The Caribbean region has seen a tremendous growth in historical archaeology over the past 40 years. From important, although isolated beginnings in Jamaica, at Port Royal and Spanish Town and Montpelier (Mayes 1972; Mathewson 1972, 1973; Higman 1974, 1998), in Barbados at Newton Cemetery (Handler and Lange 1978), and elsewhere in the Caribbean, the field has expanded at a phenomenal rate. The late 1970s and the early 1980s saw the initiation of several important long-term studies, including Norman Barka’s island-wide focus on rural and urban life in the Dutch territory of St. Eustatius (Barka 1996), Kathleen Deagan’s multi-year project at Puerto Real and the neighboring site of En Bas Saline in Haiti (Deagan 1995), Douglas Armstrong’s work at Drax Hall, Jamaica (Armstrong 1985, 1990), and Lydia Pulsipher’s decades-long work on Montserrat (Pulsipher 1991; Pulsipher and Goodwin 2001), to name a few of the most important. Subsequently, the mid 1980s to the late 1990s have witnessed a proliferation of projects too numerous to mention, throughout the Caribbean, with only a few areas excepted (for an example of the coverage, see the papers in Farnsworth 2001 and Haviser 1999).

Not only have nearly all islands of the Caribbean been the focus of at least some historical archaeology, but also the types of historical archaeological research have been diverse. Thus, studies of both industry and labor have been conducted on sugar, coffee and cotton plantations in the Greater and Lesser Antilles. Military fortifications have been documented and explored in many areas. Urban residential and commercial sites have been investigated, and ethnic minorities within the dominant class, such as Jewish and Irish populations, have been the focus of research programs. But probably the greatest area of archaeological research has been focused on the history and experiences of African and African-descended populations of the region. Archaeological work initially explored the conditions endured by enslaved
Africans on the plantations of Barbados, Jamaica, Montserrat, and other islands. Furthermore, this research has investigated more than simply the conditions of plantation slavery, but has looked at the creation and maintenance of African Caribbean identities through architecture, the use of space, foodways, and artifact choice. A recent development in historical archaeological research is the inclusion of the lives of African and African-descended people in other settings, such as free villages after emancipation (Armstrong 2001; Haviser 1999; Kelly and Armstrong 1991), as well as free villages that were established and maintained by self emancipated individuals in the face of the dominant slave holding societies (Agorsah 1994; Weik 1997). These Maroon settlements are important as reminders that not all Africans and African-descended people accepted survival in slavery, but struggled to contest the institution by living outside of it.

Colonial origins

For the most part, the important historical archaeological trends outlined above have been conducted in the Anglophone Caribbean, on islands that for some or all of their history were colonial outposts of England. No doubt this is in part due to the fact that even in the early 21st century, historical archaeology is still most closely associated with the United States, and the US was until the late 18th century, also a colonial outpost of Great Britain. This common history facilitates comparison and contrast between different moments of the same colonial world. The language of colonial documentation is also a factor, although not to a degree that it has prohibited US historical archaeologists from working in Dutch, Spanish, or (formerly) Danish territories.

Reviewing the scope of historical archaeology as practiced in the Caribbean reveals that one colonial sphere is conspicuous in its absence: France. The lack of historical archaeological research on French or formerly French islands is remarkable, particularly when the antiquity of French colonization in the region is considered. French colonies were established in Martinique and Guadeloupe in the 1630s, and a significant French presence took official possession of St. Domingue (the western portion of Santo Domingo) in 1697. Thus, major French colonies in the region are broadly contemporaneous with English efforts in Barbados, St. Kitts, and others in the Lesser Antilles, as well as Jamaica in the Greater Antilles. Furthermore, although the French possessions were part of the same general enslaved labor-based plantation economy as the British islands, they exhibited significant differences as well as similarities. The French islands of the Lesser Antilles followed a similar trajectory to those under English rule, with the initial occupation based upon small-scale production of tobacco using the labor of indentured servants. However, as in their English neighbors, the profitability of sugar produced by enslaved labor soon led to the rapid installation of sugar plantations in the areas that were most suitable. Other commodities were also produced, including cotton, indigo (discussed below by Xavier Rousseau and Yolande Vrager), and by the early 18th century, coffee. Thus as the 18th century developed, Martinique and...
Guadeloupe both saw the growth of plantation agriculture such that by the last decades of the century, they were between them home to over 200,000 enslaved people.

