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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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8

SHAPING IDENTITY

This study has produced a myriad of details and intricate patterns of information on head shaping practices in the Caribbean from the coasts of the South American mainland to the islets of the Bahamian archipelago. The interpretation of these multiscale and diachronic results will make full use of the heuristic framework of identity developed in this study in order to understand the ties that bind individuals, communities, and altered head shapes in a social web. It will also incorporate additional evidence from historic sources, ethnographic accounts, and previously published archaeological data from the region and beyond to present a comprehensive view of the multifaceted social context of head shaping practices in the indigenous world of the Caribbean.

The exploration and interpretation of Caribbean head shaping practices will follow the structure of Chapter 7 for ease of reference. Here, interesting elements and patterns of cranial modification in the region will be highlighted and expanded upon in a multiscale fashion ranging from the individual experiences and life histories of a Caribbean infant and young woman to the tangled connections of head shapes in an early colonial *encomienda* settlement. A general history of head shaping practices in the Caribbean will be sketched showing the rise, decline, and resurgence of intentional cranial modification against the backdrop of important social and historical developments before and after the arrival of Columbus.

8.1

MEASURING MODIFICATION

Correctly identifying cranial modification in skeletal material forms the basis of any investigation of head shaping practices in past societies and can be achieved through visual assessment or the application of metric methods. Visual assessment procedures and classification systems should be clearly described to compensate for the inherent qualitative nature of the methods and to reduce the issues surrounding subjectivity as well as intra- and inter-observer errors. Assessment of head shaping through methods based on cranial metrics partially solves these concerns surrounding subjectivity. Such techniques assume that alterations to the cranial shape produced by modification practices result in consistent, quantifiable differences between measurements of

normal and altered crania. Taken further, it can also be suggested that different modification types and subtypes will leave distinct metric signatures.

The validity of this premise for the Caribbean was investigated by comparing the means of 24 different cranial measurements taken during this study from crania classified as normal and modified by visual assessment. There were substantial differences between these two categories predominantly in measurements that relate to cranial breadth and length. Modified crania from the Caribbean were shorter and broader than their non-modified counterparts. The statistically significant metric differences were not restricted to cranial vault measurements, but also showed an impact on the upper facial region. This was expected given the functional and developmental unity of the different regions composing the human skull (Lieberman et al. 2000).

The differences between modification types and subtypes were also investigated by comparing the means of the cranial measurements produced by the respective groups. An analysis of main types frontal flattening, fronto-occipital modification, and occipital flattening only showed significant differences in the maximum cranial length and parietal chord. The limited variation can be explained by the similarity in modification types found in the Caribbean dataset. Fronto-occipital modification consists of pressure exerted on the front and back of the skull, essentially combining frontal and occipital flattening into a single shape. Thus, each of these types was very similar and difficulty separating them based on metrics was expected. Unfortunately, only a single case of circumferential modification was encountered in the region preventing this category from being used in the ANOVA analysis. The metric differences between fronto-occipital and circumferential modification have proven to be much more significant in previous investigations using different populations (Clark et al. 2007; O'Brien and Stanley 2011).

The means of the suite of cranial measurements were also compared for the three subtypes, parallel, parallel-vertical, and vertical, respectively. Again, the only substantial difference was found in the maximum cranial length. The parallel subtype can be distinguished from the parallel-vertical and vertical subtypes based on this measurement, showing the merit of using a classification system that includes these subtypes for the Caribbean. The difference is not clear enough to rely solely on metrics to differentiate the subtypes, yet it could be a useful aid in assessing the reliability of observer assessment at the population level.

Two techniques based on metric differences have been developed to aid in the identification of cranial modification. The first, by Clark and colleagues (2007), distinguishes between modified and non-modified crania. The second, developed

by O'Brien and Stanley (2011), indicates whether the skull has been subjected to fronto-occipital or circumferential modification. Both methods have a relatively high correspondence with the visual classification employed in this study, at 68 and 73 percent respectively, with the conservative nature of the Clark method explaining the slightly lower figure. The O'Brien and Stanley technique is not impacted by different modification types or subtypes, but Clark's method has difficulty with the correct identification of sole frontal or occipital flattening as predicted by the authors. Comparing the agreement between both methods and the visual inspection shows that total disagreement, an indication of normal from both methods but a verdict of modified from visual inspection, only occurs in 15% of cases. Of these, most were classified as mild cases of modification with cranial shapes and metrics expected to be close to normal shape variation. Thus, these crania would be difficult to differentiate from normal crania using metric methods.

The comparison between the metric methods by Clark et al. (2007) and O'Brien and Stanley (2011) and the visual inspection have shown that both function well when applied to Caribbean skeletal material and can aid in the recognition and classification of cranial modification. However, the major reason that cranial measurements are less effective as the main method of identification and classification of cranial modification is the nature of archaeological skeletal material. Unlike anatomical specimens collected under optimal conditions, crania from an archaeological context can be (and often are) damaged or incomplete. A single missing data point means the necessary measurements cannot be taken and the skull cannot be classified using the chosen metric method. In the current dataset, only 30% of the crania had all measurements necessary for the Clark method and a mere 20% could be classified using the technique by O'Brien and Stanley. This is an unacceptable reduction in sample size, particularly in a region like the Caribbean, where skeletal material is relatively sparse, and a clear reason to prefer visual inspection and classification of cranial modification as the main method employed when studying head shaping practices. Metric methods can, however, be very useful to support visual inspection in difficult or ambiguous cases.

A Note on Ambiguity

The discussion on cranial modification has so far been focused on making the distinction between modified and non-modified individuals, essentially creating binary categories. However, in reality cranial shapes exist on a continuum ranging from normal cranial variation to extreme cranial alterations caused by pathology or human action. In an archaeological assemblage, this may result in a group of crania that are difficult to classify, as their shape may place them in the ambiguous middle ground between the

two extremes. Such ambiguity is often difficult to deal with from both an osteological and statistical perspective, leading to the removal of these crania from the study sample or selective removal from certain analyses.

While ambiguity complicates matters for the scientist wishing to create clear and discrete categories, it is fascinating from a social perspective for several reasons. The fact that ambiguously shaped skulls occupy a continuum from normal variation to cranial modifications suggests that people may be emphasizing the natural cranial shape. This is certainly the case in the Caribbean, where a natural tendency towards a broader meso- to brachycephalic skull (Stewart and Newman 1950; Tacoma and Van Vark 1991) is enhanced by fronto-occipital modification, which broadens and shortens the cranium even more.

Ambiguous cranial shapes may also result from variations in head shaping practices within a single community. It stands to reason that families or lineages may perform cranial modification slightly differently depending on the distribution of knowledge and experience among practitioners. Hoshower and colleagues (1995) demonstrated such variation between kin groups in their analysis of the Peruvian Omo M10 site. Disparities in the construction of the modification device, duration of wear, and the amount of pressure exerted, may all lead to mild degrees of modification difficult to distinguish from normal cranial variation. These variations in degree or other minor differences in shape may point to communities of practice sharing a way of doing within the larger social context or represent expressions of individual agency and personal choices influencing the practice.

Most interesting from a theoretical perspective, however, is that the presence of ambiguous skulls may suggest that being subjected to the practice of head shaping as an infant is more important than the resulting cranial shape itself. The move towards a more social understanding of cranial modification in recent years, and in particular the inclusion of socially-constructed notions of identity, has highlighted the role of head shaping practices in early socialisation, identity formation, and the process of becoming a social agent (cf. Duncan and Hofling 2011; Geller 2004; Joyce 2000; Tiesler 2012). Under such circumstances the theoretical framework developed for this study suggests the crucial element of the process, from a social point of view, may be the participation in the event by the newborn representing a passage rite into personhood. The altered head shape may be viewed as a beneficial, but not strictly required, by-product of a social process.

This hypothesis is also crucial for explaining the absence of cranial modification in certain individuals within a social setting or a single archaeological skeletal

assemblage. The practice of cranial modification may of course be linked to specific social ideas that only apply to certain individuals within the community. For example, modification may be restricted to particular social groups or genders, like among several societies from the North American Northwest Coast, where head shaping was the prerogative of free individuals and prohibited among slaves (Dingwall 1931). The issue becomes more complicated when group identity is proposed as one of the motivations for cranial modification. After all, if head shaping plays such a vital role in representing a collective social identity of a newborn, what does this mean for the individuals without signs of cranial modification? Here, the absence of modification is more salient, as at first glance this seems to imply that those without altered head shapes may not have been considered members of the social collective marked by cranial modification. The argument that the social emphasis on undergoing the practice is the pertinent aspect of the *rite de passage* for the infant, as argued above, can explain these instances. Variations in execution resulting in cranial shapes within the range of normal variation and thus appearing unmodified would not diminish the social relevance of the practice.

Evidence that cranial modification practices can be limited by circumstances is found in the European documentation of the indigenous peoples of the Lesser Antilles in the early colonial period. Breton (1999 [1665]:49) notes that babies who were perceived as ill or weak in the first weeks after birth were not subjected to cranial modification practices. Here, the health of the infant was prioritised over social constructions of identity and personhood. Another complementary explanation for the absence of cranial modification in certain individuals within an assemblage is the movement of people between different groups. Those marrying into another community or moving to a different village would not have the characteristic local cranial shape instilled in early infancy. Besides resolving issues with absence of modification, migration may also explain different types or subtypes of modification in an assemblage.

8.2 FROM THE INDIVIDUAL TO THE SOCIAL

The head shapes produced by cranial modification connect the individual to the social and vice versa. The alteration of the individual body takes place on a very intimate and personal level and will have a profound and lasting impact on the personal identity of the individual, influencing how they see themselves and simultaneously how they view and interact with others. At the same time, cranial modification surpasses the individual and expresses identities that connect and divide on a larger scale. Altered head shapes may mean subtly different things to individuals within the same social context, as this would allow for the incorporation of the practice into individual

concepts of identity (Cohen 1994; Jenkins 2014; Wells 2012). This fluidity means that investigating the meaning behind cranial modification may not yield a single clear cut answer but an interdependent array of motives. In order to understand the social ties surrounding the practice, it must be approached from different scales of analysis that yield complementary insights. By analysing the practice at the individual level and then moving up to local and regional comparisons, the complex social ties surrounding head shaping practices can be examined for the indigenous Caribbean before and after the pivotal contact in 1492.

Getting Ahead in Society

Infant KR337 lived at the settlement of Kelbey's Ridge 2 on the island of Saba in the Late Ceramic Age between AD 1350 and 1450. The settlement was located on a volcanic ridge in the north-east of the island with views of the sea and neighbouring islands. Several round houses occupied the ridge likely representing a short occupation span of about a century. The ties to the sea were emphasised by a predominantly marine subsistence strategy, although inhabitants of Kelbey's Ridge also had easy access to the plentiful rainforests of Saba (Hofman et al. 2008; Hoogland 1996; Hoogland and Hofman 1993, 1999). The Chicoid pottery found at Kelbey's Ridge 2 and other items of the material cultural assemblage, such as threepointed objects and ceremonial paraphernalia associated with the inhalation of hallucinogenic substances, link this community to the Greater Antillean interaction sphere (Hofman 1993; Hoogland and Hofman 1999). The most likely explanation is that the inhabitants of Kelbey's Ridge 2 moved from the Greater Antilles to Saba where they established an outpost probably related to resource exploitation of the Saba Bank and/or control of trade routes towards the Lesser Antilles and the South American mainland (Hofman and Hoogland 2011, 2016; Hoogland and Hofman 2013).

