

# BEADS

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# TO PRODUCE “A PLEASING EFFECT:” TAÍNO SHELL AND STONE *CIBAS* AND SPANISH *CUENTAS* IN THE EARLY COLONIAL CARIBBEAN

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*This article serves as an introduction to the use of beads – both indigenous and European – in surviving examples of body ornaments from the early colonial Caribbean: a cemí/belt in the collections of Rome’s Museo Nazionale Preistorico Etnografico “L. Pigorini,” a belt from the Weltmuseum Wien, and a cache of beads in a wooden vessel from the collections of the Museo de Historia, Antropología y Arte, Universidad de Puerto Rico. These artifacts offer insights into how the Taíno may have adopted newly introduced foreign goods, aligning them to their own aesthetics and world view. Glass beads, acquired via visitors from foreign lands, entered into a well-established repertoire of indigenous shell, stone, and potentially botanical beads, introducing different colors and finishes, but nevertheless fitting within traditional cultural expressions and value systems.*

## INTRODUCTION

The Jamaican Taíno greeted Columbus’ first visit to the island in 1494 with the pomp and ceremony such a historic visit demanded: in full regalia, a *cacique* (chief) and his envoys approached the Spanish caravels in canoes, wearing stones of “high value,” with the cacique resplendent in a “garland of small stones, green and red, arranged in order and intermingled with some larger white stones, *producing a pleasing effect,*” together with a matching belt “of the same workmanship” (Bernaldez in Jane 1967:162). These ornaments adorned his otherwise naked body, becoming focal points for the lavish display of beadwork valuables in both stone and shell. Members of his retinue wore caps “ingeniously worked” with green and white parrot feathers (Bernaldez in Jane 1967:162). The visual spectacle clearly made an impression on the Spanish, who quickly identified individuals of status by the quantity and quality of their ornaments, which they described as being made of “fine stones [and shells], very small and pearl-like” (Las Casas 1951, I:272). European glass beads had qualities that echoed indigenous stone and shell beads, quickly entering the Taíno sphere of material wealth and being incorporated into indigenous regalia.

Among the handful of surviving artifacts from this early period of interaction (pre-1550) to physically integrate both indigenous and European beads are a composite sculpture consisting of a belt and top (possibly a headdress in the form of a *cemí* – a representation of a spirit, deity, or ancestor) nailed to a 16th-century European display mount (Figure 1) in the collections of the Museo Nazionale Preistorico Etnografico “L. Pigorini” (henceforth Pigorini) in Rome, and a belt in the Weltmuseum Wien, Vienna (Figure 2) (for detailed histories of each of these artifacts, *see* Ostapkowicz 2013, 2018; Ostapkowicz et al. 2017). Another artifact – a small, ornately carved wooden vessel containing glass and shell beads – is held in the Museo de Historia, Antropología y Arte, Universidad de Puerto Rico (Ostapkowicz et al. 2012). These three objects offer unique insights into the layered meanings of small bead valuables in the Caribbean region in the early colonial period. This paper explores the context within which indigenous beads were used, and how foreign beads were adopted and adapted in the service of shifting power relations post-1492.

## INDIGENOUS WEALTH: DISC BEADS

Striking geometric patterns in red, white, and black beads cover the surfaces of the cotton textiles under discussion. The Vienna belt is composed of nearly 11,000 handmade beads while the Pigorini *cemí*/belt features over 20,000. Each bead is held in place within a fine mesh of cotton, with two threads crisscrossing below each bead, securing each so tightly that if one is damaged, the other beads are unaffected and the textile remains tight. The sheer scale of the labor involved in producing such a shell armature for these wearable works of art can be appreciated when one considers that each small bead (max. 5 mm diameter) was worked down from a shell blank by various manufacturing stages involving cutting, grinding, drilling, and polishing. The 16th-century *chronista* (historian) Las Casas (1967, I:317) commented on the “wonderous”



**Figure 1.** Three views of the cemi/belt which features a human mask of rhinoceros horn (right) and a bat face of green glass beads (left). Full height is 31.5 cm, with the top (headdress) measuring ca. 21.5 cm and the belt 10.0 cm (courtesy of Museo delle Civiltà – MPE “L. Pigorini,” Piazzale G. Marconi 14,00144 Rome; acc. no. 4190) (all photos by author unless otherwise stated).

production: the beads “...being so small [are made]... without iron instruments, without drills, without chisels, but only... with a flint or stone, or with fish spine or bone, drilled with such subtlety and delicacy that it seems an impossible thing.” In the 17th century, the neighboring Carib/Kalinago “could not make one [bead] to perfection and pierce it with the tools that they use in less than three days” (de la Borde in Roth 1924:119). Replication studies improve on this estimate, suggesting that a skilled artisan could achieve as many as five beads in a day, with 300 over a period of two months (Carlson 1993:70). At this rate, 11,000 beads would represent more than six months’ labor for ten specialists. The 20,000 shell beads woven into the Pigorini cemi/belt in turn suggest a year’s full-time work for ten specialists. The

creation of either of these pieces required shell “wealth” in quantity – potentially material that was accumulated over some time for such a specific purpose. Such lavish displays of bead wealth reflected the abilities of the owners/wearers to harness the skills of craftspeople within their community or their success (and resources) in tapping into networks that circulated these valuables.

While these artifacts comprised the pinnacle of wealthy displays, indigenous shell beads in the form of barrel or cylindrical discs fulfilled a variety of purposes which were individual and personal – from strands worn at the neck, arms, and/or wrists to adorning women’s *naguas* (skirts) (Alegria 1995; Bernaldez in Jane 1967:162). There were



**Figure 2.** Cotton belt with indigenous shell beads and European jet, brass, and mirror additions, featuring a central cemi figure. Full length: 116.5 cm; strap height: 7.0 cm; cemi head: 10.2 cm (courtesy of KHM-Museumsverband, Weltmuseum Vienna; inv. no. 10.443).

