigenous groups did not merely suffer the devastating effects of colonization in a passive way. On various occasions they took advantage of the reflux moments of colonization to rescue former places of habitation, nearly always from the perspective of securing autonomy for local groups. And, surprisingly, even when they were forced/persuaded to migrate towards the great villages , they did so according to the previous logic, that is, they settled in a political and geographical space in such a way as to preserve the independence of local groups prior to concentration.

The constitution of the Mapuera village, as presented in Caixeta de Queiroz (2014: 177-178) is an example of this process. Some peoples (such as the Katuena), shared a continuous or nearby space with other groups inside the Mapuera village, but nonetheless always owned separate patches of land, relatively distant from it, and operating as a sort of "temporary village". There they maintained relative independence, kept their own local hunting and gathering grounds, and spent a great part of their everyday life. This way, such subgroups were able to enjoy certain "autonomy" from the local group, without having to submit themselves to general chiefs of the Mapuera village, or their collective and supra-ethnic life rhythm, where a broader Waiwai – identity was kept as an inhibitor of differences and of subgroups' specific "identities". In this case Mapuera operated (and continues to operate) as a central village and as the place of convergence for collective activities – generally of a ritual or political content –, where evangelical rituals have a predominant role (and patches of land as satellite villages) (Figure 3).



Figure 3. Mapuera Village, By Ruben Caixeta from Google Earth

Ethnolinguistics in Central and interfluvial Guiana

Most indigenous inhabitants of this region speak languages from the Karib-family: Waiwai, Hixkaryana, Katuena, Xereu, Tikyana, Katxuyana, etc. But important exceptions exist: perhaps the most remarkable are the Mawayana (Arawak-speaking) and the Taruma,

(who speak an isolated language). This linguistic difference, as I will explain, is not expressed in either material culture, ritual, settlement patterns or social organization. That is, indigenous groups in this area share a cultural background pool and the same sociability network. If we were to cast this linguistic meshwork further east, we would have to include the Zo'é and the Waiãpi – who belong to the Tupi linguistic tree, and who (especially in the case of the former) currently maintain their cultural specificity and isolation within the wider region.

The missionary and ethnologist Protásio Frikel (1958) was one of the first to outline and briefly describe the distribution of indigenous languages in the region. It is important to highlight that, dated as this work's theoretical and methodological foundations are, it is the result of long fieldwork for over 15 travels. It lists 144 indigenous groups, with the author's warning that (Frikel 1958: 146) the records include both group designations and individual tribes' names, such as the subtribes or sipes that I have been presented with, as the latter also constitute social units or social groups. That is, – and I shall return to this point – the categories used by the author do not reflect our contemporary ethnographic knowledge of the region, as there is no such thing as broader units that can in turn be subdivided into smaller ones, as might be suggested by the terms clan or lineage. Nonetheless, the author attempts to account for linguistic and cultural diversity by connecting information about each group's general linguistic and cultural affiliation with a certain dialect group, their place or area of residence and population.

At the end of the text, on page 189, the author distributes dialect groups on a map, which is to be read from west to east (on a slightly greater area than that referred to here as CiG, and quite smaller than the entire ethnographic region of the Guianas): on its most western point is an Arawak group (the Wapixana); on its most eastern point, three Tupi groups (the Ápama, Waiãpi and Emerillon); and finally, the vast majority of (Kariblanguage speaking) in the area in between these two points, and which were divided into five main dialect groups, also from west to east: 1) the Parukotó-Charuma; 2) the Warikyana; 3) the Pianokotó-Tiriyó; 4) the Urukuyana; 5) the Aparai. The dialect group Parukotó-Charúma, all the more relevant to our study because it falls within the C-iG region, is located within the basin of Jatapu, Nhamundá, Mapuera and Trombetas rivers. As recorded by Frikel, the Mawayana tribe would be part of this last group of dialects. Still, according to contemporary studies by Howard (2002) and Carlim and Mans (2015), the Mawayana language is part of the Arawak family, which reveals a mistake in Protásio Frikel's classification¹⁰. Another important point to be made here is that the Tarumã "tribe" (or "sub-tribe") that Frikel cited is not, as he proposed, related to the speakers of the isolated-language Tarumã described above. This group escaped from a mission in the Rio Negro estuary at the end of the seventeenth century to join the Waiwai at the headwaters of the river Essequibo. In fact, the Charúma "tribe" (sic) was located by Frikel at the headwaters of the river Turuni (a right-bank tributary of the upper river