Infant KR337 died at Kelbey's Ridge 2 aged between two and three years old. No evidence of disease or trauma was found on the skeleton and the cause of death could not be established. The body was interred underneath one of the houses in the village in a tightly flexed position and a smooth oval stone was placed beneath the head. The right humerus was purposefully removed from the grave at a later stage. All burials at the site were found associated with domestic structures, although the burial practices were elaborate and variable. Grave goods were only found in the graves of children (Hoogland 1996; Hoogland and Hofman 1993, 2013; Weston 2010). Despite the fragile and fragmented nature of KR337's cranial remains, evidence of fronto-occipital parallel modification was found in the form of mild frontal and occipital flattening and bulging of the parietals. KR337 was the only individual with an altered head shape at the site,

though it should be noted that overall conservation was poor and only 40% of crania could be assessed.

The presence of an infant with cranial modification at the site of Kelbey's Ridge is intriguing. It is the only case of head shaping reported for Saba in the rare Amerindian skeletal material available from the island. It might be interpreted as another reflection of the ties between Kelbey's Ridge 2 and the Greater Antilles, so clearly visible in the material culture. Cranial modification of the type seen in KR337 was common in the Greater Antilles during the Late Ceramic Age and served as a shared marker of group identity in these communities (as will be argued below), though fronto-occipital modification was not restricted to this region as it was also found in the Lesser Antilles and on the mainland. The altered cranial shape of KR337 may have been a way of emulating the head shapes seen in the Greater Antilles in order to strengthen and reinforce social ties between these distant communities using this shared social signal.

Another explanation is that infant KR337 moved from the Greater Antilles to the site of Kelbey's Ridge 2 at a very young age. The cranial shaping would have been initiated in the home community before the family migrated to Saba, emphasising notions of group identity and shared kinship within the social collective. Strontium isotope analysis was carried out to investigate the potential movements of the inhabitants of Kelbey's Ridge 2. Unfortunately, the local strontium range of Saba is broad as a result of high contributions from non-geological sources to the strontium intake of organisms. Infant KR337 shows a local strontium signature, but as a result of the significant variation on Saba, this overlaps with other Caribbean regions including eastern Hispaniola and other regions of the Greater Antilles (Laffoon 2012; Laffoon and Hoogland 2012). Regardless of where infant KR337 was born, it seems motivations behind the altered head shape remain similar and can be tied to expressing a shared group identity with the social collectives of the Greater Antilles.

From a more personal perspective, the parents of KR337 may have decided to alter the shape of their infant's skull to give their child a head start in society. The altered cranial shape would have been invaluable in future social interactions with other social agents and have been beneficial in case of a future migration by KR337 to a different part of the interaction sphere. Fitting in through the altered head shape could have presented KR337 with a social advantage. Such considerations are likely complementary to the motivations explored above as social motives extend simultaneously on different levels.

The altered cranial shape of KR337 shows the inhabitants of Kelbey's Ridge 2 brought and produced both tactile material and intangible social reminders of their homeland. The community on Saba remained tied into the social network of the Greater Antilles

despite the increased geographical distance. These social relations were embodied in the head shape of KR337 through the practice of intentional cranial modification.

Home Ties

The burial of individual CDM72B, found at El Chorro de Maíta on the island of Cuba, gives us a rare glimpse into life and death in the cultural melting pot of the early colonial period. The settlement of El Chorro de Maíta was part of the Spanish *encomienda* system, regulating indigenous labour and tribute in the colonies. Evidence of intercultural interaction is seen in many aspects of the site; from European objects and non-native animal remains to syncretic burial practices and the presence of a potential first generation enslaved African (Valcárcel Rojas 2012; Valcárcel Rojas et al. 2011; Laffoon et al. 2013).

Individual CDM72B was a young woman who died aged between 18 and 25 years old. There are no signs of disease or trauma on her skeletal remains that would allow us to reconstruct a potential cause of death. At 161.12 cm, CDM72B was more than 10 cm taller than the average Chorro female stature of 148.21 cm (Weston 2012). She was buried in a prone position, with the head turned towards the right and her right hand next to her head. Her legs were in a semi-flexed position, held in place by a large boulder resting on the upper legs. Two other rocks were found near the body, but no objects were recovered from the grave. The lack of grave goods and the semi-extended position of the body are not unique at the site, but only three other individuals were found in a prone position and none of these were accompanied by stones (Valcárcel Rojas 2012; Valcárcel Rojas et al. 2011).

The body of individual 72B also showed evidence of permanent cultural modifications. She had undergone cranial modification as an infant, resulting in a fronto-occipital vertical shape (Figure 13). This altered shape was created using a modification device constructed of two rigid boards, the first placed on the forehead and the second larger board placed at an almost upright angle against the back of the head. This occipital flattening is almost vertical and very different in orientation to the normal low and mild parallel occipital flattening typically encountered in both El Chorro de Maíta and the wider Caribbean archipelago. The longer plane of flattening indicates a larger board at the back, potentially a cradleboard. There is a slight asymmetry to the skull seen in the superior view (Figure 13), which supports this hypothesis.



Figure 13 Frontal, lateral, and superior view of individual CDM72B from El Chorro de Maíta, from the collection of CISAT in Holguín, Cuba. (Photos by Anne van Duijvenbode, 2009).

The skull was classified as vertical modification on account of the almost vertical occipital plane of flattening and the distinct differences with the normal low parallel flattening seen in the rest of the Chorro population. However, using the classification system recently published by Tiesler (2010, 2012) in her extensive study of cranial modification practices among the Maya, this skull would perhaps fit better within the fronto-occipital parallel modification category as the flattening of individual CDM72B is not completely upright at a 90 degree angle. However, a strict application of this Mesoamerican classification would discount the distinct differences in the angle and extent of the occipital modification seen in CDM72B compared to the remainder of the Cuban crania and thus obscure distinctions vital to understanding the social connections of cranial modification at El Chorro de Maíta and in the broader research area.

At some stage during her life, the upper incisors and canines of CDM72B were filed to create a distinctive pattern. This custom is known as intentional dental modification, another permanent bodily alteration that is practiced for various social reasons (Mickleburgh 2013; Valcárcel Rojas et al. 2011). Isotope analyses were carried out on the skeletal remains of CDM72B and the strontium, carbon, and oxygen signatures produced by the respective analyses are outliers in comparison with the other individuals found at El Chorro de Maíta and the Caribbean population in general (Laffoon 2012; Laffoon et al. 2013; Valcárcel Rojas et al. 2011). All of these features provide unique glimpses into the life of CDM72B, which allow for the reconstruction of her personal history. Her body modifications, the outlying isotope signatures, the manner of her burial, and her height all indicate CDM72B is different from the remainder of the population buried at El Chorro de Maíta.

A single isolated case of dental modification has been found in an indigenous Caribbean individual from Cuba dated through direct radiocarbon dating to the Late Ceramic Age (Roksandic et al. 2016). The remainder of cases have been recovered in skeletal material of African-born individuals buried in the region as a result of the African slave trade. Both

the style encountered in the dentition of CDM72B and skills displayed in the execution of the practice suggest a Mesoamerican origin. This particular type of filing is most commonly encountered in Belize or Guatemala (Mickleburgh 2013; Valcárcel Rojas et al. 2011). It is not the presence, but the type of cranial modification that distinguishes CDM72B. The angle and size of the occipital plane of flattening are different from the modifications encountered in the other residents of El Chorro de Maíta. The vertical subtype is relatively rare in the Caribbean sample, having been identified in 4.5% of individuals in the current study. It should be noted that these 24 individuals share the vertical direction of occipital flattening seen in CDM72B, yet have smaller affected areas suggesting a different construction of the modification device. The vertical subtype is more commonly found on the American mainland, including Mesoamerica (Dembo and Imbelloni 1931; Tiesler 2012).

The isotope analyses provide further valuable insights into the possible origin of CDM72B. The strontium signature produced by a sample of her dental enamel falls outside of the local range. This indicates she was not originally from El Chorro de Maíta. Locations matching the signature of CDM72B are found in the Caribbean and on the American Mainland. Her oxygen signature is lower than the range established for inhabitants of the Caribbean archipelago, supporting the idea that CDM72B may be non-local to the Caribbean. Her carbon value is relatively high and indicates differences in her diet, in particular a high intake of C4 plants such as maize. Again, this supports the idea of a mainland – and possibly Mesoamerican – origin (Laffoon et al. 2013; Valcárcel Rojas et al. 2011).

The prone position of her body and the presence of stones in the grave are a unique combination in the cemetery of El Chorro de Maíta. These features highlight something is different about this young woman, though this is partly negated by the presence of her body in the central burial ground. The deviant burial practices involving individual CDM72B must be re-examined in light of the evidence pointing towards a non-local origin. Bodies buried in a prone position with semi or fully flexed legs have been found in several Late Classic and early colonial sites in Belize, including several coastal villages and the interior site of Lamanai. Prone burial is only rarely reported for the remainder of the Maya region (Graham et al. 2013, Steenbakker 2014). The similarities with the burial practices of CDM72B are striking and suggest that her burial should not be considered deviant but simply conforming to the customs of her homeland.

Taken together, these lines of evidence point firmly towards a Mesoamerican origin for individual CDM72B. She was born somewhere on the American mainland, likely on the Yucatán peninsula, yet buried in a Cuban cemetery. Her mother or midwife performed the rituals and practices surrounding head shaping, starting almost directly

after birth and carrying on during early infancy, ensuring a permanent alteration of her body likely used to signal group identity (Tiesler 2012; 2013). This early alteration of her head shape would have felt natural and normal to CDM72B, who would not have been able to remember looking different, and would have matched her cultural and aesthetic ideals on human head shape. At some point after her 15th birthday, the process of filing her teeth into a pattern was started. In earlier periods, dental modification may have signalled social status, but by the late prehistoric and early colonial period the meaning had shifted to a means of displaying group affiliation, perhaps tied to family, local, or regional group identities (Tiesler 1999; Williams and White 2006). Both body modifications confirmed CDM72B's social role and positioned her in her social network.

At some point before dying young, aged between 18 and 25, individual CDM72B moved from the Yucatán peninsula to the island of Cuba. It is difficult to establish her motivations for this migration, if indeed the move was voluntary. The historic sources mention forced migrations of indigenous peoples from the mainland onto the islands in the early colonial period by the Europeans, but here the dating of individual CDM72B becomes crucial. Though she likely dates to this early colonial period, the exact radiocarbon dating places her death between AD 1465 and 1685 spanning the crucial pre- and post-contact period in Cuba defined by the Spanish arrival in AD 1511 (Bayliss et al. 2012). Until more precise methods become available to date her remains, it is impossible to establish with certainty whether CDM72B was buried before or after the intercultural contact between Europeans, Amerindians, and Africans that shaped the history of the Caribbean and the world (Valcárcel Rojas 2012; Valcárcel Rojas et al. 2011).