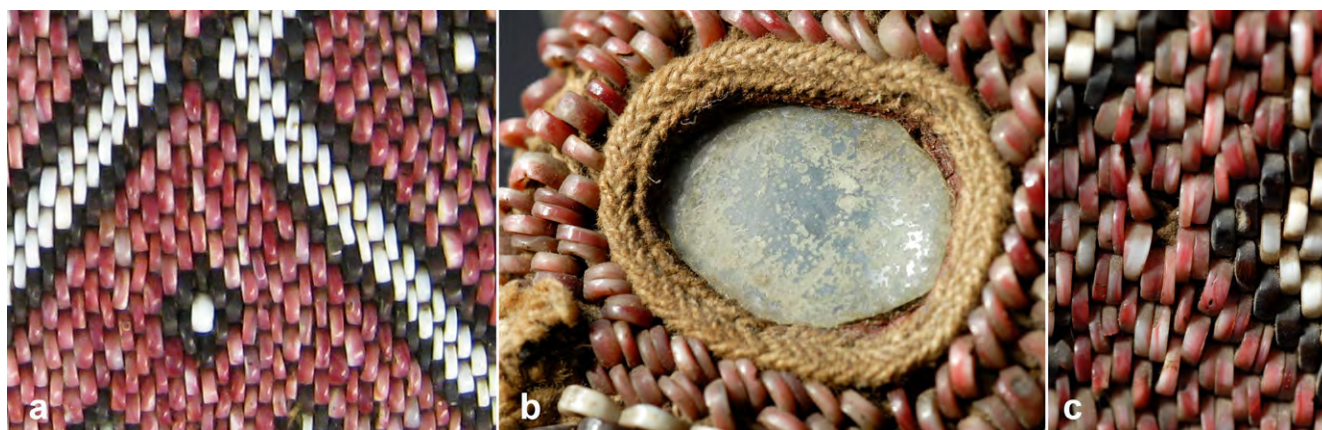
a variety of shell beads in use in the Caribbean, some undecorated and largely retaining their original shape (e.g., *Oliva* sp.) (Figure 3). Others were entirely modified from their original form (and so may have had greater value), potentially by craft specialists, as suggested for site GT-2 on Grand Turk, Turks and Caicos Islands, which appears to be a beadmaking site used by artisans from Hispaniola (Carlson 1993). Material from these large-scale production centers was likely destined for cacical storehouses, for their distribution or in the manufacture of important gift or status items in their service. Small-scale bead production at the household level also appears to have been fairly widespread;



**Figure 3.** *Oliva* sp. ornaments from the Bahamas and Turks and Caicos Islands. **Top:** Perforated, but otherwise complete, Abaco; H: 40 mm, W: 18 mm, D: 16 mm (courtesy of Albert Lowe Museum, Green Turtle Cay, Abaco). **Bottom:** A half-shell ornament from MC-32, Middle Caicos; H: 31 mm, W: 15 mm, D: 6 mm (courtesy of Turks and Caicos National Museum, Grand Turk; FS 21).

the site of Minnis-Ward, San Salvador, Bahamas, for example, shows evidence of multiple households undertaking bead production (Blick, Kim, and Hill 2010), so it is likely that people had access to at least some of these ornaments, perhaps acquiring a small group of beads over the course of their lives (e.g., gifts during major life events or in exchange). Stone beads (*cibas*), more laborious to manufacture than shell, were cacical prerogatives and were considered sacred (Martyr D’Anghera in Arrom 1999:48): a Hispaniolan myth recounts that the ancestress Guabonito first gifted *cibas* to the culture hero Guahayona at the sacred mountain Cauta, where the first people emerged (Colón 1992:155; Oliver 2000:205-213). Beads were thus among the first mythological “gifts,” so it is perhaps not surprising that they, and the body ornaments they were made into, were eagerly gifted, traded, and used by the indigenous populations, with later European beads swiftly adopted for these varied purposes.

The disc beads featuring in the cotton artifacts discussed here are 0.6-2.5 mm thick and 3.2-4.8 mm in diameter. A closer inspection of the Pigorini cemí/belt and the Vienna belt suggests that, despite the similarities in color range and beaded designs, there are some minor differences in the selection and placement of beads. The consistent size of the beads used to cover the woven structures of the Pigorini cemí/belt is striking, suggesting that the artisan specifically selected beads of relatively uniform thickness (ca. 2.0-2.5 mm) in order to maintain the alignment of the designs (Figure 4, a). Thinner beads (0.6-1.5 mm) tend to be infrequent in the Pigorini cemí/belt. The Pigorini weaving technique appears to favor securing single beads individually, no matter their thickness. In contrast, the Vienna belt, while superficially looking very similar in design, does feature more very thin beads that are doubled-up in one binding to bring them in line with the thickness of the other beads, and so maintain the precision of the geometric designs (Figure 4, c). This is particularly noticeable in the nose and eye area of the belt’s cemí, but is also evident in the beaded waist straps (Figure 4, b). This undoubtedly was due to what beads were available at the time; perhaps access to a larger number of beads enabled the artisan(s) responsible for the Pigorini cemí/belt to be more selective, allowing greater precision and alignment. Equally, the thinner beads may have been particularly difficult to make, making them potentially more desirable to feature in key areas of the artifacts, such as a Vienna belt’s cemí face. In both cases, the weaving is so tight that many broken beads have been retained within the underlying mesh of cotton thread. The method of creating this bead “fabric” is largely obscured due to the tightness of the construction, but the staggered sequence of beads suggests that a technique similar to a brick stitch or a one-



**Figure 4.** Belt components: a) The Pigorini belt featuring a consistent use of thick disc beads (ca. 2-2.5 mm) (courtesy of Museo delle Civiltà – MPE “L. Pigorini,” Piazzale G. Marconi 14,00144 Rome; acc. no. 4190); b) detail of the Vienna belt’s *cemí* face, showing two thin beads stacked together within the cotton mesh; c) detail of the Vienna belt’s waist band showing two beads (ca. 0.6-2 mm thick) bound together to maintain the geometric pattern (courtesy of KHM-Museumsverband, Weltmuseum Vienna; inv. no. 10.443).

bead netting method was likely used. Both techniques thread each bead twice for added security and sequencing, as the exposed mesh netting in the damaged areas of the Pigorini *cemí*/belt and Vienna belt would suggest. It is clear from this treatment that the beads were valued not simply as a way of adding color and pattern to a wearable object, but that they were a contributing valuable to the material (and quite literal) “weight” of something that had deep cultural significance. As noted in the introduction, belts and caps were among the few body ornaments worn by caciques at important political and ritual events (Ostapkowicz 2013). They enclosed the head and central core (below the navel and above the genitals), both critical points of the body and important foci in Taíno myth and art – areas that may have been viewed as significant thresholds for spiritual and physical transcendence (Ostapkowicz 2013).

The vibrant bead colors featured on the two cotton artifacts owe much to the choice of original materials. cursory examination suggests that *Lobatus gigas* (queen conch) and *Chama sarda* (cherry jewel box clam) were likely used for the white and red beads, respectively, as supported by comparable examples found in the archaeological record (Figure 5, bottom). The source of the dark beads is more difficult to identify. While matte, grey shell beads do appear with some regularity in archaeological contexts (e.g., Blick, Kim, and Hill 2010; Carlson 1995), including some that appear burnt (Figure 5, top), the black beads on the artifacts under discussion potentially suggest another source. Those in the Pigorini and Vienna pieces feature a variety of color tones, incorporating browns and olive greens to deep blacks, some matt but most others having a high sheen. A damaged bead on the Vienna belt appears thickly coated by a grainy black colorant, while its interior

is white (Figure 6). This may suggest that some black beads were actually made of white shell darkened with a surface coating. Another possibility – as first proposed by Karl Nowotny (in Schweeger-Hefel 1952:214) – is that many of the black beads were carved from vegetable or fruit seeds, or indeed other organic (e.g., bone) sources (Figure 7, a). Plant-based materials rarely survive in the archaeological record; if beads of a botanical source are featured in the cotton artifacts, they are the only examples currently known. Initial (non-invasive) studies of a broken fragment of one of the Pigorini *cemí*’s black beads does indeed suggest that it is organic (Figure 7, b-c) and further analyses are underway to determine a more definitive identification. A potentially botanical source should not be surprising; indeed, if the corporeal art of the South American mainland cultures is any indication, the possibilities for ornaments derived from botanical sources are as overwhelming as the botanical variety of these regions (e.g., Harding 2003).