¹⁰ More up-to-date linguistic studies of both the region and the Karib have been carried out by Meira (2006) and Gildea (2012), by comparing the languages themselves, and no longer seeking connections between each specific ethnic group, a language and a territory.

Trombetas) and would more appropriately constitute a "subgroup" of the Tunayana or the (therefore Karib-speaking) Katuena.

Most importantly, Protásio Fríkel's map should be taken with a pinch of salt when it tries to definitively draw the borders between tribes and dialects, artificially coupling each linguistic unit with a certain ethnic-cultural and territorial group. Our own fieldwork experience has in no way confirmed such a clearly delimited cultural-and-linguistic map, for, as already outlined in the historical account above, the region presents quite an intricate and mobile meshwork of these groups, presently undergoing an intense process of simultaneous fusion and fission, by which they incessantly move about inside this meshwork. As there is constant intermarriage between members of these "tribes" or "sub-groups" – which it might be best to call "yanas" or peoples – and because of past and present rules of uxorilocal residence, people spend their entire life-cycle constantly moving about the territory (a feature further amplified by an economy still partly based on hunting and gathering, on exhausting the resources around the villages and subjected to the aforementioned pressures on the part of colonizers). Such mobility could arguably be the cause of constant actualizations and modifications of "dialect groups", as well as of the interactions between each group and others outside of it. This, in turn, brings transformations of a ritual, material and sociological character, to dynamics of junction and disjunction on various levels of native life¹¹.

The Katxuyana (and Katxuyana language-speaking) people, for example, used to inhabit the river Cachorro (a right-bank margin and mid-river tributary of the Trombetas) until around 1968, when they split into two peoples. One group of families went to live next to the Tiriyó people in the village Missão (north of Pará) and another went to live near the Hixkaryana of the Nhamundá river. The first group established closer relations, and even married with the Tiriyó, many of its descendants giving up the Katxuyana language and switching to Tiriyó or "Tiriyo-like" forms of Katxyana. The second group, which moved to the river Nhamundá kept their distance from the Hixkaryana (there was barely any intermarrying) and remained speakers of the Katxuyana language. In the early 2000s when they returned to the Cachorro river both Katxuyana groups were reunited and, in their willingness to remake an "authentic" Katxuyana "culture", the group that had moved closer to the Tiriyó came to depend partly on the Katxuyana speakers of the group who had moved with the Hixkaryana. At this point, through language workshops (one of them even conducted by a prominent linguist) and political decisions (such as a certain pressure not to speak the Tiriyó language on an everyday basis in the village), the Katxuyana language is being revitalized and transformed.

¹¹ Due to the process of intense contact between the different dialect groups inside a great village or conglomerate (such as Mapuera), indigenous people are constantly talking about how "no-one can speak this or that dialect" properly anymore, that there is a general "linguistic jumble". On the other hand, groups who have become more isolated geographically, or who have remained "purer" or less "mixed" through intra-marriage (the ideal type being between bilateral crossed cousins), such as the Jatapuzinho Waiwai, are considered more correct speakers of a language seen as closer to a local dialect.



Figure 4. Ayaramã Village, river Trombetas (Photo: Ruben Caixeta).

