Revista de Arqueología Americana • 41 • 2023 • Artículos • 245-270
• ISSN (impresa): 0188-3631 • ISSN (en línea): 2663-4066
• DOI: https://doi.org/10.35424/rearam.v0i43.4865

Woody Resources as a Medium for Colonial Engagement: Explaining the Artifactual and Architectural Record at La Soye, Dominica

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Recibido el 28 de agosto de 2023; aceptado el 19 de enero de 2024

Abstract

Wood and other tree byproducts were significant commodities in contexts of early colonial economies, but few archaeological studies focus on these resources. This article presents historical and archaeological evidence of the exploitation of woody resources for the purpose of naval stores and export at the site of La Soye, Dominica, Eastern Caribbean, beginning in the 1580s and continuing until the first quarter of the eighteenth century. This research highlights the importance of wood and woody resources in early colonial

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encounters and economic relationships, and the role of Indigenous knowledge in facilitating an increasingly complex global economy.

Key words: *Caribbean Archaeology, European Colonialism, Kalinago History, Piracy, Trade*

Los recursos leñosos como medio en el advenimiento colonial: explicando el registro artístico y arquitectónico en La Soye, Dominica

Resumen

La madera y otros materiales de los árboles eran productos básicos importantes en los contextos de las primeras economías coloniales, pero pocos estudios arqueológicos se centran en estos recursos. Este artículo presenta evidencia histórica y arqueológica de la explotación de los recursos leñosos con fines de almacenamiento y exportación naval en el sitio de La Soye, Dominica, Caribe Oriental, comenzando en la década de 1580 y continuando hasta el primer cuarto del siglo XVIII. Esta investigación destaca la importancia de la madera y los recursos leñosos en los primeros encuentros coloniales y las relaciones económicas implicadas, así como el papel del conocimiento indígena para facilitar una economía global cada vez más compleja.

Palabras clave: *arqueología caribeña, colonialismo europeo, piratería, historia de kalinago, comercio.*

Les ressources boisées en tant que médium dans l'avènement colonial: explication du bilan artistique et architectural de La Soye, Dominique

Résumé

Le bois et les autres sous-produits des arbres étaient des produits de grande importance dans les premières économies coloniales, mais il existe peu d'études archéologiques qui se concentrent sur ces ressources. Cet article présente des preuves historiques et archéologiques de l'exploitation des ressources ligneuses pour la construction et la réparation navale, et d'autres produits du bois sur le site de La Soye, Dominique, Antilles, qui fut occupé à partir des années 1580 et jusqu'au premier quart du XVIIIe siècle. Cette recherche met en évidence l'importance du bois et des ressources ligneuses dans les premières rencontres coloniales et les relations économiques, ainsi que le rôle des connaissances indigènes dans la facilitation d'une économie mondiale de plus en plus complexe.

Mots-clés: *Archéologie des Caraïbes, colonialisme européen, piraterie, histoire des Kalinagos, commerce.*

Introduction

Woody resources have been an important element for understanding mobility, migration, craft production, and human-environment interactions in the Caribbean before 1500 (Cartwright 2018; Schearn, 2020). Similarly, scholars have noted the importance of wood in the eighteenth and nineteenth century, either as a fuel source for lime kilns (Bodin *et al*., 2021) or as a commodity produced in lumber camps (Hatch, 2011). With a few exceptions (see Finamore, 2007), less attention has been paid to the role of woody resources in contexts of early colonial economies. This is a shame as such encounters can highlight the role of Indigenous knowledge in facilitating an increasingly complex global economy (See Whitehead, 2003, 193). This article presents historical and archaeological evidence of the exploitation of woody resources for the purpose of naval stores and export at the site of La Soye, Dominica, Eastern Caribbean, beginning in the 1580s and continuing until the first quarter of the eighteenth century. La Soye (Figure 1) represents one of the few early colonial contexts in the Eastern Caribbean where a number of new world resources including cotton, tobacco, wood, and cassava were commercialized with the aid of Indigenous knowledge. Among these goods, woody resources

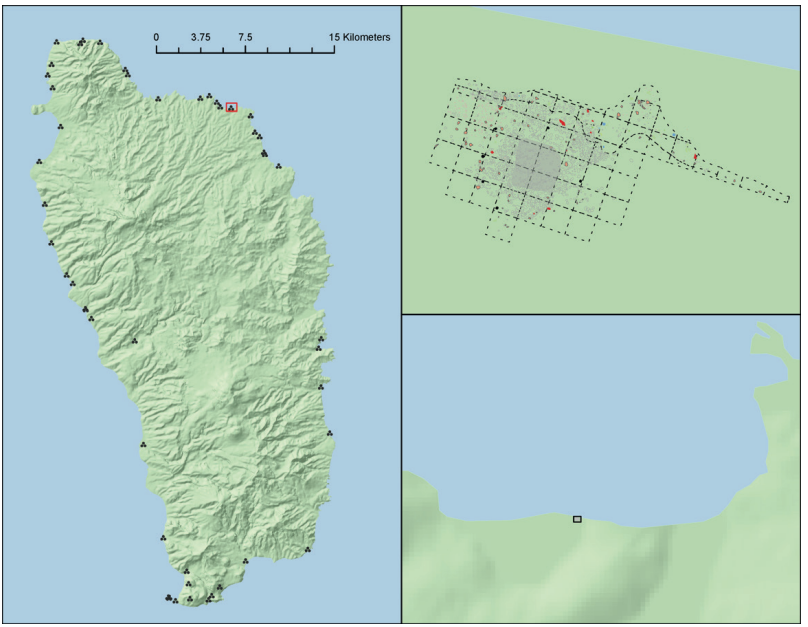

Figure 1. Location of La Soye, with all Identified Pre-Columbian Sites, left (GIS locations and map courtesy of Benoit Berard) and Map of excavations, right.

were critical for building canoes, which facilitated regional trade. They also provided the raw material for repairing hulls, including timber and pitch, and provided sturdy logs to reinforce masts, among numerous other functions.