While the *chaîne opératoire* of shell artifacts in the circum-Caribbean is coming into greater focus (Carlson 1993, 1995; Falci 2015), we are still some way from understanding the meanings behind material choices, including color symbolism. Looking across the spectrum of ethnographic references to the color of Taíno body ornaments, to the archaeological evidence, and the exceptional cotton artifacts of the early colonial period under discussion here, it is clear that distinct color preferences were made in the creation of body art, whether in the form of a necklace or belt, or, indeed, body painting. Equally, a limited range of colors in suitable materials would have been available in quantity.

Consistently, white, red/pink and black beads recur: whether at an archaeological site in the Bahamas (e.g.,



**Figure 5. Top:** Five grey beads from Governor’s Beach (GT-2, Grand Turk, Turks and Caicos) with 4.26-9.64 mm diameters and averaging about 1.5 mm in thickness (courtesy of Turks and Caicos National Museum; 2-T2 057). **Bottom:** Color range of small shell beads from the Pink Wall site, New Providence, Bahamas (courtesy of The National Museum of the Bahamas [Antiquities, Monuments and Museum Corporation]; NP-12-171-13).

the Pink Wall Site, New Providence – Figure 5, bottom); a *chronista* reference, such as the white and red (and green) “stones” worn by the Jamaican cacique described in the opening of this paper (Bernaldez in Jane 1967:162); or as clearly seen in the geometrically vibrant beadwork designs featured in the Pígorini cemí/belt and Vienna belt. Looking further afield, the combination of white (*Lobatus gigas*) and red (predominantly *Spondylus* sp.) shells has a long history in South America, going back at minimum to 2500 BC (Claassen 1998:207). The two shells have long been paired in archaeological contexts, as well as iconography; for example, both are depicted in two key obelisks at Chavin de Huantar dating to ca. 800 BC (Lanzón Stela) and ca. 500 BC (Tello Obelisk) – far from the warm coastal waters that are their natural habitat (which itself speaks of people’s connections across this vast landscape, and the distances that iconic subject matter and materials may have traveled). The white and red combination, enhanced with black, may have a deep resonance in the wider region. And while it is tempting to step beyond the evidence to more interpretative ground by suggesting possible meanings behind the color

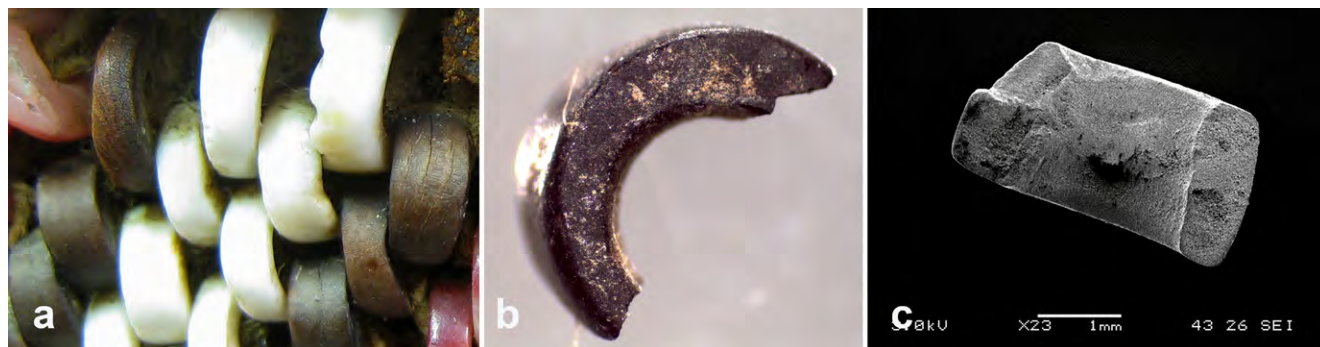


**Figure 6.** A damaged black bead (inset) showing a white interior and a black outer surface within the context of its surroundings at the top of the cemí’s head (courtesy of KHM-Museumsverband, Weltmuseum Vienna; inv. no. 10.443).

choices, this should not be viewed as a literal translation of past understandings. For example, Blick, Kim, and Hill (2010), specifically referencing the Vienna belt, suggest that red and white were complementary opposites. White was associated with peace, the celestial complex, gold and silver, the sun and moon, and elite status; conversely, red was associated with war, the agricultural complex, blood and fertility, the soil and earth, and lower social status (Blick, Kim, and Hill 2010:36). Yet, while such dichotomies may have been held by the Inca (*see* Claassen 1998:208; Mester 1989) their application to the Caribbean is problematic on numerous grounds. The nuances of meaning in the Caribbean are likely to remain far more elusive to us than such concrete opposites would suggest. Similarly, there is probable meaning in the geometric bead designs, but it is impossible to be specific. In a general sense, given their intimate association with the body, they may have had apotropaic qualities. Beads themselves are often given this attribute cross-culturally, but again, whether such was the case in the Caribbean is difficult to establish.

## EUROPEAN GLASS BEADS

European glass beads entered into this repertoire of indigenous bead colors and materials, though their integration amidst the indigenous beads in the Pígorini cemí/belt and the Vienna belt suggests that they were understood as equivalents to the traditional bead valuables. In these artifacts they enhanced, and supported, these traditional structures.



**Figure 7.** Black beads on the Pigorini cemí/belt: a) the variety of color tones of the belt's "black" beads, some showing natural cracking, suggestive of an organic source; b) the exterior of a broken black bead from the cemí's head area; c) SEM image showing fissures on the surface of the broken bead, suggestive of organic dessication (c photo: Chris Doherty).