One could also return to an older case: what is the influence of the Mawayana (Arawak) language on the Karib speaking peoples around them? When the missionaries arrived in the upper Essequibo region towards the end of the 1940s, the Mawayana Arawak were immersed in war and kidnapping women from the neighbouring Karib-speaking communities, among them the Waiwai, as well as intensively practising shamanism and witchcraft. At this point, the Waiwai and the Mawayana had (unlike the Wapixana) very little contact with the world of white people, most of them still using stone axes, and cultivating small patches of land (where manioc was the main crop). Through the Wapixana, the Waiwai and the Mawayana had access to few Western industrial goods and suffered intermittent epidemics (flu and variola among others). The Karib Waiwai and the Arawak Mawayana thus learnt many techniques (including building canoes from a single tree-trunk and making flour) from the Arawak Wapixana over a short period of time. But what exactly did the Mawayana learn and appropriate from the Waiwai and vice-versa? In a more distant past, would the Mawayana have introduced agriculture among the Waiwai and all the necessary techniques and assemblages of the braiding artefacts necessary for the transport and processing of manioc? How about the witchcraft and the kidnapping of women? Would the Mawayana have learnt these from the Karib, the Waiwai, the Xereu and the Katuena? It seems very unlikely that any future archaeological or ethnohistorical research will be able to find trustworthy answers to such questions¹². What we do know so far is that when these Arawak and Karib groups

¹² While I do have a hypothesis about the arrival and intromission of the Tarumã among the Waiwai, as outlined above, I have no hypothesis whatsoever about the likely place of "origin" or starting point of the Mawayana as they travelled up towards the upper Mapuera river, where they lived "isolated" amid Karib groups at least since the early nineteenth century.

were first described in detail in the early 1950s, both their material (Yde 1965) and their cosmological dimensions (Fock 1963) already appeared quite amalgamated, causing them to seem rather distant from another Arawak group located further north, the Wapixana, whom they had already been in sporadic contact with. Still, at that point the single level on which the Waiwai and the Mawayana were quite distant on was precisely their language, each side being incapable of understanding what the other was saying. This, however, did not prevent the Mawayana from giving up their language and acquiring that of the Waiwai. Why then did the opposite process not take place? I will address this question below, after briefly considering another ambiguous and obscure relationship: that of the Waiwai-Mawayana with the Tarumã.

I will now turn to the way in which the Tarumã were integrated into the Waiwai-Mawayana. All the available evidence seems to suggest that, located halfway in between them, the Tarumã were the intermediaries of contact between the Wapixina and the Waiwai-Mawayana. I have already mentioned that in 1837 the Tarumã population was over 500 people strong, but over a short period of time they began to suffer from diseases brought by (Catholic missionary) white people, and saw their population drastically reduced. Survivors went to live among the Waiwai and the Mawayana, marrying and slowly getting used to the ways of speaking and being of the two latter groups, even assimilating their respective (Arawak¹³ and Karib) languages. In fact, today the Tarumã language has almost disappeared and I know of only two individuals living in non-indigenous villages on the Guiana side and who can still speak Tarumã¹⁴. I myself encountered an older man, Yukuma (one of the main informants of Meggers and Evans' fieldwork in 1952-1953), who had twice married Waiwai women and was living in the Jatapuzinho village at the start of 2002. He was a fluent speaker of Tarumã, but passed away shortly thereafter. I also encountered the sons of a Tarumã called Kramtu, who had lived among the Waiwai but who were no longer speakers of the Tarumã language, in the same region. However, many of these Waiwai-speaking descendants, who are physically slightly different from Waiwai people (they usually have darker skin and wavier hair), acknowledge their Tarumã ancestry. In a more regional context they describe themselves as Waiwai (as in the case of other peoples like the Katuena, Xereu and Mawayana), and only claim the category of Tarumã in very specific and localized situations.

