The Deep-Sea Tortugas Shipwreck, Florida (1622): Afro-Caribbean Colonoware & Maritime Slavery

Ellen Gerth
*Odyssey Marine Exploration, Tampa, Florida, USA*

Sean A. Kingsley
*Wreck Watch Int., London, UK*

During the world’s first archaeological excavation of a deep-sea shipwreck exclusively using robotic technology, conducted in 1990-91 off the Tortugas Islands in the Straits of Florida, USA, Seahawk Deep Ocean Technology of Tampa, Florida, recovered 278 sherds from a crude form of cooking ware. Identified as colonoware, this non-Spanish ceramic tradition contrasts starkly with the Seville-dominated tin-glazed tablewares used by the ship’s crew and passengers. Research suggests that these wares are indigenous vessels produced by enslaved Africans in the circum-Caribbean region.

In 1622 when the Tortugas ship, interpreted as the Portuguese-built and Spanish-operated 117-ton Buen Jesús y Nuestra Señora del Rosario, sank in 400m of water, Indian Native American labor had largely been replaced by an enslaved African workforce on the Spanish possessions of the Americas from sugar plantations to mines and households. The dominance of colonoware on the Buen Jesús, combined with this pottery’s co-existence on the Atocha from the same Seville-bound Tierra Firme fleet, suggests an exploitation of African slaves for food preparation and cooking. The Tortugas shipwreck seems to hold the first recorded archaeological evidence for maritime slavery in Spain’s renowned Americas fleets.

© Odyssey Marine Exploration, 2014

1. Introduction

A surprising exception to the Andalusian ceramics from the Tortugas shipwreck was the recovery of 278 colonoware cooking vessel rims, handles, bases and sherds weighing 16.68kg and representing 7.2% of the total shipwreck pottery (Figs. 1-3). These coarsely made, low-fired and unglazed utilitarian wares of New World manufacture were often densely tempered with crushed, calcined shell, stone, grit or sand and were generally formed by hand either by coiling or through slab construction (shaping and thinning a single lump of clay) (Noël Hume, 1962: 7; Espenshade, 2011: 137; Galke, 2009: 304).

The production of colonoware pottery is a long-lived tradition that spanned the colonial era from the 16th century into the early 20th century. Found primarily in the Chesapeake, Carolina Low Country, westward into Tennessee, Kentucky and Northern Florida, and also more widely throughout much of the Caribbean (Orser, 2002: 131; Fennell, 2011: 19), colonoware was made by a variety of Native American groups and Africans of diverse cultural backgrounds. Inspired by European, African and Native American potting traditions (Ferguson, 1980: 19-20; Orser, 1996: 122; Deagan and Cruxent, 2002a: 293; Hauser and DeCorse, 67: 2003), this pottery is not a monolithic entity, but reflects local hybrid adaptations in form, function and manufacture and “varied from micro-region to micro-region, just as African, Native-American and European populations themselves did” (MacDonald, 2011: 360). This coarse earthenware is the product of multicultural encounters, interaction and exchange that took place...

Bowls and cooking pots/jars are most common, but European and other shapes occur in proportions dependent on regional, chronological and functional factors. This pottery is commonly found on plantations and rural domestic sites, but also appears in urban settings (Petersen et al., 1999: 161; Orser, 2002: 131; Fennell, 2011: 13). Scholars have cautioned against applying generalized characteristics to this broad range of ceramics, which represent a varied industry in flux over time. For example, what distinguishes and unifies the disparate group of colonowares is not unified method of manufacture, design and decoration, or even form and function, but an association with oppressed and diaspora populations in the Americas (Hauser and DeCorse, 2003: 67, 92).

These low-fired earthenwares played an important role in New World settlements in Spanish Florida and the Caribbean (as well as on British colonial North American sites and those inhabited by enslaved African Americans), where they are believed in part to have been an indigenous material response to the cultural needs of food preparation and cooking (Smith, 1995: 340, 372). Easily accessible and inexpensive, colonowares appear to have been largely produced for and used in kitchens, as well as with portable cooking stoves, evidenced by numerous pots discolored by the effects of heat and flames (Noël Hume, 1962: 8; Smith, 1995: 359).