This research was undertaken as part of a broader study of changing maritime landscapes in the eastern Caribbean and represents the latest phase in the two-decade Archaeological Survey of Colonial Dominica (ASCD) which was initiated to map the environment and economic implications of colonialism over the long term. The ASCD seeks to dismantle the Columbian divide in its methodological approach, its temporal scales of analysis, and its interpretive frame. La Soye has the added benefit of being a relatively compact locus of study with a diverse array of environmental features, intact stratigraphy allowing for exceptional chronological control, and a culture history that begins approximately 1800 BP and continues to the present. Research methods included a range of remote sensed, geophysical, environmental, and excavated data. As such the project has been able to amass a material, botanical, and faunal record to document changing settlement patterns over the past 1,500 years, with particular attention to years between 1400 and 1800 CE.

Investigations of Colonial-Indigenous encounters explore the novel social structures formed with cultural encounters, and the nature of power relations in the past and present (Cusick *et al*., 2015). Before European incursion, the Caribbean archipelago was a network of social, cultural, political, and economic entanglements. As Caribbean archaeologists and ethnohistorians have long argued, the Caribbean Sea was an aquatic "highway"; a seascape that encouraged mobility and dynamic systems of exchange among Indigenous groups (Callaghan, 2013; Fitzpatrick, 2013; Hofman *et al*., 2008; Keehnan *et al.,* 2019; Mol, 2014; Pagan-Jimenez *et al*., 2015; Rodríguez-Ramos,2013; also see Curet and Hauser, 2011). Studies of cultural encounters and contact, such as those between European groups and Kalinago in the hinterlands of the Caribbean, can examine the possibility, as noted by Stein (2005:12), "that alliance strategies may have been extremely important in ancient, nonwestern, and precapitalist colonial networks, particularly when colonizing groups were dealing with populous and/or already-complex local polities whom they could not literally dominate." At La Soye we examine the premise that during a time of upheaval, migrations, depopulation, competition and conflict, alliances with Europeans were a particularly important survival strategy for Indigenous groups in frontier contexts, such as the Dominican Kalinago. Keehnen and Mol (2020:3) argue that the pre-Columbian social and economic structures within the Caribbean emphasized inter- and intra-island exchange networks and alliances that "served as a template for the first encounters between indigenous Caribbean people and Europeans." Further, Deagan (2003:6) argues alliance building was an "especially important mechanism in frontier

areas." Our research in Dominica investigates these processes at the local scale, exploring the structure and material manifestations of trade alliances between European and Indigenous groups.

As more recent scholarship has shown, Indigenous peoples of the Caribbean continue to shape Caribbean landscapes well after such encounters- indirectly through the improvements and knowledges systems inherited in the landscape, and directly through the durable presence in the landscape (Rivera-Collazo et al. 2018). This paper shows how Europeans on the Indigenous frontier, relied on longstanding knowledges about woody resources (including timber and pitch) to provide critical naval stores for maritime ventures in the 17th century. Rather than emphasizing impact of European colonialism on formerly Indigenous socionatural systems and the strategies this paper looks at how indigenous co-constituted this frontier when encountering the precarity wrought by European incursion. This preliminary, and by no means conclusive, study of a 17th century masonry feature and associated deposits presents an opportunity to demonstrate the consequences of colonial encounters. In so doing, it identifies a means by which cosmopolitan trading factories and port towns might be studied. This approach diverges from existing scholarship in the historical archaeology of the Caribbean which tends to consider civic and urban contexts outside of nature and in the absence of Indigenous input. In the case of La Soye, as early as the 16th century, Indigenous residents of the site established economic relationships with European traders, who sought to exploit the abundant natural resources of the yet uncolonized island. Based on excavations in 2018 and 2019, we propose that wood and woody resources were a central facet of these encounters at La Soye.

Historical context

Ethnohistoric accounts of early interactions between Kalinago and Europeans are limited by a number of factors, including the vagaries of first-hand accounts and the nature thorough which they were archived and distributed in Europe, the difficulty of identifying 17th century sites capturing these encounters (Honychurch, 1996; Lenik, 2012). The 16th and 17th centuries represent a period of dynamic change in the Caribbean, as European powers vied for access to resources and claims to territories, and Indigenous societies were assaulted, attacked, disrupted, and displaced. In the years following Columbus' arrival, Spain and Portugal remained the most influential colonial empire, and the Dutch became the prominent trading power from the 17th to 18th century, establishing strategic settlements throughout the Eastern and southern Caribbean. This era is marked by competition over both legal and illicit trading of commodities, and of human chattel in which a range of actors participated (Lenik, 2018; Hauser and Armstrong, 2012). With increasing

European settlement from the 16th century, the Caribbean experienced an amplified focus on extractive economies, the widespread importation of exotic biota, rapidly rising population densities including voluntary immigrants, enslaved Africans and Indigenous Americans, and an eventual shift towards environmentally destructive plantation monoculture (Watts, 1990). As these processes escalated, formerly Indigenous landscapes underwent significant transformations, as island and aquatic ecosystems were altered from a rapid escalation of resource extraction and competition with introduced species. These transformations produced new and diverse forms of socioecological relationships.