Let us ask ourselves: why was it not the Waiwai and Mawayana that gave up their languages to assimilate the (isolated) language of the Tarumã? One possible answer would be the fact that the number of Tarumã people was (due to epidemics) much smaller than that of the Waiwai and the Mawayana, but this was not the case, as at the time when these groups fused, their total population was already quite affected and diminished¹⁵. Another possible

¹³ In fact, the (Arawak) Mawayana language was slowly given up in favour of the (Karib) waiwai language. Today, only the elderly Mawayana can speak their mother tongue, but on an everyday basis they use the Waiwai language, which has become a sort of general language in the region.

¹⁴ Personal communication from Sérgio Meira.

¹⁵ Ethnographic accounts about the region at the end of the nineteenth century, for example, confirm that few Waiwai survivors remained, which caused them to marry the Tarumã and kidnap women among the Mawayana.

reason was the fact that the Tarumã had migrated towards the territory occupied by the Waiwai and by the Mawayana, and thus acquired their hosts' language at the expense of their own. Against this argument, however, there is also the fact that, at least over a certain period of time (the first half of the twentieth century) both the Waiwai and the Mawayana moved into the territory previously occupied by the Tarumã.

While there is certainly no single reason why the Waiwai language should have imposed itself and dominated over all the other languages and dialects in the region – including an isolated language and an Arawak language – the fact that missionaries arriving in the region in late 1940s chose it as the focus of their interest should be taken very seriously¹⁶. The Waiwai language thus became a vehicle to communicate with all the other indigenous peoples in the region and, especially, to translate the Bible¹⁷. The Christian rituals (along with songs and the reading of biblical texts) that began to attract great numbers of people were performed only in Waiwai and in no other regional language over all others as, even before evangelist efforts, the (isolated) Tarumã language and (Arawak) Mawayana were decaying in favour of the (Karib) Waiwai language. In addition, the question of linguistic diversity should, in my opinion, be addressed in relation to how people constitute themselves and associate in the Guianas.

Ethnographic accounts: composite persons in Central and interfluvial Guiana

When I arrived at the Mapuera Waiwai village for the first time in 1994, it was the only permanent settlement along the entire river channel. The village, as I have described above, was made up of several peoples who, before the arrival and work of the missionaries between 1950 and 1970, lived in small and separate villages, many of them distant from each other: Waiwai, Katuena, Xereu, Mawayana and Tunayana. Inside the Mapuera village these people were divided into relatively separate groups, making up a type of village which had a central area and "peripheral neighbourhoods". On the one hand, while the reiteration of many endogamous marriage alliances continued (within "peoples") as was often the case prior to contact, it began to happen more frequently that a man from one "people" should marry a woman from another "people". On the other hand, the rule of uxorilocal residence was still very respectfully followed: whenever a man got married, he moved to his father-in-law's house and "neighbourhood". And yet, descendants of this type of marriage, lacking unilinear descent rules, began to feel unsure about which "people" they belonged to, when asked in such terms. Especially

¹⁶ The reason for this preference is that there happened to be a very prestigious Waiwai shaman in the region at the time, called Ewká. He was chosen by the missionaries to be first converted to the Christian faith and then used as their disseminator among other peoples and languages. For more details about this conversion, see Caixeta de Queiroz (1999).

¹⁷ The Old and New Testament were translated to the Waiwai language. In the region, the New Testament was also translated into Tiriyó, Apalai and Hixkaryana.

when population censuses were made by either missionaries or by the Brazilian Government's institution for indigenous policies, the National Foundation for Indigenous people (FUNAI). In this respect, missionary Irene Benson tried to keep records of the village population, always noting the name of new-born babies according to a rule, invented by herself, of matrilineal filiation. Such identifications existed mainly on the missionary's records, but were also used by indigenous people in different situations in their everyday lives, although "internally", their main terms for interpersonal relations remained based on kinship.