The cause of her death also remains a mystery, as no evidence of disease or trauma was encountered on her skeletal remains. However, the body of CDM72B was buried in the traditional manner of her homeland. This suggests she either communicated her wishes for her interment or other people from her home community were present at this moment at El Chorro de Maíta, ensuring her body was laid to rest according to their burial customs emphasising and reinforcing her identity and home ties on foreign soil.

8.3

ISLAND LIVES

The island of Hispaniola, shared by the modern nations of Haiti and the Dominican Republic, has functioned as a backdrop to crucial moments in Caribbean history from the development of early pottery in the Archaic to the first Spanish settlements founded by Columbus in the Americas (Boomert 2014; Veloz Maggiolo 1972, 1993). The Dominican Republic has yielded an abundance of skeletal material dating to the Ceramic Age, a period in which a reformulation of kinship and increased social stratification leads to

the formation of *cacicazgos* (Curet and Oliver 1998; Torres 2012). These developments are often generalised for the entire island despite the existence of different *cacicazgos* and languages reported in the colonial documents (Granberry and Vescelius 2004; Wilson 2007). In fact, the society and culture of the Greater Antilles were frequently seen as a homogenous unit referred to as 'Taíno' despite growing archaeological and historical evidence to the contrary, a trend that has been countered in recent studies (Curet 2003, 2014; Keegan 2013; Hofman et al. 2008; Oliver 2009; Wilson 2007). Here, the different skeletal assemblages of the Dominican Republic will be compared and contrasted to see if patterns of cranial modification are homogenous across the island or show distinct differences that may be related to local social or cultural developments.

Increasing population size and social stratification during the transition from Early to Late Ceramic Age have previously been related to the growing importance of head shaping as an expression of group identity on Puerto Rico (Crespo Torres 2000). Although it would be interesting to investigate this matter further, the temporal resolution of the Dominican samples is not sufficient to compare patterns of modification between the Early and Late Ceramic Age. Therefore, this section is limited to describing the patterns seen in the Ceramic Age as a whole.

The majority of Dominican skeletal assemblages were recovered from the country's southern coastline (Luna Calderón 1985; Morbán Laucer 1979; Ortega 2002; Veloz Maggiolo et al. 1976), though this comparison includes a collection of skeletal material from the interior (Krieger 1930) and a site on the east coast (Atilés 2004). The prevalence of cranial modification shows minor variation between assemblages but presents a relatively uniform picture. Overall, just over half the sample shows definitive evidence of head shaping, increasing to 69% if ambiguous cases are excluded from the prevalence calculation. A similar pattern is seen for the types and subtypes of cranial modification encountered on the island. There is some variation between and within sites, but no significant differences have been detected. Fronto-occipital modification is by far the dominant type, followed by frontal flattening. In both cases, the modification of the forehead is the same, implying this may be the salient aspect of the altered cranial shape. This prominence may be due to the importance of the face – including the forehead – in interaction and communication (Knapp and Hall 2002; Zebrowitz and Montepare 2008) and the fact that this alteration would have been far more visible during life, as opposed to occipital modifications that are easily obscured by hair. All but one of the individuals with cranial modification in the Dominican Republic share this flattened forehead and the single exception will be discussed in more detail below.

There is no difference in the modification patterns seen in males and females. Men and women have roughly comparable rates of modification and there is no correlation

between sex and type or subtype. Analyses of the relationships between cranial modification and various aspects of burial practice, including the type of inhumation, position and orientation of the body, and the presence or absence of grave goods, show no significant patterns, though it should be noted that only limited contextual information was available for these assemblages.

The different skeletal collections show remarkably similar patterns of cranial modification. The theoretical insights into the social construction of identity and early socialisation processes suggest that cranial modification practices formed a key part of becoming human in these societies by emphasising, enhancing, and reinforcing the tendency towards the natural brachycephalic cranial shape of Amerindians (Stewart and Newman 1950; Tacoma and Van Vark 1991), paying particular attention to the forehead. The relatively frequent presence of altered head shaping combined with a shared emphasis on the flattened forehead suggest that cranial modification was used to express group identity on a large scale, exceeding the level of communities and even *cacicazgos*. The latter is evidenced by the lack of geographic diversity seen in the cranial modification patterns, despite reports of several *cacicazgos* and different languages on the island of Hispaniola at the beginning of the colonial period (Granberry and Vescelius 2004; Hofman et al. 2008; Wilson 2007). If the identities expressed through head shaping practices in the Late Ceramic Age and early colonial period represented different social collectives following the boundaries of particular *cacicazgos* or linguistic affiliations, distinct patterns of cranial modification would be seen in different regions and locations. Instead, the homogeneous pattern of modification found on the island implies that social ties transcend this scale and must be investigated from a regional perspective. Patterns of modification in the entire Greater Antillean interaction sphere will be investigated in more detail below to see if the homogenous pattern found in the indigenous communities of the Dominican Republic expands beyond geographical boundaries and what this may mean for the notion of one 'Taíno' identity.

The boundaries of these past social collectives did not conform to the modern separation of the island into the Dominican Republic and Haiti and it is very likely that head shaping practices similarly transcended this division. Unfortunately, very little skeletal material has been recovered from Haiti and only a handful of individuals could be studied in the current investigation. Such numbers pale in comparison to the Dominican material and do not present the opportunity to properly study the pattern of modification in order to confirm or deny the likely correspondence to the Dominican data. All that can be said with absolute certainty regarding Haitian cranial modification is that it was present in pre-Columbian times and that head shapes mirror those found on the Dominican side of the island. Ethnographic data among a 20th-century Haitian community reported the remnants of head shaping practices among current early child care practices in the form

of cranial moulding of newborns by their mothers (Herskovits 1964). Such longevity, in the face of centuries of social change, is another indication of the deep roots and former social importance of head shaping in the indigenous communities of the region, based on the ingrained and embedded nature of elements of identity transmitted during early socialisation (Cornell and Hartmann 1998, Jenkins 2014).

A singular shape

There is a single exception to the ubiquitous flattened frontal created by applying a tablet found in the Dominican skeletal material: a case of mild (pseudo)circumferential modification in individual LGC441 from the skeletal collection of Constanza. The narrower and longer cranial vault is indicative of wrapping the skull in bandages, in contrast to the broadening and shortening seen when boards are applied. LGC441 is an adult female recovered from the Valley of Constanza in the central interior Dominican Republic by Krieger in 1930 (see Figure 14). Unfortunately, all context for this individual is lost as Krieger (1930) collected skeletal material and objects from the caves surrounding the valley without documentation. This means the cultural affiliation and date of individual LGC441 are unknown.



Figure 14 Lateral view of individual LGC441 from Constanza, catalogue No. 349441, Department of Anthropology, Smithsonian Institution.

Without such contextual information, it is impossible to determine why LGC441 has this slightly different cranial shape. Only one other instance of circumferential modification has been reported in the insular Caribbean. This case was also found in the Dominican Republic and concerns a child dating to the Archaic Age found in Cueva de Berna in the east of the country. Unfortunately, only a single X-ray image of the cranium, in a less than ideal position, was published (Luna Calderón 1977) and no other photographs, drawings, or detailed anatomical descriptions of this

skull were ever released. The assessment was made by well-known Dominican physical anthropologist Luna Calderón, but there are issues with his conclusion. The cranium appears relatively broad and bulging on the published X-ray, whereas circumferential modification causes a reduction in the width of the skull as seen in the photographs of LGC441 in Figure 14. These inconsistencies remain unsolved, however, as the current location of the skull is unknown.

Based on the rather limited information available on LGC441 and the Cueva de Berna child, two likely hypotheses can be proposed. If the Cueva de Berna case is accepted as circumferential modification, this suggests this type of head shaping may have been practiced by the Archaic Age populations of the island and implies a previously unknown shift to a different cranial shape. It would also be the earliest case of cranial modification and push back the introduction of the practice in the region by more than a thousand years. However, the evidence is rather problematic until the cranium is recovered for renewed study and radiocarbon testing.

Discounting the Cueva de Berna skull as problematic until further study can take place, there are two hypotheses that may explain the cranial shape of LGC441. The first is a conscious decision by the mother or practitioner to create a shape distinct from local styles of modification by using a different modification device. The second potential explanation is that LGC441 migrated to the Dominican Republic from an area where different head shaping practices were the norm. No evidence of this type of modification has been found elsewhere in the Caribbean, suggesting LGC441 must have come from the American mainland where this shape is known among Andean populations and communities in northern North America (Dembo and Imbelloni 1931; Stewart 1950). There is evidence of long distance interaction and exchange between the Dominican Republic and various areas of the mainland throughout the history of the region (Hofman and Bright 2010; Hofman and Hoogland 2011; Laffoon et al. 2014; Rodríguez Ramos 2011), lending some credibility to this notion. This hypothesis could be tested in future studies by undertaking various isotopic analyses of LGC441, including strontium and oxygen to investigate her potential origins and carbon and nitrogen to look at dietary practices. Radiocarbon dating of the remains would establish a better social and cultural context for the individual. Until such time, LGC441 remains an intriguing exception in the region.

8.4

CARIBBEAN COMMUNITIES

The view of islands as bounded entities has long been overhauled in favour of a dynamic setting of interaction and exchange facilitated by travel across waterways, be it seas or rivers. The Caribbean Sea is not restrictive but conducive to the flow of goods, people, and ideas (Hofman and Bright 2010; Hofman and Hoogland 2011; Hofman et al. 2007, 2008). However, when studying cranial modification patterns in skeletal assemblages, islands in some way form a convenient bounded unit of analysis (Fitzpatrick et al. 2007). Differences most certainly exist among Caribbean communities based on their locations, but the inherent connected nature of Caribbean societies should always be kept in mind.

Prevalence

The prevalence of cranial modification shows an interesting pattern that already seems suggestive of the importance of larger regional interaction spheres. Most of the Caribbean islands show adjusted prevalence rates between 60% and 85%, discounting those locations with small unrepresentative sample sizes. The prevalence rates on the American mainland, represented here by Ceramic Age assemblages from Venezuela and Suriname, are lower than in the insular Caribbean with 28% and 22%, respectively. No skeletal material was available for study from the Southern Caribbean Region during this investigation, but the practice has previously been reported on Aruba and Curaçao (Koeze 1904; Tacoma 1980, 1987). Unfortunately, no prevalence rates could be reconstructed from the publications.

There are two notable exceptions in the insular prevalence rates: the islands of Saba and Trinidad. The unique nature of the Saban skeletal assemblage of Kelbey's Ridge 2 has already been highlighted in our discussion on the life and death of infant KR337. The single case of modification recovered from this site can be tied to the connections between the community of Kelbey's Ridge and the Greater Antillean interaction sphere. The poor skeletal conservation of this material may have prevented the recognition of other instances of cranial modification.