On the morning of Sunday, the 3rd of November 1493, on his second voyage, Columbus encountered Dominica, as he entered the Windward islands, naming the tallest of the four islands in view "Dominica," after the day on which they spotted it. The people living on the island, the Kalinago, called it Wai'ti Kubili (meaning Tall is her Body) (Rochefort, 1658). The label "Carib" was first noted in accounts from Columbus' voyages and other Spanish explorers in the Caribbean and referred to peoples inhabiting islands east and south of Hispaniola. The subsequent narratives and mythologies surrounding these groups, including a warlike and cannibalistic characterization, persists into present perceptions of Indigenous people in the Caribbean (and beyond) (Hulme and Whitehead, 1992; Hofman *et al*., 2008). The contemporary Kalinago on the islands of St. Vincent, Guyana, and Dominica are the descendants of groups Indigenous to these islands, with lineages from pre- and post-Columbian migrants from across the Greater and Lesser Antilles and South American Caribbean coast.

In the 16th century, the Spanish remained more focused on the large northern islands and mainlands, but used Dominica as a wood and water stop (Borome, 1972a). Despite historical misrepresentations or exclusion from ethnohistoric accounts, for centuries after Columbus' landing, the Kalinago were an integral a part of the colonial social and economic systems in the Lesser Antilles, and maintained control of several islands during this period, including Dominica. The Kalinago permitted European vessels to stopover along the coast of Dominica, to get freshwater and wood, and would trade foodstuffs including plantains, sweet potatoes, cassava bread, hens, pineapples, and bananas, as well as goods such as tobacco, cotton, turtle shell, and hammocks, in exchange for iron implements including nails, knives, needles, hooks, bills, sickles, hoes, hatchets, saws, iron griddles, colored glass beads, trinkets, mirrors, spirits, and, sometimes, firearms (Breton, 1665; Du Tertre, 1667, vol 2). These exchange systems became central to relationships between Indigenous groups and European traders and colonial settlers.

Throughout the 16th century, the Kalinago, particularly those living in Dominica, led sporadic raids on European settlements in the Greater Antilles and neighboring islands. In addition, Indigenous groups were consistently moving to evade European incursion, slavery or worse, moving between islands, and to and from the northeast coast of South America. The population during the sixteenth and seventeenth centuries in Dominica, therefore, was plausibly a mixture of predominantly Kalinago, with some Taino, enslaved Africans, and Europeans. However, as larger numbers of Europeans continued to encroach on their territories into the 17th century, particularly the French and British, Kalinago groups were under continual threat from the Europeans and led raids on British and French controlled islands throughout the eastern Caribbean. After decades of conflict, in 1660, along with St. Vincent, Dominica was declared under treaty as a "neutral" territory by the Europeans to remain under the control of the Kalinago. During this period, however, Dominica was immersed in continual hostilities among the European groups – the French and English in particular – as they battled for control in the Lesser Antilles.

From the 16th century, wood and tree byproducts were particularly valuable commodities for export to North America and Europe, and also for inter-island commerce. During the first century after European invasion, Indigenous communities in the Lesser Antilles had accepted wood and water stops, and small groups of sailors who would come ashore to barter and trade (Pérotin-Dumon, 2003:143). From the very beginning of European colonial incursion into the Caribbean, Dominica was a well-established location for vessels arriving from their Atlantic crossing to obtain water, wood, and other supplies (Borome, 1966; Latimer, 2009; Hulme and Whitehead, 1992). Along with water, food resources, and even the healing waters of the hot springs, Europeans were interested in firewood, and materials for ship repair, and Dominica was preferred for these resources (Borome, 1966; Latimer, 2009; Hulme and Whitehead, 1992). Unlike many islands in the Caribbean after the arrival of Europeans, Dominica's forests continued to thrive throughout the colonial period (Atwood, 1791; Honychurch, 2019). There were several factors that created these conditions, but Kalinago resistance was a major impedence to formal colonization, which the island eluded until the late 18th century. Additionally, aside from some areas along the coastal plain, the rugged mountainous geography of the island was not suitable for extensive plantation agriculture, and therefore did not experience the substantial deforestation that occurred on other islands (Atwood, 1791; Honychurch, 2019).

The Kalinago on Dominica thus took advantage of the ideal geographical positioning, and their control of the island to trade for desired European goods, and wood provided a valuable commodity to do so. And Dominica had a plethora of endemic species that provided resources for a variety of purposes (Table 1). Canoe building among the Kalinago was an important activity in

the prehistoric, historic, and continues until the present, and Dominica had expanses of ideal habitat for various trees used to construct dugout canoes (Shearn, 2020). Many of the species that were long known to the Indigenous communities as valuable for canoe construction, both for their wood and byproducts, became coveted by European traders for ship construction and repair, and even exportation to Europe. The West Indian mahogany (Swietenia mahagoni), called acouja colloquially, for example, was valued for its resistance to parasites, and durability, and was commonly exported to Europe, and was common on Dominica (Du Tertre, Vol 2: Labat, 1693-1705:186). Other species were esteemed for their suitability for house construction, and were used from pre-Columbian into contemporary traditional houses on Dominica (ti kai) (Philogene-Heron, 2022).

Table 1. A (non-exhaustive) compilation of important tree species in Dominica

Tree species used in traditional (ti kai) house construction (from Philogene Heron, 2022)	*Amanoa caribaea, Vitex divaricata, Ormosia monosperma, Endlicheria sericea, Aniba ramageana, Ocotea leucoxylon, Tovomita plumieri, Pithecellobium micradenium, Sideroxylon foetidissimum, Manilkara bidentata, Meliosma sp., Haematoxylon campechianum, Andira inermis, Chione glabra, Tecoma leucoxylon, Chimarrhis cymose, Symphonia globulifera, Zanthoxylum Flavum, Simarouba amara*
Tree species used in canoe construction (from Shearn, 2020)	*Dacryodes excelsa, Cedrela odorata, Ceiba pentandra, Swietenia mahagoni, Hymenaea courbaril, Tabebuia heterophylla, Calophyllum Brasiliense, Talipariti tiliaceum*
Gums, copals, aPigments, dies and stains (compiled from Breton, 1665; Hodge and Taylor, 1957; Taylor, 1938)	*Bixa Orellana, Genipa americana, Picramnia pentandra, Bursera simaruba*

