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Facing society : A study of identity through head shaping practices among the indigenous peoples of the Caribbean in the ceramic age and colonial period

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MATERIALS

The interest in the prehistoric populations of the Caribbean, which started with collections of objects made by travellers and continues to this day with excavations by professional archaeologists, has resulted in numerous collections of Caribbean materials spread across the globe. Expeditions exploring the Caribbean in the early 20th century were often funded by museums in the United States and Europe and as a result, collections ended up stored at these institutions. Currently, many collections, and particularly skeletal remains, are stored in local institutions in the country of excavation. As a result of this long and checkered history of collecting, numerous collections of Caribbean skeletal material with widely varying numbers of individuals, states of preservation, and contextual information are available for study.

This chapter will start by presenting an overview of the total sample, including a geographical and temporal overview. Then, brief descriptions of the archaeological context of each site will be presented. These are organised per country of origin in alphabetical order, as this avoids any pre-established ideas regarding (sub)regional variation and is therefore the most neutral manner of presenting the collections.

6.1

SAMPLE OVERVIEW

The total sample for this project includes 556 individuals from 76 different sites in 15 countries from the Caribbean archipelago and mainland. The geographical distribution of the sites within the region will first be visualised and discussed, followed by an overview of the temporal attributions of the different skeletal assemblages.

Geographical Distribution of the Sample

The location of each of the 76 sites that comprise the total sample of this project can be seen in Figure 10. A concerted effort was made to select skeletal assemblages representative of the entire Caribbean area.

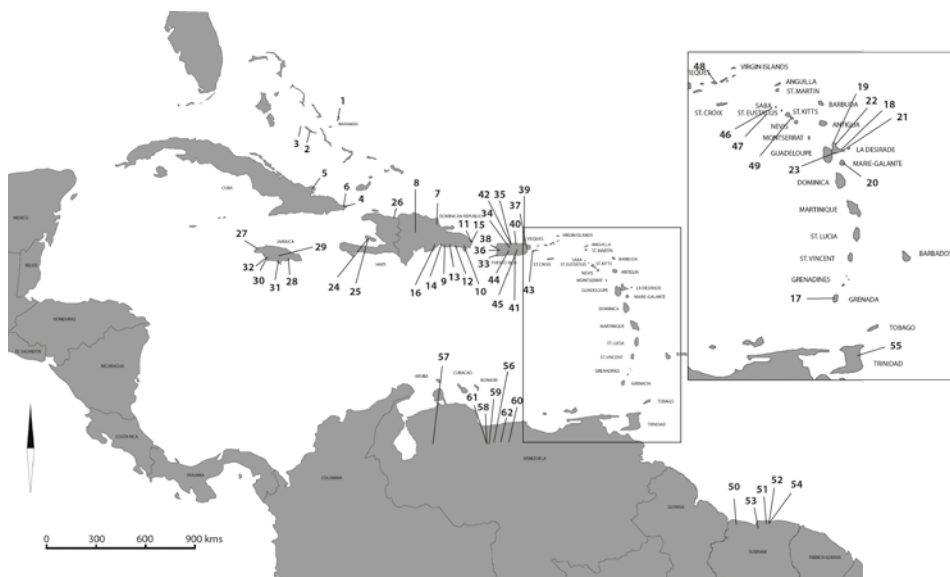


Figure 10 Map of the Caribbean region showing the geographic distribution of the sites investigated in this project:

- | | | |
|-------------------------|---------------------------|----------------------------|
| 1) Watling Island, | 22) Petit Canal, | 43) Sorce, |
| 2) Great Exuma Cay, | 23) Pointe Canot, | 44) Tecla, |
| 3) Norman's Pond Cay, | 24) La Gonave Island 1, | 45) Trujillo Alto, |
| 4) Cueva de los Indios, | 25) La Gonave Island 2, | 46) Kelbey's Ridge 2, |
| 5) El Chorro de Maíta, | 26) Morne des Mammelles, | 47) Spring Bay 1c, |
| 6) Maisi, | 27) Abingdon, | 48) Caneel Bay Plantation, |
| 7) Cabeza de Muerto, | 28) Halberstadt, | 49) Bloody Point, |
| 8) Constanza, | 29) Limestone Caves, | 50) Hertenrits, |
| 9) Cueva Andres, | 30) Pedro Bluff Cave, | 51) Kwatta Tingiholo, |
| 10) El Atajadizo, | 31) Portland Hills, | 52) Okrodam, |
| 11) El Cabo, | 32) San Pedro, | 53) Saramacca, |
| 12) El Soco, | 33) Barrio Camas, | 54) Waterkant/de |
| 13) Juan Dolio, | 34) Barrio Viva Bayo, | Mirandastraat, |
| 14) La Caleta, | 35) Cueva de los Muertos, | 55) San-1, Manzanilla, |
| 15) Punta Macao, | 36) Duey Bajo, | 56) Camburito, |
| 16) Santo Domingo, | 37) Hacienda Grande, | 57) Carache, |
| 17) Savanne Suazey, | 38) Mayaguez, | 58) El Zamuro, |
| 18) Anse à la Gourde, | 39) Monserate, | 59) La Cabrera, |
| 19) Anse Bertrand, | 40) Pinas, | 60) La Hoyada, |
| 20) Folle Anse, | 41) Punta Candelerero, | 61) Lago Valencia, |
| 21) Morel, | 42) Rio Arriba, | 62) San Mateo. |

Figure 10 shows that despite achieving the overall aim of a geographical spread of sites throughout the archipelago, the islands of the Lesser Antilles are underrepresented in the sample. This disparity may be explained by a number of factors, primarily the relatively poor preservation of skeletal material from the region. Bone preservation is heavily dependent on environmental factors; such as water, soil, temperature, and air (Gordon and Buikstra 1981; Henderson 1987). Humidity, high temperatures, and acidic soils – conditions often encountered in the Caribbean in general and the latter specifically on islands of volcanic origin – can all lead to poor preservation of skeletal remains (Henderson 1987; Waldron 1987). Exposure of the corpse during mortuary

practices (Henderson 1987), as has been identified in the burial record of the Lesser Antilles by Hoogland (1996; Hoogland and Hofman 2013), also severely affects the state of preservation of the remains.

Given the geology and climate of the Lesser Antilles, moderate to poorly preserved skeletal material is expected. This is consistent with the reported condition of skeletal assemblages from the area (Hofman et al. 2012; Hoogland 1996; van den Bel and Romon 2010; Weston 2010, 2011), as well as my personal observations when working with the materials from the Lesser Antilles. Aside from poor preservation, other factors that may have resulted in the reduced availability of skeletal assemblages and smaller numbers of individuals from the Lesser Antilles include a lower population rate in prehistoric times, the current day occupation of the limited preferred habitation sites on small islands, which hinders archaeological excavation, and perhaps less investigative attention by archaeologists during the earlier period of Caribbean archaeology. Despite these limitations, data was gathered from as many skeletal collections and individuals from this region as possible to enhance our understanding of cranial modification in the Lesser Antilles.

A closer look at the number of individuals from each country demonstrates a number of peculiarities in the sample, which require some brief discussion. A sizable number of individuals in the sample (45.1%) come from the Dominican Republic. This is a direct result of the long history of archaeological excavation in this country, both by foreign investigators and the local *Museo del Hombre Dominicano*, and might also be indicative of the overall good preservation of skeletal remains along its southern coast, where the majority of sites is located. As a result, the Dominican Republic provides an excellent case study, which allows for the investigation of head shaping in several geographically close communities in the Late Ceramic Age.

Temporal Dimensions of the Sample

Temporal attributions for the sites in this sample are quite complex, owing to the varied availability of contextual information and the convoluted history of Caribbean chronologies in general. An overview of the temporal ascription of the sites for which broad date ranges were available can be seen in Figure 11 following the regional developmental system proposed by Rouse.

	Early Ceramic Age	Late Ceramic Age	Early Colonial Period
Bahamas	Bahamas US1		
Barbados	Barbados US1		
Cuba	El Chorro de Maita		
	Maisi		
Dominican Republic	Cabeza de Muerto		
	Constanza		
	Cueva Andres		
	DR US1		
	El Atajadizo		
	El Cabo		
	El Soco		
	Juan Dolio		
	La Caleta		
	Punta Macao		
	Santo Domingo		
Grenada	Savanne Suazey		
Guadeloupe	Anse à la Gourde		
	Anse Bertrand		
	Folle Anse		
	Guadeloupe US1		
	Morel		
	Pointe Canot		
Haiti	La Gonave Island 1		
	La Gonave Island 2		
	Morne des Mammelles		
Jamaica	Halberstadt		
	Halberstadt?		
	Limestone Caves		
	Pedro Bluff Cave		
Puerto Rico	Duey Bajo		
	Hacienda Grande		
	Monserate		
	Punta Candelero		
	Rio Arriba		
	Sorce, Vieques		
	Tecla, Guayanilla		
	Trujillo Alto		
	UPR US1		
Saba	Kelbey's Ridge 2		
	Spring Bay 1c		
St. John (VI)	Caneel Bay Plantation		
St. Kitts	Bloody Point		
Suriname	Hertenrits		
	Kwatta Tingiholo		
	Okrodam		
	Saramacca		
	Waterkant/de Mirandastraat		
Trinidad	Manzanilla		
Venezuela	Camburito		
	El Zamuro		
	La Cabrera		
	La Cabrera/Los Tamarindos		
	La Cabrera/West Trench		
	San Mateo		

Figure 11 The temporal overview of the total sample.

Each site will now be presented in more detail, organised per country in alphabetical order. The amount and quality of contextual information available for the sites varies widely. As a result, the site descriptions in this chapter range from very minimal summaries to more substantial accounts. These discrepancies create an imbalance between the different site descriptions, but it was considered important to provide as much contextual information as was available to best represent these sites and their histories. In a limited number of cases, no site name was available for one or more crania. In these cases, the site was assigned the designation [Country] Unknown Site [Number] (e.g. Jamaica Unknown Site 1).

Bahamas

Norman's Pond Cay	
Site Name	Norman's Pond Cay
Abbreviation	NPC
Sampled Individuals	1
Excavator/Collector	Lady E. Blake
Period	Ceramic Age

A skull with catalogue number 377996 from the osteological collection of the Department of Anthropology, Smithsonian Institution in Washington DC, was given ID code NPC996. It was found in a cave near Norman's Pond Cay in the Exuma

district of the Bahamas by W. Pond. NPC996 may simply be an incidental find by a private individual that was included in the Smithsonian collections, as the skull is not mentioned in the extensive overview of the archaeological materials from the Bahamas in museum and private collections (Granberry 1980). Granberry's overview does mention a group of artefacts and skeletons amassed by Lady Edith Blake in the late 19th century which was sent to the Museum of the American Indian (Granberry 1980:89). Since other materials from Lady Blake's Jamaican assemblage have made it into the Smithsonian collections (see the section on San Pedro, Jamaica), it is a possibility the skull was also originally collected by Lady Blake. Unfortunately, no published records exist of the archaeological context of the Lady Blake material.

Great Exuma Cay	
Site Name	Great Exuma Cay
Abbreviation	GEC
Sampled Individuals	1
Excavator/Collector	H.W. Krieger
Period	Ceramic Age

Skull GEC747, catalogue number 381747 from the collections of the Department of Anthropology, Smithsonian Institution, was marked Krieger, Exuma 1, Bahamas. The Smithsonian database provides the following geographic context: Great

Exuma Cay (not certain), Lucayan, Bahamas, Exuma District, and confirmed the skull was collected by Herbert W. Krieger.