Meanwhile, the colony of St. Domingue rocketed to prominence in the 18th century, as sugar and coffee estates were established first in the fertile northern plains and adjoining mountains, and then later in the western region, and finally in the south. An indication of the rapidity of growth in St. Domingue is seen in the numbers. By 1790, St. Domingue was home to over half a million enslaved people, a significant proportion of which was African born. The colony produced more sugar, rum, coffee, indigo, and cotton than did any other island, and its production, combined with that of Guadeloupe and Martinique, outpaced that of all the British Caribbean colonies combined. Clearly, the French Antilles were important.

The late 18th and 19th century however brought about some of the most significant differences between the French islands and those controlled by the British. In 1789 the French revolution began, and in 1791 St. Domingue was the scene of a massive revolt by the enslaved population, centered on the northern plain of the colony. This revolt, combined with evolving ideas of the rights of man taking place in France, and political and military expediency, led to the abolition of slavery in all French possessions in 1794. However, the British had already occupied Martinique, so abolition did not occur there, although it did in St. Domingue and Guadeloupe. Yet eight years later, the new government of Napoleon rescinded the abolition decree, re-establishing slavery in all French possessions. The uprising in St. Domingue had progressed beyond the ability of the French to enforce the new law, and by 1804 the newly independent nation of Haiti was created. In Guadeloupe, slavery was re-established, and was to continue for nearly half a century, until the final and lasting abolition of slavery in 1848, whereas, in Martinique, slavery continued uninterrupted until 1848.

Despite these extraordinary histories, the main former French colonies have not seen the development of historical archaeology that has occurred on other islands. Delpuech (2001) discusses the lack of historical archaeology in the French West Indies (the départements of Guadeloupe and Martinique), noting that Martinique did not have a Service Régional d’Archéologie (SRA) [government office of archaeology] until 1986, and that Guadeloupe did not get its SRA until 1992. Thus the governmental infrastructure to record and manage archaeological sites was not in place until quite recently. With the establishment of these offices, archaeological research of all sorts, particularly historical archaeology, has grown dramatically (see also Kelly 2002).

It is therefore in the setting of these fascinating histories of the Caribbean that we see the arrival of important archaeological work on a variety of historic sites. The papers in this issue of The International Journal of Caribbean Archaeology point out some of the directions research in the Francophone regions of the Caribbean is going. Papers in this collection include ethnoarchaeological work,
studies of the industrial components of sugar and indigo plantations, military fortifications, and the bioarchaeological study of a probable African Guadeloupean cemetery. The work reported in these papers includes Guadeloupe and its dependency of Marie Galante, Martinique, and Guyane. All of these papers were originally presented at the Society for Historical Archaeology Annual Meeting in Quebec City, held in January of 2000. This meeting proved to be particularly important for historical archaeology in the Americas, as it introduced many English speakers to the wealth of relevant research being undertaken by our francophone colleagues.

For the English language reader, a brief summary of each of the papers is provided below, allowing others an insight to some of the most current historical archaeological research of the French Caribbean. The summaries will begin with the papers that address the islands of the French Caribbean, first Martinique, then Guadeloupe and Marie-Galante. The final summary will discuss the paper on the archaeology of a plantation in Guyane. Although located on the north coast of South America, the slavery-based plantation economies of Guyane place it firmly within the Caribbean region.

**The Papers**

**Martinique**

The paper by Laurence Verrand on military fortifications of Martinique between 1635 and 1845 makes extensive use of cartographic data from a series of contemporary maps to chart the evolution of fortifications on the island, and the changing concerns that governed their placement. This study identified 180 sites including isolated batteries, forts, and other defensive or military sites such as camps. The site inventory, undertaken as part of the program to improve the Carte Archéologique de la France (French Archaeological Site Map) provides a management tool to safeguard the vestiges of this aspect of colonial history. But the paper is more than a management tool: Verrand uses locational data subdivided into four periods to develop an understanding of the strategies and concerns that guided the construction of military sites at different times during the colonial period. She finds that the data indicate a progressive mastery of the local terrain, including the identification of strategic points and natural defenses, and that these can be understood in view of the changing nature of perceived threats over time. Some interesting overall observations are that about 15% of the fortification sites were used ten years or less, and only 5 were in use for more than 150 years. Furthermore, the mean length of use was 55 years. Also interesting is the observation than most of the fortifications were adjacent to the coast, and focused on defending against sea-borne threats, and only 25% of all fortifications were located more than 500 m from the sea.