The skeletal population from Manzanilla on Trinidad, located close to the South American mainland, shows no definitive evidence of cranial modification.¹ The absence of modification is rare in larger skeletal assemblages from the region, though a second example is the site of Tutu on St. Thomas in the United States Virgin Islands (Righter 2002). In both cases, cranial modification has been reported in publications on other archaeological remains from the islands. De Booy (1917) reported two cases of cranial modification found at the site of St Bernard on Trinidad, though he does not describe the shape. Similarly, Hatt (1924) recovered a skull with frontal flattening from St. Thomas and cranial modification has also been found on two more islands in the Virgin Islands archipelago (Caesar and Lundberg 1991; Winter et al. 1991). This seems to indicate variations in head shaping practices between different communities on Trinidad and in the Virgin Islands. Without additional contextual information on the cases of cranial modification or larger skeletal assemblages from the islands, it is impossible to determine why such differences exist and what the altered head shapes may have meant to the indigenous inhabitants. Two general scenarios can be advanced based on the theoretical insights into processes of identity formation and expression combined

¹ Only part of the skeletal population from the site could be studied, as not all burials were excavated (Dorst 2008).

with the social motivations gained from historic and ethnographic documents. The first is differentiation within the group, where head shaping practices are restricted to certain families, lineages, or social strata. The second option is that cranial modification is linked to particular communities on the island and functions as a small scale group identity distinguishing inhabitants of particular sites or regions of an island.

Cranial Shape

The previous analysis of cranial shape on the Dominican Republic demonstrated an emphasis on the flattened forehead through the pattern of modification types, consisting predominantly of fronto-occipital modification followed by frontal flattening. This pattern is visible in all locations represented by large skeletal assemblages in the Caribbean, with the exception of Guadeloupe. The locations that have yielded less than five individuals in the study have been excluded as those rates would be significantly impacted by outliers and sampling issues. Several cases of occipital flattening and a single case of circumferential modification are present, but these represent only a small number of individuals.

The only significant deviation from the emphasis on frontal flattening is found among the inhabitants of Guadeloupe. Here, occipital flattening is the most common type of modification encountered. It should be stressed that this pattern may be taphonomical rather than social in nature. The cranial remains from Guadeloupe were poorly preserved and highly fragmented, hindering both the recognition of head shaping practices and the determination of type. The assemblage, consisting of individuals from Anse à la Gourde, Morel, Anse Bertrand, Folle Anse, Pointe Canot, and an unknown location on the island, was investigated regardless, as this is one of the few large skeletal collections found in the Lesser Antilles and any evidence of head shaping was considered valuable. The data gathered on the subtypes of modification present on Guadeloupe is much more interesting. Just over half the individuals showed a vertical direction of occipital modification. Again, poor preservation decreased the accuracy with which the subtype could be assessed.

Taken together these patterns seem to suggest that head shaping practices on Guadeloupe are much more variable than in other areas of the Caribbean. No connections could be detected between cranial modification and sex, various aspects of burial practices, or the strontium isotope indications of origins in the assemblage. After discounting these factors as potential explanations for the variety in cranial shapes, three potential hypotheses remain. Cranial modification may be linked to a small-scale group identity, such as families or lineages within the community, which have different

head shaping practices. The variation in head shaping practices can also be attributed to the exogamous marriage practices seen in these communities (Ensor 2013; Keegan and Maclachlan 1989; Whitehead 1995). Spouses born and raised at a different location would have been subjected to varying local early socialisation practices before moving into the village of their partner. This would have resulted in wider variation in the presence, types, and subtypes of cranial modification found in a single community, as these would represent the diverse head shaping practices of multiple social collectives. Finally, the mild alteration seen in some individuals coupled with the high number of ambiguous cases may also suggest that undergoing the process is the important social element of cranial modification, as has been argued earlier, and the resulting shape is less important, thus leading to more variation in cranial shape in the assemblage.

Other cases of the vertical subtype of modification have been found on St. Kitts and the Greater Antilles, but the parallel subtype is dominant in the insular Caribbean and Suriname. Venezuela shows more variation in subtype, with instances of parallel, parallel-vertical, and vertical directions of modification observed in the skeletal assemblages. The location of these archaeological sites may shed light on the variety of practices seen here. These sites are all located near Lago Valencia, a centre of trade in the Ceramic Age that was tied in a network of exchange with the Caribbean and the interior of Venezuela and beyond (Antczak 1998; Kidder 1944). This interaction would have certainly exposed the inhabitants of the lake shores to new ideas and may also have resulted in the movement of people between locations, leading to more varied head shaping practices recovered in the cemeteries of the region.

The second exception to the dominance of parallel modification in the Caribbean is the island of St. Kitts. Only a single skull with cranial modification was studied from the Ceramic Age site of Bloody Point, but it showed evidence of a vertical direction of flattening on the occipital. One cranium does not constitute a pattern, yet there is some supporting evidence for vertical modification on St. Kitts. Branch's discussion of a skull found in a burial at West Farm indicates that the occipital was flattened in a vertical or upright manner, though he does not mention whether the shape of the frontal was in any way altered (Branch 1907). The presence of vertical occipital flattening in these two crania, from different locations on the island, points towards a very tenuous trend in head shaping practices that is interesting in light of the relative rarity of the subtype in the Caribbean.

Other Social Variables

There is no evidence of any type of sex related differentiation in cranial modification practices among the indigenous inhabitants of the Caribbean. Both boys and girls were

subjected to head shaping and there are no significant differences in the prevalence rates of the sexes at any location. The same lack of differentiation is seen in the types and subtypes of modification found in men and women. This uniformity between the biological sexes does not necessarily imply a lack of gender differentiation, as sex and gender are not synonymous. However, few studies have been carried out on gender in the indigenous Caribbean, complicating this analysis. Most work to date has focused on the early colonial Taínos of the Greater Antilles, where evidence suggests relatively flexible and non-exclusive gender dynamics. Social roles and activities were generally open to both men and women (Deagan 2004). Combined with the fact that cranial modification occurs almost directly after birth, leaving little time for the social construction of gender to take place before the decision to shape the infant's skull is made, it can be said that gender differentiation is not a motivation for head shaping among the communities of the Greater Antilles. Though care must be taken not to extrapolate such ideas directly to other regions of the Caribbean where knowledge on gender roles is even more limited, the current investigation does not provide any reasons to assume sex or gender divisions played a role elsewhere in the Caribbean.

The burial record of the Caribbean before and after contact shows a great degree of variation in practices; such as the nature of the burial, the number of individuals in a grave, the position and orientation of the body within the confines of the burial pit, and the grave goods. None of the patterns seen in the burial record could be related to head shaping practices, suggesting that other social factors and elements of identity were far more influential in determining the manner in which an individual was buried.

Information on the mobility of individuals based on their strontium isotope signature was also investigated in relation to cranial modification. The vast majority of the individuals in this sample have a local signature and no significant patterns could be detected. The only case of interest in this regard is individual CDM45 from El Chorro de Maíta. The elevated strontium signature places the origin of this adult male beyond the Caribbean and his carbon and oxygen signatures are also outside the expected range (Laffoon et al. 2013). There are several additional interesting features about CDM45. His body was interred in an extended position with crossed arms, reminiscent of 16th-century Christian burial practices. Several metal objects recovered from the grave were identified as brass aglets, a part of European dress from the 14th to the 17th centuries (Martinon-Torres et al. 2007; Valcárcel Rojas 2012; Valcárcel Rojas et al. 2011). His skull does not show any signs of cranial modification, an exception among adults at this early colonial site given the high prevalence of the practice. An analysis of cranial metrics in Fordisc 3.0 tentatively suggests an African origin for CDM45 (Laffoon et al. 2013; Valcárcel Rojas et al. 2011; Weston 2012). Taken together, these lines of evidence support the hypothesis that CDM45 may be a first generation enslaved African transported to

the Spanish colony of Cuba in the early colonial period. The unusual lack of cranial modification simply represents the local practices in the region where he was born and not the norm of the social collective where he was buried.

8.5

TIES THAT BIND

The analysis of cranial modification in the Caribbean has so far highlighted the social ties of head shaping practices in specific individuals, sites, and locations to provide insight into connections and motivations on individual and communal levels. However, a key aspect of Caribbean communities is their inherently connected nature. Each period of Caribbean history sees the development and expansion of regional exchange networks that transport goods, people, and ideas across the region (Hofman and Bright 2010; Hofman et al. 2007; 2008, 2014). Individuals and communities are tied up in these interaction spheres and attempting to understand head shaping practices without taking these wider connections into account is bound to fail, as has already been demonstrated in the analysis of the altered head shapes of KR337 and CDM72B that, as expected based on the earlier exploration of social identity formation and expression, show simultaneous social ties on different levels.

Despite the connected nature of the insular and mainland Caribbean, different social and cultural developments are taking place in distinct locations during the Ceramic Age and Colonial Period. Previous research has indicated that the Greater Antilles, Lesser Antilles, and coastal mainland follow divergent yet interconnected trajectories (Hofman and Hoogland 2011; Petersen et al. 2004). The Greater Antillean societies develop institutionalised social stratification culminating in the *cacicazgos* of Hispaniola encountered by the Spanish in the 16th century (Curet 2003; Keegan 2013; Wilson 2007). The northern Lesser Antilles are integrated into the Greater Antillean interaction sphere in the Late Ceramic Age, whereas the southern Lesser Antilles orient themselves towards the South American mainland (Boomert 2014; Hofman et al. 2007; Rodríguez Ramos 2010; Petersen et al. 2004). Notwithstanding these local developments, the Caribbean remains interconnected through exchange networks and social ties that span the entire region (Hofman and Hoogland 2011).

It is interesting that the patterns seen in the cranial modification at different locations mirror these grander social and cultural developments. In particular, similarities in prevalence and shape are seen on the different Greater Antillean islands. The patterns encountered in the mainland locations also seem relatively similar, whereas the Lesser Antilles show much more variety in head shaping practices.

Greater Antilles

A homogenous pattern of cranial modification is found in the Greater Antilles, with similar prevalence rates, types, and subtypes found in skeletal assemblages on each of the islands. The prevalence of head shaping is relatively high in all skeletal assemblages from the Greater Antilles, ranging between 60 and 85 percent. The almost significant outcome of $p=0.052$ produced by a Fisher's exact test indicates that minor variation in rates exist, although it is just above the level of statistical significance. This result is likely due to the lowest prevalence rate of 59% seen on Puerto Rico and can be explained by looking at the skeletal assemblages representing the location in this sample in more detail. Many of the Puerto Rican individuals date to the Early Ceramic Age, the period in which head shaping appears to have been introduced in the Caribbean. The vast majority of the other Greater Antillean assemblages studied in this investigation date to the Late Ceramic period of major social and cultural developments. Crespo Torres (2000) has argued that head shaping practices on Puerto Rico shifted from an in-group social status indicator to a shared communal identity during this crucial period of transition from Early to Late Ceramic Age. This explains the slightly different prevalence pattern seen in Puerto Rico, produced by the mixture of the two periods in the current sample of skeletal material.

The cranial shapes found in the Greater Antilles show a similar level of correspondence. Fronto-occipital modification is the dominant type on all islands, followed by a substantial minority of frontal flattening. A handful of individuals show evidence of occipital flattening and a single case of circumferential modification was found on the Dominican Republic. A Fisher's exact test produced a statistically significant result of $p=0.005$ when comparing the distribution of types between the different locations. There are two key differences that explain this variation. The first is the preference for fronto-occipital modification on the island of Cuba, which has resulted in a higher proportion of that type and a lower rate of frontal flattening. The second is the singular case of circumferential modification, found solely in the Dominican Republic.