Herbert Krieger spent several months in 1936-1937 undertaking an archaeological reconnaissance of the Bahamian archipelago. In his report, Krieger does not mention any sites by name, nor does he specify finding human remains (Krieger 1937). However, the Annual Report of the Board of Regents of the Smithsonian Institution comments that Krieger excavated midden deposits and burials on Long Island (Inagua) and New Providence Island (Smithsonian Institution 1938:28). Krieger's second Smithsonian expedition to the Bahamas took place in 1947, but details on the explored sites and excavated materials are lacking (Smithsonian Institution 1948:16-17). The skull in the Smithsonian collection must have been collected during one of Krieger's expeditions to the Bahamas, but sadly no further contextual information was available.

Watling Island	
Site Name	Cave, Watling Island
Abbreviation	BPM
Sampled Individuals	1
Excavator/Collector	D.N. Bryant (?)
Period	Ceramic Age

BPM01, an adult cranium of undetermined sex, was collected in a cave on Watling Island in the Bahamas and is currently in the osteological collection of the Peabody Museum of Archaeology and Ethnology at Harvard University, as 16-8-10/59686.0.

The skull is accompanied by a note indicating it was part of the White collection and was a gift of the Boston Society of Natural History to the Peabody Museum of Archaeology and Ethnology in 1916.

Barbados

Barbados US1	
Site Name	Unknown
Abbreviation	DCAB
Sampled Individuals	2
Excavator/Collector	Unknown
Period	Colonial period

Two crania from the island of Barbados were studied at the Duckworth Laboratory, Leverhulme Centre for Human Evolutionary Studies, Cambridge University. Both crania were accompanied by a note; 'Said to be "Arawak" Indian'

and marked with Barbadoes 1 and 2 respectively. Furthermore, the mandible belonging to DCAB001 was marked 'aug. 1938' providing an approximate date for either collection or entry in the osteological collection.

Cuba

CUBA US1	
Site Name	Unknown
Abbreviation	CUBA
Sampled Individuals	1
Excavator/Collector	Unknown
Period	Ceramic Age – Colonial period

The skull of an adult male with ID code CUBA1 is in the collection of the *Museo Indocubano Bani* in Banes, Cuba. The skeleton is claimed to have been found at the site of El Chorro de Maíta, which will be described in more detail below. There

are descriptions of bones exposed at the site due to erosion before the excavations of the 1980's as well as reports of illegally obtained objects, including human remains, being sold to private collectors (Harrington 1921; Rouse 1942). It is therefore very likely that the skeleton did indeed come from the site of El Chorro de Maíta, although the exact location and context have unfortunately been lost.

Cueva de los Indios (Nueva Cueva)	
Site Name	Cueva de los Indios
Abbreviation	CINC
Sampled Individuals	4
Excavator/Collector	Unknown
Period	Ceramic Age

Four crania (ID codes CINC 060-063 and catalogue numbers 363060-363063) from the osteological collection of the Department of Anthropology, Smithsonian Institution, have a reported provenance of Cueva de los Indios,

Nueva Cueva (not certain), Cuba. The database shows no documented collector for these remains. The listed name of Cueva de los Indios is a label commonly attributed to caves with Amerindian remains on Spanish speaking islands of the Caribbean, and is therefore rather difficult to trace. The skeletal remains must have been transported to the USA before the Cuban revolution and its aftermath of isolation, limiting the search to archaeological investigations prior to 1959. Two viable options were uncovered and are discussed briefly below.

Harrington worked at a site called Cueva de los Indios which did indeed produce human remains (Harrington 1921). At this time, he was undertaking an archaeological expedition of Cuba for the Museum of the American Indian (Heye Foundation) (Harrington 1921). Harrington describes the discovery of three Amerindian burials in some detail, mentioning a lack of cranial modification which he interprets as evidence of the 'Ciboney' affiliations of these remains (Harrington 1921). There are, however, four crania in the Smithsonian collection, which does not correspond to the account provided by Harrington although the normal cranial outline of the specimens does correspond to his description.

Finally, Harrington mentions that several skeletons were found by Dr. Carlos de la Torre in a cave very close to the Cueva de los Indios. It is known that Dr. De la Torre y la

Huerta, a well-known Cuban naturalist with an interest in the archaeological past of the island, donated many specimens and objects to the collections of the US National Museum (later the Smithsonian Institute) during his life (Smithsonian Institution Archives 2014).

The exact attribution of these Cuban skeletons from the Cueva de los Indios can therefore not be distinguished with certainty, as the crania could have been donated by either Harrington or De la Torre y la Huerta.

El Chorro de Maíta	
Site Name	El Chorro de Maíta
Abbreviation	CDM
Sampled Individuals	73
Excavator/Collector	J.M. Guarch Delmonte
Period	Late Ceramic Age – Colonial period

The site of El Chorro de Maíta is located on the eastern slope of the Cerro de Yaguajay, approximately 5 km from the northern coast of Cuba in the province of Holguín. During an archaeological exploration of this region of the island,

Rouse (1942) remarked the site was already known in the first half of the 20th century and was visited by archaeology enthusiasts as well as locals who obtained and sold items from the site. Exploration of the site started in 1979 by a team from the *Sección de Arqueología of the Instituto de Ciencias Sociales* (ACC) led by Dr. J.M. Guarch Delmonte. This led to site excavations by the same team from 1986 to 1988, uncovering a central cemetery area surrounded by areas of habitation. The site was initially dated to the Late Ceramic Age occupation of Cuba based on the Meillacoid ceramics (Guarch Delmonte 1990; Valcárcel Rojas 2002).

A multidisciplinary team, led by Cuban researcher Roberto Valcárcel Rojas, was assembled to reinvestigate the material culture and human burials housed at the Cisat's *Departamento de Arqueología* in Holguín between 2006 and 2010. The combined efforts resulted in a radical shift in the interpretation of El Chorro de Maíta. Analysis of the material culture and grave goods encountered at the site showed increasing evidence of European origins, including the identification of European brass aglets, a variety of European ceramic styles, the presence of pig bones, and a piece of coral with a potential Mediterranean origin (Martinón-Torres et al. 2007; Valcárcel Rojas 2012; Valcárcel Rojas et al. 2011). Further radiocarbon dating and a critical look at the calibration of these dates also point towards a more likely sixteenth or early seventeenth century date for the cemetery component of El Chorro de Maíta (Bayliss et al. 2012). Finally, the extended burial position encountered in certain burials combined with the use of European objects as grave goods point to syncretic social developments as a result of intercultural contact. The reinvestigation of the site has led to an interpretation of El Chorro de Maíta as an early colonial *encomienda* settlement where indigenous peoples, both from Cuba and other regions of the Americas, interacted with Europeans and likely

also slaves of African descent. This represents a continuation of prehistoric habitation at the site, as evidence in the areas surrounding the central cemetery suggests that this area was used by indigenous peoples as early as AD 1200 coinciding with the start of the Late Ceramic Age (Valcárcel Rojas 2012; Valcárcel Rojas et al. 2011).

A total of 133 individuals were excavated from the central cemetery of El Chorro de Maíta (Weston 2012). Due to the limited stratigraphy of the site, a prehistoric date cannot be ruled out for those burials that lack evidence of syncretic burial practices. Therefore, all individuals examined for cranial modification at the site that do not show an extended burial position or European material culture have cautiously been dated to Late Ceramic Age/early colonial period in the database. Seventy-three individuals were considered sufficiently preserved to be included in the sample for this investigation.

Maisi	
Site Name	Maisi
Abbreviation	CuPM
Sampled Individuals	6
Excavator/Collector	C. de La Torre y la Huerta (?)
Period	Ceramic Age

Crania 18-1-30/58718.0, 18-1-30/59717.0, 12-1-30/58739.0, 18-1-30/59720.0, 12-1-30/58737.0, 12-1-30/58735.0 from the collection of the Peabody Museum of Archaeology and Ethnology at Harvard University, referred to by ID codes

CuPM01-06 respectively in this study, come from the region of Maisi in Eastern Cuba. These were collected by Dr. Carlos de la Torre y la Huerta, a leading Cuban naturalist whose interests extended beyond the study of molluscs into the prehistoric past of Cuba. He reportedly collected several crania in the eastern part of Cuba, and more specifically in caves around Maisi, during a trip in 1890 (Encaribe 2014; Harrington 1921).

Dominican Republic

Cabeza de Muerto	
Site Name	Cabeza de Muerto
Abbreviation	AAL
Sampled Individuals	1
Excavator/Collector	A. Llenas
Period	Ceramic Age

The Cabeza de Muerto cave was explored by Dr. Alejandro Llenas in 1890. The cave is located in the northern province of Puerto Plata near a town formerly named Tres Amarras but now known as Cabrera. Several skeletons were found on the floor of the cave, most severely

fragmented due to the exposure of the remains to taphonomic processes. Llenas collected a single, well preserved adolescent cranium and donated this to the *Museo del Hombre Dominicano*. This skull is described in Llenas' 1891 article "Decouverte d'un crane d'indien Ciguayo a Saint-Domingue". In it, Llenas describes the intentional

cranial modification of the skull and provides two photographs of the cranium, which allows us to assess the damage to the facial area which has occurred sometime after 1891.¹

Constanza	
Site Name	Constanza
Abbreviation	LGC
Sampled Individuals	45
Excavator/Collector	H.W. Krieger
Period	Ceramic Age

Herbert W. Krieger undertook several seasons of archaeological survey and fieldwork for the Smithsonian Institution and the U.S. National Museum on Hispaniola. In 1930, he undertook an extensive survey of the Constanza valley

in the interior of the Dominican Republic. This valley, which is approximately 30 km² and 1100 meter above sea level, was first brought to the attention of archaeologists after a description of the indigenous earthworks in the valley was published by Schomburgk in 1851 (Krieger 1930). These mounds were known locally as Indian burial mounds, yet testing by Krieger showed they were shallow and did not yield bone or substantial amounts of archaeological material.

During his visit, Krieger employed locals to survey the caves and rock ledges in the surrounding mountains for human remains and burial goods. In addition to a substantial collection of human remains currently curated in the osteological collection of the Department of Anthropology, Smithsonian Institution, Krieger reports 'a few stone beads, pendants, zemis, fragments of burial pottery, also a small number of intact earthenware vessels were discovered in juxtaposition to the skeletal remains' (Krieger 1930:152). The method of collection clearly indicates that the skeletal assemblage does not represent a single prehistoric population but is likely a composite of different periods in the habitation history of the valley. The geographic spread of the collection was limited to the immediate surroundings of the valley, and consequently this collection will be able to shed light on the different types of cranial modification practiced in the interior of the Dominican Republic.²

The skeletal assemblage collected from the Constanza valley is generally in good condition and consists of a relatively large number of individuals, representing all age groups. Unfortunately, the remains have not been stored per individual but per skeletal element (i.e. tibia with tibia, fibula with fibula, etc.). Therefore, this study used the skull

1 The frontal and lateral (left) photographs in Llenas (1891) show a complete cranium, whereas the skull currently lacks both maxillae, zygomatic bones, and the ethmoid. Additionally, there is substantial damage to the nasal bones, lacrimals, and sphenoid. Unfortunately, the maxillary teeth are also lacking, but Llenas's description clearly states that the third molars have not erupted.

2 This is of great importance since the vast majority of skeletal material recovered from the Dominican Republic comes from coastal sites, and in particular the stretch of the south coast between Santo Domingo and San Pedro de Macoris (a distance of about 60 km as the crow flies).

as the direct proxy for an individual and 45 crania with catalogue numbers 349407-349429, 349431-349445, and 349447-349453 were suitable for analysis.

Cueva Andres	
Site Name	Cueva Andres
Abbreviation	CA
Sampled Individuals	15
Excavator/Collector	F. Morbán Lauer
Period	Late Ceramic Age

This funerary cave, close to the village of Andres on the southern coast of the Dominican Republic, was investigated in 1972 by Fernando Morbán Lauer. This examination of the cave revealed human remains, Ostionoid ceramics, lithic

artefacts, and lumps of burned red clay. The Ostionoid ceramics can be used to provide an approximate date for the funerary use of the cave between AD 700 to 900 (Morbán Lauer 1979; Ortega 2005).