For a long time, we anthropologists and students were forced to complete files requiring such an "ethnic identification". We always refused to apply the missionary's rule and, instead, used to ask each indigenous person what people they identified with. Of course,



Figure 5. Drying and burning pottery. Nationalmuseets Etnografiske Expedition til British Guiana 1954-55. Waiwai indianerne besøgt af museumsinspektør Jens Yde og stud.mag.scient Niels Fock.

we knew these terms would not last, as the context and course of their lives (what village or "neighbourhood" they were living in, who they had married...) or the context of the question (to whom they were answering and what they were answering for) always determined their choice: "a, b, or c." On a certain occasion we asked my friend Enoque Awkonio what people he belonged to. While we were expecting him to answer something along the lines that he was either Xowyana (his father's people) or Hixkayana (his mother's people) he very perspicaciously transcended the set phrase of the survey he had already answered to so many times. He told us: "my head is Xowyana, my hair is Karahawyana, my skin is Hixkaryana, my belly is Xerewyana, my blood is Katuena...". This was indeed the best possible description of an Amazonian indigenous person, a composite person, reminiscent of the Melanesian person so brilliantly conceptualized by Marilyn Strathern (1988): an indigenous person is not, as for us Westerners, a finished and unitary entity, fully coherent and without contradictions. Amerindian [like Melanesian] bodies are made of many parts – each of them retaining some independence from the whole – which are associated to the rest according to the context of their association or relationship. These parts also depend on the type of object circulating or permeating them. In this sense, an incessant movement of transformation or actualization exists, from the composite person to the unitary person and vice-versa.

Another example of this composite actualizing of the "person", and therefore of "Waiwai groups", took place at the end of the year 2014 in the city of Santarém. That year, a conflict emerged between some Waiwai anthropology and archaeology students from the Federal University of West Pará (UFOPA) and their peers and professors from the same university. Some Waiwai students accused emerging indigenous people (who had recently come to reclaim their indigenous identity) in the lower Tapajós river, of being 'fake indigenous people', on the grounds that they could no longer speak their native language, and could only speak Portuguese, and because they no longer performed such traditional cultural acts as indigenous celebrations and dances. They were accused of claiming indigenous ancestry only to benefit from the university's affirmative action program, to which end they would have allegedly appropriated such elements of "true and pure" indigenous peoples as body painting patterns and Waiwai head-pieces. The situation was capitalized by local politicians and part of the judiciary, who favoured the interests of landholders against indigenous peoples and their territoriality¹⁸. The situation became embarrassing for the group of Waiwai students, who even began to be opposed by other indigenous supporters of emerging indigenous peoples at the university, and who wanted to distance themselves from those accused of being "acculturated" and "opportunistic". The incident required the intervention of Waiwai leaders who travelled to Santarém to clarify the situation, and strongly reprehended Waiwai students. Their task there, they said, was to study and not to replace their caciques (lit. chiefs) and village leadership by venting their own political opinions.

¹⁸ At around the same time in late 2014, a judge issued a sentence denying the existence of indigenous land on the river Maró (PA), in an area very close to Santarém (PA), occupied and vindicated by Borari and Arapium groups.


Figure 6. Traveling on the Essequibo river. Nationalmuseets Etnografiske Expedition til British Guiana 1954-55. Waiwai indianerne besøgt af museumsinspektør Jens Yde og stud.mag.scient Niels Fock.

As he recounted this episode, the local indigenous coordinator of Funai at Oriximá city, João Waiwai, explained us the position of the village *caciques*, and how wrong Waiwai students had been in their accusations. In his view, there is no such thing as a pure or acculturated indigenous person, such an opposition being alien to Waiwai thought. Taking up the "customs and habits" of other peoples has always been a Waiwai practice. João Waiwai thought that such arguments had no basis whatsoever and that they could be turned against their own people. He buttressed his argument by remembering an old event. Back in Guiana when the Waiwai first came into contact with missionaries in the early 1950s men and women used to wear only a small thong made of seeds, called a *keweyu*. At that time, they received the visit of some Tiriyó indigenous families, wearing a red cotton thong. These people stayed there for a few weeks, dancing and teaching the Waiwai to dance like them and play their flutes. After a few weeks, practically all visitors left, leaving behind only one Tiriyó man, but also their thongs and musical instruments.