Regardless, almost all individuals from the Greater Antilles share the flattened forehead produced by fronto-occipital modification and frontal flattening. Taken together, the two categories represent 97.5% of all Greater Antillean inhabitants with cranial modification in this sample. This further validates the proposed emphasis on the importance of the forehead already touched upon in the discussion of modification patterns on the Dominican Republic. The flattened forehead would have been visible from some distance, unobscured by hairstyles or other adornments, unlike occipital modification. In fact, historic sources describing the hair styles of the inhabitants of Hispaniola in the very early stages of the colonial encounter confirm this: Columbus describes the hair as being worn long and tied at the back (Dunn and Kelley 1991), exposing and emphasising

the forehead while obscuring changes to the back of the head. The salience of the face in interpersonal interactions and identification (Knapp and Hall 2002; Zebrowitz and Montepare 2008) cannot be disregarded in this respect, as the frontal flattening would ensure that identity expressed through head shaping would have been unequivocally present during verbal and non-verbal interactions between two social agents.

There is also a clear trend in the subtypes of modification in the region, dominated by a parallel placement of the occipital board in relation to the frontal one. Some variation is seen, evidenced by the presence of vertical and parallel-vertical subtypes. However, there are no significant differences in subtypes between the islands. These minor variations could be attributed to slight disparities in head shaping practices on a site or family level. More detailed analysis shows the subtypes are distributed equally between different assemblages and do not correlate with particular sites. Minor variations in execution, including the construction of the modification device or the exact placement of the boards on the head, are likely due to slightly different traditions passed down to practitioners within a family or lineage. This situation has been demonstrated in the Andean Omo M10 site, where slight variations were related to different kin groups (Hoshower et al. 1995). Unfortunately, the archaeological context of these sites does not allow us to identify particular families within assemblages at this point, so this hypothesis cannot be corroborated further.

The link between head shaping and other social variables was tested to shed further light on the potential motivations behind the practice. No relationship exists between the sex of an individual and the presence, type, or subtype of head shaping in the Greater Antilles. This suggests that boys and girls were subjected to head shaping in equal measure and that there is no correlation between sex and the chosen cranial shape. Likewise, the correlation between head shaping and a variety of burial practices, including the nature of the inhumation, the number of individuals in the grave, the position of the deceased, and the orientation of the body within the grave provided no significant results. The same can be said for any relationship between the presence or absence of grave goods and cranial shape. Isotopic indications of origin similarly showed no significant patterns in relation to head shaping practices.

Homogeneous patterns

Across the Greater Antilles, a uniform pattern of cranial modification emerges typified by high prevalence rates and an emphasis on frontal flattening. This homogeneity suggests that these interconnected communities shared a similar vision of the social function of head shaping practices. The altered head shape embodied a large scale group identity that crossed the Caribbean Sea and connected the inhabitants of the Greater Antillean interaction sphere. Such a shared marker of identity imprinted directly on the body and

visible during interpersonal communication would have facilitated interaction and exchange between different individuals and communities in this vast region stretching from the Bahamian archipelago in the north into the Leeward Lesser Antilles in the south.

A unified notion of group identity would also have contributed to the internal social cohesion of communities on a smaller scale. As previously mentioned, Crespo Torres (2000) argued that the transition of altered head shapes into a marker of group identity coincides with crucial socio-political developments in the Late Ceramic Age. Developing social stratification and *cacicazgos* go hand in hand with a growing population and increased number of settlements (Curet and Oliver 1998; Torres 2013). Unifying these expanding communities into a single social collective is crucial to a functional and sustainable chiefdom. A practice like cranial modification, that embodies identity in a directly discernible manner, is well suited for fostering social cohesion.

A similar tendency towards homogeneity in head shaping patterns in a period of intense social change was noted by Torres-Rouff (2003, 2009) in skeletal assemblages from Peru. The pattern of modification found in complex Andean societies consists of a high prevalence rate and uniformity in head shape, very similar to the situation seen in the Greater Antillean skeletal assemblages. Torres-Rouff posits that this homogeneous pattern represents the creation of a unified group identity aimed at creating social cohesion within society. She likens the altered head shapes to shared elements of dress or architecture also aimed at expressing such a consolidated group identity. Though the socio-political structure of the Andean societies is different from the *cacicazgos* of the Greater Antilles, the principle behind the pattern of cranial modification matches the data and hypothesis on head shaping in the Caribbean. The slightly higher shape variation in the Caribbean may in fact result from the less direct power wielded by the *caciques* in the emergent *cacicazgos* as opposed to the more stringent political control exerted by rulers in the developing Andean states.

It is important to stress unequivocally that the notion of an overarching group identity in the Greater Antilles is not simply a reiteration of the old notion of Taíno homogeneity (e.g. Rouse 1992). The term Taíno itself is problematic, not least as this native word was never used as a self-identification by the indigenous communities. It also tends to overemphasise cultural similarities and creates a false sense of unity and cultural homogeneity (Curet 2003; Hofman 1993; Oliver 2009; Wilson 2007). The fact that the inhabitants of Hispaniola and other Greater Antillean islands shared a large scale group identity does not erase the differences in material culture and language recently (re) discovered by scholars (cf. Curet 2014; Granberry and Vescelius 2004; Hofman and Carlin 2010; Hofman et al. 2008; Keegan 2013) and does not imply that these people all shared an identical set of cultural and material features. In other words, the existence

of a unified group identity should not be equated to a uniform bounded cultural unit. The presence of such a shared group identity was easily mistaken for and conflated with the concept of a national identity early colonial writers were familiar with from their own European post-medieval backgrounds, reinforcing the false notion of a singular bounded identity in the region.

Despite these issues regarding the Taínos, the pattern of cranial modification does point towards a unified group identity in the region. The key to understanding this apparently contradictory situation is the multi-scalar nature of identity processes. Identity formation and expression takes place at many different levels simultaneously due to their fluid and contextual nature (Díaz-Andreu and Lucy 2005; Jenkins 2014). In certain contexts, the overarching regional group identity embodied in the altered head shapes of the Greater Antilles will have played an important role. It is very likely, however, that the indigenous inhabitants of the region had various other group identities based on their chiefdom, lineage, village, or family. In a social interaction taking place between members of the local community, the overarching identity expressed by head shaping will have had little direct significance whereas social status or kinship ties would have been much more important. Such identities would have been expressed through different means, such as ceramics or objects in a particular style, clothes, hair styles, or personal adornments, and explain the simultaneous similarities and differences seen in the archaeological record of the Greater Antilles.

Boundaries

It is interesting to re-evaluate the slight differences in the patterns of head shaping seen on each of the Greater Antillean islands in light of the social embedding of the custom as an expression of an overarching group identity. The highest adjusted prevalence of the practice is seen on Cuba and Jamaica at 83% and 82%, respectively. Previous investigations into cranial modification among Amerindian Jamaican inhabitants have suggested that the prevalence rate might even have been higher in some populations, implying an almost complete uptake of head shaping in certain communities (Santos et al. 2011). It is fascinating, though perhaps not unexpected in light of Barth's (1969) pivotal work on social boundaries, that the highest rates of cranial modification are found at the margins of the Greater Antillean cultural sphere on Jamaica and Cuba.

The island of Jamaica was first settled during the Ceramic Age by communities from the Greater Antilles as evidenced by the Ostionoid ceramics found in the earliest known settlements (Allsworth-Jones 2008; Keegan and Atkinson 2006). The ties to the interaction sphere continue during the Late Ceramic Age, with a local variation on Meillacoid pottery found throughout the island (Allsworth-Jones 2008; Keegan and Atkinson 2006). The little information that can be gained from early European sources

on Jamaica concurs with these findings, concluding that the language and customs of the island are similar to those found on Hispaniola (Wesler 2013). This is certainly the case for head shaping practices, which follow a similar pattern. As seafaring between Jamaica and the remainder of the interaction sphere is more challenging than most routes in the Caribbean Sea (Callahan 2008), the emphasis on head shaping as seen in the higher prevalence rate can be considered a way of stressing the shared social ties with others across the sea and overcoming these physical boundaries on a social level.

In this same light, it would also be interesting to investigate the social ties of head shaping among the communities inhabiting the Bahamian Archipelago, another region on the geographical fringe of the Caribbean with strong connections to the Greater Antilles. Unfortunately, no large skeletal assemblages with known archaeological context are currently available for study. The handful of individuals from the archipelago that were studied during the course of this research, as well as published reports on additional cranial material (Brooks 1887; Drew 2009; Keegan 1982; Schaffer et al. 2010; Winter 1991), show that head shaping was practiced in the area, but does not allow for a more detailed investigation into patterns of modification or social motivations.

A different, if equally fascinating, situation is seen on the island of Cuba. Here, ties between the communities in the east of the island and the remainder of the Taíno cultural sphere are strong (Dacal Moure and Rivero de la Calle 1997; Wilson 2007). However, the historic sources indicate the west of the island is inhabited by a different society known as the Guanahatabey. Little is known about these Guanahatabey, who are often uncritically and incorrectly presented as the descendants of earlier Archaic communities. There is some evidence they spoke a different language and had different customs (Keegan 1989, 2007; Wilson 2007), which did not include the practice of cranial modification (Rivero de la Calle 1960). Consequently, head shape is often used as an identifying population characteristic by Cuban archaeologists working on the skeletal material of the island (Tabío and Rey 1966; Rivero de la Calle 1960).

The exact nature of the social dynamics between these two distinct societies is unknown, but such a social boundary must not be confused with a physical one and was likely the location of exchange and interaction (cf. Barth 1969). In this setting, the group identity expressed by the altered head shapes of the eastern communities took on additional importance as a marker of group differentiation within Cuba. Head shaping practices now simultaneously expressed their belonging to the Greater Antillean cultural sphere, as well as emphasising their difference from the western Guanahatabey. These concurrent associations with group identity explain the higher prevalence of cranial modification in the Cuban assemblages in comparison to Hispaniola and Puerto Rico.

Mainland

The patterns of cranial modification among the Caribbean communities of mainland Venezuela and Suriname show similarities and differences to those observed in the archipelago. There is also some variation in the head shaping practices seen in the two distinct Ceramic Age mainland communities. The Venezuelan skeletal material originates from the Lake Valencia Basin, a local centre of interaction connecting the South American hinterland and coast. These people are associated with the Valencioid ceramic tradition (Kidder 1944), while the inhabitants of coastal Suriname were using variations of Arauquinoid pottery, a style that originated in Venezuela and spread through the coastal zone in the Late Ceramic Age (Rostain 2008; Versteeg 2008). Interaction and exchange networks connect the communities of Venezuela and Suriname with each other, the Caribbean archipelago, and the South American hinterland (Boomert 2000; Boomert and Kroonenberg 1977; Rostain and Versteeg 2004).

The prevalence of head shaping, present in 26% of the examined individuals from Suriname and Venezuela, is significantly lower than the rates observed in the Greater Antilles. The relatively low incidence of head shaping among mainland communities points towards the expression of small scale identities shared by a certain subset of the population, or in other words, in-group differentiation between social actors. Head shaping might express kinship bonds in a certain family or lineage or social status differences ascribed at birth in these communities. Patterns in types and subtypes of modification can aid in the assessment of social motivations behind cranial modification.

