

**5. INDIGENOUS ARCHAEOLOGIES AND HISTORIES IN SURINAME:
FROM PRE-COLUMBIAN ARCHAEOLOGY AND ETHNO-ARCHAEOLOGY
TO A COMMUNITY-BASED ARCHAEOLOGY OF ENGAGEMENT**

Renzo S. Duin

“Attempts to ‘help,’ ‘teach,’ or ‘evaluate’ other people without this effort [the effort of sharing knowledge and knowledge production], especially when the engagement is between wealthy, educated, government supported ‘scientists’ and people without such advantages, is every bit hegemonic and colonialist as field programs that make no attempt to engage non-specialists; perhaps more so” (Pyburn, 2009:165).



Figure 1. Indigenous Wayana potter unearthing fragments of pre-Columbian pottery in front of her house (Photo © Duin, Kumakahpan, January 7, 2012).

Introduction

In 1921, forester Justus Willem Gonggrijp began his study of traces of prehistoric peoples in Suriname with the prejudice that “*the history in Suriname is not older than a few centuries; a great antiquity of traces from the in Guiana settled peoples prior to the arrival of the Europeans is thus not expected*” (emphasis added).¹ The occasional chance findings ancient indigenous pottery, stone axes and grinding grooves, were reported during the expeditions conducted by the

¹ “*De historie is in Suriname niet ouder dan eenige eeuwen; op zeer groote oudheid kunnen de sporen van de, vóór de komst der Europeanen in Guyana gevestigde menschen, dus wel niet bogen*” (Gonggrijp 1921:1).

Dutch Royal National Geographic Society (KNAG); for instance during the 1926 expedition to the Wilhelmina Mountains (Stahel 1927: 35 [pottery]; 30, 38, 219 [grinding grooves]²). Almost a century later, accrued archaeological evidence has demonstrated a presence of indigenous pottery producing agricultural communities in Suriname going back to about four thousand years, and a presence of hunter-gatherers about ten thousand years ago in southern Suriname (Versteeg, 2003, this volume). Nevertheless, the history and historicities of the Indigenous Peoples in Suriname, both *before* and *after* the arrival of the Europeans, remains mostly unknown.

In the first *Mededeling* of the Surinaams Museum, Dirk Geijskes (1959) –an entomologist specialized in insects as pests, though very interested in archaeology and ethnology– described how in July 1958 several fragments of ancient indigenous pottery were recovered during sandblasting activities in Onverdacht, a bauxite mine from the Billiton Company (on Geijskes and the Stichting Surinaams Museum, see Versteeg in this volume). The pottery style resembled the style of pottery that recently had been excavated by Clifford Evans and Betty Meggers (1960) along the Koriabo river in then British Guiana (today: Guyana). In the same year, bulldozer activities from Suralco (Daughter Company from the American Aluminum Company) recovered archaeological material at Bushmanhill near Moengo. The mining company contacted the Surinaams Museum, and Geijskes conducted a brief reconnaissance. The recovered archaeological material was later studied by Barbara Helderling (SSM, 1975:30). Next to primary mining activities, secondary mining activities also resulted in the recovery of archaeological sites, such as the environmental impact studies conducted in the context of the Kabalebo Hydroelectric Power Project wherein Geijskes recommended to investigate the archaeological sites in the broader area, including but not restricted to Frederick Willem IV Fall-2 (SUR-338), and the removal of boulders with petroglyphs that were threatened to become submerged (e.g., SSM, 1978:27). In the context of the Kabalebo Hydroelectric Power Project, a railroad was planned towards the Corentyne. Pottery fragments were found during the construction of this railroad, and in particular in a nearby sand hill during the sand extraction for the foundation of the tracks. The pottery style of these fragments was unique, and was named after the nearby Kaurikreek. Although large part of the sand hill, and thus the archaeological site, had been excavated by the railroad building company, a small-scale excavation took place between

² Ahlbrinck (1929:92) distinguished grinding grooves on various locations along the Corentyne which he classified into four types (compare with Rostain, 1994:121, figure 67; Duin, this volume).

February 28, and March 13, 1977 (Versteeg, 1978). Soil analysis demonstrated a high carbon and phosphorus content comparable with Amazonian Dark Earths or *terra preta do Indio* elders in Amazonia (ibid.:20). Kaurikreek, with its distinct fretwork appliqué pottery style, has been dated at 3620 ± 160 BP (years before present; whereby ‘present’ is 1950), which calibrated results in a timeframe of 2190 to 1740 BC (Versteeg, 2003:268), which makes this the earliest archaeological site of indigenous pottery producing agricultural communities in Suriname. Although there was an important boost in archaeological knowledge production between the turn of the twentieth century and 1980 (Versteeg, this volume), these archaeological activities were conducted by educated, government supported scientists, and no indigenous peoples were engaged in the efforts of sharing the archaeological knowledge production.

Throughout the past 25 years, archaeologists have begun to engage with multiple stakeholders –including descendant communities– rather than merely consulting with local communities. Such consultations would often consist of the introduction of scientific hypotheses developed in opposition to local folklore. The archaeology of engagement with local indigenous communities –as well as with local Maroon or descendant communities of enslaved peoples (White, 2010, this volume)– constitutes a new paradigm shift in archaeology (Atalay, 2012; Bruchac et al., 2010; Duin et al., 2015; Murray, 2011). This interdisciplinary meeting ground allowing to voice different perspectives, including indigenous voices, may result in indigenous advocacy (Heckenberger, 2004). Where archaeology used to be known as “the study of things left behind in the ground,” the decolonization of archaeology in the twenty-first century results in a more engaged archaeology where archaeologists and local communities create a meeting ground for “reading the tracks of the ancestors” (Green, Green, and Neves, 2003: 377). Ongoing research projects in Amazonia fully embrace current post-colonial understandings of archaeology affianced in local politics, heritage issues and community building. This chapter will address the engagement of indigenous communities within the archaeological practice in Suriname, and how archaeology can contribute to the reconceptualizing of ancient Amazonian tropical forest cultures in Suriname, and its ramifications for forest conservation and cultural heritage issues.

Archaeologies of Indigenous Peoples in Suriname during the Twentieth Century

Archaeology in Suriname during the twentieth century was mainly focused on the pre-Columbian period (before AD 1492), and there was little to no collaboration with descendent

indigenous communities. As discussed elsewhere (Geijskes, 1960-1961; Versteeg, 2003, this volume), archaeological fieldwork occurred mostly on the coastal area of Suriname. Only fifteen Ceramic Age sites have been reported for the southern halve of Suriname (Table 1a) –not counting the fifty-three Paleo-Indian sites in the Sipaliwini savanna and the nine sites in the Lelygebergte that were reported by Frans Bubberman. Bubberman –head forester of Landsbosbeheer (LBB; Forestry Service Suriname) between 1957 and 1985– together with geologist Joost Janssen, had conducted several expeditions in the tropical forests of Suriname. As a forester, Bubberman was familiar with the forest, and based on forest composition, and/or the presence of bamboo patches or other biological markers, and/or upon indication by local guides, he decided to conduct a brief archaeological survey (pers. com., 2015). Indigenous peoples did serve as local guides and labor force, but were not actively engaged in the archaeological process, documentation and interpretation of archaeological sites.

Of particular interest regarding toponymes is the account by Willem Ahlbrinck (1929:24), explaining the indigenous Carib name of the petroglyph site Wonotobo Falls: *onë* is the root of *onëki* = sleeping; and *topo* = place; hence *w-onë-topo* = the place where one sleeps. This appears an appropriate name because people are forced to spend the night on the river banks when pulling their canoes across this considerable cataract. Ahlbrinck (ibid.:25) is however the only person who reported the full name of this site: *mawari wonotopo*. Based upon his knowledge of the Carib language, he assumed that *mawari* did not refer to Mawari, the spirit of the forest, but rather is an abbreviation of *kumawari*, the blue heron (*Egretta caerulea*). This corresponds with the name “Blue Crane Falls” which local rubber tappers gave to part of the cataract. The name of the cataract, *kumawari wonëtopo*, then means, according to Ahlbrinck (ibid.): the place where the blue cranes sleep, that is, where the blue herons make their nest. This name is appropriate because, as noted a little further by Ahlbrinck (ibid.:26), the *kumawari*, or blue herons, tend to make their nests on the islands along the Dutch or right bank of the Wonotobo Falls. It would however take more than thirty years before Geijskes would identify the archaeological site on the right bank of the Wonotobo Falls (SUR-48). Only decades later it would be determined that this site contained both a Saladoid (circa AD 70-200) and a Mabaruma (circa AD 150-650) component (Versteeg, 1979). Further archaeological research is needed to identify the nature and scale of this site, to refine the chronology of this multicomponent site, and to determine its relationship with the Saladoid and Mabaruma archaeological complexes on the Orinoco.

Table 1a: Archaeological sites in the southern half of Suriname, sorted by year of discovery (only the sites with a SUR-ID number are included; lacking are the dozen petroglyph sites and numerous sites with grinding grooves that not yet have a SUR-ID number).