No sooner had Columbus offered glass beads as gifts to the Lucayans (inhabitants of the Bahamian archipelago) during his first few days in the "New World" of Guanahani (San Salvador), they were in circulation via indigenous exchange networks to neighboring islands (Dunn and Kelley 1989:85). Perhaps the Lucayans used these exotics goods as material evidence of the curious people from foreign lands, just as Columbus displayed indigenous America's material culture at the Spanish court upon his return – the "foreign" presented in tangible, concrete terms. Equally, beads were desirable in and of themselves – bright, vibrant glass surfaces of unfading color which echoed the shape and qualities of indigenous disc and barrel beads. Columbus noted that the Lucayans "would barter with some pieces of gold hanging from the nose.... which they would willingly give.... for glass beads" (García Arévalo 1990:271). A later historian recounted that "they exchange gold for glass, because nothing is more valuable among them than glass" (Foresti da Bergamo in Symcox 2002:30; see Keehnen 2012 for a detailed review of early exchanges). Hence, in his initial trade in *cuentas* (beads) and *abalorios* (small glass beads), Columbus had fortuitously stumbled upon one of the most coveted and appreciated of indigenous valuables; so favorable was the reception to glass beads that it cemented them as an essential commodity for trade in the Americas for centuries to come.

Further, by including green *abalorios* in the initial exchanges, Columbus may have inadvertently connected with another highly desirable quality within indigenous aesthetics and symbolism. Green had a deep resonance in the circum-Caribbean region, a broad referent to water and its fertile potential and linked with widely traded "greenstone" artifacts (Boomert 1987; Rodriguez Ramos 2011). Jadeites, for example, had limited sources (restricted to quarries in the Dominican Republic, Cuba, and Guatemala) and, due to their hardness, were very difficult to work. Vibrantly green glass beads likely echoed these highly coveted stone

materials, while their diminutive size (ca. 3.5 mm diameter) was something almost impossible to achieve in jadeites (for further discussion see Ostapkowicz 2018:166-168). Indeed, across the circum-Caribbean region, the scale of jadeite artifacts and their often natural forms (particularly in the Maya region), suggests that there was little desire to reduce this precious material, but rather utilize it in full – hence miniature green beads would have been both novel and highly desirable. Within this context, the exchange of a gold ornament for several green glass beads may have been viewed as very favorable from both the Lucayan/Taíno and Spanish perspectives.

In the early years of the colonial enterprise (1511-1526), over 100,000 green and yellow *abalorios* were sent to Hispaniola (Deagan 1987:110, 157), undoubtedly destined for trade with indigenous communities. Other glass bead styles were also sent, though in lesser numbers. Even at this scale, however, it would appear that glass beads remained relatively scarce at this time – most likely never keeping up with indigenous demand; Spanish imports to Hispaniola focused more on basic necessities for the fledgling colonies than trade. Very few beads have been found in early colonial indigenous sites (Deagan 2004:613; Keehnen 2012:150; Samson 2010:284), suggesting that they were likely highly coveted and curated objects, potentially being passed down through generations. By the early 16th century, *indios* were forced to integrate into Spanish society, and wearing European-style dress, including European ornaments, became the social norm (cf. Valcárcel Rojas 2012): glass beads, accepted in both worlds, facilitated this transition (cf. Panich 2014).

### PIGORINI CEMÍ/BELT

The Pigorini cemí/belt (Figure 1), with its rich display of glass beads, emerged at a time of significant cultural and

social change on Hispaniola (1492-1550). Its cotton substrate has been dated to AD 1492-1524 (see Ostapkowicz et al. 2017), a period when caciques were actively negotiating with the Spanish, and had access to a wealth of European goods as they vied for power in the shifting alliances. This initial influx of trade goods during the earliest years of contact may have spurred an artistic renaissance for those few who made favorable terms with the Spanish, incorporating the new wealth within traditional designs – as the lavish glass beadwork on the *cemí* suggests. But the early colonial period was also a time of resistance and cultural dislocation: the increasingly exploitative Spanish occupation of the islands – from their slaving raids on indigenous populations to forced assimilation practices – resulted in conflict and rebellions (e.g., the battle of La Vega Real in 1497 Hispaniola and the rebellion of 1511 in Puerto Rico). The period to ca. 1530, and certainly by 1550 (Deagan 2004; Guitar 1998), marked a steep decline in the indigenous power structure and its associated traditional material culture which required the work of skilled artisans to create everything from the varied components (spun cotton, shell beads) to the final elite product (e.g., belts).

This dramatically shifting worldview was the cultural backdrop to the Pignorini *cemí* and belt, spanning the growing awareness among the Taíno of the escalating power of the Spanish and their own aspirations within this sphere of influence. The only access to glass beads was through negotiation with the Spanish (only until they entered indigenous systems), and the prominent display and sheer quantity of foreign materials within the weave of the Pignorini *cemí* clearly positioned the individual who commissioned it at the forefront of political maneuvering in the late 15th and early 16th centuries. Choice beads in quantity were

selected to highlight specific features on the Pignorini *cemí*'s head and shoulders (notably, only the top incorporates glass beads; the belt is constructed solely of indigenous shell beads). Together with stylistically unusual treatments of the shoulder areas, which potentially suggest the incorporation of 16th-century European fashion elements (e.g., slashed fabrics) into an indigenous creation, the inspiration for this hybrid object was the critical transition point in America's history and Taíno perceptions of their place within it (for further discussion see Ostapkowicz 2019).

Three varieties of glass beads are featured: 1) ca. 1,200 small, emerald green *abalarrios* covering the bat face and cap of the human head (Figure 8), 2) roughly 450 deep-blue, square-sectioned beads with sharp corner facets at the *cemí*'s shoulders (Figure 9), and 3) one (of potentially 12) faceted three-layer turquoise beads at the top of the head (Figure 10). These bead types were all in circulation pre-1550.

As noted above, Columbus himself gifted and bartered the small green beads, and they were imported in the following decades due to their popularity; they are considered reliable chronological markers up to 1550 (Deagan 1987:169; Smith, in Hoffman 1987:242). The faceted blue and turquoise beads are single and multi-layered Nueva Cadiz beads, respectively, both found at colonial American sites prior to AD 1560 (Deagan 1987:163; Smith and Good 1982:10). Their diminutive size (5-7 mm long) is, however, in stark contrast to the typical length of Nueva Cadiz beads (37-75 mm). These short varieties are an early, poorly documented Nueva Cadiz form, examples of which have been recovered from looted early contact sites in Peru (Deagan 1987:163; Karklins 2018: pers com.).



**Figure 8.** Green *abalarrios* on the Pignorini *cemí*'s bat face (left) and anthropomorph's cap (right). The beads are 1-2 mm thick and 3-3.5 mm in diameter (courtesy of Museo delle Civiltà – MPE “L. Pignorini,” Piazzale G. Marconi 14,00144 Rome; acc. no. 4190).





**Figure 9.** Deep-blue, square-sectioned beads with sharp corner facets featured at the cemí's shoulders. They are 5-6.5 mm long and average ca. 4.5 mm in diameter (courtesy of Museo delle Civiltà – MPE “L. Pigorini,” Piazzale G. Marconi 14,00144 Rome; acc. no. 4190).