The human remains recovered from the cave, currently housed in the osteological collection of the *Museo del Hombre Dominicano*, were in a moderate state of conservation, showing much fragmentation as may be expected from remains which have spent a considerable period on the floor of a cave and have been exposed to a variety of taphonomic processes. Fifteen crania could be assessed for this research, the vast majority of which were adults.

DR US1	
Site Name	Unknown
Abbreviation	MDH
Sampled Individuals	1
Excavator/Collector	Museo Del Hombre Dominicano
Period	Ceramic Age

Individual MDHI is a child between 2 and 7 years old, an age at death based on the skeletal development of the cranium. No contextual information is known about the skull from the osteological collection of the *Museo del Hombre Dominicano*,

which was therefore designated Dominican Republic Unknown Site 1 (DR US1). The cranium appears similar to X-ray images of the so-called Cueva de Berna infant (Luna Calderon 1977) but no definitive identification can be made based due to the total lack of contextual information.

El Atajadizo	
Site Name	El Atajadizo
Abbreviation	AT
Sampled Individuals	7
Excavator/Collector	Museo del Hombre Dominicano
Period	Late Ceramic Age

The site of El Atajadizo can be found on the eastern bank of the river Duey, approximately 3 kilometres inland from the south-eastern coast of the Dominican Republic. It is a settlement with a central plaza measuring about 600 m² delineated

with stones surrounded by middens which were used for habitation, farming, and as cemeteries. The site was excavated in 1974 and 1975 by a team from the *Museo del Hombre Dominicano* led by Elpidio Ortega. Two distinct habitation phases were defined

based on the ceramic typology: the Atajadizo and Guayabal phases (Luna Calderón 1976; Veloz Maggiolo et al. 1976; Ortega 2005).

The Atajadizo phase has been dated to approximately AD 800 and is typified by the Ostionoid ceramic tradition. Houses were found on ground level and human burial took place within the confines of these houses. Subsistence seems to have been mainly terrestrial, with a small component of fish and seashells (Luna Calderón 1976; Veloz Maggiolo et al. 1976; Ortega 2005). After a period of abandonment, the site was settled again during the Guayabal phase. This phase, dated between AD 900 to 1200, is characterised by Chicoid ceramics. Habitation mounds appear and the subsistence economy shifted to include a higher proportion of marine shell and fish. During the latter part of the Guayabal phase, the central plaza and several walkways appeared and some mounds were turned into formal cemetery areas (Luna Calderón 1976; Veloz Maggiolo et al. 1976).

A total of 51 burials were encountered at El Atajadizo which are curated at the *Departamento de Antropología Física* of the *Museo del Hombre Dominicano*. The majority of these came from mounds 4 and 5 and the preservation of the skeletal material is varied. The condition of seven crania was sufficient for assessment. All of these individuals were found in mound 4 or 5, which are attributed to the Chicoid phase of habitation and thus date to AD 900-1200 (Luna Calderón 1976; Veloz Maggiolo et al. 1976).

El Cabo	
Site Name	El Cabo
Abbreviation	ECA
Sampled Individuals	1
Excavator/Collector	Leiden University
Period	Late Ceramic Age

The site of El Cabo is located on the eastern coast of the Dominican Republic. The human remains examined during this study were recovered during the archaeological investigation of the site by Leiden University from 2005 to 2008 and

are currently curated by the *Museo del Hombre Dominicano*. El Cabo is a settlement site with several house trajectories which was inhabited from AD 850 until the beginning of the colonial period (Samson 2010).

Three human burials were excavated from El Cabo. However, due to the relatively poor preservation only a single skull could be studied for this project. This adult male was found in a flexed position without any grave goods, making a relative dating impossible. Based on the midden material found in the grave fill, the burial was dug during or after the Ostionoid occupation of the site. Thus, the burial can be given the rather broad attribution of Late Ceramic Age (Samson 2010).

El Soco	
Site Name	El Soco
Abbreviation	ES
Sampled Individuals	26
Excavator/Collector	Museo del Hombre Dominicano
Period	Ceramic Age

The site of El Soco, occasionally referred to as Boca del Soco, is located in the province of San Pedro de Macorís, Dominican Republic. The first excavation was done by a team from the *Museo del Hombre Dominicano* in 1975 and yielded a

total of 98 burials currently part of the osteological collections of the museum. Thirty-four of the burials can be attributed to the Fase Margarita, which was associated with ceramics of the Ostionoid style. The remaining 64 individuals belong to the later Chicoid habitation, referred to as the Fase Soco. After looting of the site became an issue, a second excavation campaign was undertaken in 1980. This uncovered a further 29 burials, all of which belonged to the Ostionoid occupation of the site (Luna Calderón 1985).

The skeletal material from El Soco is in a relatively poor state of conservation and extensive reconstruction was undertaken in order to create a sufficient sample for this study.³ In all, 26 crania could be assessed for cranial modification. The information on period and burial context were lost for most individuals.

Juan Dolio	
Site Name	Juan Dolio
Abbreviation	JD
Sampled Individuals	47
Excavator/Collector	Museo del Hombre Dominicano
Period	Ceramic Age – Colonial period

The site of Juan Dolio, located on the southern coast of the Dominican Republic, was investigated by numerous different archaeologists. A first exploration took place in the 1920's by Franco Bido, followed by a survey in 1947

by Boyrie Moya and Herrera Fritot. Excavations were undertaken in 1954 and 1955 by Boyrie Moya, Chanlatte, and Cruxent. After these initial investigations, looters managed to obtain ceramic vessels and ornaments, which can be found in private collections. This period of illicit explorations was followed by excavations in 1971 by Morbán Laucer and Manuel García. Finally, excavations in 1974 by a team from the *Museo del Hombre Dominicano* composed of Veloz Maggiolo, Luna Calderón, Rimoli, and Ortega uncovered over 50 skeletons (Ortega 2002:17).

Several occupation phases can be distinguished at the site of Juan Dolio. The first evidence of habitation is provided by ceramics of the Saladoid series, but no radiocarbon dating of these layers has been obtained. The subsequent Ostionoid phase has provided three radiocarbon dates: AD 625, 820, and 825.⁴ The final prehistoric phase of indigenous

3 This reconstruction was of a temporary nature using tape, which was easily removed ensuring no further damage was done to the cranial remains.

4 Ortega (2002) does not provide the original radiocarbon results, but only these median dates.

habitation is characterised by the Chicoid ceramic style. Two radiocarbon dates were obtained for this phase, with median dates of AD 1130 and 1300 (Ortega 2002).

A report by physical anthropologist Luna Calderón discussing the 1974 excavations provides us with information that extends the temporal range of the cemetery even further. Unfortunately, I have not been able to access this original report and thus must rely on Ortega's (2002:18) description of its contents. According to Ortega, several primary extended burials of indigenous individuals were encountered at the site, some of which contained Spanish ceramics and a brass buckle. Luna Calderón also considers one of these extended individuals to be of African origin (although regrettably Ortega does not mention what Luna Calderón based this opinion on). Regardless of this, the extended position and more importantly the use of European material culture as grave goods is evidence of a colonial period component to the cemetery.

The skeletal material excavated at Juan Dolio was stored at the *Departamento de Antropología Física* in the *Museo del Hombre Dominicano* in Santo Domingo. Previous investigations of the site have produced two slightly different MNI estimates: 78 individuals (Drusini et al. 1987) and 97 individuals (Coppa et al. 1995). Of these, 47 crania were studied for this research.

La Caleta	
Site Name	La Caleta
Abbreviation	LC
Sampled Individuals	92
Excavator/Collector	Museo del Hombre Dominicano
Period	Ceramic Age

The site of La Caleta is located on the southern coast of the Dominican Republic, close to the current capital of Santo Domingo. The site shows evidence of habitation by different groups, starting with evidence of Archaic Age groups without a ceramic assemblage which has been radiocarbon dated to 2495±80 BP (Ortega 2005:51). This is followed by an Early Ceramic Age group with Saladoid ceramics dated to approximately AD 250⁵ (Ortega 2005; Veloz Maggiolo 1972). The subsequent Ostionoid occupation of the site has a series of radiocarbon dates ranging from 1220±85 BP to 740±30 BP or approximately AD 700 to 1200 (Ortega 2005:51). Finally, the last phase of habitation is characterised by Chicoid ceramics. This phase is dated to 670±70 BP (Ortega 2005:51).

The site of La Caleta was well-known among early investigators after a visit from Krieger in 1936. This led to a visit and some preliminary excavations by Herrera Fritot and Youmans in 1944 and 1945 that discovered of 12 sets of human remains and abundant

5 Unfortunately, Ortega (2005:50) only provides this estimation and does not provide any radiocarbon dates for this period nor does he discuss on which evidence he based this date.

Taíno material culture (Hererra Fritot and Youmans 1946). They describe finding several adult individuals in flexed position with an upturned ceramic vessel covering the skull. The site was further investigated by de Boyrie Moya in 1960. Large scale excavations took place between 1970 and 1973 led by Chanlatte Baik, Morbán Laucer, Mañón y Ortega, and García Arévalo. The skeletal remains investigated at the *Museo del Hombre Dominicano* during this project predominantly come from this final investigative effort, although it cannot be ruled out that some crania were discovered during earlier reconnaissance or excavations of the site.

Unfortunately, no concise overview of the results of the 1970's excavations was ever published, although some of the data produced was used by various authors in later works. Based on this diffuse information, some trends can be established. Morbán Laucer mentions two different figures for the total number of burials excavated: 375 (Morbán Laucer et al. 1976:304) or 373 (Morbán Laucer 1979:70). Approximately 200 boxes of skeletal remains marked La Caleta are curated in the physical anthropological department of *Museo del Hombre Dominicano* and several boxes contain the comingled remains of multiple individuals. Overall, Morbán Laucer's assessment of the total number of individual therefore seems reasonable.

Furthermore, several published photographs of in-situ individuals confirm the use of ceramic vessels as covers for primary and secondary interments as reported earlier by Herrera Fritot and Youmans (1946). Additionally, both Ostionoid and Chicoid burials have been discussed in various articles (Morbán Laucer 1979; Morbán Laucer et al. 1976; Ortega 2005). This suggests that without further contextual information, the most secure date which can be assumed for all La Caleta material is the Late Ceramic Age. A total of 92 crania were sufficiently preserved to be analysed.

Punta Macao	
Site Name	Punta Macao
Abbreviation	PM
Sampled Individuals	8
Excavator/Collector	Museo del Hombre Dominicano
Period	Late Ceramic Age – Colonial period

The site of Punta Macao was excavated by the *Museo del Hombre Dominicano* in 2004. Saladoid, Ostionoid, and Chicoid ceramics were recovered from the site, suggesting a long history of habitation by indigenous peoples from the Early to

the Late Ceramic Age (Atilés 2004). Spanish ceramics, plain Maiolica dating from the 15th and 16th centuries, were found in association with one of the burials (Atilés 2004). This suggests that the cemetery was still in use in the early colonial period. Twenty-six human burials were encountered during the excavations (Tavarez Maria ND) and these remains are currently curated at the *Departamento de Antropología Física* of the *Museo del Hombre Dominicano*. The cranial remains of eight individuals were sufficiently preserved to be studied.

Reference Collection Museo del Hombre Dominicano	
Site Name	Unknown
Abbreviation	MDH
Sampled Individuals	3
Excavator/Collector	Museo del Hombre Dominicano
Period	Ceramic Age

Dominican Republic whose context has unfortunately been lost (Glenis Tavarez, personal communication 2011). Two crania belong to potential female adults (MDHA and MDHB) and the third skull belongs to an adult individual of undetermined sex.