Though the prevalence rates of the two groups are relatively similar, differences can be seen when investigating the cranial shape. All individuals from Suriname exhibit fronto-occipital modification with a parallel placement of the occipital board. This uniformity in shape suggests that the practice was executed in the same manner each time and that the signal sent through the altered head shape is likely the same. Unfortunately, the archaeological context of the Suriname skeletons has been lost and no other social variables can be investigated to determine potential additional ties to head shaping practices that might aid in our understanding of the social use of the practice.

Though fronto-occipital modification is the dominant type in Venezuela, there is more variation present in both types and subtypes. These represent different choices in the construction of the modification device, which may be linked to different communities of practice. Families or lineages can have slightly different traditions of head shaping passed through generations that result in variations in cranial shape. This heterogeneity ties in with the low overall prevalence of the practice, which suggests smaller scale

identity was expressed through altered head shape either as a representation of kinship or social status. A second explanation for the variety in head shapes may be found in the position of the Lake Valencia Basin as a central hub in the local trade network (Antczak 1998; Kidder 1944). This would have created a continuous flow of people, goods, and ideas and likely resulted in individuals from various origins passing through and perhaps moving into the region. The variation in head shaping seen in the cemeteries may in part represent practices and traditions in the region where these individuals were born as opposed to local Valencioid practices.

The patterns of modification in the coastal mainland communities of the Caribbean point towards processes of in-group differentiation and heterogeneity in contrast to the homogeneous patterns seen in the Greater Antilles where social cohesion and group identity appear to be driving factors. The islands of the Lesser Antilles form the bridge between these two regions, in both a physical, and more importantly, a social sense, and an analysis of the patterns of modification will show which influences held the most sway.

Lesser Antilles

The head shaping practices of the Lesser Antillean communities are characterised by variety, in contrast to the homogeneous patterns seen in the Greater Antilles and the similarities found in mainland customs. The prevalence rates vary widely from a complete absence of head shaping to 73% of individuals in a community having undergone cranial modification. This latter rate is similar to those seen in the Greater Antilles. Such variation suggests that combining these communities into a single region for analytical purposes would not reflect past social boundaries. This corresponds to other archaeological investigations (Boomert 2014; Hofman 1993; Hofman and Hoogland 2011; Petersen et al. 2004) noting a distinct divergent trajectory in Lesser Antillean societies during the Ceramic Age when the northern Virgin and Leeward islands became part of the Greater Antillean interaction sphere whereas the southern Windwards oriented themselves towards the mainland. This pattern is reflected in the limited prevalence data available for the Lesser Antilles, which shows a community on Guadeloupe in the Leewards with rates similar to those in the Greater Antilles and a sample from Trinidad, close to the South American mainland, with a complete absence of cranial modification.

A similar tendency for diversity can be seen in the types and subtypes of modification in use among the Lesser Antillean inhabitants. There is a strong emphasis on occipital flattening in the population from Guadeloupe, though care should be taken interpreting

this on a social level as the poor preservation of the crania may have resulted in an overestimation of the number of cases of occipital flattening. This would not have affected the analysis of subtype, which shows a preference for vertical positioning of the occipital board. Such vertical flattening is relatively rare in the Caribbean, present in 4.5% of the sample assessed for this study and found on St. Kitts and in the Greater Antilles. Its presence on the Leeward island of St. Kitts, close to Guadeloupe, is intriguing but complicated as it is based on only two crania from different archaeological contexts. Until a skeletal population with secure contextual information is recovered from this island, it will be difficult to determine the preferred cranial shape and social motivation behind head shaping. The overall pattern of types and subtypes found in the Lesser Antilles shows more variation and does not correspond with the clear preference for fronto-occipital parallel modification in the Greater Antilles.

No significant relations could be detected between cranial modification and sex, a variety of burial practices, or isotopic origin in the Lesser Antillean sample. Combined with the diversity seen in the practice, this suggests social motivations for head shaping in the Lesser Antilles cannot be found on the regional scale but must be investigated on smaller and more individual scales that more accurately represent past social boundaries. It is clear, however, that the social relevance of head shaping practices is different from the homogeneous pattern seen in the Greater Antilles and instead points towards in-group differentiation between subsets of social actors or the demarcation of different groups on a smaller scale currently obscured by the coarseness of the archaeological data. The fluctuations and flexibility in leadership and social status differentiation seen in these communities make these unlikely motivations for modification given the permanence and early commencement of head shaping. Kinship, and in particular notions of shared ancestry, which are also emphasised in the mortuary practices of these social collectives (Hoogland 1996; Hoogland and Hofman 2013), are a more probable basis for head shaping practices.

An additional explanation for the variety in cranial shapes found in particular Lesser Antillean assemblages is the manner in which these communities are organised as exogamous unilineal descent groups (Ensor 2013; Keegan and Maclachlan 1989; Whitehead 1995). Marriage partners must be found outside the settlement, creating the need for lasting social ties between communities as well as opportunities for power negotiation between lineages. The matrilineal post marital residence seen in the Lesser Antilles and wider Caribbean would lead to mobility of individuals between different villages and islands (Ensor 2013; Hofman and Hoogland 2011; Hoogland et al. 2010; Keegan 2007; Laffoon 2013). The latter would have contributed significantly to diversity in cranial modification patterns seen in Lesser Antillean assemblages, both with regards to the presence, type, and subtype of modification, as individuals subjected to varying

head shaping practices in their communities of birth are buried in the same cemetery. Among the peoples of the Greater Antilles, on the other hand, the same set of principles governing social organisation produces a homogeneous pattern, as head shaping practices in these communities are much more uniform. Therefore, marriage partners from other villages are far more likely to share similar head shapes and patterns of modification appear relatively consistent.

Historic Practices

In contrast to the sparse information that can be gained on head shaping practices from the archaeological record of the Lesser Antilles, much can be learned from the relatively rich historical record of the region created by Europeans in the 16th, 17th, and 18th centuries. Due to the Spanish opinion that the gold and other riches they desired were more likely to be found in the Greater Antilles and on the South American mainland, the inhabitants of the Lesser Antilles were not subjected to the full force of European colonisation and intercultural interaction until the 17th century, leaving more time for their languages and customs to be recorded in written documents (Hulme and Whitehead 1992; Kiple and Ornelas 1996; Paquette and Engerman 1996). These documents contain information on the social context of head shaping that cannot be gained from archaeology and form an important additional source for our understanding of the practice. Care should be taken in the uncritical application of these data to archaeological societies, as has been argued earlier in this dissertation, yet in light of the difficulties with the archaeological record presented above, overlooking these sources would be a critical oversight.

Cranial modification is one of the indigenous customs often discussed in historic accounts of the Caribbean, likely because these altered head shapes were strange to the authors and did not correspond with their biblically informed notions of the human body and how it should be treated (Geller 2006). From small snippets of information in a variety of sources, a picture of cranial modification as part of early socialisation among the Lesser Antillean Carib can be reconstructed.

The process of modification was started almost immediately after birth. Oviedo y Valdés (1851) and Leblond (1813) describe pressure placed on the forehead and back of the head, while Du Tertre (1654), De La Borde (1674), and Labat (1742) only emphasise frontal flattening. This may seem inconsistent, but might in fact simply be a reflection of slight differences in modification practices corresponding with the variety of cranial shapes recovered from the Lesser Antillean archaeological record. A single author, Breton (1999 [1665]), mentions the compression of the skull by daily pressure from the mother's hands. Such a custom would have resulted in mild shape alterations difficult to distinguish from natural variation, which if observable in the archaeological record

would yield an ambiguous designation. Most accounts confirm the modification was executed by the mother. This matches with modern ethnographic accounts from the Caribbean and beyond in which knowledge of head shaping customs was part of the female domain and was likely passed on through a female line (Fitzsimmons et al. 1998; Tiesler 2012).

The duration of the practice also seems to have varied. The most detailed description of an infant undergoing modification by Leblond (1813) suggests pressure was applied for nine days straight, after which the device was removed and readjusted until the desired shape was reached. Though he does not specify an age, Leblond does remark that many three to four month old infants were still undergoing modification. Others have contended the practice continues until a child is weaned (Rochefort 1667) or about two years of age (Breton 1999[1665]). It is likely that the duration, like the modification device, would vary depending on the desired shape and the response of the child's skull to the process.

There are indications that the process of head shaping is part of a suite of early socialisation processes, all aimed at turning the newborn into a fully-fledged social actor and human being. Other pivotal events in the Caribbean infant's life taking place in these early months include name giving and piercing of the ears, lower lip, and septum (Du Tertre 1654; Rochefort 1667). This was occasionally accompanied by a small feast. Though these were important steps in the social life of an infant, there are some signs that it was not an absolute necessity to be a functioning member of society. Several authors mention that cranial modification and piercing may be skipped if the child was considered too ill or weak during the early weeks and months of life (Breton 1999 [1665]; Du Tertre 1645). This idea has fascinating implications for the absence of cranial modification in the archaeological record in those societies where group identity is being expressed through altered head shapes. Though head shaping practices appear to be an important step on the road to personhood, such considerations do not trump concerns regarding the health and safety of the infant and there is sufficient social leeway for choice by the practitioner in this matter.

The final - and in light of the aims of this research most crucial - point offered by the historic sources are insights into the social motivations behind head shaping. Most agree that aesthetics are a key motivation for altering the cranial shape of infants (De La Borde 1674; Breton 1999[1665]; Rochefort 1667). The connection between social notions of beauty and cranial modification is common in societies that practice head shaping, as was evidenced during the exploration of ethnographic and historic accounts on head shaping practices undertaken to develop the framework presented in Chapter 3. The tie between the two concepts is based in the embedding of the practice in early

socialisation (Conklin 1996; Grusec and Hastings 2007; Jenkins 2014), which likely creates deep relations between the altered head shape and the idealised appearance of human beings in social collectives.

8.6

FAMILIAR FACES

Traces of head shaping practices in the Caribbean were also reflected in the material culture produced by its inhabitants. Greenstone Huecoid amulets found in the north-eastern Antilles, three-dimensional stone *Macoris* heads and human *adornos* on ceramic vessel rims in the Greater Antilles, and Valencioid figurines in Venezuela, all depict altered head shapes and in the latter case the modification device is sometimes also reproduced. These depictions echo the cranial modification seen in the skeletal material and assist in looking at the living faces beyond the skeletal material. More importantly, these representations serve to reify and proscribe cultural ideals on the appearance of a social person. These visual messages carry more weight in societies without a written language (Wells 2012). However, there is more happening in the material cultural repertoire of these communities that is worth discussing: the almost ubiquitous depictions of human faces in the Ceramic Age Caribbean.