### QUEBRADILLAS VESSEL

While the Pigorini cemí, with its quantity of glass beads woven into the structure, served as a high-profile “advertisement” of Taíno socio-political links to the Spanish, a more intimate picture can be seen in the Quebradillas vessel. This ornately carved wooden vessel, containing over 100 ornaments, including 52 glass beads comingled with 40 indigenous shell disc beads, 12 stone beads with single and double (crossing) perforations, and two drilled dog canines, was recovered from a cave in the Quebradillas region of Puerto Rico in the 1980s (Figure 11, a). The beads were potentially strung together as a single-strand neck ornament prior to being secreted in the cave for safe keeping (Figure 11, b). Alternatively, the comingled beads may have been an offering or ritual deposit. Given the contact-period contents, the vessel was initially thought to date to the early colonial period in Puerto Rico (AD 1508-1520) (Méndez Bonilla 2006:26), but a recent radiocarbon study provided results

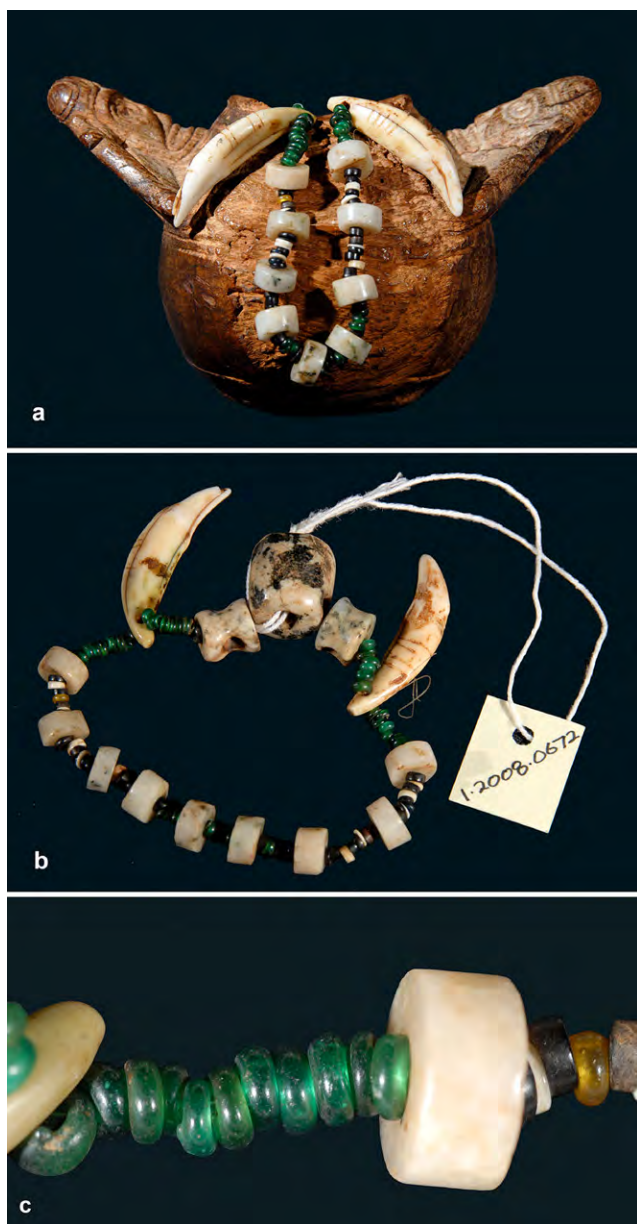
that were, at minimum, a half century earlier: ca. AD 1337-1446 (Ostapkowicz et al. 2012: Table 1). This would suggest the curation of the vessel for several decades, if not centuries, before access to European beads was possible in Puerto Rico, which was first settled by Spanish colonizers in 1508 (for a full discussion see Ostapkowicz et al. 2012:2249). This range of cared-for materials – from the curated wooden vessel to the glass and indigenous beads – suggests an investment that was carefully secreted in the cave.

Of the European beads, three are blue, two yellow, and 47 are a deep emerald green (Figure 11, c). They are ca. 3 mm in maximum diameter, with a somewhat uneven form, one side being slightly thicker than the other, and appear to be wound, some containing numerous air bubbles. They equate to types VID1e-f in the Smith and Good (1982:37, Figure 7, nos. 105-106) typology: a wound (class VI), unmodified (series D) bead of simple construction (Type 1). Very similar yellow and green beads were recovered from the Long Bay site, San Salvador (SS-9), considered by some to be Columbus’ first landing site in the New World (Brill and Hoffman 1985:380). The beads, together with other European artifacts found at the site (including a Spanish *blanca* dated no later than 1474), have been assigned to the very earliest period of European contact. These beads have a very high lead content (65-75%), which enabled them to be wound at relatively low temperatures (ca. 750-800°C) (Brill and Hoffman 1985:382).

One of the green beads from the Quebradillas cache was submitted to Robert H. Brill for study at The Corning Museum of Glass, and underwent XRF, density measurement, and Pb isotope analysis. The XRF spectra indicated major levels of lead and silica, with minor levels of alumina, iron, and copper; the density was estimated at 4.10



**Figure 10.** A turquoise 3-layer Nueva Cadiz bead, one of potentially six to feature on this side of the cemí's cap (note the five damaged areas, exposing a longer strand of cotton). The bead is 7 mm long, 7.6 mm in diameter, and surmounted by an indigenous *Chama* sp. shell bead (courtesy of Museo delle Civiltà – MPE “L. Pigorini,” Piazzale G. Marconi 14,00144 Rome; acc. no. 4190).



**Figure 11.** The Quebradillas artifacts: a) the double-headed vessel; L: 122 mm; W: 80 mm; H: 70 mm (max); b) restrung necklace of beads found in the vessel; c) the donut-shaped glass beads (courtesy of Museo de Historia, Antropología y Arte, Universidad de Puerto Rico, San Juan; 1.2008.0671 [vessel], 1.2008.0672 [beads]).

g/cc, corresponding to a  $\text{PbO}:\text{SiO}_2$  glass containing 57-59% PbO (Brill 2012:546). Brill (2012:547) concluded that the high-lead  $\text{PbO}:\text{SiO}_2$  glass – colored by copper and perhaps accidentally by iron – had a composition closely comparable to the San Salvador beads and other early VID1e-f beads sourced for the original San Salvador study. Indeed, of the comparative material for that study, the best match for the Quebradillas bead is a green bead from Nueva Cadiz (CMG

5700), with provenance dating it to 1515-1545 (Brill and Hoffman 1985:381). The results from these beads all fall within a range of ores analyzed from various mining regions in Spain (Brill 2012:546-547), suggesting that a Spanish source – rather than a more commonly attributed Venetian source (e.g., Deagan 1987:158) – remains a possibility for these early beads found on Caribbean shores.