SUR-ID	geographic location	site name	culture	year	reported by
253	Toemoekhoemak (located in Brazil)	Mitaraca [sic.: Borne 1]	?	1948, 1962	Hurault
15	Corantijn	Frederick Willem IV Val	Koriabo	1955	Geijskes
251	Lawa	Benzdorp-Ruffincreek	Koriabo	1957-58	Hermans
48	Corantijn	Wonotobo	Saladoid & Mabaruma	1959, 1962	Geijskes [1969 Bubberman; 1975 Boomert, Kruisinga]
21	Kabalebo	Kabalebo	Koriabo	1961	Geijskes
135	Oelemari	Oelemari	?	1963	Bajoekoe [1974 Boomert]
255 till 268	Sipaliwini savanne	Sipaliwini-1 to 15	PaleoIndian	1968	Bubberman
270 till 287	Sipaliwini savanne	Sipaliwini-16 to 53	PaleoIndian	1969, 1972	Bubberman & Janssen
307	Lely gebergte	Lelygebergte-1	?	1973	Bubberman & Janssen
308	Lely gebergte	Lelygebergte-2	?	1973	Bubberman & Janssen
52	Lely gebergte	Lelygebergte-3	?	1973	Bubberman & Janssen
149	Lely gebergte	Lelygebergte-4	?	1973	Bubberman & Janssen
339	Lely gebergte	Lelygebergte-5	?	1973	Bubberman & Janssen
342 till 345	Lely gebergte	Lelygebergte-6 to 9	?	1973	Bubberman & Janssen
313	Coeroeni	Coeroeni-2	?	1974	Dubelaar & Kroonenberg
314	Coeroeni	Koetari	?	1974	Dubelaar & Kroonenberg
338	Corantijn	Frederick Willem IV Val-2	?	1976	Bubberman, Janssen & Versteeg
364	Corantijn	Amotopo	?	1978	Bubberman & Versteeg
382	Sipaliwini	Kwamalasamoetoe-1	Taruma, Koriabo	1979	Leavitt [1980 Versteeg]
384	Sipaliwini	Kwamalasamoetoe-2	?	1980	Tromp & Versteeg
385	Sipaliwini	Kwamalasamoetoe-3	Taruma	1980	Tromp & Versteeg
386	Coeroeni (left bank)	Koetari-2	Taruma	1980	Tromp & Versteeg
? till ?	Litanie	<i>several historical and multi-component sites</i>	Wayana, Taira, Boni	1996- 2016	Duin
?	Litanie	Kumakahpan	Koriabo, Wayana	1998	Duin
?	Litanie	Taluwakem	Wayana	2000	Duin
?	Litanie	Konopamiï	?	2003	Duin
?	Litanie	Patakasiyana	?	2003	Duin

Table 1b: Newly recovered sites along the Maratakka (NW-Suriname) (incomplete listing)

?	Maratakka	Corobonaro	? and Kauri-kreek	2012	Vermeulen & Duin
?	Maratakka	Kumbu	?	2012	Vermeulen & Duin
?	Maratakka	Awara Savanne	?	2012	Vermeulen & Duin
?	Maratakka	Jorka Savanne	?	2012	Vermeulen & Duin

From the known archaeological sites in Suriname (Table 1a), one site (SUR-253) is actually located in Brazil (Borne-1; reported by the French geographer Hurault in 1948), and should be removed from the list, as has done the French archaeological service. Another site (SUR-386) is located in a contested territory: on the left bank of the Coeroeni river (next to the Taruma style pottery, remains from the 1935 Border Expedition storage camp were recovered [Versteeg, 1980:37]). Because the geopolitical boundary between Suriname and Guyana runs along the left or west bank of the Corentyne, the Timehri petroglyph sites (Duin, this volume) are located within the Surinamese territory. From the remaining twelve Ceramic Age sites in southern Suriname with a SUR-ID number, two are located in the Upper Maroni Basin: Benzdorp-Ruffincreek (SUR-251; reported in 1957), a known gold miner's village with an airstrip, and Oelemari (SUR-135; reported in 1963), an unpaved runway engineered during Operation Grasshopper. Other activities in the context of Operation Grasshopper resulted in the location of archaeological sites at Coeroeni and Kabalebo (SUR-21; reported in 1961). In 1974, during the course of his research on petroglyphs (rock art sites), Cees Dubelaar reported two additional sites (SUR-313 and SUR-314), and during impact studies related to the hydroelectric dam at Kabalebo, two additional sites were reported in 1976 and 1978 (SUR-338 and SUR-364). Geijskes had already reported the earlier discussed site at Wonotobo Falls (SUR-48) –an area that had long been known for its petroglyphs (Duin, this volume)– and at Frederick Willem IV Falls (SUR-15); both sites have since been re-visited several times during the twentieth century by archaeologists (Versteeg, this volume). In all occasions, the archaeological sites were officially reported by government supported scientists (in the case of Oelemari airstrip: by Bajokoe working for the government supported Operation Grasshopper, headed by Geijskes [Versteeg in this volume]), and re-visited by a government supported archaeologist (SSM, 1975; Versteeg, 2003). No indigenous peoples were involved in the process, and reporting, analysis, and most on-the-ground data gathering activities were conducted by non-Surinamese professional archaeologists or government supported scientists.

The case of Kwamalasamoetoe illustrates the relation between local indigenous peoples, intermediaries, and non-local professional archaeologists (SSM, 1980:17-46). In November 1979, Claude Leavitt, a missionary at the West-Indies Mission, had sent to the Suriname Museum a number of potsherds found in the Trio village of Kwamalasamoetoe (SSM, 1979:18-19). Several months later (from May 16 to 27, 1980) Aad Versteeg (1980), the archaeologist at

the Surinaams Museum, conducted an archaeological survey in the area. In 1960, Leavitt, together with indigenous Waiwai from Guyana, had founded a missionary station at the Alalapadu creek. Fifteen years later, several Trio decided to break ground some eight kilometer downstream. It had already been established that game was abundant, and when these grounds proved to be fruitful, many people from Alalapadu –that had expanded to about 500 individuals– moved to this new location named Kwamalasamoetoe (in the local Tilijó language *kwamala* is bamboo and *samoetoe* is sand). Although the bamboo strands had been removed from the site, the name remained. Of particular interest, is that bamboo strands are a typical ecological marker for archaeological sites. I would like to argue that the abundance of game was also a result of this domesticated landscape, particularly the presence of fruit trees. Indigenous peoples habitually settle on locations of former habitation where the grounds are productive. Nevertheless, it had been stated that “the Trios, apparently, were unaware that the place [they] had selected for the village had been a living-site several times in the past centuries. The undergrowth had obliterated the traces of human habitation. Once the land had been cleared, the rains eroded the topsoil and began to expose the sherds [fragments of pottery] to view. The Trios were not particularly interested in the sherds, but Mr. Leavitt was” (SSM, 1980:20). Not only the new settlement was located on former habitation sites (SUR-382), new garden plots from Trio of Kwamalasamoetoe were located as well on archaeological sites (SUR-384, 385).

The location of the new settlement of Kwamalasamoetoe –on two plateaus that are at about ten meters above low-water level, and next to a small creek– as well as the location of the new garden plots may have been chosen carefully because of the ecological particularities that resulted from indigenous peoples’ activities in the past. The site location –on a riverbank about ten meters above low-water level and next to a small creek or brook– is archetypal for tropical forest cultures. Additionally, local residents indicated a site (SUR-386) where long ago “many *pananaghiri* [i.e., White people]” had a camp (Versteeg, 1980:37). According to Käyser’s (1912) map, the 1911 Corentyne Expedition camped here, though Versteeg –based on a personal communication with Lodewijk Schmidt– concluded that this was the location of the storage camp for the 1935 Border Expedition, as was evidenced by numerous rusted iron containers (Versteeg, 1980:37). The latter site is not included in the 2003 overview map (Versteeg, 2003), because this site is located on the left bank of the Koetari, and thus located in the zone contested between Suriname and Guyana.

The unnamed creek next to Kwamalasamoetoe encompassed several boulders with grinding grooves (Versteeg, 1980). Some information was collected on a large storage container, the only piece of pottery in the village (ibid.:24; Figure 12: right). No information is provided on the role of local indigenous people during the archaeological survey, data gathering, analysis, and interpretation, other than “residents of the village state that large quantities of sherds can be seen on the riverbed when the water-level is very low. (Personal communication G.G.C. Tromp)³” (ibid.:25). The case of Kwamalasamoetoe illustrates the role of local indigenous peoples as guides who brought the educated, government supported archaeologist to the archaeological sites, yet these local indigenous peoples were not included in the process of interpretation of the sites, nor were they co-authors on the resultant publications. The archaeologist resided for a mere ten days in Kwamalasamoetoe, and all communication went via the missionaries Claude Leavitt and Gert Tromp. The mediation by the missionaries, to an undetermined degree, most certainly did influence the relation between the archaeologist and the indigenous peoples, and may have restricted the liberty to speak about their ancestral past.

Indigenous Archaeologies along the Maroni River

In 1996, I arrived on the Marowijne or Maroni –Border River between Suriname and French Guiana– to conduct an ethno-archaeological study on indigenous vernacular architecture and settlement patterning and organization (Duin, 1998). That year, Jantje Stjura, a Kaliña (ethnic auto-denomination: Tereweyu) from Awala-Yalimappo, proposed that I should go upriver to the Wayana, because the indigenous communities on the coast had been strongly influenced by the French, the Dutch and the Surinamese, and so I did.

Alike the earlier described situation in Kwamalasamoetoe, rains had eroded the topsoil in the Wayana villages and exposed fragments of pottery and stone implements (Figures 1 and 2). The history of the indigenous peoples in the Upper Maroni Basin would become my focus of research for the next twenty years (Duin, 2009, 2012, 2016) and throughout the years, in close collaboration with the local indigenous Wayana communities, we developed a shared research agenda for the study and preservation of local histories⁴ (Duin et al. 2014, 2015).

³ Gert Tromp was a Dutch missionary teacher at Kwamalasamoetoe, from 1977 to 1986.

⁴ In Wayana: *uhpak aptau upijëmětōp*, *aklamatōp*, *taklamai male* (*uhpak aptau* = long ago; *upijëmětōp* = research; *aklamatōp* = study; *taklamai* = safe guarding; *male* = and).



Figure 2. Archaeological material surfaces after a rain shower (Photos © Duin, Kumakahpan, January 8, 2012).

In visiting all inhabited indigenous villages on the banks of the Lawa and the Aletani, I soon realized that all present-day Wayana villages are located on archaeological sites. In contrast to the Trio –according to the missionaries (SSM, 1980:20)– Wayana are very much aware that the places selected for their villages have been occupied in the past. Therefore the Wayana –and I presume it is the same amongst Trio and other indigenous peoples in Guiana– were not particularly interested in the fragments of ancient pottery as this was taken for granted. Discussions with Wayana on fragments of pottery and other archaeological remains always linked to the ancient past; stories, which the Trio may not have wanted to share with the missionaries. For example, after recovering a pottery fragment with a handle decorated in the Koriabo style, a local Wayana *pïjai*⁵ declared that this vessel in the past was used by a *pïjai* to drink blood; a story indigenous people definitively would not have shared with missionaries. Next to the fragments of pottery, many sites with boulders containing grinding grooves were located, for example at Yaou passi. In this chapter I will present several of my case-studies.

