Changing heads: intentional cranial modification in Pre-Columbian Jamaica

Ana Luisa Santos1, Michelle Braham2, Philip Allsworth-Jones3

1CIAS and Dept. of Life Sciences, Unvers. Coimbra, Portugal, 2Archaeological Society of Jamaica, Jamaica, 3Depart. of Archaeology, Univers. of Sheffield, United Kingdom

alsantos@antrop.uc.pt, michelle.m.braham@gmail.com, philip.allsworth-jones@blueyonder.co.uk

Introduction
Intentional cranial modification has been practised by populations in the prehistoric as well as in the historic periods in a wide range of geographical localities.

This practice was shown by the populations in their artefacts, described and illustrated in ethnographical accounts, and permanently preserved in human skulls. Thus, they became an paleopathological and/or biocultural interest.

The aim of this paper is to discuss the cranial modification reported for the Tainos of Jamaica.

Results and Discussion
The skulls from this Jamaican pre-Columbian population were modified and have been reported in anthropological/archaeological studies since the 19th century.

<table>
<thead>
<tr>
<th>Site</th>
<th>Number of crania</th>
<th>Author(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pedro Bluff cave</td>
<td>1</td>
<td>Flower, 1891</td>
</tr>
<tr>
<td>Halberstadt cave</td>
<td>5 (out of 6)</td>
<td>Flower, 1895</td>
</tr>
<tr>
<td>&quot;[A]borigines of Jamaica&quot;</td>
<td>probably all of the [16] skulls</td>
<td>Haddon, 1897: 23</td>
</tr>
<tr>
<td>Green Castle</td>
<td>1</td>
<td>Santos et al., 2011</td>
</tr>
<tr>
<td>Taylor’s Hut cave</td>
<td>1</td>
<td>Santos et al., 2002</td>
</tr>
<tr>
<td>Hellshire cave</td>
<td>2</td>
<td>Gardner et al., 2011</td>
</tr>
<tr>
<td>Belle Air cave</td>
<td>1</td>
<td>Allsworth-Jones et al., 2011</td>
</tr>
<tr>
<td>Bull Savannah cave #2</td>
<td>1</td>
<td>Santos et al, in prep.</td>
</tr>
</tbody>
</table>

Artificially modified cranium found in a bowl found at Taylor’s Hut cave (Santos et al., 2002: 126).

There are different cultural practices – e.g. religion, status, group or family identity, aesthetics, making the individual healthier, intimidating enemies, among others - but all agree that it carries cultural significance within the population (see Tubbs et al., 2006).

Despite the belief, studies revealed that individuals with artificially modified skulls have similar capacities when compared with non-modified crania (in Nicholson et al., 1986). However, some cases with pathological consequences have been suggested (e.g. Bautista, 2000; Santos et al., 2011).

Final comments
A systematic evaluation of cranial modifications in Taino pre-Columbian populations in the Caribbean as well as their distribution among different archaeological / ceramic periods needs to be explored in future studies.

Tainos
Were the inhabitants of the Greater Antilles and the northern Lesser Antilles at the time of European contact. It is likely that they arrived in Jamaica after 650 AD and were extinct by the 16th century (see Allsworth-Jones, 2008).

Taino lived in houses grouped in villages (Oviedo, 1959 [1526]), used ceramic and stone tools, produced objects of terracotta, stone, and wood, and pictographs and petroglyphs are present in caves (see Atkinson, 2006; Allsworth-Jones, 2008).

Their means of subsistence includes wild plant gathering and agriculture (Oviedo, 1959 [1526]), hunting, fishing, and shellfish (collecting (see Atkinson, 2006).

The osteological evidence shows that both men and women had the shape of their heads changed. Frontal flattening and parietal expansion, also designated as "panielo-fronto-occipital" modification, is the type represented.

This characteristic corresponds to ethnographical descriptions that referred to the population having broad heads (Harper, 1961/1962).

Taino buried their dead in open air sites and in caves (see Allsworth-Jones, 2008). Modified crania have been found in all types of burial areas.

From the map it can be seen that the human remains found came from archaeological sites around the island.

Because the Taino, so far, are the only known native peoples in Jamaica this cultural practice can be considered an indirect dating method for identification of Pre-Columbian populations.

Similar cranial modifications were found in neighbouring islands (e.g. Duijenbode, 2011).

Acknowledgments
To the University of the West Indies, to the Jamaica National Heritage Trust and to CIAS.

Bibliography