### VIENNA BELT JET BEADS

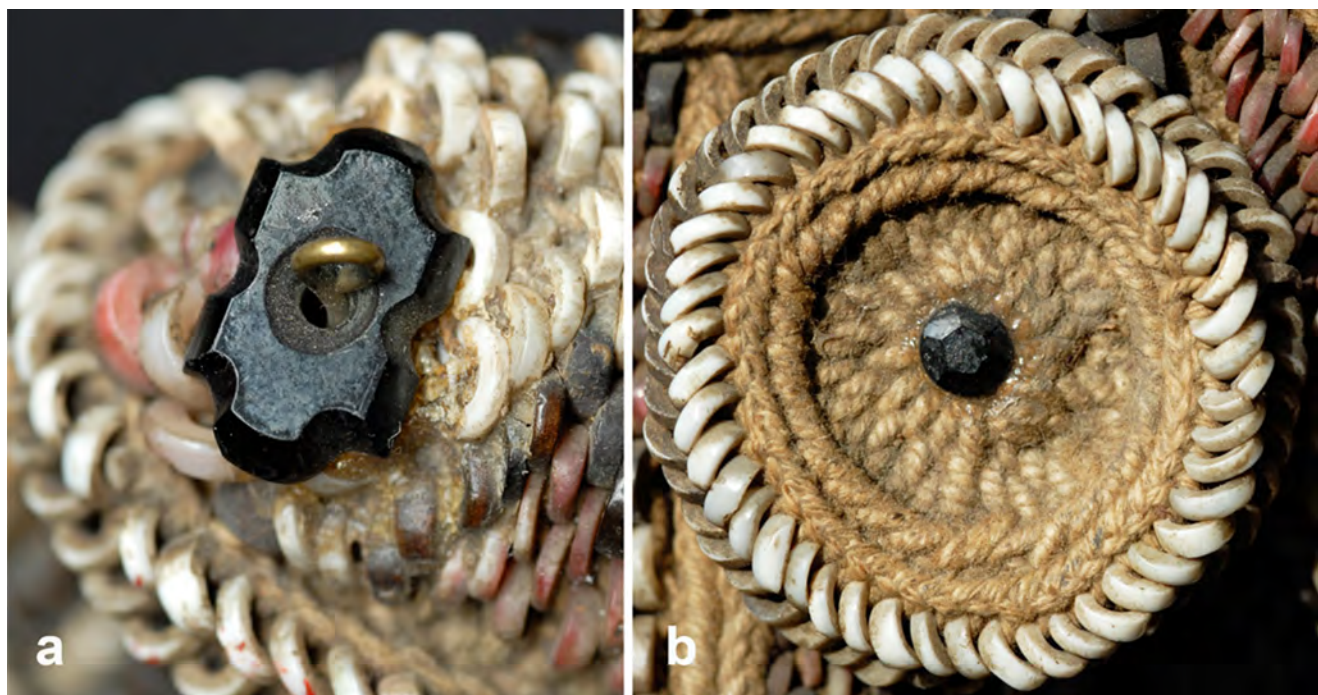
Beads in vibrant hues were not the only imported European goods that had resonance among indigenous groups: black materials were also desirable, such as the jet beads featured on the Vienna belt. Prior to European contact, black ornaments made of fossilized terrestrial plant materials (e.g., lignite and jet) had a deep history in the region, stretching back to the Early Ceramic Age (ca. 400 BC - AD 600) (Ostapkowicz 2018:169-173). They were used in the creation of ornaments depicting transformative creatures, often found in association with exotic imports (Chanlatte Baik and Narganes Storde 1984; Etrich 2003) and paraphernalia used in the ingestion of drugs (Ostapkowicz 2018:169-170). Other elite ceremonial objects, such as *duhos* (wooden or stone seats), were – according to the Spanish – “black as jet” (Helms 1986; Las Casas 1967:174; Martyr D’Anghera 1970:125). If so, they were either selectively chosen for the dark wood (though few woods known to be carved into *duhos* can be identified as “black;” e.g., see Ostapkowicz et al. 2012) or, more likely, intentionally darkened. There was undoubtedly significance to black as a material and a colorant, just as there was in Europe; e.g., the use of jet as *veneras* (literarily, items of “veneration,” symbols of saints, religious orders, etc.). When these items were imported into the Caribbean as part of rosaries and amulets, the Taíno may have considered them comparable to their own repertoire of black materials used to carve ceremonial items and ornaments (see further discussion in Ostapkowicz 2018:169-173). Like the parallels between jadeite ornaments and green *abalorios* noted above, European jet echoed the qualities that were already recognized in the Caribbean. Jet was incorporated into indigenous ornaments worn in colonial contexts – such as the spherical bead strung on a necklace of white coral beads associated with Burial 84 at the site of El Chorro de Maíta, Cuba, dating to the late 16th century (Valcárcel Rojas 2012; see also Lambert et al. 1994 for jet beads from the site of Tipu, Belize, ca. 1550-1620). Interestingly, even this late in the early colonial period, both European and indigenous beads were being combined, potentially suggesting the curation of older indigenous beads (or the continuation of

their manufacture at the household level) alongside newer jet introductions.

Two styles of jet beads are incorporated into the Vienna belt: 1) a large (12.5 mm x 7.3 mm) rectanguloid bead with beveled sides, fluted corners, and flutes in two of the sides, secured with a brass loop or shank (Figure 12, a), possibly part of a belt buckle or an element from a composite ornament, and 2) a small (4 mm diameter) faceted bead placed in the right earflare (Figure 12, b). These have been cut by hand, making them quite individual in style and hence difficult to match in comparative collections. While the small bead may have been part of a rosary, the larger bead is perhaps carved in the style of a Dominican cross (cf. Deagan 2002:73) or a St Dominic star (St Dominic frequently being depicted with a star above his head in 16th-century European painting). It is intriguing to consider whether the religious significance of jet as a material, and its specific incorporation into religious items such as rosaries and *veneras*, would have resonated with the Taíno (assuming the beads were integrated into the belt within an indigenous context; see discussion in Ostapkowicz 2018). Although speculative, there are some grounds for this interpretation given the religious syncretism that was emerging during the early colonial period, when the Taíno adopted certain Christian elements, including saints whose legendary powers may have been comparable to those of their own *cemís* (Oliver 2009:221-244).