⁵ I prefer the local indigenous term *pïjai* over the today more commonly used Siberian term “*shaman*”.

Case study 1: Ethno-archaeology among the Wayana (Upper Maroni Basin)

Although there are different definitions of the term “ethno-archaeology”, most relate to ethnographic observations to aid the interpretation of the archaeological record (David and Kramer, 2001). Most ethno-archaeological studies concern the use of space and the *chaîne opératoire*, i.e., the series of operations which transforms a raw material into a manufactured product. In 1996, my research design was initially to conduct an ethno-archaeological study on indigenous vernacular architecture and settlement patterning and organization (Duin, 1998), yet when I recovered fragments of pottery while clearing the space around the house, my host told me that his mother still made pottery the traditional way and asked if I would be interested in visiting her. As an archaeologist this was an exceptional opportunity to study the vanishing practice of traditional pottery making. I understood that this potter was one of the last surviving potters, and that she was considered by all Wayana to be the best potter in the region.



Figure 3. The author [Renzo Duin] filming Kali making a *tuma eni* (a ‘pepper water’ cooking pot) (Photos © Duin, Kumakahpan, Suriname, September 16, 1998).

Kali, the Wayana potter, granted permission to study her pottery making skills and to film the process (Figure 3). This was a unique opportunity to observe the traditional techniques of preparing the clay, shaping the vessel, and firing the vessel in an open fire instead of in a kiln. Elsewhere, I (Duin 2000/2001) have elaborated on this *chaîne opératoire* transforming the clay into a cooking vessel, which allowed archaeologist working in the Caribbean and in Amazonia to better understand the pottery production process amongst neo-Tropical Forest Peoples.



Figure 4. The author [Renzo Duin, with green cap] assisting Kilian Toineike (with blue cap) in building his house (Photo © Duin, Awarahpan, French Guiana, 26 September, 1999).

Living among the Wayana aided my understanding of indigenous settlement patterning and organization, and assisting Wayana in building their houses made me gain knowledge of vernacular building techniques (Duin 1998, 2009). Assisting Kilian Toineike in building his house (Figure 4), provided me with opportunities to study traditional building techniques, and brought me closer to my then “local informant” and throughout the years we developed a close working relationship, developed a shared research agenda, and became family more than co-workers. Observations of posts and post holes aided my archaeological interpretation; for instance, Wayana prefer to keep the hole to set a post as narrow as possible to provide a firm

support to the post. Posts constitute debarked tree trunks with a diameter between 9 and 18 centimeters. In order to keep the diameter of the posthole close to the diameter of the post, the depth of the posthole could only reach a maximum depth of about an arm's length: lying on the ground, and scooping out the soil with a calabash, resulted in a maximum depth of postholes of about 65 centimeters. Remarkably, this maximum depth of about 65 centimeters I had found in my data set of the archaeological excavations at Anse à la Gourde, Guadeloupe (Duin: 1998:42).⁶ For some structures, posts were recuperated from abandoned buildings or buildings that had obtained a new function, for example as a dog house. In order to remove the post while keeping the roof in place, beams were supported by a strut of a lower quality wood. Removal of a post, and particularly the removal of the ground on one side of the post allowing for some wiggle room, resulted in a rather recognizable posthole negative that I glossed "a holster-shaped cross-section profile". Several of these holster-shaped cross-section profiles I had earlier recognized in my data set of the archaeological excavations at Anse à la Gourde, Guadeloupe, from which may be deduced that the posts had been recuperated in the past to be re-used in another structure.

A most remarkable event during the building of Kilian's house was that a neighboring *píjai* stopped by saying that at the site chosen for his house was located an ancient grave. This provided me with the unique opportunity to ask: "what if we touch the bones of the dead?" This question sparked a vivid discussion on mortuary practices and Wayana eschatology, supported by ethnographic descriptions and historical photographs and engravings I had collected earlier. This rare opportunity allowed me to further discuss the mortuary practices deduced from the burials excavated at Anse à la Gourde, Guadeloupe (Duin 2002), including the remarkable find of human skeleton remains in a posthole, and ceramic vessels tied in front of a face; both which practices were recognized by Wayana. My ethno-archaeological study of Wayana mortuary practices aided the interpretation of mortuary practices in the Caribbean (Hofman, Hoogland, and Duin, 2010).

Linguistic and cultural analogies and homologies are at the foundation for the twentieth century method of the Direct Historical Approach, anticipating continuity between the present-day community, the historically documented community, and the archaeological assemblage. The connection between the Guianas and the Caribbean is supported linguistically: for instance,

⁶ Some postholes had been enlarged at the top, to allow for more space for the upper body to reach a greater depth when digging a posthole. In these cases stones were set in the enlarged space surrounding the post.

seventeenth century indigenous people from the Caribbean named the village *aóthe* (or a variant thereof) and the burial place *onamótobou*, respectively resonating with the Wayana terms *ëutë* and *ëtonamtop*. Clifford Evans and Betty Meggers (1960) equated ethnographic communities with archaeological assemblages, which provided the underpinning for ethno-archaeological studies in Guiana. Throughout the twentieth century, archaeologists working in Amazonia and the Caribbean had the habitual ahistorical practice to illustrate archaeological assemblages with (ethno)-historic and/or twentieth century ethnographic images of indigenous communities.

For the indigenous people of the Americas, the truism “people without history” remained characteristic, even whilst arguing against this concept; and the enduring debate amongst Amazonianists on the authentication of history, myth and local indigenous perspectives on the past is ongoing (Duin 2014). Ethnographic observations of indigenous communities to be used uncritically as analogy for the archaeological record may result in the conceptualization that the communities under study have not developed since the pre-Columbian past. Being trained in the twentieth century theoretical framework, I had fallen into the pitfall of ethno-archaeology.

One day, Kilian asked me, “Renzo, since you are so interested in the past, why don’t you study OUR history?” We thus began to design a research agenda that was of interest to both me as an archaeologist and to the Wayana community to engage with their heritage that is rapidly vanishing. In the process, I complied with the original definition of an ethno-archaeologist coined over a hundred years ago by Jesse Fewkes (1900:579) who used this term for “an archaeologist ‘who can bring as preparation for his work an intensive knowledge of the present life’ of the people whose prehistory is under investigation” (David and Kramer, 2001:6).

Around the turn of the twenty first century, the ethno-archaeological practice came under scrutiny because many archaeologists “tended to ignore the living peoples among and often with whom their work is carried out” (ibid.:84). A broad range of directions developed, and is still developing. Whilst some continue to study what Michael Schiffer glossed the “Systemic Context” or the ethnographic study of the *chaîne d’opératoire* (the complex system from procurement or recycling to manufacturing, use and maintenance or lateral cycling, to discard, and when discarded or abandoned objects are not being recycled, they will end up as refuse in the archaeological context), others, who had developed long-term and in-depth working relations with local indigenous communities, developed a community-based archaeology or an archaeology of engagement (Atalay, 2012; Duin et al., 2015; Murray, 2011); the latter developed

in tandem with the decolonization of archaeology (Bruchac et al., 2010). The systematic context of indigenous communities may be studied to aid archaeological interpretation, as long as archaeologists also acknowledge the complex and dynamic histories of the communities in and with whom the ethno-archaeological study is being conducted.

Case study 2: Pioneering work in the vicinity of Konopamüi (Southeast Suriname)

In 2000, I went upriver with two Wayana families, namely with the family of Ronnie Tikaimë (son of Kali and Ęputu) and with the neighboring family of Kilian Toineike, because they wanted me to see the places that are vital in Wayana history; because geography is history. The Aletani (Litani or l'Itany), which is the upper course of the Lawa, which is the upper course of the Maroni River, has its sources in the watershed glossed Toemoekhoemak (Tumuc-Humac). On the left bank of the Aletani near where the river changes its direction from an east-south-east bearing to a north-north-east bearing, is located an isolated hilltop (*inselberg*; in Wayana: *tëpu*; in Dutch: *kale rotstop*) named Konopamüi (the location of “Knopaiamoi Top” on official maps is located too far to the north). On October 18, 1861, This *inselberg* was reached by the French-Dutch Border Expedition and named *piton Vidal* after the expedition leader (Vidal et al., 1882). A few decades later, the Dutch Gonini Expedition would also climb this *inselberg* (Franssen Herderschee, 1905).⁷ In April 2003, I (Duin, 2005, 2006b, 2015) would climb Konopamüi in the footsteps of these Dutch and French explorers from the turn of the twentieth century.

Taluwakem.⁸ One evening in 2000, Wayana were once again narrating the story of Kailawa, the founding father of the Wayana nation. Additionally, Kilian Toineike now told me that Kailawa and his men had killed a monstrous men-killing caterpillar, and subsequently locked this monster inside an *inselberg*. He invited me to visit the site, and together we organized

⁷ The 1903 Gonini Expedition located two Wayana villages on the banks of the Aletani: Panapi and Jamaiké. Both Panapi and Jamaiké would resettle several times during their lifetimes. The village of Panapi in 1903 is just a few kilometers north from the location of the village of Yamaiké in 1893 (map Coudreau). Jamaiké, born around 1853, was born an Okomëyana (a Trio subgroup), yet captured and raised by the Wayana. He married a Wayana and settled at the Aletani. Later, the Wayana sent him back to his Okomëyana family to inform all Okomëyana that the wars between the Wayana and Okomëyana had ended.

⁸ In 1937, during the Border Expedition, this *inselberg* was named “Prins Bernard Berg” in honor of Prins Bernard who in January that year had married Princes Juliana—the future queen of the Netherlands (van Lynden 1939:858). West of this *inselberg* was another hill that was baptized “Prins van Oranje” (Prince of Orange) “now we all live with the expectation, that soon a little Prince will be born” (*nu wij allen in de hoop leven, dat spoedig een Prinsje geboren zal worden*) (van Lynden 1939:859; my translation). Instead of a little Prince, a little Princess was born on January 31, 1938—the later Queen Beatrix. The names ‘Prins Bernard Berg’ and ‘Prins van Oranje’ remained in pencil on the original sketch map, and were never materialized on the official maps.

an expedition. Upon first sight of this inselberg, Sihmi Makilu called in Wayana: “*Pim! Pim kaikë, pim!*” Her children immediately blinked with their eyes. Sihmi’s oldest daughter plead in her best French that I also had to close my eyes, and she added that if I did not close my eyes upon first sight of Taluwakem my skin will grow white mildew. I thus also blinked my eyes.