Colonoware fragments appear in virtually all Spanish colonial sites in the circum-Caribbean region and provide a unique archaeological signature for understanding early

<table>
<thead>
<tr>
<th>Tortugas Form</th>
<th>Vessel Form</th>
<th>Vessel Quantity (RBHS) *</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type 9A</td>
<td>Cooking Pot</td>
<td>27 R</td>
</tr>
<tr>
<td>Type 9B</td>
<td>Cooking Pot</td>
<td>3 R</td>
</tr>
<tr>
<td>Type 9C</td>
<td>Cooking Pot</td>
<td>1 R</td>
</tr>
<tr>
<td>Type 9D</td>
<td>Cooking Pot</td>
<td>1 R</td>
</tr>
<tr>
<td>Type 9E</td>
<td>Cooking Pot</td>
<td>1 R</td>
</tr>
<tr>
<td>Type 9F</td>
<td>Cooking Pot</td>
<td>3 B</td>
</tr>
<tr>
<td>10A</td>
<td>Griddle</td>
<td>4R/1H</td>
</tr>
<tr>
<td>10B</td>
<td>Griddle</td>
<td>1 R</td>
</tr>
<tr>
<td>10C</td>
<td>Griddle</td>
<td>1R/1B</td>
</tr>
<tr>
<td>Type 9-10</td>
<td>Miscellaneous</td>
<td>234 S</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>278 RBHS</strong></td>
</tr>
</tbody>
</table>

*RBHS = Rims, Bases, Handles, Sherds

Table 1. Quantities of colonoware from the Tortugas shipwreck.
Spaniards’ ceramic adaptations to the New World (Deagan and Cruxent, 2002a: 283, 293). In part, this broad class of non-homogenous pottery represents “the manipulation of local ceramic traditions to accommodate Hispanic preferences” and “was a consistent part of Hispanic adaptive strategy in the circum-Caribbean colonies” (Deagan, 1987: 104). Following the flood of laborers derived from the African Diaspora, colonoware is additionally believed to have been a material response to a number of factors stemming from the forced relocation, oppression and enslavement that occurred throughout the Americas and the circum-Caribbean region (Deagan and Cruxent, 2002a: 292). By the early 17th century when the Tortugas ship sank, colonoware was predominantly associated with enslaved African populations in the Americas.

This paper describes the typological variety of colonoware encountered on the Tortugas shipwreck, including rim profile sub-forms. Definitions of the ware are then discussed, focusing on the archaeological contexts where examples have been excavated, before the socio-economic relationship to African slaves is examined. Parallel forms within the shipwreck database are explored. The combined evidence leads to the hypothesis that the colonowares used on the Tortugas ship may be an expression of African maritime slavery on the 1622 Tierra Firme fleet.

2. Tortugas Shipwreck Colonowares

The Tortugas colonowares were recovered from two locations on the shipwreck site, 4.8m west of the exposed hull at the stern (coordinates 86.86/27.54) and 2.0m southeast from the southern termination of the ballast mound (coordinates 72.79/17.19). Two predominant shapes are represented, Types 9-10. The assemblage consists of 39 rims, four bases, one handle, and 234 body sherds (Table 1), representing a relatively small but conspicuous sample amongst the total ceramic assemblage, which largely comprised tin-glazed tablewares of almost exclusive Spanish origin centered on Seville (Kingsley et al., 2012; Kingsley, 2014; Stemm et al., 2013: 62).

The Tortugas colonowares derive from an estimated 18 original vessels. Although no intact examples survive, three principal vessel types predominate, which can be subdivided into nine distinctive forms with 11 rim styles, all of which functioned as cooking pots and cooking griddles (Figs. 4-8).

The cooking pot forms present in the Tortugas assemblage include hollow, globular vessels of various depths and diameters whose rims are mostly everted (Figs. 9-28) with the exception of one inverted Type 9E example (Fig. 29). While none of the vessels are entirely intact, the cooking pots typically feature rounded bases (Fig. 30). The cooking griddles are shallow, pan-like open vessels that resemble a modern frying pan (Figs. 31-37). The Tortugas colonoware assemblage comprises the following forms.

- Tortugas Type 9A (Rim Styles A-D; Figs. 9-23): a cooking pot with a wide mouth and several rim sub-forms ranging from a strongly everted collar to examples that gently curve upwards and are short and rounded (three general mouth diameter ranges: 25-27cm, 28-32cm and 34-36cm).
• Tortugas Type 9B (Rim Style E; Figs. 24-26): a simple hemispherical bowl-like form with relatively straight sides that extend inwards from the vessel rim, curving slightly at the bottom to form the pot base (two mouth diameter ranges: 29cm and 35-37cm).

• Tortugas Type 9C (Rim Style F; Fig. 27): a comparatively simple shallow bowl-like from with a rounded and slightly everted rim curving gently to a rounded base (29.0cm diameter).