Much of the wood and tree resources were trafficked as contraband, supplied by "pirate" transient loggers on islands and areas not occupied by the Spanish throughout the Caribbean, Central and South American coast (Finamore, 2007:65; McBride, 2007:50). Ship repair and maintenance was also an important activity at these ports, requiring a supply of wood and wood byproducts such as resins, gums, and pitch (Coulaud *et al*., 2023). The historical literature suggests that small bands of traders began to live among the Indigenous groups, including the Kalinago, in the 17th century, focused

on tobacco production and wood resources (Pérotin-Dumon 2003:145). In the mid-late 17th century, there were known settlements of French and English woodcutters "living peacefully" throughout Dominica (Christie, 2003:18); see also Honychurch, 2019). From the 16th century, then, there were small, dispersed groups of Europeans living on Dominica, and we argue there is a distinct archaeological presence at La Soye of such individuals. Who exactly these groups were (that is, what nationality or culture) is unclear, as Dutch, English and French interlopers were a consistent present in the Lesser Antilles throughout the 16th, 17th and 18th centuries. Whether they were corsairs, buccaneers, pirates, freebooters or others is up for debate at La Soye (see Dawdy, 2012 for a discussion of piracy). We do know, however, that these small encampments where sites where European smugglers took advantage of the lack of colonial oversight of the island and capitalized on Kalinago trade networks, and where Kalinago groups used their traditional knowledge of woody resources to forge advantageous relationships.

As noted, throughout the 16th and 17th centuries some French, English and Dutch sailors established temporary shelters across the Lesser Antilles to facilitate trade and gain access to resources. These informal encampments would "pave the way for permanent settlements by the northern Europeans" (Hofman *et al*., 2019:366). We suggest that La Soye was a Kalinago settlement, where an informal European factory (trading outpost) was established with European sailors likely living among the Kalinago. This settlement was abandoned sometime in the early-mid 18th century when the French attempted an informal colonization of the island. The site is located on the coastline of a historically important trading channel between Marie-Galant, Guadeloupe and Dominica, protected by a headland (Point La Soye) from the south. This region was well-known for piracy and contraband trade (Coulaud *et al*., 2023). Behind this point is one of the first sheltered anchorage for large vessels voyaging from Africa and Europe. Not far to the South remains the territory of the contemporary indigenous Kalinago community (Honychurch, 1997). Previous survey has identified early colonial period Indigenous sites in Woodford Hill region (Boomert, 2010, 2011; Evans, 1968; Petitjean Roget, 1978), and our research validates the presence of ancestral Kalinago at the site through material culture. Testing indicates an initial abandonment of the trading settlement at La Soye sometime in the early to mid 1700s (Hauser *et al*., 2019). This timeline corresponds to the attempted establishment of a formalized imperial French presence on the island in 1727, after which "pirates vanished from Dominican ports never to return" (Boromé, 1972b:82), and most of the Kalinago moved just to the south of the site, where the Kalinago territory is situated today.

Due to colonial invasion and conquest, Indigenous groups in the Lesser Antilles were highly mobile and connected across the islands and waters

(See contributions to the volume edited by Curet and Hauser, 2012) shaping interactions both licit and illicit in years subsequent to European encounters (See Hauser, 2021 for illicit interactions surrounding Dominica and Dunnavant (2021) and Singleton and Landers (2021) for discussion of Maritime Maronnage in the Caribbean). The precarity of this period and subsequent migrations and movements of people led to the development of shared cultural patterns and material expressions unique to this time period. Breton (1665) notes that Indigenous settlements in the Eastern Caribbean were close to sea at mouth of river on rugged sides of islands, facing the Atlantic. The historical record suggests that trading ports in the early colonial period were often located in, next to, or on Indigenous settlements with archaeological histories that extend to the early part of the common era (Deagan, 2003). We propose La Soye has particular relevance for broader anthropological inquiry related to the role and trade and exchange in alliance building strategies in situations of colonial entanglement, and the impact of European settler colonialism on groups and landscapes on the frontier of the European colonial gaze (Deagan, 2003; Lightfoot and Martinez, 1995; Stein, 2005). The investigation of this landscape examines how Indigenous socioecological relationships were impacted, and how new social, political and economic systems emerged with the onset of European settler colonialism. A deeper understanding of coupled human-natural systems can show how socio-natural landscapes are products of past human interaction and alteration. La Soye was an important site of interaction between the Kalinago and European traders. Our work attempts to unravel the specific nature of these interactions and alliances and disentangle the history of human-natural systems associated with the site.

Archaeological Methods and Chronology

Overview of Excavations

The site was identified eroding from the beach after Hurricane Maria in 2017, and archaeological testing was initiated in 2018 and 2019 by project members to mitigate areas at risk from coastal erosion (Figure 2). These field seasons focused primarily on the shoreline, involving salvage data recovery efforts to counter encroaching site erosion from storm surge and rising sea level. Our efforts to test the most vulnerable sections of the complex identified structural and material evidence associated with the settlement. Excavations in 2018 revealed structural foundations overlying a surface occupation midden, alongside an extramural activity area (Hauser *et al.*, 2019). Work in 2019 expanded the extent of excavations. We excavated 32 square meters adjacent to the remains identified in 2018 delineating the signature of the structural remains identified from the previous year. Under this surface, we

uncovered a stone floor and platform, comprised of tightly packed large stone and mortar capped by a compacted living/floor surface and encircled by six postholes. The material culture recovered from La Soye contains considerable ceramics, glassware, tobacco pipes and small finds of European origin. Syncretic pottery forms and personal objects (pendants made from nonlocal metal) recovered at the site indicate that there were novel forms of cultural traditions emerging from these inter-cultural encounters.