Figure 5. Stone circle at Taluwakem. According to Wayana social memory, this is the closed hole into which the cultural hero Kailawa locked-in the monstrous men-killing caterpillar Kuluwajak. Inselberg (*kale rotstop*) Konopamii is discernable in the background (Photo © Duin, August 25, 2000).

On the summit of Taluwakem (literally: the one with a mirror; *aluwa* = mirror; so called after the large quartz deposits on its flanks that are visible from the river) is a circle of stones that encircle a darker zone of the rock surface (Figure 5). When tapping on the rock surface, the sound changes, giving the impression of a hollow space under the dark circle (Duin, 2005:291-293). Wayana oral history is reinforced by this feature that is a combination of natural and cultural elements. Wayana today, fear to step into this circle of stones. Concurrently, this provides a hypothesis for interpreting archaeological stone circles elders in Guiana. Next to this circle of stones, are arrangements of plates of granite over a meter tall, that following Wayana social memory are markers indicating the roads established by Kailawa (Duin, 2005:293). Archaeology, history, oral history, legend, myth, and Wayana lore, all blend together in this landscape in Southeastern Suriname that can be glossed a ‘mythscape’.

Konopamii and **Lake Patakasiyana**. The origin of the name Konopamii (a.k.a. Knopaiamoi) has been discussed in detail elsewhere (Duin, 2005). In 2003, while I was conducting my fieldwork in the Upper Maroni Basin, a Wayana informed me that he would go upriver with a French group of explorers. I asked him if I could meet these explorers, members of Association Alabama led by Eric Pellet. Pointing at a map, they explained that they were heading to climb inselberg Knopaiamoi. I argued that the mountain Knopaiamoi on the map is not the inselberg by Wayana identified as Konopamii, as I had already established during the above discussed 2000 Taluwakem expedition. Pellet decided to head for the mountain indicated on the map, and if time allowed on the way back we would climb the inselberg that I identified as Konopamii. I seized the opportunity to join this group of explorers to enter an area that never before had been explored archaeologically.

Between the two inselbergs, labelled respectively Knopaiamoi (official maps) and Konopamii (my cartography), we came across a lake.⁹ We camped next to this lake, and the following day we conducted a brief reconnaissance survey around the lake (Duin, 2005:297-298, 2015). On the ovoid plateau, located about thirty meters above the lake surface, we recovered several fragments of pottery from several tree falls and armadillo holes. The wall in one of the armadillo holes demonstrated a clear horizon at thirty-five centimeters below the current surface: the upper layer consists of yellow ochre clay; the lower layer consists of brown ochre clay; fragments of pottery were located at this interface between the two layers. The plateau itself was an oval of about 77 meters northwest to south-east and about 46 meters north-east to south-west, resulting in a surface area of about 2800 square meters. This surface area could theoretically house a small village of about three to four houses, kitchens and other structures, which could be home to about fifteen people, in other words, a typical neo-tropical forest culture settlement.

During our brief survey around the lake, other members of the team –who had stayed in the camp– had caught two fish resembling an *aimara* (*Hoplias aimara*). The Wayana in our team however identified these fish as *patakasi*. That night, when everybody was asleep, several team members heard some noise of water splashing near the camp site; thinking that someone had left his hammock to relieve himself, yet fell into the lake. Some saw a bipedal being emerging from the lake, and it went up the hill behind the camp and out of sight. First thing in the morning, the three Wayana in our team had decided to return immediately. This decision to return can be

⁹ This lake was identified on the 1:50.000 map made in 1980 by the Centraal Bureau Luchtkartering.

better understood when being aware of the oral history of the region. In the late nineteenth century, Henri Coudreau (1893:91) had located in this region the *Patacachiana* [Patakasiyana] or *Tounayana* [Tunayana], whom he described as a people that withdraw at night in the swamps and rivers to sleep there. This myth became a reality. For the Wayana in our team the capture of two *patakasi* fish the previous day, the fragments of pottery found on the plateau next to the lake, and this mysterious event during the night, resulted to the following conclusion: this was the home of the Patakasiyana, two of whom were killed, and a third one went to get help and plan an attack against our team. There was thus only one option: to return and no longer continue our exploration. The myth of the Tunayana (*tuna* = water; *yana* = people), the people who reside under water, is further materialized through the finds by the gold miners in the bottom of the rivers. Archaeologically, we have barely scratched the surface, and more research is needed.

During our return from the lake, that we named Patakasiyana or Aimarayana, it was decided to climb the inselberg (*kale rotstop*) Konopamüi. Halfway, we came across a rock shelter with a clear view towards the northeast. At the entrance of this rock shelter were located several fragments of pottery, including a rather large fragment from a griddle or baking plate. A little higher, a second rock shelter was located, and also in this case, fragments of pottery were located at its entrance. Most remarkable are the ecological markers, namely a cactus species (also photographed in 1903 by C.H. de Goeje), a mope tree (*Spondius mombin*), and several charms (*hëmit* in Wayana). Although some of the narratives told by the indigenous peoples of Suriname may sound rather odd to a Western ear, this reconnaissance, however brief and preliminary, has demonstrated the archaeological potential of which we have barely scratched the surface. Fragments of pottery recovered and the resulting publication have been handed over to the Stichting Surinaams Museum. It is desired to return to these archaeological sites to conduct test-pits and excavations to better understand the size, scale, nature, and chronology of these archaeological sites.

Kulumulijinpë and **Mulokotüimë eni**. In 2000, upon returning from Taluwakem, Wayana indicated to me other potential archaeological/historical sites. The first one is Kulumulijinpë, a village founded around the turn of the nineteenth century by Tëpëputse, son of Ouptoli. Comparable with Kwamalasamoetoe, this village is also named after the bamboo present on site (*kulumuli* is a certain kind of bamboo, namely *Guadua latifolia*). Bamboo is still present on site, and a clear marker of the location of this site on the south bank of the Aletani

(N.2°27.700; W. 54°35.850). According to Wayana social memory, this village was attacked by the Taira. A Taira settlement, named Mulokotöimë eni, was located some ten kilometers downstream from Kulumulijinpë. Mulokotöimë eni (literally: the waterhole of the giant *mulokot*) is located on the north bank of the Aletani, facing the mouth of the Walemapan, a creek along which ran a route crossing the watershed (Tumuc-Humac) and connecting the Aletani with the Jari. Both sites have not yet been prospected archaeologically.

Kriboi soula (in Wayana: *isoli ëtakima*; *isoli ëtakima* means “the first rapid” [*isoli* = rapid; *ëtakima* = first] that is, this is the first rapid counted from the source of the Aletani). Erected on a boulder in the middle of *isoli ëtakima* or Kriboi soula, is a borne in cement (dimensions of the base: 44 x 43 cm; height: 18 cm; top: 31 x 31 cm) with the inscription: “Mission Française, P 10, 1-1-'38” (Figure 6). This borne was made on January 1, 1938, by the French during the 1935-1938 Border Expedition. Grébert and Richard, two delegates who were sent by the French authorities to verify the astronomical observations by the Dutch to determine the tri-junction between Brazil, Suriname, and French Guiana, however when the Dutch commission arrived at the mouth of the creek Kulé-kulé, they found an empty camp (van Lynden, 1939:868-869). As a reminder of their presence, the French had erected a borne in cement with the inscription: Mission Française, 27 Dec. 1937. The borne at Kriboi soula evidences that the French did not await the Dutch at the basecamp at the creek Kulé-kulé, but had already begun their return prior to the agreed date of January 1, 1938.



Figure 6. French borne at Kriboi soula or *isoli ëtakima* (Photos © Duin, August 23, 2000).

During the 1935-1938 Border Expedition, the French had erected similar cement bornes in the plazas of the Wayana villages of Malaitawa and Taponte (Figure 7). The ancient villages (in Wayana: *patatpë*) of Malaitawa and Taponte are both located on the right bank of the Aletani (Figure 10), and thus located in the zone contested between Suriname and French Guiana, and will therefore not be discussed in detail in this chapter (see Duin et al. 2015).



Figure 7. Stéphane Toineike (son of Kilian Toineike) conducting a study of the French cement marker in the former village of Taponte (Photo © Duin, January 22, 2013).

Rosewood distillery. Located on the right bank of the Aletani, just north of the mouth of creek Alama are the historical remains of a rosewood distillery (Figure 8). This site is also located in the zone claimed by both Suriname and French Guiana. On August 24, 2000, during the expedition to Taluwakem –and at the distance of almost four hundred kilometers from the mouth of the Maroni– I was very much surprised when Wayana asked me if I wanted to see the “*fabriek*” (factory). They said it was a “*perfumery*” where long ago Wayana worked searching for flowers and plants. Long and behold, a few meters from the river bank I saw the first signs of a historical industrial site: many rusted metal drums and piping, several rusted metal barrels similar to the in 1905 invented “Nelly Bly Oil Drum”, and a large unit build on a brick foundation most certainly served for the distillation of rosewood (*Aniba rosaeodora*) to produce rosewood oil. Located in the zone contested between Suriname and French Guiana, this is the most southern industrial site in the Guianas. This site has not yet been studied by any industrial archaeologist or historian.



Figure 8. Remains of an early twentieth century rosewood distillery on the right bank of the Upper Aletani (Photo © Duin, August 24, 2000).

Though technically not considered archaeological sites, several additional named places in the Aletani were indicated to me by Wayana during the 2000 Taluwakem expedition. Of these named locations I want to mention here: *akulijo eklëitpë* (N.2°37.863; W. 54°18.793) and *alalawaeime eni* (N.2°56.982; W. 54°10.768).