• Tortugas Type 9D (Rim Style G; Fig. 28): a bowl-like cooking pot with a bulbous body forming an accentuated globular vessel shape, and a crudely scalloped rim (mouth Diam. 34cm).

• Tortugas Type 9E (Rim Style H; Fig. 29): a very wide-bodied spherical pot characterized by an indistinct inverted rim with a broad rounded base (maximum vessel diameter 33cm).

• Tortugas Type 10A-10C (Rim Styles I-K; Figs. 31-37): three sub-forms of a shallow griddles (burén) with a slightly inverted rims and two raised loop handles or lug handles (H. 3.2-4.7cm, Diams. 30-34cm).

Examination of the compaction of vessel walls and fracture patterns indicates production by the coil method. Some sherds show evidence of exterior and interior burnishing, which compacted and smoothed the clay, resulting in densely packed vessel walls intended to inhibit the penetration of liquids. Comparative evidence from regions of the Caribbean indicates that this process would have been accomplished using burnishing stones as the tool of choice in the 17th century (pers. comm. Patricia Fay, 11 October 2013). Most of the Tortugas colonoware clay is similar: a very heavily tempered, very pale brown (10YR 7/3) to very dark gray (5Y 3/1) paste, with very large inclusions of limestone and white quartz sand and small to sometimes very large (4 x 5mm) flecks of gold-colored mica (Fig. 38). The sherds are easily scratched with a copper wire, indicating approximately 2.5-3.0 on the Mohs hardness scale, and many display a discolored core, probably indicating an incomplete oxidizing atmosphere during firing (Flow, 1999: 28).

The majority of the colonoware sherds exhibit some degree of fire-clouding, which manifests as a dark area on the pot surface that resulted from exposure to flame, heat or fuel. Fire-clouding can occur from uneven firing or during cooking to leave behind a deposit of carbon in the clay paste (Aultman et al., 2013: 36).

The following site-specific typology applies to the Tortugas shipwreck colonoware assemblage.

**Tortugas Type 9A**

Tortugas Type 9A is a cooking pot with a wide mouth and an everted rim that is turned outward and upwards from the shoulder of the vessel (Figs. 9-23). Descending from the shoulder, the body curves gently outward to form a round-bodied vessel. The body shape varies to some degree with differentiations in the width of the pot and the point of curvature between the shoulder and base. The general anatomy, however, is consistently globular.