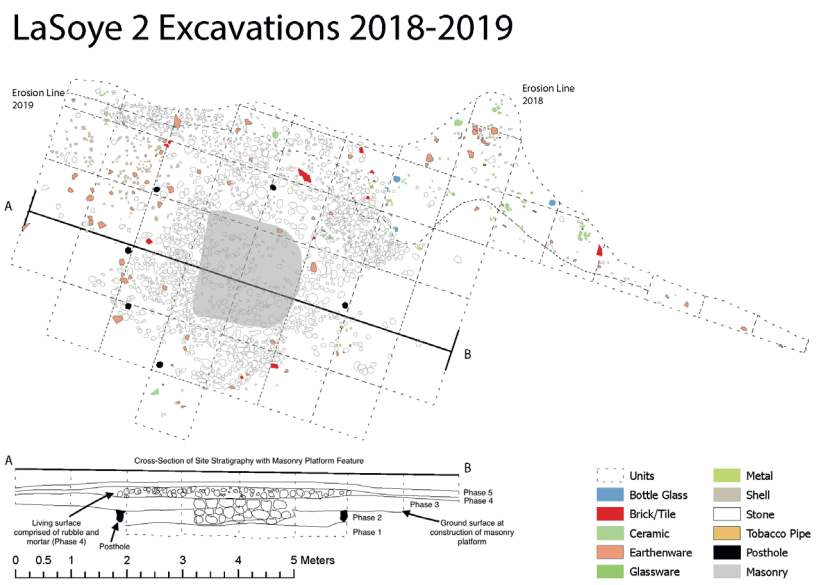

Figure 2. Map of Excavations with Cross Section of Site Stratigraphy.

La Soye is an excellent and comparatively artifactually rich example of a colonial period trading settlement that never grew into a larger European settlement. Excavations from 2018 and 2019 identified evidence of five consecutive periods of occupation, which offer an opportunity to assess the material signatures of mixed Indigenous-European colonial settlements in the Eastern Caribbean. Using radiometric dating of unidentified charcoal in combination with stratigraphic and material culture analysis we were able to establish a reliable chronology for La Soye (Table 1). There is a pre-contact phase known from prior excavations and our own, represented by coarse earthenware and lithics, and has a date of 1413-1480 cal AD. The first evidence of Europeans occurs in the second phase of occupation (16th-early 17th century), with a date of 1477-1642 cal AD. The third phase of occupation (roughly 1650-1730) represents the more established "trading

settlement" period. This period is represented by an increase in European and Indigenous material culture, with a corresponding spike in radiocarbon dates (a total of 6 dates were obtained from previous and the current field season), all dating between 1678-1764 cal AD. Materials and structural features from this phase suggest an intensification of Kalinago occupation of the site. This pattern corresponds with evidence from the documentary record indicating that when Kalinago numbers on the island became low in the mid-late 17th century, there was a shift in settlement to the northeastern windward coast (Breton, 1665; Labat, 1693-1705; Myers, 1978; Taylor, 1949). This was also when both the French and English were consistently attempting to gain trade alliances with Kalinago groups, which is represented by European architecture at the site that suggests a least an ephemeral European presence. By the mid-18th century, imported ceramics increase and diversify, while local ceramics decrease, suggesting a decline in Kalinago occupation, and potential abandonment of the site. This timeline corresponds to the establishment of an imperial French presence on the island beginning in 1727, when the remaining Kalinago along the northwest coast moved just to the south, where the territory is situated today. In fact, in 1749, France attempted to partition Dominica into 8 administrative centers, with two administrative officers assigned to the district of La Soye (Boromé, 1972b:85). This likely ended any and all illicit or informal trading in the area.

Table 1. Chronology and Artifact Class Frequencies

Phase	*Approximate Dates of Occupation*	*C-14 Dates**	*Presumed Occupants*	*European Ceramics*	*Amerindian/ Local Course Earthenware*	*Pipes*	*Nails*	*Glass*
1	Pre-Columbian	1413-1480 cal (95.4%)	Ancestral Kalinago		Analysis in-progress			
2	16th to mid-17th	1477-1647 cal (95.4%)	Kalinago with European traders	22	47	23	349	26
3	Mid 17th-early 18th	1800-1940 cal (62.8%) 1678-1764 cal (32.6%)	Kalinago with European settlers	301	508	201	150	386
4	Mid to late 18th Century		French	551	244	165	274	217
5	Late 18th to early 19th		English/ African	125	21	68	210	82

* All obtained from unidentified charcoal fragments.

Many of the Amerindian ceramics at the site are diagnostic as belonging to the archaeologically-defined "Cayo" complex, first identified in the enclave by surveys completed by Leiden University in 2009 (Boomert, 2011) (Figure 3).

Boomert (2011:296) defines "Cayo" as the "Kalina/Kalinago/Lokono sphere of interaction, closely knit by ties of kinship, ethnicity, language, exchange, war and culture, which encompassed the Windward Islands, Trinidad and the littoral zone of the Guianas" during the 'contact' period. The "Cayo" are the ancestors of the contemporary Kalinago residing on the island today, who have remained involved in the project from its initiation in 2018. Cayo ceramics in Dominica are characterized as quartz tempered low-fired earthenware, coil-produced and open-fired, with paste color arranging from black to dark grey to brownish red, often in the form of small to medium sized jars that have an "outcurving rim, vertical or almost vertical neck and globular body"; they have limited decoration, and often have attached rounded "nubbins" near the neck or rim (Boomert 2010: 664-665).

Figure 3. Cayo Ceramic Sherd Recovered from La Soye.