Santo Domingo	
Site Name	Santo Domingo
Abbreviation	LGC/ASD/MAH
Sampled Individuals	5
Excavator/Collector	H.W. Krieger and W.L. Abbott
Period	Ceramic Age

Five crania from the osteological collection of the Department of Anthropology, Smithsonian Institution are reportedly from Santo Domingo, National District, Dominican Republic. Two of the crania – LGC679 (345679) and LGC680 (345680) – were obtained by H.W. Krieger. The remaining three crania – ASD457 (316457), ASD458 (316458), and MAH388 (326388) – were collected by W.L. Abbott.

In the descriptions of his fieldwork on the island of Hispaniola, Krieger does not mention collecting any crania from the city of Santo Domingo itself. He does, however, describe a small-scale excavation in the village of Andres, approximately 30 km from Santo Domingo. Krieger reports ‘making a representative collection of anteriorly deformed Arawak crania through excavating in front of the sugar warehouse’ (Krieger 1930:147). Many of the expeditions by the Smithsonian Institution to Hispaniola, including this trip by Krieger, were financed and supported by W.L. Abbott. This may be why Abbott is listed as the collector of the material. Abbott’s name is mentioned in a similar manner for the skeletal material of Constanza collected by Krieger later in the same expedition. Therefore, it is likely that these five crania represent part of the collection made at Andres by Krieger, but this cannot be confirmed with more certainty.

The skeletal remains consist of the cranium of a child (LGC 680) and four adults: a male (LGC679), two possible females (ASD457 and ASD458) and an individual of undetermined sex (MAH388).

Grenada

Savanne Suazey	
Site Name	Savanne Suazey
Abbreviation	SS
Sampled Individuals	1
Excavator/Collector	Unknown
Period	Ceramic Age

The archaeological site of Savanne Suazey is located on the northeast coast of Grenada. Its position on the Atlantic coast of the island resulted in severe erosion of the archaeological deposits.

The site was excavated in the 1960's by Ripley and Adelaide K. Bullen. It has been dated to the Late Ceramic Age and some colonial materials encountered at the site suggest it was still inhabited during the colonial period. The 1962 excavation campaign yielded five human burials, all found in a flexed burial position. In two cases, stone beads were encountered in the neck region of individuals. The report on these burials does not discuss the presence or absence of intentional cranial modification. However, the report does indicate that all skulls are extremely fragmentary and poorly preserved (Bullen 1964).

Individual SS856, the skull which is curated in the *Musée Edgar Clerc* on Guadeloupe, was in relatively poor condition, with only fragments of the frontal and parietal sections of the cranium of an adult female being present. The *Musée Edgar Clerc* does not have any contextual information regarding the acquisition of the skull. However, it is unlikely the cranium comes from the Bullen excavation. The potential date of 1980 recorded in the museum archives suggests it was collected later and may have been found during a visit to the site. This notion is enhanced by Cody Holdren's (1998:210) description of a cranium being removed from Savanne Suazey after it was exposed due to erosion.

Guadeloupe

Anse à la Gourde	
Site Name	Anse à la Gourde
Abbreviation	AAG
Sampled Individuals	24
Excavator/Collector	C.L. Hofman, M.L.P. Hoogland, and A. Delpuech
Period	Late Ceramic Age

The site of Anse à la Gourde is located on the eastern coast of Grande-Terre, Guadeloupe. The Late Ceramic Age habitation of the site between AD 900 to 1350 can be divided into three distinct occupation phases: AD 900 to 1100, AD 1100 to 1250, and AD 1250 to 1350

(Delpuech et al. 1997; Hofman and Hoogland 2011). Archaeological excavations led by Hofman and Hoogland from Leiden University revealed a number of round and oval houses surrounding an open space. Human remains were recovered from 86 burials within the habitation area, i.e. underneath house floors or near house structures. The total burial population consists of 99 individuals, since several burials contained

multiple individuals (Hofman and Hoogland 2011; Weston 2011). The skeletal preservation of the collection, housed at the *Musée Edgar Clerc*, is considered fair, as the remains are relatively fragmentary and often incomplete (Weston 2011). Twenty-four crania were preserved to such a degree that they could be analysed for this project.

Anse Bertrand	
Site Name	Anse Bertrand
Abbreviation	AB
Sampled Individuals	1
Excavator/Collector	Unknown
Period	Ceramic Age (?)

contextual information is known.

Folle Anse	
Site Name	Folle Anse
Abbreviation	FAA
Sampled Individuals	1
Excavator/Collector	M. Barbotin
Period	Late Ceramic Age

as it was found in the fifth horizon of the site. The skull belongs to an adult male.

Guadeloupe US1	
Site Name	Unknown
Abbreviation	EC
Sampled Individuals	9
Excavator/Collector	Unknown
Period	Ceramic Age – Colonial period

archaeological context(s) of the skulls is not known.

Morel	
Site Name	Morel
Abbreviation	MO
Sampled Individuals	15
Excavator/Collector	Various
Period	Ceramic Age

AB274 is an adult skull of indeterminate sex housed in the *Musée Edgar Clerc*, Le Moule, Guadeloupe. The skeletal remains were collected by Edgar Clerc himself at the site of Anse Bertrand in the northern part of Grande-Terre. No further

FAA261 was recovered from the site of Folle Anse by Barbotin (1969) and is currently in the osteological collections of the *Musée Edgar Clerc*, Le Moule, Guadeloupe. The skull most likely dates to the Late Ceramic Age (AD 1000-1492),

The depot of the *Musée Edgar Clerc*, Le Moule, Guadeloupe, also contains six crania which were collected by Edgar Clerc and marked as pre-Columbian in origin (EC250, EC251, EC253, EC257, EC273, and EC2161). However, the exact

The site of Morel is located on the Atlantic coast of Grande-Terre, Guadeloupe. The site became well known when several skeletons encased in beachrock⁶ were discovered here in the 19th century (Konig 1814). After these brief explorations,

6 Beachrock is often found on carbonate beaches of coral islands where the sandy or gravel-sized beach sediments are of local marine origin. Its development is the result of lithification of these sediments by precipitation of CaCO₃ interparticle cement. Beachrock occurs as discontinuous lenses up to hundreds of meters long parallel to the coast with thicknesses of individual cemented layers between 5 and 100 cm³ (Molenaar and de Boer 1992:8-9, in Delpuech et al. ND).

several excavation campaigns were executed at the site, starting with fieldwork by Edgar Clerc in the 1960's and 1970's, continuing with work by Jacques and Henry Petitjean-Roget in the 1980's, and culminating in work by a team of French and Dutch archaeologists in the 1990's (Delpuech et al. 1995). These archaeological investigations revealed the long history of human occupation at Morel, starting in the Early Ceramic Age, characterised by Huecoid and Saladoid material culture assemblages, and culminating in the Late Ceramic Age Suazoid habitation phase of the site (Delpuech et al. 1995; Hofman and Hoogland 2004).

Each of the archaeological investigations mentioned previously have yielded human remains, which have been stored at the *Musée Edgar Clerc*, Le Moule, Guadeloupe. In addition, amateur archaeology enthusiasts and local inhabitants of the current village of Morel have collected materials and donated these to the *Musée Edgar Clerc*. Information on the human remains recovered from the site, including information on the excavation or individual who retrieved the remains, can be seen in Table 9.

Table 9 Overview of Morel skeletal material and origin.

ID Code	Excavation	Sex	Age
M0204	DHH 1993	Female	Adult
M0338	DHH 1995	Female	Adult
M0245	DHH 1995	Male	Adult
M007	DHH 1999	Male	Adult
M00901	DHH 1999	Possible female	Adult
M0015	DHH 1999	Female	Adult
M012	DHH 1999	Male	Adult
M001	Clerc	Possible male	Adult
M0255	Clerc	Male	Adult
M0259A	Clerc	Female	Adult
M0263	Clerc	Male	Adult
M0252	Clerc	Possible female	Adult
M075	Prompte	Male	Adult
M0262	Prompte	Male	Adult
M002	Toesca	Female	Adult

The mixed origins of the skeletal remains from Morel and the taphonomic processes at the site have several implications for the investigation of this skeletal assemblage. Firstly, dating of the skeletons is complicated. The long habitation history and the lack of contextual information for some of the skeletons mean that not all individuals can be assigned to the correct habitation phase. Thus, the skeletal assemblage of Morel represents an amalgamation of individuals from different time periods, an issue that should be kept in mind when studying social or cultural factors. Secondly, the condition of the skeletal material is relatively poor. Many of the skeletons have been partially or

completely encased in beachrock, which has resulted in very fragmented remains upon extraction. Many crania were incomplete, resulting in a large number of ambiguous cases of cranial modification. The influence of the beachrock on the radiocarbon dating of the skeletal material is also unclear.

Petit Canal	
Site Name	Petit Canal
Abbreviation	PEC
Sampled Individuals	1
Excavator/Collector	Unknown
Period	Colonial period (?)

PEC275 is an almost complete skull in excellent condition, which is marked with the words Petit Canal. There is no contextual information available for this skull from the *Musée Edgar Clerc, Le Moule, Guadeloupe*.

Pointe Canot	
Site Name	Pointe Canot
Abbreviation	PCA
Sampled Individuals	1
Excavator/Collector	Unknown
Period	Ceramic Age

PCA01, housed at the *Musée Edgar Clerc, Le Moule, Guadeloupe*, is represented by fragments of occipital and parietal bones. This cranium belongs to an adult of indeterminate sex and was recovered along with ceramic fragments on the beach at Pointe Canot after erosion exposed the remains.

Haiti

La Gonave Island – 1	
Site Name	La Gonave Island
Abbreviation	LGI
Sampled Individuals	1
Excavator/Collector	F.R. Crumbie, Jr.
Period	Ceramic Age

Specimen 39-71-10/N3445.0 from the osteological collection of the Peabody Museum of Archaeology and Ethnology at Harvard University is an adult skull of undetermined sex identified as LGI01 in this investigation. The remains were collected on La Gonave Island in the Republic of Haiti by Mr. F.R. Crumbie, Jr.

La Gonave Island – 2	
Site Name	La Gonave Island
Abbreviation	GON
Sampled Individuals	2
Excavator/Collector	W.L. Abbott, A.J. Poole, and W.M. Perrygo
Period	Ceramic Age

The skeletal material from La Gonave Island present in the collection of the Department of Anthropology, Smithsonian Institution, were collected by W.L. Abbott, A.J. Poole, and W.M. Perrygo. Poole and Perrygo undertook an expedition to Haiti in the winter of 1928-

1929 with the goal of obtaining extinct faunal remains from caves as well as collecting biological specimens. In a cave near the Haitian village of En Café on La Gonave Island,

located on the west side of Haiti, they ‘obtained a small amount of extinct animal bones, and a considerable amount of human remains’ (Poole 1930:73). Unfortunately, Poole (1930) does not mention any additional material culture that may aid in the dating of these skeletal remains. The collection consists of two non-adult crania with catalogue numbers 342226 and 342227, several adult mandibles, and a number of fragmented post-cranial remains.

Morne des Mammelles	
Site Name	Morne des Mammelles
Abbreviation	MMH
Sampled Individuals	2
Excavator/Collector	H.W. Krieger and W.L. Abbott
Period	Ceramic Age

A small sample of skeletal material was collected by Herbert W. Krieger and William I. Abbott at Morne des Mammelles (alternatively spelled Morne Deux Mamelles), Les Cayes, Sud Province, Haiti and added to the

osteological collections of the Department of Anthropology, Smithsonian Institution. Krieger undertook an archaeological survey of the country in 1931 under the auspices of the Smithsonian Institution and funded by W.L. Abbott (Krieger 1932:113). Although Krieger mentions working in the vicinity of Les Cayes, he does not specifically mention a site near Morne des Mammelles in his expedition report (Krieger 1932). Alexander Wetmore, in his description of the Smithsonian biological survey of Hispaniola in 1931, mentions the company of S.W. Parish, M.W. Stirling, and H.W. Krieger ‘who were engaged in archaeological work’ (Wetmore 1932:45). Wetmore discusses collecting biological specimens in the area surrounding Morne des Mammelles, which makes a compelling argument for Krieger’s archaeological collection from the region being executed in 1931.