Akulijo eklëitpë (“the former Akurijo crossing”). Located less than five kilometers south from the earlier discussed Kriboi soula, or *isoli ëtakima*, is the place where, according to Wayana social memory, Akurijo used to cross the Aletani at low water levels. This is not the place to discuss these encounters in the 1930’s and 1960’s in detail, it is however important to note that because these encounters were described as a “contact with Stone-Age Indians” (e.g., De Boer, 1970; Geijskes, 1970; Schoen, 1969; van Lynden, 1939), southeastern Suriname became a place frozen in time. These hypes around the so-called “Stone-Age Indians” silenced the complex and dynamic indigenous histories of the Tilijo and Wayana.

Alalawaeime eni. Located just south of an exceptional meander in the Aletani, are a series of boulders that in their composition bring to mind a serpentine monster resembling a dinosaur emerging from the water and attempting to climb the river bank (Figure 9).



Figure 9. The petrified monster Tulupere emerging from the river (Photos © Duin, December 24, 2011).

In Wayana this place is called *alalawaeime eni*, or the waterhole of the giant blue-and-yellow macaw (*alalawa*; *Ara ararauna*). Rather than the blue-and-yellow macaw, this site materializes the monster Tulupere (Duin, 2009:156). The ‘classic’ Tulupere is the monster of the Paru de l’Este near creek Achiki with its decorated reptilian skin holding designs used today in basketry (Schoepf, 1972; van Velthem 1976, 1995, 1998, 2001). This monster plunged into the water, turning around canoes, killing Wayana. Before this monster emerged from its lair, a blue-and-yellow macaw (in Wayana: *alalawa*) flew over the river; hence the name of this site.

Case study 3: Upper Maroni River Archaeological Survey (Suriname – French Guiana)

During a research project funded by the Innovational Research Incentives Scheme from the Netherlands Organisation for Scientific Research (NWO-Veni Grant 2014/02866/GW), one week in December 2011 was dedicated to locate historical Wayana villages from the late 1930's (Duin et al., 2014, 2015). Sketch-maps related to the expeditions of 1938 (Ahlbrinck, 1956), 1939 (Geijskes, 1957), and 1940 (Schmidt, 1942) had been published. These sketch-maps together with Wayana social memory, and a keen eye to secondary forest growth, allowed a small team of three Wayana [Kilian, Kiipala, and Elina] and the author [Renzo Duin] to geographically locate these now abandoned villages and record their coordinates with a handheld Global Positioning System device (Garmin GPSmap 62s) (Figure 10). The Wayana with whom I conducted this participatory mapping project, had already participated in earlier research projects, including the earlier discussed 2000 expedition to Taluwakem (case study 2).

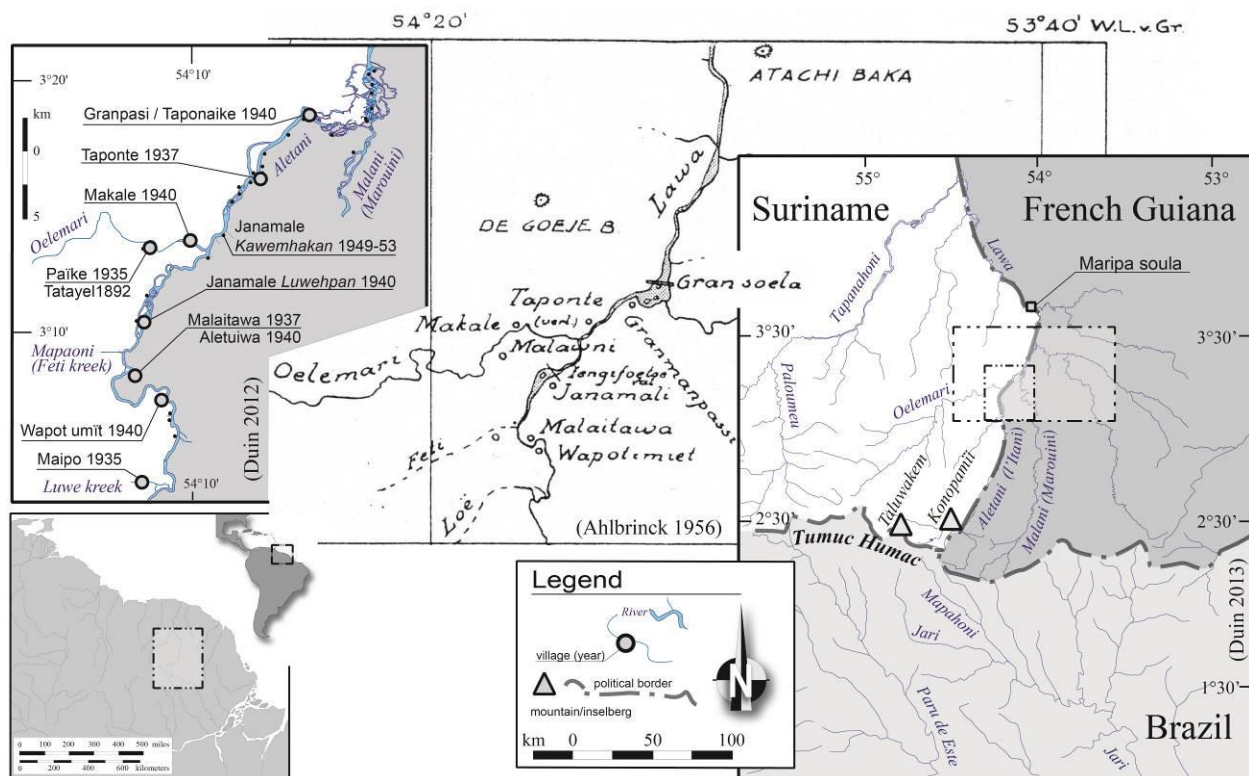


Figure 10. Location of Wayana villages during the late 1930's based on the sketch-map by Ahlbrinck (1956). Inset left displays the locations as recorded by GPS in 2011. Dotted lines on the overview map (right) designate both insets (Duin, 2013), also the location of the discussed inselbergs Konopamii and Taluwakem have been indicated; inset lower left situates the overview map in Guiana, northern South America.

Only the historical Wayana villages located on the left or west bank will be discussed here. Both Suriname and France claim the zone between the Aletani (Litani, l'Itany) and the Malani (Marouini), and therefore the historical Wayana villages of Taponaike (Granmanpassi), Janamale, and Malaitawa/Aletuiwa are located in a contested zone, and will not be discussed here. On the map by Ahlbrinck (Figure 10), the village of Taponte, indicated as abandoned (in Dutch: “*verl.[aten]*”), is positioned on the west bank (Suriname), whereas this abandoned village is actually located on the east bank (French Guiana), as demonstrated by Wayana social memory and various material markers, such as the earlier discussed French borne from cement (Figure 7). At some point in time, Janamale had founded two villages, one on the east bank and one on the west bank, in order to receive goods from both the Dutch and the French. The location of an abandoned village on the Luwe (Loë kreek), after further interviewing of elders, was not the village of Maipo that was already abandoned at the time of the 1938 expedition and does not feature on any published map. The most southern Wayana village directly located on the Aletani was the village founded by Wapot umit. This name is transcribed as ‘Wapoedoemit’ by Schmidt, ‘Wapodimiet’ by Geijskes, ‘Wapotimiet’ by Ahlbrinck, and ‘Wapurumuit’ by de Goeje (1941: 123) –who noted that this village is also known as *suye akulikato*p (place of the broken kettle). These villages and their inhabitants were photographed during several expeditions in the late 1930’s. The variation in toponymes illustrates the existing differences between the spoken indigenous Wayana language and the phonetically written variants, which does not facilitate the study of local toponymes. Close collaboration with local indigenous communities is prerequisite for a proper understanding of toponymes, and the role of these sites in local histories.

Makale. The only Wayana village plotted on the Oelemari in the 1930’s is the village of Makale. Based upon our findings during the 2011 expedition, its position on Ahlbrinck’s map is located too far to the west. The secondary forest growth is a first indicator; the rocks at the waterfront are a second indicator; fragments of pottery are a third indicator of an indigenous settlement; and the fragment from a glass lemonade bottle from Paramaribo is an indicator that this village was occupied during the early twentieth century (Figure 11). The location of the former village of Makale was confirmed through local Wayana social memory.

A very preliminary study of the recovered pottery has been made. Regarding the rim fragments (Figure 12), only one fragment is decorated (parallel vertical incisions), and this vessel has the smallest orifice diameter (Ø 17 cm). The vessel rim with the largest orifice diameter

(about Ø 55 cm; Figure 12: left, upper right) resembles the rim from the large storage vessel and only remaining pottery in Kwamalasamoetoe (Versteeg, 1980:24; Figure 12: right). The vessel shape profiles are all incomplete, yet are variations of the typical Wayana pottery types (orifice diameters vary between Ø 23 to 45 cm). The Wayana insisted that the recovered archaeological material –that is their cultural heritage– was not to be shipped to Cayenne or Paramaribo, but remained in the Wayana territory where it was deposited and currently stored.



Figure 11. Wayana recovering fragments of pottery and a glass lemonade bottle at the waterfront of the former village of Makale, Oelemari (Photos © Duin, December 20, 2011).

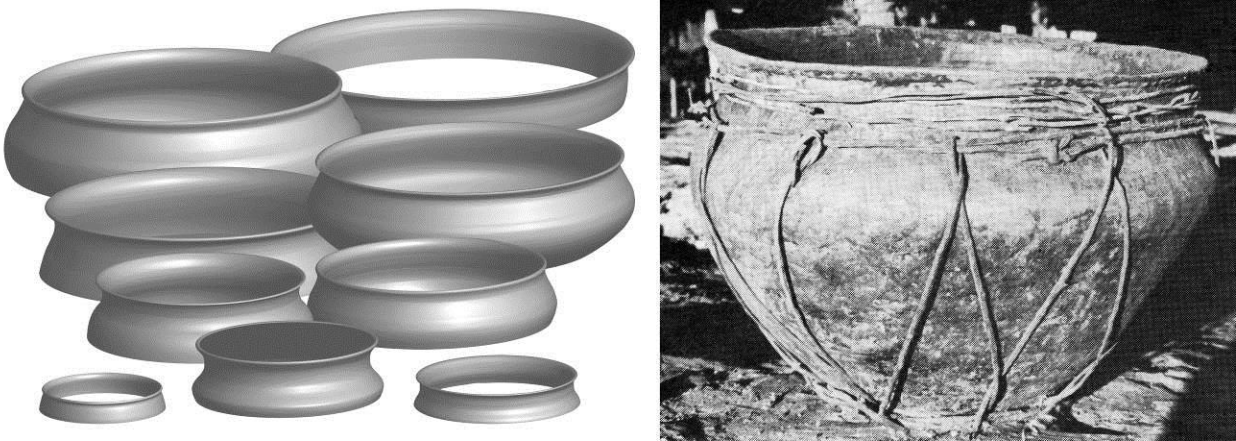


Figure 12. Left: 3D rendering of pottery fragments recovered from Makale (© Duin, 2012). The smallest vessel has an orifice diameter of 17 centimeters and the largest vessel has an orifice diameter of 55 centimeters and is analogous to the pottery storage vessel photographed in 1980 in Kwamalasoumoetoe (right: detail from Versteeg, 1980:24).