The analysis of fortifications over four periods reveals some interesting developments that may not otherwise have been apparent. The first period, 1635-1700, shows a primary concern with defending the nascent colony from pirate and Indian raids, and not fundamentally with a concern that inter-European conflict would spill over to the Caribbean arena. Thus, fortifications are
Introduction

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concentrated around the harbor of Saint-Pierre, with only three batteries located on other parts of the coast. Of these, two were overlooking the large bay at Fort Royal. The gradual establishment of fortifications away from Saint-Pierre is indicative of the growing population and importance of the other regions of the island, and the eventual relocation of the governmental functions to the town of Fort Royal.

The second period of Verrand’s study, 1700-1750, reveals several interesting trends. The number of fortifications increased dramatically, with the eight of the earlier period being augmented by an additional 59. The region of Saint Pierre remained heavily defended, despite the new center of administration at Fort Royal. Also demonstrating a significant departure from the earlier period, batteries were established encircling the entire island. This was clearly associated with the increasing importance of the colony as the sugar industry expanded, and as the population doubled during this period. All of the defenses were located along the coast, and significant use was made of natural barriers and features such as reefs, cliffs, swamps, and thorny or toxic plants to help secure some sectors without the expenditure of manpower or money.

The third period, 1750-1802, includes the Seven Years War, and the wars associated with the French Revolution. During this time Martinique suffered several invasions by the British, including occupations in 1762-3 and 1794-1802. As before, fortifications were concentrated in the regions of Saint Pierre and Fort Royal, and the fortifications of other regions of the island were intensified. However the experience of invasion and occupation led to the construction of the first interior fort, as threats could now be envisioned on land. Furthermore, concern over the possibility of slave revolts compelled a shift from a strictly maritime concern to one of terrestrial security. However, the threat of slave revolts led to the establishment of much more ephemeral camps, as the utility of permanent fortifications was not seen to be essential for that threat.

The final period, between 1803 and 1848, saw yet another occupation by the British from 1809-1814. Coastal defense remained a priority, although a concern with the possibility of slave revolts meant that garrisons were maintained in the interior as well. The inland installations were situated in elevated portions of the interior, reflecting the concern with the health of the troops. Camps in the hills were less susceptible to the tropical ailments that frequently crippled colonial soldiers, and it was hoped that these camps would provide better opportunities for acclimatization.

The paper by Laurence Verrand and Nathalie Vidal, “Les Fours à chaux de Martinique,” addresses archaeological and ethnoarchaeological research on Martinique. The fours à chaux, or lime kilns, provided an important resource for colonial Martinique. Lime was an important ingredient in mortar and plaster for construction of buildings, fortifications, bridges, and wharves, and also played an essential role in the sugar industry, where it was used for purging impurities from, and clarifying the syrup. The justification for the ethnoarchaeological study is that the
traditional means of lime burning are dying out, and within the past decade, they have ceased to be practiced. This study combines ethnoarchaeology, historical research, and archaeology in an effort to preserve and record the skills and techniques used in this activity, and to document how and where it was practiced on the island.

Lime kilns are typically built against a slope to facilitate loading from carts or wagons. A fire would be laid through an opening in the bottom of an inverted cone-shaped structure approximately 3-4 m tall, and the load would be dumped into the structure through the open top. This style is virtually unchanged from that documented by Labat in the 17th century. In recent times conch shell has been used, but in historic times shell or coral would be used. Coral could be acquired from shallow reefs, or mined from fossil coral deposits inland. The kiln is charged with care, to insure that the fire will not burn too long, destroying the lime, or too short, leaving unburned charcoal in the lime material. The average duration of the burn is 3 day and nights, or about 72 hours.

Archaeological study

Kilns are found in two primary zones, depending upon the source material they were set up to use. Some are located in the interior, where terrestrial fossil coral deposits were used, and others are located along the shore in areas where shallow reefs are present, to take advantage of that material source. Based upon historical cartographic evidence, 79 kiln sites dating between the 17th and 20th centuries are known. The presence of 53 of these sites has been confirmed by field visits. Their condition varies from reasonably well preserved, to seriously impacted, by field cultivation and urban growth in particular.