Representations of the human face take centre stage in the material cultural repertoire of the late pre-colonial Caribbean (Mol 2007, 2014). Faces are depicted on numerous different materials and used in a variety of contexts ranging from rock art and shamanistic paraphernalia to pottery and domestic utensils (Mol 2007, 2014; Roe and Hayward 2008; Samson and Waller 2010). The focus on the face seems to start in the material culture of the Saladoid communities moving from the coastal mainland into the island chain at the beginning of the Ceramic Age, although the human countenance is part of a wide range that includes zoomorphic and anthrozoomorphic depictions. As time progresses, human facial iconography becomes more and more important until it dominates the repertoire (Mol 2014). The positioning of the face and the disproportional size of the head underline this increased importance of faces (Mol 2014; Samson and Waller 2010).

The centrality of the face as a social tool, enabling personal and social identification as well as verbal and non-verbal communication (Knapp and Hall 2002; Zebrowitz and Montepare 2008), has already been proposed as a way of understanding the importance of cranial alterations in identity formation and expression. This argument is equally valid for the depiction of human faces in material culture in its own right, but the presence of head shaping in the Caribbean adds another dimension to these numerous renditions. The growing importance of human facial depictions during the Ceramic Age coincides with the introduction and expansion of cranial modification practices in the region.

The altered head shapes embody important elements of identity and the representations of the head in material culture reflect and reiterate these social ties adding an additional layer of meaning to the rich iconography of the region.

8.7

LIVING FACES

The depictions of human faces in the material culture of indigenous Caribbean societies serve as a powerful reminder that cranial modification does not exist in a vacuum. The altered skulls encountered by the archaeologist in the field or museum are not the living faces ancient peoples would have seen and interacted with on a daily basis. Skulls show their modification in a clear and direct manner that seems to almost exaggerate the alterations. During life, such clarity is partially obstructed by skin, hair, and potentially head gear or bodily adornments. Understanding what the indigenous Amerindians of the Caribbean would have looked in the flesh can be done by creating facial reconstructions of individuals recovered by archaeologists or using photographs of the practice taken in the late 19th and early 20th centuries. This picture can then be completed by elements of personal adornment such as hair style, jewellery, head coverings, face paint, or tattoos to recreate the living faces of the past.

This presents problems in an archaeological setting, as delicate or temporary elements such as face paint or hair style rarely leave direct traces recoverable through excavation. This can be overcome by studying depictions of humans in material culture, investigating the objects used for decorating the body, or using information gained from the historic documents on the appearance of the indigenous inhabitants in the early colonial period. Clearly, great care must be taken in simply extrapolating the latter for all groups and periods of indigenous habitation but as one of the few sources available this may yield valuable clues.

Assessing photographs of living individuals will provide a better understanding of the relation between the underlying skull and living features. Unfortunately, no photographic material is present from the Caribbean context, so this has been replaced by examples from North America. Franz Boas' work among different indigenous peoples of North America at the end of the 19th and the beginning of the 20th century has left us with photographs of several individuals with altered cranial shapes. Whilst leading the Jesup North Pacific expedition, Boas recorded detailed information on what he referred to as the 'sugar-loaf' head of the Kwakwaka'wakw created intentionally using a cradle board (Boas 1909). A portrait of an older lady, reproduced in Figure 15, clearly shows this altered cranial shape and the obvious nature of the alterations despite the individual's hair.



Figure 15 Frontal and lateral view of an individual from the Kwakwaka'wakw with cranial modification produced by a cradle board, photographed during the Jesup North Pacific expedition (Boas 1909: Plate XXXVI).



Figure 16 Portrait of Charles Cultee, showing cranial modification produced by a cradle board (Boas 1894 frontispiece/plate 1).

Boas took a great interest in the languages and stories of the Chinook, another group from the Pacific Northwest, after learning they were rapidly being lost. He tracked down one of the few remaining speakers, Charles Cultee, in order to transcribe and translate the stories. The portrait of Charles that serves as the frontispiece of the Chinook Texts (Boas 1894), seen in Figure 16, shows another clear case of cranial modification.

This modification is also created by a cradle board, but of a different construction creating a much broader appearance from the front. This type of frontal flattening is much more reminiscent of the cranial shapes seen in the Caribbean.

Facial reconstruction – a recreation of a human face based on the morphology of the skull – has proved to be a useful tool in the identification of unknown human remains in forensic settings. The techniques have also been used on archaeological material to create portraits of past individuals and allow us to come face to face with our ancestors (Prag and Neave 1997; Wilkinson 2004, 2010). It is this last application of this forensic method that can help us understand how the indigenous inhabitants of the circum-Caribbean might have looked.

There are several different methods of facial reconstruction, each with different issues regarding reliability, reproducibility, and accuracy (Wilkinson 2010). These concerns are valid in a forensic context, but in this case the aim is not to produce an accurate reconstruction of facial features as much as a better understanding of cranial modification in living individuals. Tissue depth in the facial region may vary substantially depending on the sex, age, weight, and ancestry of an individual but the skin across the cranial vault follows the contours of the underlying bone quite closely (Phillips and Smuts 1996; Prag and Neave 1997; Wilkinson 2004, 2010). This implies that the changes in the regions of the skull most impacted by cranial modification –

in particular the forehead – should be relatively clear in living individuals.



A facial reconstruction was made by Dr. Hayley Mickleburgh using the skull of individual TH11 from the site of Kwatta Tingiholo in Suriname. This adult male has fronto-occipital modification with more pronounced frontal flattening and a minor occipital involvement (Tacoma et al. 1991; van Duijvenbode 2012). The lateral view of the clay reconstruction in Figure 17 shows both the visibility of the frontal flattening and the fact that the hairstyle and mild nature of the occipital modification make it difficult to observe the changes to the back of the skull.

Figure 17 Facial reconstruction of individual TH11 from Kwatta Tingiholo, Suriname, created by Dr. H. Mickleburgh. (Photo by H. Mickleburgh 2014).

The practice of cranial modification was widespread in the Caribbean by the time Columbus first set foot ashore in the region and described the altered head shapes of individuals he encountered in his diaries. The arrival of European colonisers and later enslaved Africans was a crucial moment for the indigenous societies of the Caribbean and the resulting social and cultural changes impacted head shaping in unexpected ways. Before looking at the repercussions of cultural contact on the practice expressed through its decline and surprising revival, the question of its origins must be addressed.

Pioneering Practices

The earliest confirmed cases of cranial modification in the Caribbean come from the Early Ceramic Age. The region had been inhabited for thousands of years by this point, but rising sea levels and difficult conservation conditions mean that little skeletal material is available from these first Lithic Age inhabitants (Cooper 2011). Burials dating to the Archaic Age are more numerous (Crespo Torres et al. 2013), although they are still vastly outnumbered by human skeletons dating to the Ceramic and Colonial period. Cranial modification has not been reported in any Archaic Age skeletal material to date, with the possible exception of a single individual from Aruba.

The cranial shape of this person, individual C2 from the Archaic Age site of Canashito on Aruba in the Southern Caribbean Region, was described by Tacoma as a potential case of cranial modification (Tacoma 1959). The site has been dated to 2210±95 BP, based on radiocarbon analysis of bone from individual C1. The skull of C2 was not available for reanalysis in the current investigation, but the published lateral photographs show some ambiguity in the cranial shape, which may be attributed to natural cranial variation or head shaping practices, the former being more likely. This early case, dating to the cusp of the transition between the Archaic and Ceramic Age, is intriguing especially considering the proximity of Aruba to the South American mainland as a likely origin for knowledge of the practice. However, until the skull can be re-examined using new methods, no reliable determination of its modification status can be made.

The earliest reliable example of cranial modification in the Caribbean was found at the site of Morel on the island of Guadeloupe. This site has a long history of habitation beginning in the Early Ceramic Age (Delpuech et al. 1995). A female skeleton was discovered from this beach in 1987 wearing an elaborate necklace of zoomorphic beads executed in the Huecoid style (Durand and Petitjean Roget 1991). The cranium shows

evidence of frontal flattening. Unfortunately, the occipital is not preserved and only a lateral photograph was published by Durand and Petitjean Roget (1991), meaning the potential parietal bulging and shortening of the vault could not be assessed. The skeleton was later radiocarbon dated to 2410 ± 120 BP (Delpuech et al. 1995). This implies the female from Morel is a little older than individual C2 from Canashito. However, the conditions in Morel present challenges for radiocarbon dating. The entire skeleton was found encased in beachrock, a lithification of beach sediment into a cement-like substance (Molenaar and de Boer 1992). The effects of these taphonomic conditions on radiocarbon dating are unknown. The Huecoid necklace places this individual securely in the Early Ceramic Age, which on Guadeloupe is generally considered to range between c. 400 BC and AD 600. The earlier date produced by the radiocarbon analysis therefore seems somewhat suspect.

The connection between Huecoid material culture and cranial modification was previously noted by Crespo Torres (2005), who discussed evidence of frontal flattening in typical Huecoid bird pendants. It is interesting that the cranial shape of the Morel female matches the form depicted in the material culture, namely flattening of the frontal, seemingly confirming the relationship. No other Huecoid skeletal material that may resolve the issue of cranial modification practices among this group has been recovered to date.

Based on this scanty evidence, it seems that the first cases of cranial modification in the Caribbean appear at the beginning of the Ceramic Age, when a new wave of pioneers moved from the coastal regions of South America into the islands. These immigrants met the Archaic inhabitants of the islands and evidence of their interaction and exchange is found in the form of the emerging Huecoid style (Hofman et al. 2007, 2014; Rodríguez Ramos 2010). In addition to these developments in material culture, cranial modification makes its first appearance at this frontier. In fact, a combination of data gathered during the current study and previously published information shows almost all skeletal evidence of head shaping practices in this period is found in Saladoid skeletal assemblages from the north-eastern Caribbean. The origin of head shaping practices in the Caribbean thus seems linked to the flurry of communication and exchange taking place along social boundaries, reiterating Barth's (1969) focus on such frontiers as the loci of interaction and innovation. The evidence from the archaeological record is at this point insufficient to indicate whether the practice was transported from the mainland of South America or was a local development produced by the interaction between the two groups.

Changing Tides at El Chorro de Maíta

After these early forays into head shaping in the Early Ceramic Age, the practices developed and expanded in tandem with the socio-political developments of Caribbean societies. The formation of *cacicazgos* accompanied by increased social stratification in the Greater Antilles went hand in hand with higher prevalence rates of cranial modification and a homogeneous set of shapes in the region. By the end of the Late Ceramic Age, altered head shapes were tied to a group identity extending across the Greater Antillean interaction sphere. This dynamic and developing social world is abruptly impacted by the arrival of Columbus in 1492 and the ensuing era of intercultural contact and colonisation. It stands to reason that a socially embedded practice like cranial modification would be affected by the profound changes in indigenous communities that occurred as a result of intercultural contact and the skeletal assemblage from El Chorro de Maíta is uniquely situated to investigate these early colonial developments.

El Chorro de Maíta is a settlement in the north-eastern Cuban province of Holguín that was inhabited during the crucial period spanning the end of the Late Ceramic Age and the early colonial period. This indigenous village was likely part of an *encomienda*, the Spanish system used to regulate labour and tribute in the early colonial period (Valcárcel Rojas 2012). The graves of 133 individuals excavated from the central section of the site show numerous indications of intercultural contact, from syncretic burials practices and European materials to the presence of a potential first generation enslaved African male (CDM45) and a presumed Mesoamerican female (CDM72B) discussed above (Laffoon et al. 2013; Valcárcel Rojas 2012; Valcárcel et al. 2011). Given the evidence of Christian influences on indigenous burial practices, it is interesting to investigate how cranial modification was impacted by intercultural contact.