Rim Style A is a thick, everted collar rim with a long rounded lip, which is sub-triangular in profile. The rim extends at an angle of 33º off horizontal. A sharp transitional ridge occurs between the inner rim edge and inner body wall. Mouth Diam. 34.0-36.0cm, rim Th. 2.1-2.2cm, rim W. 4.2-4.3cm, body W. 1.0-1.1cm (Figs. 6A, 9-10).
<table>
<thead>
<tr>
<th>Inv. No.</th>
<th>Tortugas Type</th>
<th>Rim Style</th>
<th>Rim Th.*</th>
<th>Rim W.</th>
<th>Max. Body Th.</th>
<th>% of Rim</th>
<th>Mouth Diam.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOR-90-01194-CS</td>
<td>9A</td>
<td>A</td>
<td>2.2</td>
<td>4.3</td>
<td>1</td>
<td>42.5</td>
<td>36</td>
</tr>
<tr>
<td>TOR-90-01195-CS</td>
<td>9A</td>
<td>A</td>
<td>2.1</td>
<td>4.2</td>
<td>1.1</td>
<td>20.5</td>
<td>34</td>
</tr>
<tr>
<td>TOR-90-01196-CS</td>
<td>9A</td>
<td>B</td>
<td>1.9</td>
<td>4</td>
<td>1.1</td>
<td>21</td>
<td>36</td>
</tr>
<tr>
<td>TOR-90-01197-CS</td>
<td>9A</td>
<td>B</td>
<td>1.9</td>
<td>4.1</td>
<td>1</td>
<td>15</td>
<td>36</td>
</tr>
<tr>
<td>TOR-90-01200-CS</td>
<td>9A</td>
<td>B</td>
<td>1.8</td>
<td>3.7</td>
<td>1</td>
<td>10</td>
<td>35</td>
</tr>
<tr>
<td>TOR-90-01201-CS</td>
<td>9A</td>
<td>B</td>
<td>1.8</td>
<td>3.9</td>
<td>1.1</td>
<td>12.5</td>
<td>35.5</td>
</tr>
<tr>
<td>TOR-90-01213-CS</td>
<td>9A</td>
<td>B</td>
<td>1.6</td>
<td>2.8</td>
<td>0.9</td>
<td>2.5</td>
<td>27</td>
</tr>
<tr>
<td>TOR-90-01215-CS</td>
<td>9A</td>
<td>B</td>
<td>1.3</td>
<td>3</td>
<td>0.9</td>
<td>6</td>
<td>27</td>
</tr>
<tr>
<td>TOR-90-01219-CS</td>
<td>9A</td>
<td>B</td>
<td>1.4</td>
<td>3.1</td>
<td>0.9</td>
<td>9</td>
<td>27</td>
</tr>
<tr>
<td>TOR-90-01221-CS</td>
<td>9A</td>
<td>B</td>
<td>1.3</td>
<td>3.1</td>
<td>---</td>
<td>14</td>
<td>31</td>
</tr>
<tr>
<td>TOR-90-01222-CS</td>
<td>9A</td>
<td>B</td>
<td>1.3</td>
<td>3.6</td>
<td>0.8</td>
<td>10</td>
<td>30</td>
</tr>
<tr>
<td>TOR-90-01223-CS</td>
<td>9A</td>
<td>B</td>
<td>1.5</td>
<td>3.9</td>
<td>0.8</td>
<td>18</td>
<td>31</td>
</tr>
<tr>
<td>TOR-90-01198-CS</td>
<td>9A</td>
<td>C</td>
<td>2.0</td>
<td>3.5</td>
<td>1</td>
<td>11</td>
<td>34</td>
</tr>
<tr>
<td>TOR-90-01203-CS</td>
<td>9A</td>
<td>C</td>
<td>1.8</td>
<td>3.2</td>
<td>0.8</td>
<td>6</td>
<td>32</td>
</tr>
<tr>
<td>TOR-90-01205-CS</td>
<td>9A</td>
<td>C</td>
<td>1.6</td>
<td>3.4</td>
<td>---</td>
<td>6</td>
<td>26</td>
</tr>
<tr>
<td>TOR-90-01208-CS</td>
<td>9A</td>
<td>C</td>
<td>1.7</td>
<td>3.0</td>
<td>0.9</td>
<td>11</td>
<td>26</td>
</tr>
<tr>
<td>TOR-90-01209-CS</td>
<td>9A</td>
<td>C</td>
<td>1.6</td>
<td>3.1</td>
<td>1</td>
<td>5</td>
<td>32</td>
</tr>
<tr>
<td>TOR-90-01214-CS</td>
<td>9A</td>
<td>C</td>
<td>1.6</td>
<td>3.0</td>
<td>0.8</td>
<td>14</td>
<td>27</td>
</tr>
<tr>
<td>TOR-90-01220-CS</td>
<td>9A</td>
<td>C</td>
<td>1.6</td>
<td>2.8</td>
<td>0.8</td>
<td>20</td>
<td>26</td>
</tr>
<tr>
<td>TOR-90-01191-CS</td>
<td>9A</td>
<td>D</td>
<td>1.7</td>
<td>2.8</td>
<td>0.9</td>
<td>11</td>
<td>25</td>
</tr>
<tr>
<td>TOR-90-01192-CS</td>
<td>9A</td>
<td>D</td>
<td>1.7</td>
<td>2.6</td>
<td>0.9</td>
<td>12</td>
<td>26</td>
</tr>
<tr>
<td>TOR-90-01193-CS</td>
<td>9A</td>
<td>D</td>
<td>1.5</td>
<td>2.5</td>
<td>1</td>
<td>12.5</td>
<td>25</td>
</tr>
<tr>
<td>TOR-90-01210-CS</td>
<td>9A</td>
<td>D</td>
<td>1.9</td>
<td>2.9</td>
<td>1.1</td>
<td>4</td>
<td>30</td>
</tr>
<tr>
<td>TOR-90-01216-CS</td>
<td>9A</td>
<td>D</td>
<td>1.5</td>
<td>3.7</td>
<td>0.8</td>