Historical study

During the 17th century, the nature of the French colonial enterprise underwent changes, from a tobacco-based economy to a reliance on sugar by the end of the century. The demand for lime for sugar is one factor that led to an increase in lime kilns. However, another important factor was the changing nature of the colonial presence. As Martinique became a more important colony, the need for durable stone and masonry fortifications increased, and the potential threats from hurricanes and urban fires led to a greater demand for durable masonry shops and homes. During the 18th century they became more numerous, and some estates became specialist producers of lime, either exclusively, or in conjunction with pottery. Yet other estates maintained lime kilns as auxiliary activities to provide for their sugar processing need. In the 19th century, lime burning continued to be practiced, although there are hints that specialist production may have been taken over by persons of color.

Guadeloupe

The next two papers shift to the neighboring island of Guadeloupe and its dependency of Marie-Galante. The first of these papers, by Xavier Rousseau and Yolande Vragar, “Les indigoteries de Marie-Galante” addresses an often overlooked aspect of colonial agriculture, the production of indigo. Although sugar, and to a lesser extent
coffee, are the most well known Caribbean cultivars, other agricultural products, such as cotton, tobacco, and indigo played an important role in the Caribbean economy at various times. Indigo was a significant product on Guadeloupe during the late 17th century, with more than 100 indigo plantations (indigoteries) noted on Guadeloupe and its dependencies in 1686. Marie-Galante and the Grande-Terre portion of Guadeloupe were the main zones of production, due to environmental conditions including hot and relatively poorly watered local conditions, relatively constant winds and their drying effect, and the presence of porous coraline limestone bedrock.

This study focuses on the identification and historical study of indigoterie remains on Marie-Galante, in the region known as les Galets de Capesterre, which was unsuitable for the production of other crops. As many as 86 indigoteries may have been active on Marie-Galante by the second decade of the 18th century. Yet by the 1730s the production of indigo on Marie-Galante had declined in the face of competition from the growing colony of Saint Domingue. An archaeological survey of indigo processing sites in Capesterre de Marie-Galante was conducted in 1997 and 1998 with the goal of identifying and recording extant sites, and better understanding the process of indigo production on Marie-Galante. In 1997 four two- and three-day visits identified the remains of 11 indigoteries, and further visits in 1998 recorded six more. The indigoterie sites are characterized by the presence of one or more series of masonry basins in which the indigo plant material was placed, allowed to ferment, and the dye-carrying water drained off into a settling tank. The series of basins are built in a stair step fashion, to allow gravity to permit water to drain from one basin into the next. In most cases a well was found nearby the series of basins, as considerable quantities of water are essential to the processing of indigo. The wells in the Capesterre de Marie-Galante region tap water in subterranean galleries in the karst limestone geology. Several of the indigoterie remains were cleared of vegetation, and drawings and photographs were made to allow the development of a typology of the ruins. The most simple consist of a single series of basins, and the more complex consist of two series of basins so production could alternate between the two, permitting uninterrupted production.

It is hoped that this study will eventually be expanded to Grande-Terre, where indigo was also produced, to record existing sites, and document similarities or differences.

The paper by Patrice Courtaud and Thomas Romon, “Le Site d’Anse Sainte-Marguerite…” discusses their work at an extensive cemetery site on the northeast coast of Grande-Terre, in the archipelago of Guadeloupe. Although this site had been known since at least 1973, all the archaeological remains identified had been associated with prehistoric occupations. However, work in 1994 identified the presence of historic period burials, indicated by inhumations in coffins. Following hurricanes in 1995, which threatened the site, a program of excavation was undertaken in several of the highest risk areas. Eighteen
burials were excavated and are reported on in this paper, and all date to the historic period based upon the presence of nails indicating wooden coffins. All the burials, except one infant, were interred with their heads to the west. The majority of the burials were single individuals, although at least one was a primary burial of an adult and an infant. Several burials were the locations of multiple interments, where a second individual was interred in a location previously occupied. In these cases, the remains of the first individual were re-interred alongside the more recent burial. Grave goods were not present in any of the burials, except for a single ceramic vase foot, which was buried between one coffin and the edge of the grave shaft. Clothing was indicated by the presence of bone and shell buttons in the region of the pelvis and lumbar vertebrae. Studies of the pathologies present on the skeletal remains indicate a high incidence of arthritis and dental caries.