However, since Krieger does not specifically mention the collection of this material, it cannot be ruled out that the material was collected earlier by W. L. Abbott himself during his extensive travels in Haiti in 1917-1918 and 1919-1923 (Boruchoff 1986). However, Abbott’s personal correspondence held in the archives of the Smithsonian Institute shows he appears not to have visited the Sud Province during his travels in Haiti (Smithsonian Institution Archives, Record Unit 7117). The skeletal material consists of two adult crania in moderate condition: one male with catalogue number 364731 and ID Code MMH731 and one probable female with catalogue number 364732 and ID code MMH732.

Jamaica

Abingdon	
Site Name	Abingdon
Abbreviation	CHA
Sampled Individuals	1
Excavator/Collector	C.R. Orcutt
Period	Ceramic Age

Abingdon cave (Hanover, Cornwall, Jamaica) yielded several sets of human remains that had undergone a peculiar taphonomic process and are currently curated at the Department of Anthropology, Smithsonian Institution. The conditions in the burial cave resulted in dripping deposits that accumulated on top of the remains and in some cases fused together several bones and other materials. Lee (in Allsworth-Jones 2008:89) describes his observations in Abingdon cave as follows: 'Portions of bowls at this site had become cemented in place by dripstone, and that one still contained human bones'. This taphonomic process meant that only skull CHA680 (341680), a probable male adult, could be studied, as the dripstone accretion obscured too much of the other crania.

The Smithsonian database indicates the material was donated by C.R. Orcutt, who was on an expedition collecting materials in Jamaica and Haiti for the United States National Museum from 1927 until his untimely death in Port-au-Prince in 1929. Although Orcutt's notes have been saved in the Smithsonian archives and may reveal some contextual information on these burials, this information was never published.

Halberstadt	
Site Name	Halberstadt
Abbreviation	DCAJ
Sampled Individuals	19
Excavator/Collector	J.E. Duerden
Period	Ceramic Age

The Halberstadt Cave was discovered by Reverend W.W. Rumsey in 1895. The mouth of the cave was sealed with blocks, suggesting the archaeological remains inside were relatively undisturbed. Inside, a cedar-wood canoe was discovered lying on top of human remains, described in one account as human skulls arranged in a row underneath the canoe (Duerden 1897). Additionally, ceramic vessels and fragments, a tree trunk potentially used as a mortar, rodent skeletons, marine shells and a flint implement were found (Duerden 1895, 1897; Flower 1895).

Reports differ regarding the number of individuals discovered in the cave. Flower (1895) received only part of the entire collection and counted a minimum of 14 individuals. Duerden's preliminary report mentions at least 24 individuals were present (Duerden 1895). However, the most reliable minimum number of individuals present comes from Haddon (1897). He provides the following count of post-cranial elements: 'Of lower-jaws, however, there are 28: right Femora 32, left 34; right Tibiae 29, left 26; Humeri 27 right and 27 left'. Based on this information, the minimum number of individuals present in the Halberstadt cave is 34.

Two major studies of the crania from the Halberstadt collection have been undertaken. Flower (1895) studied the complete and fragmented crania of 14 individuals shipped to him in London in 1895. Most of these skulls showed evidence of intentional cranial modification, varying from mild to marked alterations. Haddon studied ‘a collection of some sixteen crania and numerous fragments of skulls and lower jaws’ obtained from Duerden (Haddon 1897:23). He concludes that all of them were likely to have been subjected to head shaping, although like Flower he acknowledged that the degree of modification varied from mild to marked.

The remains from Halberstadt are currently being curated at the Duckworth Laboratory Leverhulme Centre for Human Evolutionary Studies, Cambridge University. However, several of the crania have lost their archaeological context in the century they have spent in transit between various curators and locations. Four crania are marked with the words ‘Halberstadt Cave’. However, 21 crania from the island of Jamaica in the osteological collection of the Duckworth Laboratory lack site provenience. Some are marked ‘Institute of Jamaica’, while others display the residue of stickers similar to those found on the Halberstadt crania. The most likely provenience of these crania is the Halberstadt Cave, as no other substantial Jamaican skeletal collections are known to have been shipped to the United Kingdom and the current location of most excavated Jamaican skeletal material is accounted for. Furthermore, several skulls show taphonomic damage which could have resulted from burial in a cave context. Therefore, this study assumes the majority of these crania are from the Halberstadt Cave. Individuals CA026 and CA027 are excluded for reasons explained in the section Jamaica US2 below.

Jamaica US1	
Site Name	Unknown
Abbreviation	JPM
Sampled Individuals	1
Excavator/Collector	Lady E. Blake
Period	Ceramic Age

The cranial remains of an adult male housed in the Peabody Museum of Archaeology and Ethnology at Harvard University as 96-8-30/48016.0 are identified with ID code JPM01. The cranium was collected at an unknown

location in Jamaica. No note was found with the skull to identify the geographic origin or collector, but a note was found with postcranial remains from Jamaica found in the same box and with a sequential original object number (cranium 48016, post-cranial remains 48017). The note contains the following information: ‘Jamaica, Limestone Cave. Arm and leg bone fragments. Encrusted with lime. [?] of Lady Blake, 1896’.

This note indicates the post-cranial remains and the cranium are from the collection of Lady Edith Blake (see also Jamaica, San Pedro). Unfortunately, no further context for these remains can be established.

Jamaica US2	
Site Name	Unknown
Abbreviation	DCAJ
Sampled Individuals	2
Excavator/Collector	Unknown
Period	Unknown

Leverhulme Centre for Human Evolutionary Studies, Cambridge University. The skull is a probable male adult with an unusually high amount of wormian bones and an Inca bone. These latter features would explain why it would be entered into the anatomical collection. Individual DCAJ027 was marked with the words 'Uncle Ben'. Unfortunately, no information was available in the museum records to indicate the origin of this phrase.

Limestone caves	
Site Name	Limestone Caves
Abbreviation	DCAJ
Sampled Individuals	1
Excavator/Collector	G.A.H. Thomson
Period	Ceramic Age

The archaeological context of individual CA025 is described in a tag attached to the cranium: 'Skull from Aboriginal Jamaican from Limestone Caves. Presented by Dr G.A.H. Thomson'. This cranium is currently curated at the Duckworth Laboratory, Leverhulme Centre for Human Evolutionary Studies, at Cambridge University. So far, no publications regarding this find have been found, so no other context can be established. It should be noted that two-thirds of Jamaica is composed of limestone (Allsworth Jones 2008:51), hence the designation Limestone Caves is not very helpful in determining a more specific location.

Pedro Bluff Cave	
Site Name	Pedro Bluff Cave
Abbreviation	DCAJ
Sampled Individuals	2
Excavator/Collector	H. Shirley
Period	Ceramic Age

A skull from Pedro Bluff Cave, Jamaica, is part of the skeletal collection at the Duckworth Laboratory, Leverhulme Centre for Human Evolutionary Studies, Cambridge University. The history of this skull can be found in an article by Flower (1891), which describes the examination of two crania found by Henry Shirley in Pedro Bluff Cave. The first cranium belongs to an adult Amerindian male with marked intentional cranial modification of the fronto-occipital type (Flower 1891:111). The second skull is characterised by Flower as a young adult African female without indications of head shaping (Flower 1891:111-112). The detailed descriptions by Flower include comments on the appearance of the skulls, morphological landmarks, and cranial measurements.

Individual DCAJ017 is marked 'Aboriginal Jamaican. Presented by Hon. H. Shirley. Pedro Bluff Cave, Jamaica'. The cranium belongs to an adult, probably a male, and has a

Cranium DCAJ026 was marked 'Mus. Anat. Cant.', most likely indicating this skull was at one point part of the anatomical collection of Cambridge University before becoming part of the osteological collections at the Duckworth Laboratory,

Leverhulme Centre for Human Evolutionary Studies, Cambridge University. The skull is a probable male adult with an unusually high amount of wormian bones and an Inca bone. These latter features would explain why it would be entered into the anatomical collection. Individual DCAJ027 was marked with the words 'Uncle Ben'. Unfortunately, no information was available in the museum records to indicate the origin of this phrase.

The archaeological context of individual CA025 is described in a tag attached to the cranium: 'Skull from Aboriginal Jamaican from Limestone Caves. Presented by Dr G.A.H. Thomson'. This cranium is currently curated at the Duckworth Laboratory, Leverhulme Centre for Human Evolutionary Studies, at Cambridge University. So far, no publications regarding this find have been found, so no other context can be established. It should be noted that two-thirds of Jamaica is composed of limestone (Allsworth Jones 2008:51), hence the designation Limestone Caves is not very helpful in determining a more specific location.

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marked modification of the fronto-occipital parallel type. The physical appearance and morphological features correspond to the first skull described by Flower (1891).

None of the other crania in the Duckworth Laboratory are marked as originating from Pedro Bluff Cave. However, as noted before, some of the contextual archaeological information from the Jamaica collection is no longer available. Cranium DCAJ012 is the most likely candidate for the second skull described by Flower. This individual is a young adult, most likely female, without signs of intentional cranial modification. The cranial traits match the description provided by Flower (1891).

Portland Hills	
Site Name	Portland Hills
Abbreviation	PPP
Sampled Individuals	8
Excavator/Collector	R.C. MacCormack
Period	Ceramic Age

The MacCormack collection of crania curated in osteological collection of the Department of Anthropology, Smithsonian Institution, was recovered during excavations along the Portland Ridge in the Clarendon province of Jamaica by

Robert C. MacCormack in 1897 and 1898. MacCormack lists 13 skulls and an assortment of other bones in his original publication (MacCormack 1898:444). Of these, eight crania with catalogue numbers 205810-205815 and 205818-205819 were in sufficient condition to be included in this study. The crania were found in several limestone caves located in the Portland Hills, accompanied by ceramic vessels and fragments, shells, lithics, and wood fragments (MacCormack 1898:447). The pottery suggests these crania are associated with the Ceramic Age occupation of the island, but no more accurate date can be established. Furthermore, MacCormack encountered the human remains scattered over the surface of the caves, and consequently no information on the burial position could be gathered.

San Pedro	
Site Name	San Pedro
Abbreviation	SEP
Sampled Individuals	2
Excavator/Collector	Lady E. Blake
Period	Ceramic Age

Two crania in the osteological collection of the Department of Anthropology, Smithsonian Institution, had the words 'Jamaica, W.I., Lady Edith Blake' written across the forehead. SEP491 (227491) is the skull of a probable female adult,

whereas the sex of adult skull SEP522 (227522) could not be determined. These skulls were found in a cave in a cliff face in the vicinity of San Pedro, St. Elizabeth Parish, Jamaica. Lady Blake, whose husband was the Governor General of the island between 1889 and 1897, was an enthusiastic amateur archaeologist. Her collection of prehistoric Jamaican materials was purchased by the Museum of the American Indian. Unfortunately, no published account on the context of these crania exists.

Lesser Antilles

LA US1	
Site Name	Unknown
Abbreviation	DCA
Sampled Individuals	1
Excavator/Collector	A. Deck (?)
Period	Ceramic Age – Colonial period (?)

marked 'Alleged to be a Carib. From Alderman Deck'. No specific geographic origin is known for this individual.