Stone Feature

Excavations along the shoreline in 2019 excavated a remnant elevated stone floor and foundation at approximately 30cm below surface, comprised of three levels of tightly packed large stone and mortar capped by a compacted living/floor surface composed of small stone and mortar. (Figure 4) The stone platform was constructed in the form of a "D" and is approximately 2 meters in diameter, and 40 centimeters in height. A series of 6 stone-lined postholes surrounded the platform at a depth just below the top of the platform extending to approximately 70cm below surface. The placement of these postholes is indicative of a thatch roof or covering for the structure, The extramural zone surrounding the platform contained European and Indigenous ceramics, faunal remains, pipes, bottles, and other materials. This

feature is stratigraphically associated with phase 3 of the occupation at the site, described below.

Figure 4. Masonry feature with Postholes (Left); Bisected posthole feature (Right)

Chronology

There is considerable correspondence between both material culture and radio-carbon dates for deposits at La Soye. To date each level, we relied on TPQ rather than overall MCD of European ceramics because the wide range of manufacturing dates of imported coarse earthenware (particularly Delft and Faience) are too broad to assess the relatively short temporal occupation of each level of the La Soye site. This same issue applies to the other relatively dateable artifacts (including pipes and glass bottles) that will be discussed in this section. Phases 2-4 all contained evidence of European-Indigenous interaction, although over time the assemblage shifts to an increase in European manufactured goods. We excavated in natural levels based on transitions in sediment. However, As is well known, coastal deposits are dynamic due to tide, bioturbation and sandy soils. Considering the short time span of occupation represented by a limited vertical deposit in a sandy and dynamic matrix, excavation likely hit transitional deposits, making chronological control somewhat challenging, but with careful attention to stratigraphy and the material record, we have a developed a general site chronology that parallels the documentary evidence of post-Columbian occupations of Dominica.

Phase 1

Stratigraphic levels related to phase 1 all correspond to the pre-Columbian period, extending back nearly 1500 years. This context was excavated at

La Soye in the 1960s, 1970s and again in the early 2000s (Boomert, 2010, 2011; Evans, 1968; Petitjean Roget, 1978). Our contemporary excavations also identified this phase, which is characterized by undiagnostic coarse earthenware and lithics, and has a date of 1413 - 1480 cal AD (95.4% confidence rate). Much of the material from this context just before European encroachment into the Caribbean is generally undiagnostic, but evidence of occupation at the site on the eve of European colonial invasion. The majority of the pre-Columbian material excavated, however, contain technical characteristics, shapes and decorations observed belong to the early Cedrosan Saladoid repertoire, suggesting repeated and continued occupation of the site.

Phase 2

Levels related to this phase contained the first evidence of European activity and returned a radiocarbon sample date of 1477-1647 cal (95.4% confidence rate), and a TPQ of 1690, indicating initial occupation between the 16th and mid 17th centuries. Local coarse earthenware (80%) outpaces imported ceramics at this level. Imported ceramic types included primarily Delft (8%), Faience (4%), slipware (1%) and Chinese export porcelain (1%) and red Chinese stoneware (1%). All glass identifiable to form were case bottles. We recovered 24 bowls, 8 bowls with stems, and 56 stem fragments of kaolin pipes, and 18% of these were of Dutch manufacture. Identifiable glass forms include 11 case bottles, 2 tumblers, and 4 wine bottles. This phase likely represents a transition from an Indigenous settlement into an active trading post, with Europeans potentially ephemerally residing at the site.

Phase 3

Stratigraphic levels related to this phase are associated with the masonry platform feature and has a TPQ of 1700. Three radiocarbon dates were derived from this level, and all returned date ranges of 1800-1940 cal (62.8% confidence interval) and 1678-1764 cal (32.6% confidence interval). At this level, local coarse earthenware is still well represented in the assemblage (63%). The ceramic ratios combined with the growing amount of bottle glass, pipes, and nails indicate that at this point colonial occupation and interaction had intensified. Among the imported ceramic assemblage, Delft is the most visible, representing approximately 43% of the assemblage. Faience is also still highly apparent, making up 34% of the assemblage, with Slipware (6%), Vallauris (10%), Saintonge (1%), and Chinese stoneware (>1%) also present in small frequencies. Glass included 53 case bottle fragments, 6 pharmaceutical bottles, 56 fragments of tumblers, and 267 wine bottle fragments. Pipes are represented by 32 bowls, 20 bowls with stems and 149 stems. Approximately 68% of the pipes were determined to be of Dutch manufacture. Phase 3 was the height of settlement and trading activity at La Soye, with mixed styles of

architecture and material culture suggesting the more permanent presence of European traders at the site, likely living among the Kalinago.

Figure 5. Artifacts Recovered from Phase 3 Deposits: Delft plates (Top); Bottom Left to Right: Dutch Tobacco Pipes; Various Imported European Ceramics; Glass Tumblers.

Phase 4

Phase 4 consists of a living surface comprised of large stone rubble and mortar, with a TPQ of 1762 based on the presence of 3 sherds of creamware – the sparsity of this ceramic within this level, however, would suggest that these were intrusive or misassociated. Discounting the creamware, this level has a TPQ of 1725. At this point, the ceramic assemblage consists of about 69% imported ceramics and 31% local coarse earthenware. Delft still accounts for the vast majority of imported ceramics, making up approximately 46% percent of the assemblage. Faience represents less of the assemblage at 30%. Also within this deposit is Vallauris (11%), Chinese export porcelain (13%), Slipware (3%), and Albisola (2%). Biot, Saintonge, Huveaune, Chinese stoneware, and Creamware make up approximately 1% of the assemblage. Wine bottle fragments are more frequent in this level (N=90), with an additional 37 case bottle fragments, 4 bowls, 1 fragment of stemware, and 18 tumblers. This deposit included 37 pipe bowls, 12 bowls with stems, and 116 stems. Dutch manufactured pipes make up 48% of the assemblage. This phase represents the transition from a mixed Kalinago-European settlement to when the French attempted to informally colonize the island in the early-mid 18th century.