For a long time, the Waiwai appropriated the Tiriyó dress, danced their dances and played and sang their songs, until they forgot some and incorporated others into their own Waiwai cultural repertoire. João Waiwai concluded his account with a lesson about the learning process among indigenous people, and about the dynamism of what we call material and ritual culture: "the Waiwai are always changing, they have never been the same, so our relatives (the emerging indigenous students from Santarém) can also change and use what is ours, for what is ours today once belonged to others." So "Waiwai culture" just as "Waiwai personhood" is ontologically composite, and does not consist of any essence or permanent "cultural pattern".

A third example took place in 2008. That year saw the early stages in the process of the official recognition of the Katxuyana-Tunayana Indigenous Land (Terra Indígena) through the coordination of a task force set up by the Brazilian Governmental agency FUNAI¹⁹. A significant portion of this territory is occupied by the maroon community of Cachoeira Porteira, as well by indigenous people. This was a moment of impasse, for Brazilian legislation does not contemplate the superimposition of an Indigenous Land with any other allocation or availability of land use, including runaway slaves territory. That very year I was coordinating a preliminary meeting in Cachoeira Porteira, between the contemporary maroon community and the indigenous people, to try to find a solution. Faced with the prospects of likely conflicts over the territorial limits between both actors, and aware that a closer relationship had existed in the past – when commercial and marriage contacts had taken place alternately with moments of tension and disputes an almost utopian idea was proposed: both groups were presented with the following possibility: What if a single territory was delimited, legally defined by the use of indigenous people, but within whose boundaries both indigenous and runaway communities could coexist? The latter's reaction was one of immediate disagreement, but the former supported and encouraged the proposal. At this point João Waiwai's face (the same character from the previous example) opened up in a big smile, as he completed our idea in the Portuguese accent of the state of Pará: "let's do it, we'll start piercing the maroon communities' ears and lower lips and that'll be it, they'll become indigenous people".

This reminds us of the Amazonian indigenous people's "theory of becoming white": if an indigenous person can become white, then they can turn back into an indigenous person; just as a white person (that is, a non-indigenous person, in this case a maroon community member) can become an indigenous person, all it takes is to alter their body, to pierce, cut, paint and change their eating habits, that is, to live and eat like an indigenous person, because this is what makes a real indigenous person²⁰.

¹⁹ Such works culminated when FUNAI published a report identifying and outlining the territory occupied by several indigenous groups (especially the Katxuyana, Tunayana and Kahyana) on the 20th of October of 2015. But the process for the official recognition of this Indigenous Land continues to this day, a major impasse having been constituted between its limits and those of the maroon community of Cachoeira Porteira.

²⁰ This theory was already discussed in an old text by Seeger A. and al. (1979), and, more recently, by Kelly J. A. (2005).

Final Considerations

If the conclusions I have arrived at were to be written in stone, I would go so far as to say that the days of single-village-based fieldwork, without a regional or wider-reaching perspective, are over. We should turn to the processes of composition and association of the different peoples, for, if the relationship between individuals and society cannot be explained in the same terms as we do in our own (Strathern 1988), a people (or group) can only be seen in its connection and composition with others. In fact, a (no-longer so) new proposal for ethnographic research (although one which still lacks a concrete counterpart in "experience") would be to pay closer attention to the network of ritual, exchange and war relations in the Guianas (Gallois 2005; Howard 2002), in contrast to a local focus.