Cranium DCA010, an adult of indeterminate sex, from the Duckworth Laboratory, Leverhulme Centre for Human Evolutionary Studies, Cambridge University, is supposed to originate from the Lesser Antilles. The cranium is

Puerto Rico

Barrio Canas	
Site Name	Barrio Canas
Abbreviation	BCPM
Sampled Individuals	1
Excavator/Collector	Unknown
Period	Unknown

The skull of an adult, likely a male, identified as 53-35-20/N7571.0. in the collection of the Peabody Museum for Archaeology and Ethnology at Harvard University and BCPM01 in the current study, is from Barra Canas. This site consists of several middens, two of which were excavated by Froelich Rainey resulting in the discovery of 15 and 9 skeletons respectively (Rainey 1940:7-14). The skull in the collection of the PMAE was donated by Ricardo Alegría from the University of Puerto Rico and may have come from the site described by Rainey.

The skull of an adult, likely a male, identified as 53-35-20/N7571.0. in the collection of the Peabody Museum for Archaeology and Ethnology at Harvard University and BCPM01 in the current study, is from Barra Canas. This site

Barrio Viva Bayo	
Site Name	Barrio Viva Bayo
Abbreviation	PRU
Sampled Individuals	2
Excavator/Collector	J.W. Fewkes
Period	Ceramic Age

The Barrio Viva Bayo site was investigated by Fewkes during his archaeological exploration of Puerto Rico in 1902 and 1903. The Smithsonian database provides the following geographical contextual information: 'Barrio Viva Bayo, Juegas de Bola, Utuado'. *Juegas de Bola* is the term used by Fewkes to indicate enclosures surrounded by stones, which can have pictographs, and were believed to have been used for the Amerindian ball game (Fewkes 1903a, 1907). Fewkes excavated an unnamed enclosure near Utuado in 1903 which yielded human skeletal remains of ten adults and infants – and two relatively well preserved crania – as well as ceramics and tools (Fewkes 1903a:113, 1903b:457). Despite the relatively poor overall condition of the skeletal remains, Fewkes was able to establish that some were found in a seated position and that grave goods were present (Fewkes 1903a:113, 1903b:457).

The Barrio Viva Bayo site was investigated by Fewkes during his archaeological exploration of Puerto Rico in 1902 and 1903. The Smithsonian database provides the following geographical contextual information: 'Barrio Viva

Crania PRU495 (226495) and PRU111 (221111) in the osteological collection of the Department of Anthropology, Smithsonian Institution, are almost certainly from this particular site, and may even represent the two better preserved crania mentioned by Fewkes (1903a,b).

Cueva de los Muertos	
Site Name	Cueva de Muertos
Abbreviation	PRCM
Sampled Individuals	1
Excavator/Collector	J.W. Fewkes
Period	Ceramic Age

A note was found with cranium and skeletal material of individual PRCM112 (221112) in the osteological collection of the Department of Anthropology, Smithsonian Institution, detailing the following contextual information:

‘Dr. J.W. Fewkes, Cueva de los Muertos, Jobo. Near road from Arecibo to Utuado. Found by Dr Cabello and presented by him to the Smithsonian. These bones found slightly buried and on the surface of the cave floor’.

This is confirmed by Fewkes (1907:83), who reports receiving this material from Dr Cabello in his book. Only one cranium was considered sufficiently preserved to be included in this sample, but the presence of an infant mandible indicates at least two individuals were present.

Duey Bajo	
Site Name	Duey Bajo
Abbreviation	SG
Sampled Individuals	1
Excavator/Collector	L.A. Chanlatte Baik
Period	Late Ceramic Age

Skull SG01, an adult male housed in the *Laboratório de Antropología Forense y Bioarqueología* of the *Universidad de Puerto Rico*, was recovered during archaeological investigations of the Hacienda Luisa Josefa site in Duey Bajo,

San German, Puerto Rico. The excavation was carried out in 1977 by Louis A. Chanlatte Baik (Narganes Storde 2007:275-276). The individual was found in pit 1 at a depth of 80 cm. The site was interpreted as an Ostionoid site. Radiocarbon dating was executed on three shells recovered from varying depths. These samples date the Ostionoid occupation of the site between 785±80 and 515±75 BP or AD 1165 to 1435 (Chanlatte Baik 1990:309; Narganes Storde 2007:280).

Hacienda Grande	
Site Name	Hacienda Grande
Abbreviation	HG
Sampled Individuals	2
Excavator/Collector	Unknown
Period	Ceramic Age

Two crania in the collection of the *Laboratório de Antropología Forense y Bioarqueología* of the *Universidad de Puerto Rico*, adult Female HG23 and adult male HG30, come from the site of Hacienda Grande. This site, located on

the north coast of Puerto Rico, was investigated by several well-known archaeologists, including Irving Rouse, Ricardo Alegría, and Peter Roe (Roe 1985:151). These campaigns yielded a wealth of archaeological materials, which indicate that the site of Hacienda Grande was inhabited by successive populations of Amerindians from the Early to the Late Ceramic Age. Unfortunately, the reputation of Hacienda Grande as a prominent Puerto Rican site also attracted the attention of looters, resulting in damage to the site and irrecoverable loss of data and archaeological context (Roe 1985). Human skeletal material was reported during several archaeological campaigns, including 16 skeletons during the campaign by Rouse and Alegría (1990), two individuals encountered by Alegría and Nicholson (in Roe 1985:165-166), and four human burials recovered by Roe (1985; Walker 1985).

Unfortunately, the two crania designated Hacienda Grande that were studied during this project did not have any further indications regarding the temporal or cultural context. Therefore, the only temporal distinction that can be attributed to them is the overarching label of Ceramic Age.

Mayaguez	
Site Name	Mayaguez
Abbreviation	PRM
Sampled Individuals	1
Excavator/Collector	Unknown
Period	Ceramic Age (?)

A single skull, with catalogue number 326202 and ID code PRM202, in the osteological collection of the Department of Anthropology, Smithsonian Institution, is reported as originating from Mayaguez, Puerto Rico. No other contextual information is present in the database. The exact provenance of this skull cannot be established, other than that it comes from the municipality of Mayaguez on the West coast of Puerto Rico.

Monserate	
Site Name	Monserate
Abbreviation	MSR
Sampled Individuals	1
Excavator/Collector	Unknown
Period	Ceramic Age

Skull MSR109, an adult female from the collection of the *Laboratório de Antropología Forense y Bioarqueología* of the *Universidad de Puerto Rico*, reportedly comes from Monserate in Puerto Rico. No other contextual information was recorded for this individual. The site of Luquillo Beach, Monserate, has long been frequented by archaeologist and amateur collectors and enthusiasts and has yielded numerous collections of archaeological material (Roe et al. 1990). Excavations at the site in 1947 by Alegría uncovered a large number of human burials, of which Alegría reportedly saved 19 crania. The current whereabouts of this material are unknown and it is possible this cranium was originally part of this larger group, especially when considering Alegría played an important role in the expansion of the archaeological

collection of the *Universidad de Puerto Rico* (Mendez Bonilla 2006). Without further contextual information, little can be said of the skull's temporal context as the site was inhabited throughout the Ceramic Age as evidenced by the wide range of ceramic styles encountered by Roe et al. (1990).

Pinas	
Site Name	Pinas
Abbreviation	PPM
Sampled Individuals	1
Excavator/Collector	Unknown
Period	Ceramic Age

The remains of several individuals from Pinas, Puerto Rico, are present in the osteological collections of the Peabody Museum for Archaeology and Ethnology at Harvard University. Due to the fragmentary nature of the remains, only

skull 89-47-20/61459.0 was deemed suitable for analysis. This individual was given ID code PPM01 and is an adult of undetermined sex. The skeletal remains from Pinas were brought to the museum in 1889, likely purchased from private collectors or obtained through excavations executed by different institutions (Guzman 2011:71-74).

Punta Candelero	
Site Name	Punta Candelero
Abbreviation	PC
Sampled Individuals	8
Excavator/Collector	M. Rodríguez López
Period	Early Ceramic Age

The site of Punta Candelero was excavated in 1988 and 1989 and yielded 106 human burials housed at the *Laboratório de Antropología Forense y Bioarqueología* of the *Universidad de Puerto Rico* (Crespo Torres 2000;

Rodríguez López 1991). There is evidence of two distinct habitation phases at the site, the Huecoid phase between 200 BC and AD 200 and a later Cuevas (Saladoid) phase between AD 400 and 1000 (Pestle 2010; Rodríguez López 1991). The human burials are all related to the Saladoid occupation of the site, only the six dog burials can be connected to the Huecoid complex (Crespo Torres 2000, 2010; Pestle 2010; Rodríguez López 1991). Eight individuals were sufficiently well preserved to include in this research.

Rio Arriba	
Site Name	Rio Arriba
Abbreviation	RA
Sampled Individuals	1
Excavator/Collector	J. Limon de Arce
Period	Ceramic Age

Adult male skull RA85 from the collection of the in the *Laboratório de Antropología Forense y Bioarqueología* of the *Universidad de Puerto Rico* has a likely provenance of Cueva Bayaney. This archaeological site consists of a cave and

an open plaza or ball court near Rio Arriba in Arecibo. The skull was likely donated to the university by José Limón de Arce (Crespo Torres, personal communication 2011). A ball court located in the district called Rio Arriba de Arecibo was investigated by Haerberlin in 1915 (Haerberlin 1917), but whether this was the same site can no longer be established.

Sorce, Vieques	
Site Name	Sorce
Abbreviation	SV
Sampled Individuals	2
Excavator/Collector	L.A. Chanlatte Baik
Period	Early Ceramic Age

Two individuals from the collection of the *Laboratório de Antropología Forense y Bioarqueología* of the *Universidad de Puerto Rico* are from the site of La Hueca, Sorce on the island of Vieques, located south east of Puerto Rico. The investigators have determined the site consists of two habitation phases, which they refer to as Agro I Huecoid and Agro II Saladoid (Chanlatte Baik and Narganes Storde 2005).

Individual SV02, a probable male adult, is designated as coming from SV-YTA(2). SVH6, a child aged between 4 and 6 years old, has been marked with SV-YTA(3). The abbreviations YTA(2) and YTA(3) refer to specific mounds within the La Hueca site which are attributed to the Saladoid phase of occupation. Several radiocarbon samples from YTA(2) returned dates of in a range between AD 200 and 800 (Narganes Storde 1991). YTA(3) produced a single early date ranging from AD 260 to 650 and two later dates between AD 650 and 1000 (Narganes Storde 1991).

Tecla	
Site Name	Tecla
Abbreviation	TG
Sampled Individuals	1
Excavator/Collector	Centro de Investigaciones Arqueológicas (UPR)
Period	Ceramic Age

The skull of a four to five year old child was designated ID code TG01 in the *Laboratório de Antropología Forense y Bioarqueología* of the *Universidad de Puerto Rico*. This skeletal material originated from the site of Tecla 1, Guayanilla. The site of Tecla was excavated in the 1970's by the *Centro de Investigaciones Arqueológicas* of the *Universidad de Puerto Rico* (Chanlatte Baik and Narganes Storde 2005).

The site was divided into several components, numbered Tecla 1 to 6. Tecla 1 consists of a Saladoid and Ostionoid component (Narganes Storde 1991). The Saladoid habitation has been dated between 2380±80 and 1460±80 BP or 430 BC to AD 490, whereas the Ostionoid phase was dated between 1490±80 and 1055±80 BP or AD 460 to 895 (Chanlatte Baik and Narganes Storde 1986; Narganes Storde 1991). Unfortunately, it is unknown whether this burial belongs to the Saladoid or Ostionoid occupation of the site and has therefore been given the rather broad date of 400 BC to AD 900.

Trujillo Alto	
Site Name	Trujillo Alto
Abbreviation	TA
Sampled Individuals	1
Excavator/Collector	I. Rouse (?)
Period	Ceramic Age

cm, April 1968.