Head shaping practices at El Chorro de Maíta match the expected pattern of high prevalence rates and uniform cranial shapes seen in other Late Ceramic Age Greater Antillean communities, the closest comparable collections to this unique Cuban context. The rough and adjusted prevalence rates are high at 79% and 85%, respectively, and removing any potential non-Amerindian individuals from the sample elevates this to 89%. Fronto-occipital modification is dominant in the sample, with only a few exceptions including the notable head shape of Mesoamerican CDM72B. There is no evidence of any differentiation based on sex, the presence or absence of grave goods, or origin based on the strontium isotope signature. The only significant pattern found in the burial practices was a distinctly higher rate of secondary burial among non-modified individuals. It should be noted that the sample of non-modified individuals is relatively small due to the high prevalence of cranial modification in the sample and this may have influenced the data.

At a first glance, there is no significant difference between the pattern of cranial modification found at El Chorro de Maíta and other Late Ceramic Age sites in the Greater Antilles, suggesting a continuation of head shaping practices and the use of altered head shapes as a marker of group identity. A closer look at the prevalence data reveals a peculiar pattern, first noticed by the original investigators of the site (Guarch Delmonte 1996), that questions this apparent continuity. The non-adults buried at El Chorro de Maíta have a significantly lower prevalence of cranial modification than the adults. This difference is statistically significant for the rough and adjusted prevalence rates and remains significant if an adjustment is made to account for the issues regarding the suspected non-Amerindian ancestry of certain individuals in the sample. For ease of comparison with the other sites in the sample, the adjusted prevalence rate is cited here. Cranial modification is found in 92% of the adult crania and 65% of non-adult crania recovered from the cemetery at El Chorro de Maíta.

The significant gap between the prevalence rates of adults and non-adults at El Chorro de Maíta is both unique and unexpected. Analysis of the most comparable sites in the sample in terms of cultural context, time period, and size show similar rates of modification for the different age categories, as would be expected for a stable and enduring practice like cranial modification. The pattern seen at El Chorro de Maíta thus suggests a destabilisation of head shaping practices at the site during the time in which the cemetery was used to inter members of the community. Guarch Delmonte (1996) attributed this pattern to a decline in cranial modification practices as a result of the arrival of the Spanish. Before looking at this argument in more detail, issues regarding the internal chronology of the site must be discussed.

The burials in the cemetery cannot be differentiated into different temporal phases and have therefore been studied as a single population. This makes it impossible to determine whether the non-adult modification rate is an accurate representation of the developments in the latter part of habitation at El Chorro de Maíta. Weston (2012) determined that the mortuary profile of the cemetery appears consistent with that of a catastrophic cemetery, caused by a single disastrous event or brief period of calamity. Given the early colonial context of the site, endemic diseases unwittingly brought into the Americas by Europeans against which the Amerindian communities had no immunity, may have contributed to the palaeodemographic profile of El Chorro de Maíta (Valcárcel Rojas 2012; Valcárcel Rojas et al. 2011; Weston 2012). This is interesting for the debate regarding the internal chronology, as catastrophic cemeteries tend to be the result of short-term events and represent the living population more accurately than traditional attritional cemeteries. However, it must be noted that although there appears to be evidence for a catastrophic element in the El Chorro de Maíta cemetery, the number of burials, the styles of interment, including a number of secondary burials, and the range of

radiocarbon dates, all suggest that there was an attritional component to the cemetery as well (Valcárcel Rojas 2012; Weston and Valcárcel Rojas in press).

Regardless of the issues surrounding the internal chronology of the cemetery, the unique pattern of differential prevalence rates at El Chorro de Maíta and the implied shift in head shaping practices requires explanation. Once more, the context of the site points towards the likely culprit: the arrival of the Spanish and the ensuing social upheaval and intercultural contact of the early colonial period. There are, however, several ways in which the momentous events of this period could have impacted the head shaping practices of the indigenous inhabitants of Cuba.

The negative European attitude towards altered head shapes, evidenced in written documents of the era, is often seen as an important factor in the decline of cranial modification in colonial contexts in the Americas and Africa (Dingwall 1931; Tiesler 2012; Tommaseo and Drusini 1984; van Duijvenbode 2011). This culminated in several Spanish attempts to suppress the practice through decrees and laws on the South American mainland. One of the earliest attempts is found in Lima's Provincial Court and dates back to 1567 (Dingwall 1931:215). Though European documents certainly support unfavourable attitudes towards the practice, it is vital to realise that the decline in cranial modification seen during the colonial period at El Chorro de Maíta and elsewhere is not simply caused by outsiders, but demonstrates a fundamental change in indigenous culture as a response to intercultural interaction and colonial processes. By simply attributing the absence of cranial modification to negative European attitudes, we unjustly remove indigenous agency from the equation.

The intricate ties of cranial modification to concepts of personal and group identities formed in the earliest phase of life during the socialisation process of the infant (Conklin 1996; Jenkins 2014) explains the potential impact of intercultural contact on the practice. In Cuba, as in other Greater Antillean communities at the crucial historic transition from Late Ceramic Age to early colonial period, altered head shapes represent a regional group identity. Besides representing these communal ties, the altered head shape would also simultaneously have been integrated into the personal identity of the individual as a fundamental aspect of who they are as a human being and social actor (Jenkins 2014). The individual, after all, would not have remembered a time before the cranial modification took place and would never have seen a personal reflection without the resulting head shape. Such fundamental and socially integrated notions of identity are resistant to change under normal circumstances (Cornell and Hartmann 1998; Jenkins 2014).

However, the exceptional and unique context of individuals buried at El Chorro de Maíta does not represent a normal indigenous society. The arrival of Columbus heralded an

unrivalled period of intercultural interaction and social change through processes of colonisation and enslavement. Contact between individuals from the Americas, Europe, and later Africa created a true melting pot of cultures still found in the Caribbean to this day. The colonisation of Cuba had a momentous impact on the indigenous world view and would have profoundly affected social concepts and structures. In such a changing world, the social ties that connected the inhabitants of the Greater Antilles would have lost the importance they once held in indigenous communities as social structures crumbled under European pressure and adapted to new realities. As indigenous identities transformed in the early colonial period, the marker of the old social ties would have lost its former relevance, leading to a decline in head shaping practices. This process would likely have taken place at different rates in different communities and families, as some may have clung to old notions of identity while others adapted more rapidly. It would also have depended on the nature of intercultural contact and colonial processes, with changes occurring faster in groups in direct and prolonged association with European colonisers.

The pattern in head shaping prevalence rates found at El Chorro de Maíta fits well with this scenario, as it is obvious that head shaping practices were declining at a differential rate within the community with some continuing and others discontinuing the practice. The diminished importance of altered head shapes as a result of disintegrating and shifting social structures, perhaps aided by the negative European opinions on cranial modification in the *encomienda* of El Chorro de Maíta, resulted in a decline of head shaping practices. In this sense, cranial modification is not unique but one of many indigenous customs lost as a result of the colonisation of the Americas.

The Carib Case

The decline of cranial modification seen in the skeletal material from El Chorro de Maíta has exemplified how the European colonisation of the Caribbean after 1492 led to inevitable and profound changes in Amerindian lifeways and customs. The cultural contact between Europeans, Amerindians, and Africans and disparate political and economic developments in the region led to a dynamic social setting that produced an unexpected revival of head shaping practices among the Black Carib.

These communities of African descendants lived on the island of St. Vincent and were referred to as Black Carib in historical documents in order to distinguish them from the Carib or Kalinago communities of the island (Gullick 1976; Hofman and Hoogland 2012, Whitehead 1995). Little is known about the early dynamics between the two groups, though interaction and exchange must have taken place as the Black Carib adopted the

Amerindian language and several customs including head shaping. By the end of the seventeenth century, relations had soured and each group occupied a distinct portion of the island (Kerns 1983; Taylor 2012). At the same time, European nations intensified attempts at colonising the Lesser Antilles and the English Crown took a particular interest in St. Vincent (Gullick 1976).

It is against this dynamic and instable back drop that the revival of cranial modification occurred among the Black Carib communities. There is no human skeletal material available that can be ascribed to the Black Carib with certainty², but French and English travellers recorded detailed if occasionally contradictory information on the practice that may be used to reconstruct this interesting resurgence of head shaping.

Black Carib cranial modification was achieved by a device consisting of a frontal board wrapped in cotton or padded to protect the infant's skin. This board was secured with a strap around the back of the skull (Amic 1791; Davidson 1787). Chanvalon (1761) talks of a second board at the back of the skull, but this information cannot be confirmed. This construction was very similar to the device used by the Amerindian communities of the region. Cranial modification also occurred in certain parts of Africa and given the varied origin of the Black Carib, some may have remembered head shaping from their homelands. As African cranial modification predominantly used wrapping of the skull to create a long elongated shape (Ricci et al. 2008), the construction of the modification device and resulting cranial shape among the Black Carib supports the notion that they copied the practice from their Amerindian neighbours.

The relatively rapid adoption of this cultural practice suggests it served an important social function. Most sources cite a functional reason for the altered head shapes: to prevent Black Carib being mistaken for runaway slaves (Chanvalon 1791; Davidson 1787; Leblond 1813). Though such a practical motivation might have been behind the initial appropriation of the practice, by the end of the eighteenth century one writer referred to it more poetically as the 'character of their nation' (Amic 1791:133). In the volatile social context of seventeenth- and eighteenth-century St. Vincent, cranial modification was a powerful way of expressing Black Carib group identity, fostering internal community cohesion, and creating an effective distinction between in- and outsiders.

There are some indications that the practice was starting to lose some of its significance towards the end of the eighteenth century as Black Carib identity became firmly established. Amic (1791) notes that some families had reportedly stopped practicing

² Two crania supposedly found on St. Vincent are depicted in the *cranium* by Blumenbach (1790). These skulls may have belonged to Black or Island Carib individuals, but without proper context regarding the origin of the crania this is impossible to ascertain. The current location of the skulls is unknown.

head shaping altogether. The outbreak of the renewed Carib war against the British in the final decades of the eighteenth century resulted in a British victory and the wholesale deportation of the community from St. Vincent to Central America. Cranial modification rapidly disappeared after this momentous upheaval and was no longer found among the displaced communities on the coast by the 1820's (Conzemius 1828; Roberts 1827).

8.9

SHARED MOTIFS

The history and development of head shaping in Caribbean communities from its beginnings in the Early Ceramic Age to the remnants still present in current child care practices are inherently intertwined with the broader social and political transformations of the region. The story of cranial modification sketched throughout this chapter shows three common threads. First, head shaping practices and their associated identities are deeply ingrained in the individual and social practice as part of early socialisation processes and form an integral part of becoming a person and human being. Second, interaction between individuals and communities across social boundaries is a crucial element in the (trans)formation of social identities and consequently intentional cranial modification. Third, the Caribbean is characterised by the ongoing tension between diversity and similarity, as is particularly noticeable in the contested case of the Tainos. These three shared motifs will be explored in the conclusion.