Such a proposal would have to include new analytic categories to substitute those that have surrounded anthropology almost since the time of Franz Boas. Notably, a notion of culture which is aligned to a language and a social group or – in terms which emerged from nineteenth-century writings and featured in those of the second half of the twentieth century – a "tribe" and a "nation". However, as I have proposed, in the case of the Guianas and generally in the Amazon, such alignments do not occur. Throughout this text I have therefore used the notion of "peoples" to account for different compositions of "groups of people" in space and over time. These are identified and compared by others in different ways, depending on the geographic and social context of their life trajectories (and these identifications are much more categorically used by others than they are taken up by



Figure 7. Tunayna Indians (Photo: Ruben Caixeta).

these "peoples" themselves). In writing this essay I have felt inspired by a (now old) text by Roy Wagner (1974) about the Daribi Melanesian people, to think about how indigenous "groups" are organized in the Guianas²¹. Here, as in Melanesia, the associations of people are mobile, as is also compared and quoted by Grupioni (2015: 144) following Wagner (1974: 105): groups are never deliberately organized but just elicited by the use of names. We cannot regard and describe the associations (groupings and collectives) of indigenous peoples through our own repertoire of "ethnic" and "territorial borders" (Barth 1997) or by contrasting individuals and societies – such is the way in which the Western "episteme" and cosmology join together and separate "groups" and "things" – but if we westerners are quite creative at inventing ways of classifying things, then so are natives, which creates for us the ethical obligation to pay attention to and try to learn with their ways (Wagner, 1974).

Some of the most eminent Amazonian ethnologists have, in a more long-ranging comparative perspective, used notions which translate an episteme or an ontology (rather than a "culture" as a recurrent pattern of behaviours or techniques) which would consist more on a way of composing and inhabiting the world. Thus, Viveiros de Castro, for example (1996) forged the concept of perspectivism to account for this pan-indigenous way of extending the human condition to all non-humans, preferably to animals, but also to plants and such phenomena as rain and wind. Descola (2005 and 2017) called these different ways of composing the world ontologies, and defined four types: the naturalist, the totemic, the analogic and the animistic. The latter would include the indigenous world (more or less corresponding to Viveiros de Castro's perspectivism): before any given human or nonhuman Other, any one actor may suppose this Other to have similar interior elements (soul, spirit...) and different physical ones (body) from itself. As Viveiros de Castro would say, in this case, difference lies or is produced in the body. For Descola (2017: 112), such a distinct way of regarding epistemes or ontologies is different from culturalist approaches (which reify social groups), for it synthesises the conditions of possibility of knowledge and shows the connections between the different codes organizing the production of norms (our own translation)²². Thus, if we are to understand these sophisticated comparative syntheses of contemporary ethnology, I find that they escape the historicist perspective while at the same time keeping their distance from the concepts of ethos (Santos-Granero 2002) and local culture (or even cultural area), which would be connected to or aligned with a certain language or specific social group of well- defined contours.

"Nation", "culture", "tribe", "social and ethnic group", such are some of the solutions that hinder more than they assist in our understanding of the meshwork of relations in

²¹ The opening paragraph of Carlin and Mans' excellent (2015) work in sociolinguistics is a Roy Wagner quote which I replicate here proposing an analogy between a person's life trajectory and that of a people: "The life of a person is the sum of their tracks. The total inscription of his movements, something that can be traced out along the ground. And the life course of a people, the totality of their ways, conventions, and conventionally encountered situations, is the sum of its 'tracks', the trails over its country along which experience is measured out".