Tatayél / Païke. When exploring the Oelemari, the Wayana indicated the location of Païke *patatpe*, or the former village of Païke.¹⁰ The fragments of pottery found on site were very small (smaller than two centimeters), rather crude, and not comparable to the fragments of pottery that we had recovered from other former Wayana villages dating back to the 1930's. Relocation on former habitation sites does not facilitate identification of sites either. On the 1893 map by Henri Coudreau it is undecided whether the abandoned village near *saut Coulicoulicoupcatpeu* [sic.: *kulikulipupkatpë*] was the village of Yamaïké or of Tatayél. Secondary forest can be distinguished at this location, and fragments of pottery were found at the waterfront. Coudreau positioned another village of Tatayél on the Oelemari. The Wayana are not familiar with the location of the village of Tatayél, yet I posit that Païke had founded his village on the former village of his uncle Tatayél (Tatayél was the brother of Touanké, who was the father of Païke). This former village of Païke is not plotted on any map.

Panapi. In 1903, the villages of Jamaïké (or Yamaïké; mentioned above) and Panapi each had about 50 inhabitants (de Goeje, 1906:25; for a photograph of Panapi and his family see *ibid.* plate 13, figure 4). Panapi had abandoned his village several times to found a new village (Geijskes, 1957:235, 256). Panapi strengthened his relations with Tolinga, the Granman of the Boni. On Christmas Eve 2011, we (our team of three Wayana –Kiïpala, Kilian and his wife Elina– and the author, Renzo) camped near Wamawetpë *isoli*, a rapid named after a kind of arrow cane (*wamawetpë*). On a rare mid-twentieth century photogrammetric map by the French National Geographic Institute (IGN: feuille NA-21-XXIV) are located several 'Panapi *patatpeu*' (*patatpë* = former village), near the rapids named Panapi *soula* by the Boni, including one labelled as "Ouamaouetpeu Icholi (indien)" [= *wamawetpë isoli* (in Wayana)]. On Christmas morning (*Jesu tēwēkaktai* = Jesus is born), we went to this location for a preliminary prospection. The many small islands in this bend of the river, and the many boulders, are good fishing grounds. On the east bank, secondary forest could clearly be identified, and was identified by the Wayana as former garden plots. On the west bank, the rock plates at the waterfront are favored for establishing a village, and it is here where we landed our canoe.

¹⁰ It is indeterminate if this is the very same place mentioned on the map by Ahlbrinck as Malawni, who was "the last of the Wajarikoele" (Ahlbrinck 1956:133-178).



Figure 13. Multicomponent site Panapi *patatpë* (Photos © Duin, December 25, 2011).

From the canoe, several grinding grooves could immediately be identified (Figure 13: right foreground). On a nearby boulder, additional grinding grooves –including of the circular type– were identified and photographed (not published here). Next, we entered the forest behind this landing place (N.2°57.780; W. 54°10.497). A flat stone of about fifteen centimeters thick protruded from the ground, a type of stone and setting that was interpreted as a support for the griddle to bake cassava bread. Fragments of pottery were found near the entrance of an armadillo hole. In another animal burrow we saw some bright white shards: fragments from a European (possibly French) porcelain saucer (*palasisi ëlimak* in Wayana), indicative of a contact site (Figure 13: center and left). Further archaeological and historical studies are recommended.

Case study 4: Kumakahpan (Southeast Suriname)

Rains have eroded the topsoil in the present-day Wayana village Kumakahpan (N. 03°21.690; W. 54°03.550) and exposed fragments of pottery and stone implements (Figures 1 and 2; see unpublished field report by Duin, 2013). When discussing the finds from our archaeological survey (see case study 3) with the inhabitants from Kumakahpan, it was village leader Ęputu (husband of Kali, the Wayana potter discussed in case study 1) who declared that he had found more fragments of pottery in his newly opened garden plot. When visiting the garden plot, that was located about a hundred meters from the village square, we stumbled upon another unique feature in Suriname: a substantial moat and earthen wall (Figure 14).

The new garden plot of the village leader of Kumakahpan was located on the earthen wall next to a ditch or moat bearing resemblance with the *sites à fossés* in French Guiana. A single such site, though smaller, had been reported in Suriname at Pondokreek. The diameter of the moat at Pondokreek is between 95 and 125 meter, and had an original depth of two meters and

was five meters wide (Versteeg, 1981). Additionally, I (Duin 2011) have posited that the Kumako site excavated by Cheryl White (2007) originally was an indigenous site with a similar moat, that later had been appropriated by a Maroon community. This makes Kumakahpan the third site in Suriname with a moat encircling the settlement. Furthermore, similar to Kumako, a Maroon community later appropriated the site, because current inhabitants of Kumakahpan attribute the presence of coconut palms to the Boni period of habitation: around 1800, a Maroon settlement named Godoro, one of six Boni villages under Gongo, used to be located in this vicinity. This dynamic history between Indigenous peoples and Maroon communities has not received sufficient attention. But let us return to the moat and the earthen wall.



Figure 14a. Moat and earthen wall around Kumakahpan (Photo © Duin, January 8, 2012).



Figure 14b. Moat (viewed from the same direction) with the author as “human scale” (1 m. 82) (Photo © Duin, January 8, 2012).

The village leader (Kapitein Ēputu) and his wife (Kali) provided me with their informed consent to study, record, photograph, and map this ditch with my Wayana research partner. The actual mapping of this ditch by means of Global Positioning System (GPS) took place on January 8, 2012 (Duin, 2013; Duin et al. 2014:349). The SW-NE diameter is 240 meters, and the NW-SE diameter is 125 meters, encircling a surface area of 3 ha. The length of the ditch is 430 meters, and due to the natural slope on the south-east side, no ditch is present here. Upper Kumakahpan is located in the center of this encircled area. Several fragments of pottery recovered from Upper Kumakahpan are decorated in the style typical for the Koriabo assemblage (circa AD 750-1500). The ditch is least visible at the north-east side. In the middle of its length and width, the ditch leaves way for roads that are still in use today. These roads hypothetically arrived at a perpendicular angle in what prior to 2000 was the central village plaza of Kumakahpan; that is before the village leader relocated his house hold unit to lower Kumakahpan. On the south end, the last fifty meters towards the river is swampy and, according to local inhabitants of Kumakahpan, will be flooded when the river is at its highest levels.

The stratigraphy of this site remains unknown because no sub-surface test-pits were excavated. No trench has been dug, and therefore the original depth and width of the ditch is unknown. Measurements have been taken from the surface. The ditch has a width of about seven meters, and the distance between the lowest point and the highest point is about 2.7 meters. Earth from the ditch has mainly been moved inward, creating an embankment at the inner perimeter, while some has been placed on the outside perimeter, resulting in a moat with bulwark on the inside of this defense system. The village leader confirmed this hypothesis. Based on field experience elsewhere in French Guiana, it is expected that the depth of this ditch used to be greater, but this is only to be established by sub-surface testing and limited trenching. It has been strongly recommended to conduct a programmatic archaeological research project on this site to determine the exact dimensions or the original ditch and to determine whether this site can indeed be attributed to the Koriabo culture. Further archaeological research may determine the historiography of this site from its foundation potentially prior to European contact, a resettlement by Maroon communities, up until the current indigenous habitation.

Archaeological research at Kumakahpan and other sites in the Upper Maroni Basin is strongly recommended because of a strong increase of (illegal) gold mining activities that threaten –and on occasion already have destroyed– unique archaeological and historical sites.

Case study 5: Maratakka (Northwest Suriname)

In 2012, I was contacted by Laurent Vermeulen, a Belgian nature explorer with a keen eye for archaeology, who had found fragments of pottery along the Maratakka in northwest Suriname. The following year, Vermeulen (2013) reported his findings in a document which he presented to the Ministers of MinOWC and ROGB, with the request to establish a nature reserve and/or archaeological protected area, and he invited archaeologists to evaluate his findings on site. An example of a combined archaeological/nature reserve is the nearby Herttenrits reserve, established in 1972 (on the Herttenrits archaeological site, see Versteeg in this volume). In his report, Vermeulen listed several archaeological sites, the history of these sites, the damage resulting from earlier groundwork activities –particularly, Bureau WaterKracht Werken (BWKW) and GrasAlCo– and the more recent activities related to current logging and related activities. The sites named of high archaeological interest are Corobonaro, Kumbu, Jorka Savanne and Awara Savanne (Table 1b). During the summer of 2015, I visited the sites on the Maratakka upon Vermeulen’s request to provide a second opinion. I concur with Vermeulen that the Maratakka area is in urgent need of protection and archaeological exploration.