## CONCLUSIONS

Beads, as noted by Cristiani and Borić (2017:39), are universally used as “a material strategy par excellence in the construction of the social self;” combined into ornaments they are a “communication technology,” a visual language through which personal and social information can be broadcast to intimate or distant audiences, thus contributing in creating and maintaining social networks at different levels.” To us, as the “distant audience” separated by centuries from the people who originally made these extraordinary creations, the artifacts under discussion offer a tangible means of engaging with the artistry of the early colonial period in the Caribbean, not least the importance of beads within Taíno material culture. The 16th-century Spanish were – despite their physical proximity – also “distant [though colonizing] audiences,” and the incorporation of glass and jet beads within the structures perhaps broadcast Taíno interest in binding them into mutually beneficial social networks. Indeed, what higher accolade for the Spanish and their trade goods than to be woven into the body of a *cemí*? This interest was likely not lost on the immediate audience – the local and neighboring indigenous groups – who themselves vied for access to the new “wealth” of the foreigners in these early years of interaction. The harmonious integration of these foreign elements within structures created from indigenous shell (and potentially botanical) beads, and within a largely



**Figure 12.** Two jet beads featured on the Vienna belt: a) one of two large, rectanguloid beads (12.5 mm by 7.3 mm) secured with a brass loop at the top of the *cemí*'s head; b) small faceted bead (ca. 4 mm diameter) in the *cemí*'s right earflare (courtesy of KHM-Museumsverband, Weltmuseum Vienna; inv. no. 10.443).

traditional iconography (though *see* Ostapkowicz [2019] for a discussion of the Pigorini’s shoulder and neck treatments), speaks of an active engagement in building new histories on familiar foundations, and constructing anew the “self” (the cacique, and by extension, the community). The people who commissioned and used these objects were participants in the shifting power relations of the early colonial period. They were active agents, willing to explore the new possibilities posed by the foreigners on their shores. By incorporating imported glass beads, and by extension the Spanish themselves, into ideologically and socio-politically important objects, they were integrating the foreigners into every future use and display of these creations. In this capacity, the European “other” became intimately entangled with Taíno representations of their own ideology, and ultimately themselves (cf. Gosden 2004), influencing people’s understandings of this shifting, transitional period and their place within it. It is an adage worth repeating: beads are not simply pleasing to the eye, but are material expressions of social connections (e.g., Choyke and Bar-Yosef Mayer 2017:3)

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#### ENDNOTES

1. There is also the possibility that *Spondylus americanus* (atlantic thorny oyster) was used for the red, but this may have been quite rare: only three pieces of unworked *Spondylus* sp. were found at the Governor’s Beach site (GT-2), Grand Turk – the largest beadmaking site currently known in the Caribbean (Carlson 1995:99)

– yielding a sample of ca. 1,600 complete disc beads, 400 broken beads, 400 bead blanks, 3,000 polished shell fragments, and 13,000 bits of shell debitage.

#### REFERENCES CITED

##### Alegría, Ricardo

- 1995 Apuntes sobre la vestimenta y los adornos de los caciques Taínos de las Antillas y de la paraphernalia asociada a sus funciones mágico-religiosas. In *Actas del XV Congreso Internacional de Arqueología de Caribe*, edited by M. Rodríguez and R. Alegría, pp. 295-309. Centro de Estudios Avanzados de Puerto Rico y el Caribe, San Juan.

##### Arrom, J.J.

- 1999 *An Account of the Antiquities of the Indians*. Susan C. Griswold, translator. Duke University Press, Durham.

##### Blick, Jeffrey P., Richard Kim, and Tyler G. Hill

- 2010 Lucayan Beads from San Salvador, Bahamas (ca. A.D. 900-1500). *Beads: Journal of the Society of Bead Researchers* 22:27-40.

##### Boomert, Arie

- 1987 Gifts of the Amazon: “Green Stone” Pendants and Beads as Items of Ceremonial Exchange in Amazonia and the Caribbean. *Antropológica* 67:33-54.

##### Brill, Robert H.

- 2012 San Salvador and Related Glasses (Puerto Rico). In *Chemical Analyses of Early Glasses. Volume 3. The Years 2000–2011, Reports and Essays*, edited by R.H. Brill and C.P. Stapleton, pp. 544-548. The Corning Museum of Glass, Corning.

##### Brill, Robert H. and Charles A. Hoffman

- 1985 Some Glass Beads Excavated on San Salvador Island in the Bahamas. In *Annales du 10<sup>e</sup> congrès de l’Association internationale pour l’histoire du verre, Madrid-Segovia 1985*, pp. 373-398. Amsterdam.

##### Carlson, Lisabeth A.

- 1993 Strings of Command: Manufacture and Utilization of Shell Beads among the Taíno Indians of the West Indies. M.A. thesis. Department of Anthropology, University of Florida, Tallahassee.
- 1995 Strings of Command: Manufacture and Utilization of Shell Beads among the Taíno. In *Actas del XV Congreso Internacional de Arqueología de Caribe*, edited by M. Rodríguez and R. Alegría, pp. 97-109. Centro de Estudios Avanzados de Puerto Rico y el Caribe, San Juan.

**Chanlatte Baik, Luis and Yvonne Narganes Storde**

1984 *Arqueología de Vieques, Santo Domingo*. Centro de Investigaciones Arqueológicas, Universidad de Puerto Rico, Río Piedras.

**Choyke, Alice M. and Daniella E. Bar-Yosef Mayer**

2017 Introduction: The Archaeology of Beads, Beadwork and Personal Ornaments. In *Not Just for Show: The Archaeology of Beads, Beadwork and Personal Ornaments*, edited by Daniella E. Bar-Yosef Mayer, Clive Bonsall, and Alice M. Choyke, pp 1-4. Oxbow Books, Oxford.

**Claassen, Cheryl**

1998 *Shells*. Cambridge University Press, Cambridge.

**Colón, Ferdinand**

1992 *The Life of the Admiral Columbus by His Son, Ferdinand*. Benjamin Keen, translator. Rutgers University Press, New Brunswick.

**Cristiani, Emanuela and Dušan Borić**

2017 Personal Adornment and Personhood among the Last Mesolithic Foragers of the Danube Gorges in the Central Balkans and beyond. In *Not Just for Show: The Archaeology of Beads, Beadwork and Personal Ornaments*, edited by Daniella E. Bar-Yosef Mayer, Clive Bonsall and Alice M. Choyke, pp 39-68. Oxbow Books, Oxford.

**Deagan, Kathleen**

1987 *Artifacts of the Spanish Colonies of Florida and the Caribbean, 1500-1800. Vol. 1: Ceramics, Glassware and Beads*. Smithsonian Institution Press, Washington.

2002 *Artifacts of the Spanish Colonies of Florida and the Caribbean, 1500-1800. Vol. 2: Portable Personal Possessions*. Smithsonian Institution Press, Washington, DC.

2004 Reconsidering Taíno Social Dynamics after Conquest: Gender and Class in Culture Contact Studies. *American Antiquity* 69(4):597-626.

**Dunn, Oliver and James E. Kelly, Jr.**

1989 *The Diario of Christopher Columbus's First Voyage to America, 1492-1493*. University of Oklahoma Press, Norman.