Phase 5

Finally, phase 5 represents a surface scrape, and has a TPQ of 1786. Although there were fewer artifacts identified at this level than the previous, it demonstrates the same trends as levels 2 and 3. Imported ceramics represent 86.1% of the assemblage, with a corresponding decrease in local coarse earthenware. Delft continued to make up a large percentage of the imported ceramics, at 21%. Vallauris comprises 20% of the assemblage, with Creamware (21%), Faience (7%), Slipware (11%), and Chinese Export Porcelain (2%) also recurring. The remainder of the imported ceramics consisted of Whiteware (2%), Red Chinese Stoneware (>1%), Huveaune (>1%), and Saintonge (>1%). Wine bottle fragments were the most common in this deposit (N=14), with 1 case bottle, and 1 stemware fragment. Pipes included 12 bowls, 3 bowls with stems, and 53 stems, of which 98% were identified as Dutch. This level represents the transition to the British occupation of the site and Dominica, when this region of the island rapidly shifted to a plantation economy.

Discussion

Isabella Collazo-Rivera (2023:159) has argued that archaeologists should go "beyond the description of specific events where climate change and social response coincide, to identify lessons and wisdom from the experiences of the past that can be useful to address the challenges we face today and will face in the future." As noted above, historical sources consistently highlight the importance of Dominica as a "wood and water stop" for European vessels entering the West Indies from their Atlantic voyage beginning in the 16th century (Latimer, 2009; Hulme and Whitehead, 1992). The Indigenous communities on the island were essential to these ventures, and the Kalinago established themselves as integral agents of exchange from the moment of European Imperial efforts in the Caribbean. The ethnohistoric record details a range of commodities traded by the Kalinago in the Lesser Antilles, including tobacco, various foodstuffs (vegetable and animal), textiles, and other resources. Beginning in the late 16th century in the Lesser Antilles with the trade in tobacco, communities of European (mostly Dutch and French) communities of sailors lived among the Kalinago to facilitate commercial activities (Whitehead 2003:127). These commercial activities increased in the Lesser Antilles into the 17th century, with French, English and Dutch merchants vying for access to local commodities. Trading ports on the frontier of European colonial endeavors were often clandestine, with pirates and sailors establishing discrete settlements on islands that were sparsely occupied, or creating relationships with Indigenous groups for contraband commodities (Coulaud *et al*., 2023).

Wood was clearly one of the most highly valued resources from the point of the early encounters and became progressively more important as several islands in the Lesser Antilles were experiencing extensive environmental degradation from the rapid development of sugar plantations beginning in the mid-late 17th century (Draper, 2017; Watts, 1990). Wood and woody commodities were exploited and traded within the Caribbean and exported to Europe and North America. Further, as Whitehead (2003:194) suggests, access to metal tools encouraged commerce in cut wood, which along with processed dyes, animal products and various gums and resins, were of central importance to developing Amerindian-European economic relations.

The presence of metal tools and at the sites corroborates historic accounts that suggest that iron cutting implements, specifically for timber processing, were highly desired trade goods by the Kalinago (Honychurch, 1997). These tools were fully integrated into traditional practices like canoe and agriculture by the 17th century (Honychurch, 1997:297).

Radiometric dating and material culture suggest that La Soye was an active locus of exchange between the Kalinago and Europeans as early as the 16th century. The dense deposit of mixed Indigenous and European artifacts dates clearly from the mid 17th to early 18th century and indicates a peak of occupation and trade just as the Kalinago were refocusing their settlements along the Windward coast of Dominica. During this time, we also see an increase in European wares and architectural elements at La Soye, including the masonry platform. We maintain that the archaeological evidence from the site supports a European presence, as seen throughout the Lesser Antilles (Whitehead, 2003:27, 146), with traders/smugglers living among the Kalinago at La Soye to access valued commodities including tobacco and foodstuffs, but most significantly wood resources. Metal implements and tools also appear in more frequency in this deposit, including a billhook, a saber, and several fragments of large blades (analogous to a cutlass or machete).

Labat provides a comparable example to what we are suggesting at La Soye from the late 17th century, when Dominica ostensibly was still under the neutrality treaty between the French and English. He notes "the English, however, made use of the Peace of Ryswick [1697] and a private treaty with the Caribs of Dominica to go there for lumber. Next, they made an ajoupa near the sea to shelter this lumber till it was shipped" Labat (1693-1705:115). We argue that the masonry feature likely had a similar function at La Soye, as a raised platform for naval stores, notably wood or lumber. The masonry is of a European style, while the postholes suggest a sort of syncretic structure with a thatch roof as a cover to the building. Similar thatched roof structures (although constructed of wood and without a stone foundation) have been identified at a known colonial European pirate-occupied site in St. Martin

(Coulaud *et al*., 2023). Due to site erosion, it is probable that there were other similar structures at the site that have been lost.

In terms of the specific woody resources that were exported from La Soye, as discussecd previously primary accounts make note of numerous important commercial tree species in the Lesser Antilles. Two species are of particular interest at La Soye based on the ethnohistory and archaeology. The white gommier (*Bursera simaruba*), was a prized wood for canoes and shipbuilding, and named for its gum-like amber copal, used for torches, incense, boat calk and medicine (Du Tertre, vol 2:160; Little and Wadsworth, 1964:238; Schearn 2020:5). At La Soye, we have recovered small pieces of the copal within the 17th century deposits, suggesting this resource was traded at the site. Second, the name La Soye likely came from a French misrepresentation of the Kalinago word suau for the genipa tree (*Genipa americana*), which bears fruit that was used as a pigment for tattooing, painting, medicine, and as insect repellent (Bouton, 1640:6; Du Tertre, vol 2:190; Hodge and Taylor, 1957:519). Wood from mature genipa trees was also considered a good hard wood for building (Du Tertre, vol 2:191). Although not confirmed, a dark bitumen/pitch on the interior of local coarse earthenware pots with flat bottoms recovered at La Soye could represent this pigment (Figure 6). Regardless, the origin of the name of the site, the archaeological record, and the location of the site along an active trading channel indicate that the La Soye was recognized for the exploitation of woody resources.