This suggests that the skeleton was encountered at a depth of 0.25-0.50 cm in pit L13. E1 likely stands for *entierro 1* ('burial 1'). The site is located in the Barrio Cuevas on the Finca Matienzo. This information is corroborated by Rouse who discusses an archaeological site named Trujillo Alto 4, which is 'situated little more than a kilometre southwest of the town of Trujillo Alto, this site forms part of the Finca Matienzo of the Central Victoria in Barrio Cuevas of the municipality of Trujillo Alto' (Rouse 1952:413). The date of April 1968 may refer to the date of recovery of the skeleton in the field or the date of donation to the collections of the *Universidad de Puerto Rico*. Rouse describes the excavation of a child's skeleton in Section A2, which is a likely source for this material. Although the site of Trujillo Alto was investigated more extensively by Miguel Rodríguez López between 1978 and 1985, this does not seem to fit with the date of April 1968 (Rodríguez López 1995).

UPR US1	
Site Name	Unknown
Abbreviation	UPR
Sampled Individuals	4
Excavator/Collector	Unknown
Period	Unknown

Unknown Site 1 (UPR US1). Three crania belong to adult males (UPR118, UPR 119, UPR121) and one cranium belongs to a possible male adult (UPR03).

Individual TA01, a child of approximately 7 to 8 years old, comes from the site of Trujillo Alto, Puerto Rico. The following contextual information is provided for these skeletal remains: Pozo L13, L13-E1, B° Las Cuevas, Fca Matienzo, 0.25-0.50

Four crania in the collection of in the *Laboratório de Antropología Forense y Bioarqueología* of the *Universidad de Puerto Rico* had no contextual information. They were given the designation *Universidad de Puerto Rico*

Saba

Kelbey's Ridge 2	
Site Name	Kelbey's Ridge 2
Abbreviation	KR
Sampled Individuals	4
Excavator/Collector	C.L. Hofman and M.L.P. Hoogland
Period	Late Ceramic Age

The settlement of Kelbey's Ridge 2 dates to AD 1250-1400 and is located on the northeast coast of Saba. The remains of consecutive phases of a round house and associated hearths were uncovered by a Leiden archaeology team under the direction of Hofman and Hoogland during the 1980's. The material culture encountered

at the site indicates that the site of Kelbey's Ridge 2 was an outpost of the Taíno chiefdoms of the Greater Antilles (Hoogland and Hofman 1993, 1999; Hofman and Hoogland 2011).

Human burials were encountered under or near house structures and represent the remains of 11 individuals (Weston 2010) currently curated at the Laboratory for Human Osteoarchaeology, Faculty of Archaeology, Leiden University. The relatively fragmentary nature of the remains meant only four crania were sufficiently well preserved to be analysed.

Spring Bay 1c	
Site Name	Spring Bay 1C
Abbreviation	SB
Sampled Individuals	1
Excavator/Collector	C.L. Hofman and M.L.P. Hoogland
Period	Late Ceramic Age

The site of Spring Bay 1 is a component of a Ceramic Age village located close to the site of Kelbey's Ridge 2. There are some indications the site was occupied and abandoned several times during its occupation span. The main part of the

site consists of a large midden deposit, which revealed the burial of a single child, aged between 2 and 4 years old. The skeletal material is in the collection of the Laboratory for Human Osteoarchaeology, Faculty of Archaeology, Leiden University. This burial was dated to the same period as the nearby habitation at Kelbey's Ridge 2, i.e. the Late Ceramic Age (Hoogland 1996; Weston 2010).

St. John (VI)

Caneel Bay Plantation	
Site Name	Caneel Bay Plantation
Abbreviation	CBV
Sampled Individuals	1
Excavator/Collector	Unknown
Period	Colonial period

Individual CBV691 is an adult female found at the Caneel Bay Plantation on St John, United States Virgin Islands. The remains are currently housed in the osteological collections of the Department of Anthropology,

Smithsonian Institution under catalogue number 385691. She is listed as an individual of unknown ancestral origin, although the contextual information is suggestive of non-Amerindian and likely African ancestry.

St. Kitts

Bloody Point	
Site Name	Bloody Point
Abbreviation	BP
Sampled Individuals	2
Excavator/Collector	S. Farr and J. Robb
Period	Ceramic Age

The site of Bloody Point is located on the leeward coast of the island of St Kitts. The site was visited at the beginning of the 20th century by renowned American archaeologists Branch and Fewkes. Excavations of the site in 1993 and 1994

by S. Farr and J. Robb produced evidence of Saladoid (< 800 AD) and Ostionoid (AD 800-1500) ceramics, as well as artifacts of European origin in the uppermost layers (Farr 1993, 1996). Ten burials were found during the 1994 campaign and are currently curated by the St. Christopher National Trust. Of these, two crania were preserved sufficiently to be studied as part of this research. These crania are indicated with ID codes BP25 and BP26, and belong to a probable adult male and an adult male respectively.

Suriname

The Geijkes collection of human remains was collected during excavations in Suriname during the 1950's and 1960's by Dutch archaeologist D.C. Geijkes and comprises multiple sites: Kwatta Tingiholo, Hertenrits, Okrodam, Saramacca, and Waterkant/de Mirandastraat. The skeletal material collected during the excavation at Kwatta Tingiholo was turned over by Geijkes to the Department of Anthropology of the Royal Tropical Institute in Amsterdam, where the director entrusted the material to Tacoma. At some point, skeletal material from Hertenrits and 'two batches of skeletal remains originating from a burial-place, putatively Indian, in a shell-ridge named 'Okrodam' in Kwatta' (Tacoma 1963:14) were added to the collection. All skeletal material was transferred into the custody of Menno L.P. Hoogland of the Faculty of Archaeology of Leiden University in 2007. Reanalysis of the material in the spring of 2011 encountered undocumented additions: a fragmented skull marked 'Aruba', two sets of remains from the site Paramaribo, Waterkant/de Mirandastraat, and four skeletons marked 'Saramacca'.

The sites which compose the Geijkes Collection of human remains mostly date to the so-called Arauquinoid period. The eponymous pottery tradition originated in Venezuela and consists of several related styles: (Early and Late) Hertenrits, Kwatta, Barbakoeba, and Thémire. These ceramics can be found in archaeological assemblages from Suriname dating from AD 700 onwards (Versteeg 2008:316).

Hertenrits	
Site Name	Hertenrits
Abbreviation	HE
Sampled Individuals	4
Excavator/Collector	Unknown
Period	Ceramic Age

The Hertenrits site, located on the northwestern coast of Suriname, is a habitation mound with two phases of use. Radiocarbon dates from the site show an early component between AD 700 and 1000 and a later phase between AD 1000 and 1250. Ten primary burials, two secondary urn burials, and a single combined primary and secondary inhumation have been encountered at Hertenrits (Boomert 1980). There is variation in burial positions, with both flexed and extended styles encountered. Most of the human burials are associated with the later habitation phase. The only grave goods are an occasional ceramic bowl or vessel covering the skull of the individual (Boomert 1980:85).

The skeletal remains from the site consist of eight individuals, but only four crania were preserved such that they could be analysed. These four individuals are all adult males.

Kwatta Tingiholo	
Site Name	Kwatta Tingiholo
Abbreviation	TH
Sampled Individuals	14
Excavator/Collector	D.C. Geijskes
Period	Ceramic Age

Kwatta Tingiholo is located on a natural shell ridge in coastal region of central Suriname. The mound of Kwatta Tingiholo was excavated on three separate occasions between 1961 and 1986 by different teams affiliated with the Suriname Museum in Paramaribo. Each of these campaigns has yielded a significant amount of human skeletal material, however, only the burials excavated by Geijskes during the first field campaign were analysed for this project.

The excavation by Geijskes was undertaken between November 1961 and January 1962. A total of 18 human burials were found in a great variety of burial positions ranging from primary flexed positions to fully extended individuals. A primary urn burial was also encountered and a single case of a skull covered by an upturned bowl was reported. Analysis by Tacoma proved at least 23 individuals were present (Tacoma et al. 1991). During the reanalysis of the sample in 2011, two human infants were recovered in a bag marked animal remains.

The Kwatta Tingiholo Geijskes collection contains the remains of 25 individuals, including the newly discovered infants. Fourteen of these were included in the sample for reanalysis, whereas the rest either had poor preservation or a complete lack of cranial remains.

Okrodam	
Site Name	Okrodam
Abbreviation	O
Sampled Individuals	1
Excavator/Collector	D.C. Geijskes
Period	Ceramic Age

over the chest and flexed legs in typical Amerindian fashion (Tacoma 1963:64). Okrodam is located in the Kwatta region of Suriname, close to the site of Kwatta Tingiholo.

The Okrodam skeletal material consists of three individuals. Skull O-1 was discovered by accident whereas the skeletal remains of individuals O-2-1 and O-2-2 were excavated by Geijskes in 1959. Both were buried with the arms crossed

The reanalysis was limited to a study of cranium O-1, a male adult, since the poor preservation of the other crania prevented successful analysis.

Saramacca	
Site Name	Saramacca
Abbreviation	SA
Sampled Individuals	4
Excavator/Collector	D.C. Geijskes
Period	Ceramic Age

Four sets of human remains, consisting of crania and post-cranial elements from the Geijskes collection are marked Sa 1 to 4. A handwritten note was found in the box of skeletal remains with the following contextual information:

‘Suriname
Saramacca at km 62
Road to Coppename, point Boskamp
February 1960, D.C. Geijskes
District Saramacca in shell ridge near Tambaredjo
Depth 60 cm, legs flexed, head east’

The inventory of archaeological sites in Suriname by Boomert (1975) indicates these skeletons may have been recovered from the Tambaredjo site in the Saramacca district. Material found at Tambaredjo-2, also known as Sidodadi, was potentially shipped to the Netherlands (A. Boomert, personal communication 2008). The four crania belong to adult individuals. Unfortunately, the relatively poor condition of the remains prevented an accurate establishment of sex.

Waterkant/de Mirandastraat	
Site Name	Waterkant/De Miranastraat
Abbreviation	Pa
Sampled Individuals	2
Excavator/Collector	D.C. Geijskes (?)
Period	Ceramic Age – Colonial period

In the Geijskes Collection of skeletal material two crania were found marked with the numbers Pa-1 and Pa-2. The accompanying note indicates that this skeletal material was recovered during the excavation of Waterkant/de

Mirandastraat in the Surinamese capital of Paramaribo. This site was excavated on

twice, first by de Groot in 1941 and later by Geijskes in 1960-1961 and is considered a Kwatta-affiliated settlement site (Boomert 1975:43). The boxes of skeletal material labelled Pa-1 and Pa-2 also contain indigenous ceramics, colonial materials and shells. Their provenance and relation to the human remains is unknown.

The two crania PA1 and PA 2 both belong to adult individuals. The poor condition of the material prevented a reliable determination of biological sex.

Trinidad

Manzanilla	
Site Name	Manzanilla
Abbreviation	SaM
Sampled Individuals	11
Excavator/Collector	M.C. Dorst
Period	Ceramic Age

The site of Manzanilla on the island of Trinidad was excavated between 2001 and 2007 by a team from Leiden University. The archaeological remains recovered date to two distinct periods: the Saladoid (Late Palo Seco) phase dated between AD 350 and 650, and the subsequent Arauquinoid stage dated between AD 650 and 1400. Indications of habitation and human burials from both periods were recovered (Dorst 2008).

The site of Manzanilla on the island of Trinidad was excavated between 2001 and 2007 by a team from Leiden University. The archaeological remains recovered date to two distinct periods: the Saladoid (Late Palo Seco) phase dated between AD 350 and 650, and the subsequent Arauquinoid stage dated between AD 650 and 1400. Indications of habitation and human burials from both periods were recovered (Dorst 2008).