**Etrich, Christine**

2003 Deviation de Capesterre Belle-Eau, Allée Dumanoir. *Bilan Scientifique de la region Guadeloupe* 2002:23-28.

**Falci, Catarina Guzzo**

2015 *Stringing Beads Together: A Microwear Study of Bodily Ornaments in the Late Pre-Colonial North-Central Venezuela and North-Western Dominican Republic*. M.A. thesis. Faculty of Archaeology, Leiden University.

**García Arévalo, M.A.**

1990 Transculturation in Contact Period and Contemporary Hispaniola. In *Columbian Consequences, Vol. 2: Archaeological and Historical Perspectives on the Spanish Borderlands East*, edited by David H. Thomas, pp. 269-280. Smithsonian Institution Press, Washington, DC.

**Gosden, Chris**

2004 *Archaeology and Colonialism: Culture Contact from 5000 BC to the Present*. Cambridge University Press, Cambridge.

**Guitar, L.A.**

1998 Cultural Genesis: Relationships among Indians, Africans and Spaniards in Rural Hispaniola, First Half of the Sixteenth Century. Ph.D. thesis. Vanderbilt University, Nashville.

**Harding, Deborah G.**

2003 Birds, Beasts, and Botanicals: Organic Beads and Pendants from the Amazon Basin. *Beads: Journal of the Society of Bead Researchers* 14:53-64.

**Helms, M.**

1986 Art Styles and Interaction Spheres in Central America and the Caribbean: Polished Black Wood in the Greater Antilles. *Journal of Latin American Lore* 12(1):25-43.

**Hoffman, Charles A.**

1987 Archaeological Investigations at the Long Bay Site, San Salvador, Bahamas. In *Proceedings of the First San Salvador Conference: Columbus and his World*, edited by Donald T. Gerace, pp. 237-245. College Center of the Finger Lakes, Bahamian Field Station, Fort Lauderdale.

**Jane, Lionel C.**

1967 *Select Documents Illustrating the Four Voyages of Columbus*. Kraus, New York.

**Keehnen, F.W.M.**

2012 Trinkets (f)or Treasure: The Role of European Material Culture in Intercultural Contacts in Hispaniola during Early Colonial Times. M.A. thesis. University of Leiden.

**Lambert, Joseph B., Elizabeth Graham, Marvin T. Smith, and James S. Frye**

1994 Amber and Jet from Tipu, Belize. *Ancient Mesoamerica* 5:55-60.

**Las Casas, Bartolomé de**

1951 *Historia de las Indias*. Vol. 1. Fondo de Cultura Económica, Mexico City.

1967 *Apologetica historia sumaria*. Vol. 1. Instituto de Investigaciones Históricas, Universidad Nacional Autónoma de México, Mexico City.

**Martyr D’Anghera, Pietro**

1970 *De orbe novo: The Eight Decades of Peter Martyr D’Anghera*. Francis August MacNutt, translator. Burt Franklin, New York.

**Méndez Bonilla, I.F.**

2006 *Culturas indígenas de Puerto Rico*. Museo de Historia, Antropología y Arte, Universidad de Puerto Rico, San Juan.

**Mester, Ann**

1989 Marine Shell Symbolism in Andean Culture. In *Proceedings of the 1986 Shell Bead Conference*, edited by Charles F. Hayes III, pp. 157-168. Rochester Museum and Science Center, Research Records 20.

**Oliver, José R.**

2000 Gold Symbolism among Caribbean Chiefdoms. In *Precolumbian Gold: Technology, Style and Iconography*, edited by C. McEwan, pp. 196-219. British Museum, London.

2009 *Caciques and Cemí Idols: The Web Spun by Taíno Rulers between Hispaniola and Puerto Rico*. University of Alabama Press, Tuscaloosa.

**Ostapkowicz, Joanna**

2013 ‘Made...with Admirable Artistry’: The Context, Manufacture and Meaning of a Taíno Belt. *The Antiquaries Journal* 93:287-317.

2018 New Wealth from an Old World: Glass, Jet and Mirrors in the 16th Century Indigenous Caribbean. In *Gifts, Goods and Money: Comparing Currency and Circulation Systems in Past Societies*, edited by Dirk Brandherm, Elon Heymans and Daniela Hofmann, pp. 153-193. Archeopress, Oxford.

2019 Fashioning the ‘Other’: The Foreign as Diplomatic Currency in the Sixteenth-Century Caribbean and in Europe. In *Transnational Perspectives on the Conquest and Colonization of Latin America*, edited by David Midgley, Jenny Mander and Christine Beaulé. Routledge, Abingdon, UK (in press).

**Ostapkowicz, J., F. Brock, A.C. Wiedenhoef, R. Schulting, and D. Saviola**

2017 Integrating the Old World into the New: Investigations of an ‘Idol from the West Indies.’ *Antiquity* 359(91):1314-1329.

**Ostapkowicz, J., C.B. Ramsey, F. Brock, T. Higham, A.C.**

**Wiedenhoef, E. Ribechini, J.J. Lucejko, and S. Wilson**

2012 Chronologies in Wood and Resin: AMS <sup>14</sup>C Dating of Pre-Hispanic Caribbean Wood Sculpture. *Journal of Archaeological Science* 39:2238-2251.

**Panich, Lee M.**

2014 Native American Consumption of Shell and Glass Beads at Mission Santa Clara de Asís. *American Antiquity* 79(4):730-748.

**Rodríguez Ramos, Reniel**

2011 Close Encounters of the Caribbean Kind. In *Islands at the Crossroads: Migration, Seafaring, and Interaction in the Caribbean*, edited by L.A. Curet and M.W. Hauser, pp. 164-192. The University of Alabama Press, Tuscaloosa.

**Roth, Walter E.**

1924 An Introductory Study of the Arts, Crafts and Customs of the Guiana Indians. In *38th Annual Report of the Bureau of American Ethnology 1916-17*, edited by F.W. Hodge, pp. 27-745. Smithsonian Institution, Washington.

**Samson, Alice**

2010 *Renewing the House: Trajectories of Social Life in the Yucayeque (Community) of El Cabo, Higüey, Dominican Republic, AD 800 to 1504*. Sidestone Press, Leiden.

**Schweeeger-Hefel, A.**

1952 Ein rätselhaftes Stück aus der alten Ambraser Sammlung. *Archiv für Völkerkunde* 6/7:209-228.

**Smith, Marvin T. and Mary Elizabeth Good**

1982 *Early Sixteenth Century Glass Beads in the Spanish Colonial Trade*. Cottonlandia Museum Publications, Greenwood, MS.

**Symcox, Geoffrey**

2002 *Repertorium Columbianum. Volume X: Italian Reports on America, 1493-1522: Letters, Dispatches and Papal Bulls*. Brepols Publishers, Turnhout, Belgium.

**Valcárcel Rojas, R.**

2012 Interacción colonial en un pueblo de indios encomendados: El Chorro de Maíta, Cuba. Ph.D. thesis. Leiden University.

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