²² Descola (2017: 112) de-historicizes what he calls "modes of identification": "these are schemes that generate indifference and action, ways of composing and using the worlds which respond to analogous principles and which, can thus expand through very similar ways in highly varied historical contexts".

the Guianas. And if, as I have put forth, any one person is the composite of many people, why shouldn't objects be so too (with their colours, ways of using, designs, crafting techniques, painting, and everything we refer to as an "archaeological culture") if they have been produced by these societies through different sources and traditions? For this reason, I have provided examples of how associations between a certain "social or ethnic group" and a specific "language", ceramic "tradition" or "phase" in particular should be critiqued. I am aware that such critiques are not unknown to various currents within archaeology itself. In their introduction to "Archaeological Ceramics of the Amazon", Barreto and al. (2016: 30) recognise that, the single most important fact of a synthesis of contemporary studies about the topic, the most defining feature is diversity not only of the ceramics themselves, but of the ways of life they result from, and their dynamics, with their highly un-linear and changing ways of life, even within long traditions.²³

Our own ethnographic data from Central and interfluvial Guiana (C-iG) do nothing but confirm and point in the direction of a truly intricate network or meshwork of people, being woven and unwoven overtime, at the same space or in the vicinity (and always leaving open edges). Therefore, overtime, the people in that region connect and separate lines in the shape of language branches, settlement patterns, rituals, technologies, styles, indeed ways of life, in such a way that it might be interesting to take up one of this essay's first paragraphs to describe a mosaic of things and persons in the Guianas: not a network of connections, but a literal meshwork, a mesh of intertwining lines of growth, movement and involvement. Untangling it is not an easy task for those with an excessive classificatory spirit.

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²³ Still, while the subject of many criticisms in the past, and as the coordinators of this collection affirm on a very positive note (Barreto and al. 2016: 30), many approaches and research hypotheses correlate language and material culture, as in the case of the "Pocó-Açutuba/Barrancoide correlations with the Arawak linguistic tree, and of the Polychromous Tradition with the Tupi and the Incise Punctate Tradition with the Karib tree".

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Koriabo and Beyond

Helena Lima | Cristiana Barreto



Replicating Koriabo: Artisan João Sarmento reproduces a Koriabo bowl. On the background other reproductions by the Goeldi Museum outreach program "Replicating the Past"

It now appears inevitable that archaeologists will debate the meaning of Koriabo ceramics in the foreseeable future. Koriabo has definitely entered the universe of ceramic cultures from the Amazon, with the promise to account for the enormous void between the better known Santarém and Marajoara ceramic complexes in the lower Amazon, as well as between the Amazon and the northern coast of the Guianas and the Caribbean. Beyond archaeology, the idea of Koriabo extended its significance and meanings: while it has entered archaeological narratives of the lower Amazon, it is now becoming part of local residents' identities, recognizing their own histories in this indigenous ceramic style. This is the case of Gurupá residents in the lower Xingu (Lima et al., 2020). Archaeological ceramics have long been a source of inspiration for local artists and artisans who live on the production of souvenirs for visitors to the region, especially in the city of Belém. In a unique way, their work helps keep the past alive, and contributes to increasing the awareness of the Amazon's deep indigenous past. The Goeldi Museum's project "Replicating the Past" is a collaborative outreach program that has enabled artisans to reproduce some of the most iconic objects from the museum's collection, especially those styles associated with the museum's long history of research and collection, such as Marajoara, Aristé, Maracá, and Santarém. In addition, artisans have now begun to experiment with the reproduction of Koriabo ceramics (Lima et al., 2020), as can be seen in the photograph below.

This Koriabo bowl was found in 2015 at the *Sirituba* beach, *Trambioca* island, in the municipality of *Barcarena*, nearby Belém. It integrates a buried archaeological structure with a number of ceramic vessels, resin chunks and a stone axe. Ceramic fragments were articulated within the same stratigraphic structure, indicating that they were deposited as a whole, possibly an intentional deposition. The bowl was collected at the seashore by Goeldi Museum archaeologists as it was been washed away by the river. It was then restored and incorporated to the museum's collection, and became part of the "Replicating the Past" outreach program which provides the in-depth technical study of the piece and its reproduction, as well as its use for ceramic workshops in local communities.

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MAPS

Front (Bruno Moraes), Back (Antique map of El Dorado by Jodocus Hondius, 1598)

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NIEUWE CAERTE

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R de las Amazones