Archaeologically, this area is almost virgin territory as no archaeological sites are plotted on the archaeological map (Versteeg, 2003). The only site mentioned is Cupido, an indigenous village where Geijskes and Bolwerk recovered archaeological material in 1962 (SUR-28). Historically, the Maratakka is well-known, because August Kappler went upriver in 1839 and reported in detail on his exploration (1983:81). Kappler (ibid.83) described in detail the indigenous villages –two Warrau and one Arawak, with a combined population of about two hundred individuals– on a large savanna. Kappler was offered a beverage made from *awara* palm fruits (*Astrocaryum segregatum*). This savanna can but be the large Awara savanne located on the west bank of the Maratakka, where also is located a “*kamp van Arrawakken Indianen*” on a map from 1871 and on the 1898 map by C. van Drimmelen. The latter map indicates a second indigenous village where we in 2015 also located fragments of pottery (which were left in place), as well as large bamboo strands. Upon information from local indigenous people, there was an indigenous village on the Awara savanne well up into the twentieth century, as testified by *de kusuwe* (Arawak) or *roukou* (Carib) (*Bixa orellana*), which seeds are the basis for the famous red past with which the indigenous peoples covered their skin and which resulted in the nick-name “red-skin”. Kappler (ibid.) also mentioned a large number of pineapples (*Ananas comosus*),

which we actually noted on the Jorka Savanne. The local indigenous people informed us that there used to be an indigenous village on this second and smaller savanna.

As discussed earlier, the rains had also eroded the topsoil of both Kumbu and Corobonaro and exposed to view the fragments of pottery. Erosion was aided by ground moving activities that threaten both sites. Vermeulen had also found fragments of pottery with the fretwork appliqué characteristic on the earlier described Kaurikreek material. This makes Corobonaro the second occurrence of this characteristic pottery style indicative of the earliest indigenous pottery making agricultural communities in Suriname some four thousand years ago! Because the Kaurikreek site may be entirely destroyed today, Corobonaro would be the only site in Suriname to study these earliest pottery making agricultural communities. I therefore strongly concur with Vermeulen that these archaeological sites along the Maratakka and their surrounding areas need to be protected urgently as to design a programmatic archaeological research program to study, describe, and possibly rewrite the history of Suriname.

Cupido, the earlier mentioned indigenous village and archaeological site, is located on a series of sand/shell ridges, which brings me to another threat of archaeological sites in Suriname. Along these sand/shell ridges, the aforementioned forester Bubberman had identified raised-field complexes, i.e., man-made hillocks for agricultural purposes, and idea already proposed to him in 1947 by Kersten (pers. comm., 2015). Bubberman's maps have recently been published by Stephen Rostain (2013:148) because there is a growing interest in studying these raised-fields. These raised-fields were located along the sand/shell ridges between the Grote Cupido creek and the Bigibere creek. Additionally, I had been informed that arrow cane (*Gynerium sagittatum*)—an obvious indicator of prior human (indigenous) presence—used to grow along the Cupido creek. Nevertheless, sand extraction activities prevented a preliminary survey at Cupido creek, and a second massive heap of sand at Bigibere creek indicated sand extraction activities further upriver as well. Unknown is the impact of these sand/shell extraction activities to the destruction of archaeological sites, both indigenous pre-Columbian sites (before AD 1492) as well as historical sites (see Philip Dikland, Stephen Fokke, and Carel van Hest in this volume). Local awareness is utmost needed for Suriname to have a past in the future.

Reassessing the Twentieth Century Tropical Forest Culture Model

Suriname is centrally positioned in Guiana, and although the archaeology was booming in the mid-twentieth century it has become dormant during the past thirty years; a period wherein state-of-the-art methods and techniques were developed, as well as the period wherein developed in other parts of the world a community-based archaeology of engagement with local indigenous communities. The decolonization of the archaeology in Suriname is up-and-coming with promising first results such as presented in the present chapter and in this volume as a whole. Additionally, several sites are located in the zones contested by respectively Suriname and Guyana (Upper Corentyne between Kutari and New River), and Suriname and French Guiana (Upper Maroni Basin between Litani and Marouini), and these geopolitically contested boundaries may be cut across by involving descendent communities. Actively engaging local indigenous communities is key to an effective archaeological governance, and the knowledge of descendent communities must be placed at the center of archaeological practice in the twenty-first century to bridge between indigenous and scientific knowledge.

It is rather remarkable that the reported sites with petroglyphs and grinding grooves are not located on the archaeological fold-out map nor have SUR-ID numbers (Versteeg, 2003), as these are often indicators for nearby archaeological habitation sites.¹¹ Recently, there is a renewed interest in the raised-fields along the coast of the Guianas, because these may have served to grow corn (*Zea mays*) which has long been considered a staple crop indicating more complex chiefdom-level cultures. The man-made mound of Hertenrits had already been excavated in 1957 by Dirk Geijskes (see also Versteeg in this volume).¹² Next to the Hertenrits mound are six other man-made mounds, all surrounded by a network of canals and agricultural raised-field. In his dissertation, Aad Versteeg (1985:715) already concluded that Hertenrits and neighboring man-made mounds “[were] probably more complex than the system of the present Amerindians in the Guyanas [sic.]. Perhaps here, indeed, comparisons can be made with the non-egalitarian communities of the Venezuelan Llanos and the flood-plain adapted societies of Amazonia.” In his later overview on the archaeology of Suriname, Versteeg (2003) tentatively

¹¹ C.H. de Goeje already informed J.G.W.J. Eilerts de Haan (1910:670) that the grinding grooves encountered in the upper reaches of the Suriname River, Pikien Rio and Gran Rio, during the 1908 Suriname River Expedition indicate the presence of indigenous peoples in the past. Drawings of the grinding grooves (*‘slijpgroeven’*) from the Lucie River and Gran Rio have been published in the expedition report to the Wilhelmina Mountains (Stahel 1927:30).

¹² A short news bulletin from the 1957 excavations at Hertenrits is available online at <https://www.beeldengeluid.nl/en/media/6404/nieuws-uit-de-west-belangwekkende-archeologische-onderzoekingen-het-gebied-der-surinaamse>.

explores the concept of Chiefdom. Versteeg had been restricted by the twentieth century model of tropical forest cultures, whereas he had a unique case-study in which the available data did not fit the then available paradigm. It is thus necessary to stop attempting to “fit” newly obtained data within a given theoretical framework, and instead redraft a new theoretical framework based on the available data, and Suriname with its unique archaeological sites may take the lead in the next decade of archaeological research in Guiana.

In order to reconceptualize the theoretical framework, it is needed to study recently discovered and yet to be discovered archaeological sites, as well as to revisit already known archaeological sites. Twenty-first century activities in Suriname, particularly mining, logging, road building, and construction activities, along with a broad range of spin-off activities, are threatening the Suriname’s heritage. On several occasions, I have heard that heritage is a hampering and restricting (economic) development in Suriname. Examples in other parts of the world, including in neighboring French Guiana and Brazil, demonstrate that heritage –both cultural and natural heritage– may actually support sustainable economic development. Moreover, Suriname has countless examples, as discussed earlier (Versteeg, this volume), how the (economic) development during the mid-twentieth went in tandem with the exploration of the archaeological heritage of Suriname. Mining companies, road construction companies, foresters, geologists, and many more, contacted the Stichting Surinaams Museum when they recovered archaeological material, and subsequently allowed for rescue excavations. These activities that boosted the economy of Suriname, also boosted the knowledge of Suriname’s ancient past.

Archaeology may provide a more nuanced image of indigenous peoples in the past, which in turn may support contemporary issues of pride-of-place and -practice, intellectual property rights, sustainable development, and community building in the present. Indigenous technologies in the past and the present are not simply *adaptations* to a limiting tropical forest environment, but rather *intentional practices* to manage changing conditions. Suriname, the least known area of Amazonia, is home to the largest closely-knit tropical forests in the world that are however severely threatened with deforestation by (illegal) logging, mining (of gold, bauxite, diamond), and other activities. Understanding the degree of interaction by indigenous peoples with their surrounding environment in the past is paramount to the development of new approaches for the protection and conservation of the rich biodiversity in Amazonia. Archaeology in the twenty-first century has become a means for indigenous peoples to connect with their past beyond the tragic

events of the colonial past. The archaeological practice in Suriname is beginning its process of decolonization, because more and more indigenous peoples –as well as Maroon communities– begin to investigate their past on their own terms, and in their own language (Figure 15).



Figure 15. Wayana and Trio Indigenous Peoples investigating their own heritage. Background, from left to right: Jahni, Kuwiteans, Elina (in hammock); Foreground, from left to right: Kalakuli (the dog), Kilian (seated, with blue cap), Kūpala, Stéphane (with red hat), Pilima (Photo © Duin, January 22, 2013).

Recommended is a systematic inventory of all archaeological and historical sites –both published, unpublished, in the “grey”-literature, and in local social memory– that will be the foundation for an archaeological prediction model. Instead of merely serving as a ‘guide’, ‘local informant’, ‘assistant’, or member of the ‘field crew’ in programs led by wealthy, educated, government supported scientists, Indigenous Peoples and Maroon communities begin to actively engage in drafting the research design and deciding on the themes and topics to be investigated. The decolonization of the archaeological practice, in conjunction with an archaeological awareness program, is only recently emerging in Suriname.