Based upon the number of burials, the location far from any known historic chapel, and morphological characteristics of the skeletons, it is hypothesized that this cemetery was used for persons of African descent. Given the dating of the site, from the middle of the 18th to the middle of the 19th century, it is likely that they were enslaved Africans and their descendants.

Guyane

The final paper in this collection changes our focus from the island Départements of Martinique and Guadeloupe to South America. Nathalie Croteau, in her article “L’Habitation de Loyola: Un Rare Example de Prospérité en Guyane Français” presents a synthesis of historical archaeological research conducted at the site of Loyola, a 17th and 18th century Jesuit sugar plantation in the French departement of Guyane. Although most plantations in Guyane were marginal operations, the Jesuits were generally very successful due to their organization and the resources they possessed. The impressive stone ruins of the great house, hospital, forge, pottery factory, gardens, and chapel still present at Loyola are a testimony to this power and economic organization.

The estate was established in the middle of the 17th century, and by 1674 the Jesuits had transformed Loyola into an exemplary sugar plantation, which would eventually encompass 1500 hectares in 1720, and be the largest sugar producer in Guyane, staffed with over 400 enslaved workers. However, by the 1740s the plantation was in decline, with sugar processing moved to a different estate, and the dissolution of the Jesuit order in 1763 led to the estate’s final abandonment by 1769.

Six years of archaeological research at the Habitation de Loyola have produced results including the identification of the animal powered sugar mill and the purgerie, where cane juice was boiled, concentrated, clarified, crystallized, and placed in sugar forms. An abundance of stone in one corner suggests the location of the chimney. The ruins of the chapel indicate a modest building built of stone and wood. Adjacent to the chapel is the area believed to have been for the burial of baptized slaves. Excavations here showed that the deceased were oriented with their heads to the east, and were buried in shrouds.
At the center of the plantation, to the west of the religious complex, were the great house, kitchen, and garden. The great house was placed to take advantage of breezes to temper the heat, and also to provide a view over the fields. The house is an example of Creole style, built of wood and on stone footings. The kitchen consisted of two rooms, one with a hearth, bread oven, and cooking area for food preparation. Numerous culinary ceramics also confirm this function. The other room in the building may have served as the hospital. Other outbuildings include storerooms, and a forge with many discarded iron objects, probably stockpiled for reuse.

Material culture recovered at Loyola is limited to non-organic objects. Nails, tiles, bricks, and other objects are witness to the construction techniques of the era. The excavation of two midden areas near the kitchen yielded a considerable quantity of imported ceramics, including faience and Chinese porcelain that indicate the status of the Jesuits, as well as the complexity of trade relations that impacted Guyane. Most numerous however, are locally produced ceramics. This is not surprising because the Jesuits had a pottery on site, staffed by 14 enslaved potters. Thirteen vessel forms have been identified, broadly grouped into domestic and industrial classes. The domestic includes cooking pots and bowls, indicating liquid based foodways. Many of the vessels are large, suggesting that cooking may have been centralized for the 400 enslaved workers of the estate. This suggests that the Jesuits may have been among the rare slaveowners who followed the dictates of the Code Noir that required the plantation to supply food for the enslaved. The industrial forms include sugar forms and molasses drip jars, signifying the importance of sugar on this estate. Iron objects recovered from adjacent to the forge are primarily agricultural implements.

The results of this work show the importance and organization of the Loyola plantation. It is an unusual site in that the entire plantation production complex is well preserved and dates to such an early period. It was a disappointment to the researchers that the slave village was not found, and that the experiences of the enslaved workers could not be addressed, other than through their industrial production of pottery and iron tools.

In summary, these five articles provide an important introduction to historical archaeology in several regions of the French Caribbean world. The breadth of research presented in these papers, ranging from survey to excavation data, and from ethnoarchaeology, to industrial archaeology, to plantation archaeology, and to bioarchaeology, is encouraging. It is clear from the results presented here that historical archaeological research has a great potential in the French West Indies, and that the results of work undertaken in this area is bound to have substantial impacts on our understanding of the complexity and diversity of experience in the colonial world of the Caribbean.

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