Eleven crania, curated at the Laboratory for Human Osteoarchaeology, Faculty of Archaeology, Leiden University, were suitable for analysis within this research project. Two of the crania belong to the earlier Saladoid (Early Ceramic Age) phase and eight crania could be dated to the later Arauquinoid phase (Late Ceramic Age). One of the individuals could not be securely attributed and has thus been dated to the broader Ceramic Age.

Venezuela

Camburito	
Site Name	Camburito
Abbreviation	CBV
Sampled Individuals	2
Excavator/Collector	A. Jahn
Period	Ceramic Age

Commissioned by the *Museum für Völkerkunde* in Berlin, Alfred Jahn undertook systematic survey and archaeological excavations of the Lago Valencia basin in Venezuela in 1903. His explorations of the sites of El Zamuro (see below) and Camburito yielded abundant material culture and human remains, which were shipped to Berlin and are currently curated in the anthropological collection of the *Museum für Vor- und Frühgeschichte*.

Commissioned by the *Museum für Völkerkunde* in Berlin, Alfred Jahn undertook systematic survey and archaeological excavations of the Lago Valencia basin in Venezuela in 1903. His explorations of the sites of El Zamuro (see below) and Camburito yielded abundant material culture and human remains, which were shipped to Berlin and are currently curated in the anthropological collection of the *Museum für Vor- und Frühgeschichte*.

Camburito, located on the left bank of the Rio Turmero about three kilometres east of Lago Valencia, consists of 50 to 60 mounds between 10 and 25 meters in diameter. After inspecting 13 mounds, Jahn selected two for excavation. Burial urns were encountered towards the centre of the mounds, sometimes containing human remains (Jahn 1903, 1932; von Steinen 1904). Crania were also found without urns or covering suggesting a wide range of burial practices that have also been noted for other cemeteries in the Lago Valencia (see Kidder 1944 for an overview). In addition to human remains, Jahn encountered several elaborated necklaces and beads made of stone and shell as well as ceramics. Hearthstones and hearths indicate these mounds were likely used for habitation (Jahn 1903; von Steinen 1904).

Two crania from Camburito were studied during this project. Unfortunately, the original field numbers of the crania seem to have been lost, meaning these individuals cannot be traced back to the particular contexts described in Jahn's report (Jahn 1903). However, cranium CBV4933 belongs to a child and Jahn mentions only one child burial in his report, so a tentative correlation can be made. The burial is described as a child's urn with skull and necklace, accompanied by a water bottle filled with black sand and a ceramic figurine. The context of the other cranium from Camburito, a likely female adult with ID code CBV4935A, cannot be determined based on the available information.

Carache	
Site Name	Carache
Abbreviation	CAR
Sampled Individuals	1
Excavator/Collector	A. Kidder II
Period	Unknown

Individual CAR01, an adult female, curated in the osteological collection of the Peabody Museum of Archaeology and Ethnology at Harvard University as 34-159-30/N3761.0, was collected by Alfred Kidder II during his 1934 expedition to

Venezuela. The remains were excavated during explorations of Carache, a district in the northeast of the State of Trujillo.

El Zamuro	
Site Name	El Zamuro (La Mata)
Abbreviation	EZA
Sampled Individuals	19
Excavator/Collector	A. Jahn
Period	Ceramic Age

The expedition undertaken by Jahn in 1903 at the behest of the *Museum für Völkerkunde* in Berlin resulted in excavations at the sites of El Zamuro and Camburito (described above) in Venezuela. El Zamuro⁷ is located on the

7 The group of mounds which Jahn refers to as El Zamuro is better known as La Mata. This important site was investigated by many archaeologists, including Marcano, Bennett, Castillo, and Kidder (see Kidder 1944) as well as Osgood (Osgood and Howard 1943). This dissertation uses the name El Zamuro with regards to the skeletal collection excavated by Jahn, to avoid any confusion with other skeletal remains from this site.

right bank of the Rio Aragua, about 2.5 to 3 km eastwards of the shore of Lago Valencia. Jahn reports 22 mounds, with no apparent spatial patterning, most between 20 and 40 meters in diameter. The largest mound is substantially greater with a length of 130 meters and a width of 63 meters (Jahn 1903; von Steinen 1904).

Jahn dug trenches in several of the mounds at El Zamuro. In the centre of mound 2, Jahn found approximately 50 urns at a relatively shallow depth placed together in groups of 8 to 10. The largest mound, number 4, had an estimated 200 to 300 urns. Jahn (1903) opened only 18 urns finding many contained exquisite necklaces made of stone and shell in addition to skeletal material. Although Jahn does not provide full descriptions of each urn, he discusses several exceptional cases. The first is the urn burial of a skull with strong flattening, which was found with one of the most elaborate necklaces consisting of frog figurines and nephrite plates, as well as a clay pipe. Another interesting find is the urn burial of a monkey skeleton complete with a perforated shell necklace (Jahn 1903; von Steinen 1904). The mounds were inhabited, as is shown by Jahn's discovery of hearths and food remains.

Jahn (1932) mentions the shipping a total of 32 crania from El Zamuro and Camburito to Berlin. Two crania from Camburito (see above) and nineteen crania from El Zamuro were available for analysis in the anthropological collection of the *Museum für Vor- und Frühgeschichte*.

La Cabrera	
Site Name	La Cabrera
Abbreviation	CAV
Sampled Individuals	14
Excavator/Collector	A. Kidder II
Period	Ceramic Age

In 1933 and 1934, Alfred Kidder II carried out an expedition to Venezuela with the aim of excavating archaeological sites in the Aragua Valley. Kidder (1944) focused on the Cabrera Peninsula, located on the north side of Lago Valencia, excavating

several trenches close together at the tip of the peninsula.

Before discussing the burials and material culture found at the site, it is important to have a brief look at Kidder's different trenches. The main trench, which yielded most of the material culture and a good stratigraphy, is the Los Tamarindos Trench. Kidder also produced smaller trenches and test pits: the La Ceiba Trench, the West Trench, the Northwest Pit, and the East Pit. Unfortunately, the full contextual information of a number of individuals was lost at some point after the excavation of the skeletons by Kidder. This means that despite Kidder's extremely detailed descriptions, not all skeletons can be placed in their proper context (which has implications for the relative dating of these individuals). Table 10 shows a reconstruction of which crania from the collection of the Peabody Museum of Archaeology and Ethnology at Harvard University

belong to which excavation. Sadly, three crania could not be correlated to their original trench and are simply marked La Cabrera.

Table 10 Overview of the La Cabrera skeletal material excavated by Kidder (1944) currently curated at the Peabody Museum of Archaeology and Ethnology at Harvard University.

La Cabrera	La Cabrera/ Los Tamarindos	La Cabrera/ West Trench
CAV01 – 34-159-30/N3756.0	CAV05 – 33-100-30/N905.0	CAV04 – 33-100-30/N906.0
CAV02 – 34-159-30/N3758.0	CAV07 – 33-100-30/N891.0	CAV06 – 33-100-30/N908.0
CAV03 – 33-100-30/N902.0	CAV08 – 33-100-30/N886.0	
	CAV09 – 33-100-30/N892.0	
	CAV10 – 33-100-30/N896.0	
	CAV11 – 33-100-30/N895.0	
	CAV12 – 33-100-30/N894.0	
	CAV13 – 33-100-30/N897.0	
	CAV14 – 33-100-30/N893.0	

Kidder discovered evidence of two distinct habitation phases in the Los Tamarindos Trench based on ceramic typology: the La Cabrera phase and the Valencia phase. No radiocarbon dates have resulted from the La Cabrera material, but using the relative chronology of these styles as proposed by Cruxent and Rouse (1958/59) leads to an approximate date of 550 BC to AD 1000 for La Cabrera and AD 1000-1500 for Valencia. The West Trench only yielded material from the Valencia style and can thus be considered Late Ceramic Age (AD 1000-1500).

The indigenous inhabitants of the La Cabrera Peninsula had a wide variety of mortuary practices. In the La Cabrera phase, primary burial was the norm. However, the body was sometimes covered with a ceramic vessel or stone slab and burial positions ranged from flexed to extended. Secondary urn burials become the norm during the Valencia phase, although primary burials and a single cremation are also found. A total of 14 burials from the excavations by Kidder at the la Cabrera Peninsula could be investigated.

La Cabrera 1	
Site Name	La Cabrera
Abbreviation	LCS
Sampled Individuals	2
Excavator/Collector	A.H. Schultz and E.W. Berry/ B.R. Lewis
Period	Ceramic Age

Two crania in the osteological collection of the Department of Anthropology, Smithsonian Institution are reported to have come from the La Cabrera Peninsula in Venezuela, although they were obtained from two different collectors. Given the notoriety of the area

surrounding Lago Valencia as an excellent place to obtain archaeological specimens among early researchers (see Kidder 1944), this is to be expected. These two crania

have been grouped here under the heading La Cabrera 1 to differentiate them from the previously discussed Kidder collection from the same location.

Cranium LCS621 belongs to an adult of undetermined sex collected by A.H. Schultz and E.W. Berry. The latter was actually present during the Kidder expedition to Venezuela and in fact oversaw some of the excavation work on the La Cabrera Peninsula himself (Kidder 1944). Hence, this skull might have been obtained by Berry during his work for Kidder or at a different time during his travels in Venezuela, but no further contextual information is known.

The second skull, an adult male with ID code LCS636, was collected by Berkeley R. Lewis from a cemetery on the La Cabrera Peninsula in Venezuela.

Lago Valencia	
Site Name	Lago Valencia
Abbreviation	LVV
Sampled Individuals	1
Excavator/Collector	R. Requena
Period	Ceramic Age (?)

An adult male cranium with catalogue number 378586 and ID Code LVV586 was donated to the osteological collection of the Department of Anthropology, Smithsonian Institution, by Raphael Requena. The skull came from Lake

Tacarigua (more commonly known as Lago Valencia), near Maracay in the state of Aragua, Venezuela. The skull is used as an illustration in a well-known article by T.D. Stewart and M.T. Newman in the Handbook of South American Indians (Stewart and Newman 1950:35).

La Hoyada	
Site Name	La Hoyada
Abbreviation	LHV
Sampled Individuals	9
Excavator/Collector	E. Plumacher
Period	Colonial period

Nine crania (208045-208053) with a reported provenance of La Hoyada in Venezuela from the osteological collection, Department of Anthropology, Smithsonian Institution, were analysed during this project. These skulls can be

traced back to the List of Accessions of 1901: 'Skulls, bows, arrows and spears used by the Motilon Indians, and a collection of skulls and pottery from La Hoyada. Received from Mr. Edward Plumacher, United States Consul, Maracaibo, Venezuela. 36732,37331' (Annual Report 1903:129). The original accession numbers provided in the document indicate that the nine crania marked La Hoyada in the current osteological collection are in fact the latter 'collection of skulls and pottery' acquired by Plumacher.

San Mateo	
Site Name	San Mateo
Abbreviation	SMV
Sampled Individuals	2
Excavator/Collector	A. Kidder II
Period	Ceramic Age

During his 1934 expedition to Venezuela on behalf of Harvard University, Kidder made test pits at the site of San Mateo. This site is located on the northern bank of the Rio Aragua, one of the main tributaries of Lake Valencia. Kidder's

trenches produced very little material, despite his description of the large extent of the site. All materials encountered were classified as of the La Valencia ceramic style, and the site can thus be dated relatively to the Late Ceramic Age, approximately AD 1000 to 1500 in this region (Kidder 1944).

Four burial urns were found, two of which contained human remains currently in the collection of the Peabody Museum of Archaeology and Ethnology at Harvard University. Both burials are secondary in nature. Kidder describes the two skulls in the following manner: 'Two skulls from burials so near together and in ware of exactly the same style, one undeformed and the other strongly so' (Kidder 1944:87). These two crania, ID Codes SMV01 34-159-30/N3760.0 and SMV02 34-159-30/N3759.0, belong to an adult male and an adolescent of undetermined sex, respectively.