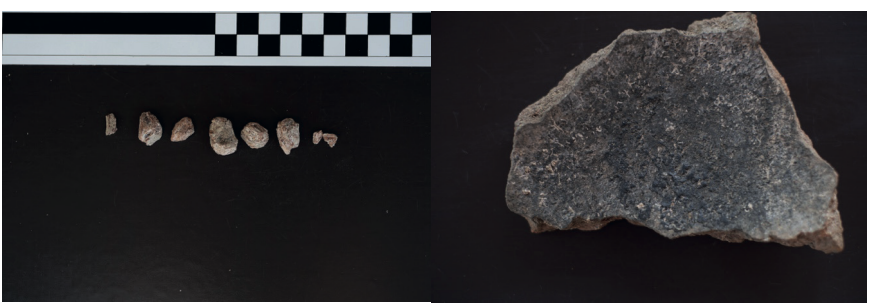

Figure 6. Amber copal fragments (Left); Pitch on Interior of Local Coarse Earthenware Pot.

Conclusion

The archaeological and historic evidence presented here suggests that La Soye was the location of a 16th-18th century trading settlement on the northeast coast of the Caribbean Island of Dominica, and represents an important site of colonial interaction between the Indigenous Kalinago who retained control of the island, and European settlers. This research also highlights the importance of wood and woody resources in early colonial encounters and

economic relationships. Through archaeological testing we were able to develop a chronology for La Soye, and establish that what we initially thought was a European trading settlement was in fact occupied and controlled by the Kalinago into the early 18th century. Materials and features from this phase of occupations suggest an intensification of Kalinago settlement at the site, corresponding with evidence from the documentary record indicating that when Kalinago numbers on the island became low in the mid-late 17th century, there was a shift in settlement to the northeastern windward coast. This was also when both the French and English were consistently attempting to gain trade alliances with Kalinago groups. The material culture and architectural patterns suggest that what was initially a periodic European presence at La Soye in the 16th-early 17th century (marked by trade items associated with solely Indigenous architecture) became a more permanent occupation by the mid-late 17th century, which is represented by the presence of European-style architecture intermixed with Kalinago artifacts and structures. Dominica is repeatedly noted as a wood stop in the historical record, and this region was known for pirate activity. The ephemeral nature of the early European presence at La Soye is consistent with the transient nature of contraband loggers (Finamore, 2007:64). As trading relations solidified, it seems that some traders likely established more constant residence at the site, reflected in the architecture and increasing relative frequency of European artifacts. By the mid-18th century, imported ceramics increase and diversify, while local ceramics decrease, suggesting a decline in Kalinago occupation, and potential abandonment of the site. This timeline corresponds to the establishment of an imperial French presence on the island in 1727, when the remaining Kalinago along the northwest coast moved just to the south, where the territory is situated today.

This research offers new data related to early encounters between Europeans, Indigenous Kalinago in the Caribbean. While a few sites documented in Grenada, St. Vincent, and the Dominican Republic have shed light on many of the contours of trade and cultural exchange, La Soye is located at a critical juncture on the Lesser Antilles, and highlights the prominence of Indigenous communities in early colonial interactions. This study focuses on a specific encounter event and place, and emphasizes a particular resource, but connects to discussions of colonial entanglements in the Caribbean frontier. The intercultural dynamics that developed during the early colonial period in the Lesser Antilles "built upon local and regional networks of peoples, goods, and ideas that had developed in the insular Caribbean over the previous 6000 years" (Hofman *et al*., 2019:359; See also Hofman and Bright, 2010; Hofman *et al*., 2011). This period also represents a period of dramatic sociecological transformation, and here we have shown how wood and wood byproducts were a central facet of the dynamic trade activities.

This site is a protected anchorage along a highly trafficked channel, and we suggest La Soye was a locus of illicit and contraband trade of woody resources, offering a rare example of an Indigenous settlement in the Frontier of the colonial Caribbean with which European settlers maintained economic alliances with Indigenous groups, but did not control the exchanges. The research reveals that such trading alliances with Europeans allowed for economic autonomy among Kalinago groups, showing the resilience and adaptiveness of communities who lived in constant precarity, with Europeans aggressively vying for control and access to resources and territories.

Many of the trees utilized historically in Dominica remain present on the island, primarily in the forested interior of the island (Dewalt *et al*., 2016). As least until the mid-20th century, the Kalinago, and other island communities continued to exploit various species for home and canoe building, as well as for subsistence and medicinal purposes (Hodge, 1943; Hodge and Taylor, 1957). Like much of the Caribbean, however, with modern development, capitalistic resource extraction and climate change, however, deforestation and ecological instability are a great threat to Dominica's ecosystem and to traditional ways of life (Hofman *et al*., 2021). Indigenous cultural knowledge persisted for thousands of years, even in the face of colonialism, are currently at risk. Ongoing grassroots revitalization efforts like the Kalinago canoe trail project (https://discoverdominica.com/en/the-kalinago-canoe-trail-project), however, aim to use local knowledge to inform cultural and environmental conservation efforts.

Acknowledgements

This research was supported by the National Geographic Society (NGS-58187R-19), and the National Science Foundation (Award #2150874). This article could not have been achieved without the support of numerous people and communities. We would like to thank the villages of Woodford Hill and Calibishie. We are incredibly grateful for our local research team, especially Michael Sanford, Mitchell LaVille, and the many student volunteers who worked on this project. We would also like to thank Irvince Auguiste, and the Kalinago community who have worked closely with us on this project.

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