Bibliography

- Ahlbrinck, W. (1929). *Vijf Maanden in het Oerwoud*: Rotterdam: E. de Bont & Zoon.
- Ahlbrinck, W. (1956). *Op zoek naar de Indianen*. Amsterdam: Koninklijk Instituut voor de Tropen.
- Atalay, S. (2012). *Community-Based Archaeology: Research with, by, and for Indigenous and Local Communities*. Oakland: University of California Press.
- Bruchac, M., Hart, S., and Wobst, M. (eds.) (2010). *Indigenous archaeologies: a reader on decolonization*. California: Left Coast Press.
- Coudreau, H. (1893). *Chez nos Indiens: quatre années dans la Guyane française (1887-1891)*. Paris: Hachette.
- David, N. and C. Kramer (2001). *Ethnoarchaeology in Action*. Cambridge: Cambridge University Press.
- de Boer, M. W. (1970). Report of a contact with Stone-Age Indians in Southern Suriname. *Nieuwe West-Indische Gids*, 47(3):248-259.
- de Goeje, C. H. (1906). Bijdrage tot de Ethnographie der Surinaamsche Indianen. *International Archiv für Ethnographie (Supplement)*, 16:1-89.
- de Goeje, C. H. (1941). De Oayana-Indianen. *Bijdragen tot de Taal-, Land-, en Volkenkunde van Nederlandsch-Indië*, 100:70-125.
- Duin, R. S. (1998). *Architectural concepts in Caribbean archaeology. A preliminary archaeological report of the features at Anse à la Gourde, Guadeloupe. The house in past and present, in ethno-history, ethnography and ethno-archaeology*. Leiden: Unpublished Master Thesis.
- Duin, R. S. (2000/2001). A Wayana potter in the rainforest of French Guyana / Suriname. *Newsletter of the Department of Pottery Technology (Leiden University)* 18/19:45-58.
- Duin, R. S. (2002). Wayana mortuary practices, in relation to mortuary practices in Caribbean archaeology. Unpublished paper presented at the BAR meeting, Leiden, April 15-19.
- Duin, R. S. (2005). Nieuwe bevindingen in het grensgebied van Suriname, Frans Guyana en Brazilië. *OSO: Journal for Surinamistiek*, 24(2):289-302.
- Duin, R. S. (2006). Maluwana: Pinnacle of Wayana Art in the Guianas. *Baessler-Archiv*, 54:119-144.
- Duin, R. S. (2006b). Ethno-Archéologie et une autre histoire Wayana. In *Au coeur des Tumuc Humac*. Eric Pellet & Daniel Saint-Jean. pp. 111-118. Cayenne: Ibis Rouge Editions.
- Duin, R. S. (2009). *Wayana Socio-Political Landscapes: Multi-Scalar Regionality and Temporality in Guiana*. Ph.D. dissertation, University of Florida: Gainesville.
- Duin, R. S. (2011). Cheryl N. Ngwenyama, Material Beginnings of the Saramaka Maroons: an Archaeological Investigation. *OSO: Journal for Surinamistiek* (30.2): 390-393.
- Duin, R. S. (2012). Ritual Economy: Dynamic Multiscalar Processes of Socio-Political Landscapes in the Eastern Guiana Highlands. *Revista Antropológica*, 117-118:127-174.
- Duin, R. S. (2013). Ethnographic and Archaeological "Cultures" in Guiana, Northern Amazonia. In S. Rostain (ed.), *Antes de Orellana: Actas 3er Encuentro Internacional de Arqueología Amazónica*. pp. 89-96, 488-490. Quito: Instituto Francés de Estudios Andinos.
- Duin, R. S. (2014). Historical complexity of myth: in search of the genesis of the whip-dance whereby Wayana dance in imitation of Tamok (Eastern Guiana Highlands). *Boletim do Museu Paraense Emílio Goeldi. Ciências Humanas* 9 (3): 741-772.

- Duin, R. S. (2015). Une région en dehors de l'histoire: le mythe de la forêt primaire et des indiens sauvages. In D. Saint-Jean, and E. Pellet, *Mulokot: Lacs de légende d'Amazonie* (pp. 72-77). Matoury: Ibis Rouge.
- Duin, R. S. (2016). *20 Days to El Dorado: Ritual Economy, Historicities, Materiality, and Power in the Eastern Guiana Highlands (Northern Amazonia)*. Routledge [in review].
- Duin, R. S. this volume (petroglyphs)
- Duin, R. S., Toineike, K., Alupki, T., and Opoya, A. (2014). Participatory Mapping: Engaged Archaeology with the Indigenous People of the Upper Maroni Basin, Northern Amazonia. *Revista Amazônica*, 6(2), 333-357.
- Duin, R. S., Toineike, K., Alupki, T., and Opoya, A. (2015). Archaeology of Engagement: Indigenous People, Social Memory, and Making History in the Upper Maroni Basin, Northern Amazonia. *Current Anthropology*, 56(5), 753-761.
- Eilerts de Haan, J.G.W.J. (1910). Verslag van de Expeditie naar de Suriname-rivier (30 Juni – 20 November 1908) - (slot). *Tijdschrift van het Koninklijk Nederlands Aardrijkskundig Genootschap (tweede reeks)*, 27:641-701.
- Evans, C., and Meggers, B. J. (1960). *Archaeological Investigations in British Guiana*. Washington: Smithsonian Institution, Bureau of American Ethnology. Bulletin 177.
- Franssen-Herderschee, A. (1905). Verslag van de Gonini-expeditie. *Tijdschrift van het Koninklijk Nederlands Aardrijkskundig Genootschap*, 22:1-159.
- Geijskes, D. C. (1957). Met de Oajana's op stap. *Vox Guyanae*, 2(5 and 6):193-300.
- Geijskes, D. C. (1959). Bauxiet en Archeologie. *Mededeling Surinaams Museum*, 1:1-8.
- Geijskes, D. C. (1960-1961). History of Archaeological Investigations in Surinam. *Mededeling Surinaams Museum*, 4, 70-78.
- Geijskes, D. C. (1970). Documentary Information about the Surinam Wama or Akurio Indians. *Nieuwe West-Indische Gids*, 47(3), 260-285.
- Gonggrijp, J. W. (1921). Sporen van voorhistorische bewoners van Suriname. *West-Indische Gids* 2:1-16.
- Green, L. F., Green, D., and Neves, E. (2003). Indigenous Knowledge and Archaeological Science. *Journal of Social Archaeology*, 3(3), 366-398.
- Heckenberger, M. (2004). Archaeology as Indigenous Advocacy. *Practicing Anthropology*, 26(3), 35-39.
- Hofman, C. L., M. L. P. Hoogland, and R. S. Duin (2010). *Conceptualizing Mortuary Practices: From Ethnography to Pre-History in the Circum-Caribbean*. Unpublished paper presented for the Society for American Archaeology (SAA), Saint-Louis, on April 15.
- Kappler, A. (1983). *Zes Jaren in Suriname: 1836-1842 (schetsen en taferelen)*. Zutphen: De Walburg Press.
- Käyser, C. C. (1912). Verslag der Corantijn-Expeditie (19 Juli 1910 – 1 April 1911). *Tijdschrift van het Koninklijk Nederlands Aardrijkskundig Genootschap*. 29:442-514.
- Murray, T. (2011). Archaeologists and Indigenous People: A Maturing Relationship? *Annual Review of Anthropology*, 40, 363-378.
- Pyburn, A. (2009). Practicing Archaeology - as if it really matters. *Public Archaeology*, 8(2-3), 161-175.
- Rostain, S. (2013). *Islands in the Rainforest: Landscape Management in Pre-Columbian Amazonia*. Walnut Creek: Left Coast Press.
- Schmidt, L. (1942). Verslag van drie Reizen naar de Bovenlandsche Indianen. *Bulletin Departement Landbouwproefstation in Suriname*, 58, 1-63.

- Schoen, I. L. (1969). Contact with the Stone Age. *Natural History*, 78, 11-18, 66-67.
- Schoepf, D. (1972). Historique et situation actuelle des Indiens Wayana-Aparai du Brésil. *Bull. Annuel du Musée d'ethographie de Genève*, 14:15-68.
- SSM. (1975). Editorial. *Mededelingen Stichting Surinaams Museum*, 14/15.
- SSM. (1978). Editorial. *Mededelingen Stichting Surinaams Museum*, 23/24.
- SSM. (1979). Editorial. *Mededelingen Stichting Surinaams Museum*, 29.
- SSM. (1980). Editorial. *Mededelingen Stichting Surinaams Museum*, 30.
- Stahel, G. (1927). De Expeditie naar het Wilhelmina-Gebergte (Suriname) in 1926. *Tijdschrift van het Koninklijk Nederlands Aardrijkskundig Genootschap (tweede reeks)*, 44, 16-65, 209-264.
- van Lynden, A. J. (1939). Op Zoek naar Suriname's Zuidgrens. De Grensbepaling tusschen Suriname en Brazilië. 1935-1938. *Tijdschrift van het Koninklijk Nederlands Aardrijkskundig Genootschap (tweede reeks)*, 56, 793-881.
- Van Velthem, L.H. (1976). Representações gráficas Wayãna-Aparai. *Antropologia Museu Paraense Emílio Goeldi, Belém. No. 64:1-19.*
- Van Velthem, L.H. (1995). *O belo é a fera : a estética da produção e da predação entre os Wayana*. Doctoral thesis. São Paulo: USP.
- Van Velthem, L.H. (1998). *A pele de Tuluperê. Uma etnografia dos trançados Wayana*. Belém: Museu Paraense Emílio Goeldi.
- Van Velthem, L.H. (2001). The Woven Universe, Carib Basketry. In C. McEwan, Chr. Baretto, and E. Neves (eds.). *Unknown Amazon*. Pp. 198-213. London: The British Museum Press.
- Vermeulen, L. (2013). *Archeologisch Onderzoek te Corobonaro gelegen langs de Maratakka Rivier*. (unpublished report).
- Versteeg, A. H. (1979). The first C-14 datings of archaeological material from Suriname. *Mededelingen Stichting Surinaams Museum*, 29, 38-48.
- Versteeg, A. H. (1980). Archeologisch onderzoek te Kwamalasamoetoe (Zuid-Suriname). *Mededelingen Stichting Surinaams Museum*, 30, 22-46.
- Versteeg, A. H. (1985). The Prehistory of the Young Coastal Plain of West Suriname. *Berichten van de Rijksdienst voor het Oudheidkundig Bodemonderzoek*, 35, 653-750.
- Versteeg, A. H. (1981). Een Versterkt Pre-Columbiaans Dorp in Oost-Suriname / A Fortified pre-Columbian Village in East-Suriname. *Mededelingen Stichting Surinaams Museum*, 33, 38-48.
- Versteeg, A. H. (2003). *Suriname before Columbus*. Paramaribo: Stichting Surinaams Museum.
- Versteeg, A. H. this volume
- Vidal, Rech, Boudet, Ronmy, van-Herdt, Cateau van Rosenvelt, Kaeppler (1882). Voyage d'Exploration dans le Haut Maroni (Guyanes Française et Hollandaise). *Revue Maritime et Coloniale*, 1-69.
- White (Ngwenyama), C. (2007). *Material Beginnings of Saramaka Maroons*. Gainesville: Ph.D. dissertation Department of Anthropology, University of Florida.
- White, C. (2010). Maroon Archaeology is Public Archaeology. *Archaeologies: Journal of the World Archaeological Congress*, 6(3), 485-501.