<td>11</td>
<td>30</td>
</tr>
<tr>
<td>TOR-90-01217-CS</td>
<td>9A</td>
<td>D</td>
<td>1.4</td>
<td>2.8</td>
<td>1</td>
<td>15</td>
<td>28</td>
</tr>
<tr>
<td>TOR-90-01218-CS</td>
<td>9A</td>
<td>D</td>
<td>1.3</td>
<td>2.8</td>
<td>1</td>
<td>7.5</td>
<td>29</td>
</tr>
<tr>
<td>TOR-90-01199-CS</td>
<td>9B</td>
<td>E</td>
<td>1.3</td>
<td>3.9</td>
<td>1</td>
<td>14</td>
<td>36</td>
</tr>
<tr>
<td>TOR-90-01202-CS</td>
<td>9B</td>
<td>E</td>
<td>1.6</td>
<td>3.7</td>
<td>1.2</td>
<td>10</td>
<td>37</td>
</tr>
<tr>
<td>TOR-90-01212-CS</td>
<td>9B</td>
<td>E</td>
<td>1.6</td>
<td>4</td>
<td>1.4</td>
<td>6</td>
<td>35</td>
</tr>
<tr>
<td>TOR-90-01211-CS</td>
<td>9C</td>
<td>F</td>
<td>0.6</td>
<td>2</td>
<td>0.9</td>
<td>8</td>
<td>29</td>
</tr>
<tr>
<td>TOR-90-01207-CS</td>
<td>9D</td>
<td>G</td>
<td>1.1</td>
<td>3.5</td>
<td>0.9</td>
<td>19</td>
<td>34</td>
</tr>
<tr>
<td>TOR-90-01206-CS</td>
<td>9E</td>
<td>H</td>
<td>Base Th. 1.0</td>
<td>---</td>
<td>Wall Th. 1.0</td>
<td>---</td>
<td>33</td>
</tr>
<tr>
<td>TOR-90-01186-CS</td>
<td>9F</td>
<td>Base</td>
<td>Base Th. 1.2</td>
<td>---</td>
<td>Wall Th. 1.0</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>TOR-90-01187-CS</td>
<td>9F</td>
<td>Base</td>
<td>Base Th. 1.0</td>
<td>---</td>
<td>Wall Th. 1.0</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>TOR-90-01188-CS</td>
<td>9F</td>
<td>Base</td>
<td>Base Th. 0.9</td>
<td>---</td>
<td>Wall Th. 0.9</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>TOR-90-00164-CS</td>
<td>10A</td>
<td>I</td>
<td>1.8</td>
<td>---</td>
<td>1</td>
<td>9</td>
<td>34</td>
</tr>
<tr>
<td>TOR-90-00181-CS</td>
<td>10A</td>
<td>I</td>
<td>1.6</td>
<td>---</td>
<td>0.9</td>
<td>16</td>
<td>33</td>
</tr>
<tr>
<td>TOR-90-00182-CS</td>
<td>10A</td>
<td>I</td>
<td>1.3</td>
<td>---</td>
<td>0.9</td>
<td>5</td>
<td>34</td>
</tr>
<tr>
<td>TOR-90-00184-CS</td>
<td>10A</td>
<td>I</td>
<td>1.5</td>
<td>---</td>
<td>1</td>
<td>9</td>
<td>30</td>
</tr>
<tr>
<td>TOR-90-00189-CS</td>
<td>10B</td>
<td>J</td>
<td>1.4</td>
<td>1.3</td>
<td>2.5</td>
<td>30</td>
<td>30</td>
</tr>
<tr>
<td>TOR-90-00190-CS</td>
<td>10C</td>
<td>K</td>
<td>1.6</td>
<td>0.8</td>
<td>12</td>
<td>12</td>
<td>34</td>
</tr>
<tr>
<td>TOR-90-00185-CS</td>
<td>10C</td>
<td>Base</td>
<td>Base Th. 0.9</td>
<td>---</td>
<td>Wall Th. 0.9</td>
<td>---</td>
<td>---</td>
</tr>
</tbody>
</table>

* All dimensions in cm.

Table 2. Diagnostic colonoware rim and base fragments from the Tortugas shipwreck by type.
Rim Style B is raised and everted, but the lip curves downwards toward the body of the vessel. The sub-rectangular rim is thinner and less wide than Rim Style A. The rim extends at an angle of 21º off horizontal. A sharp transitional ridge occurs between the inner rim edge and inner body wall. Some sub-forms incorporate a scalloped rim edge (TOR-90-01201-CS).

Mouth Diam. 35.0-36.0 cm, rim Th. 1.8-1.9 cm, rim W. 3.7-4.1 cm, body W. 1.0-1.1 cm (Figs. 6B, 11-14).

Rim Style C is a thick, relatively short curved rim that is angled upwards off the body of the vessel at 58º off horizontal. The lip is simply rounded. The diameters of Style C vessels seem to be less wide than for the above sub-forms. Examples are burnished on the rim and outer body wall (TOR-90-01203-CS). Some rims are possibly scalloped (TOR-90-01214-CS). Style C seems to occur in two sizes, with mouth diameters of 26.0-27.0 cm and 32.0 cm. Rim Th. 1.6-1.8 cm, rim W. 3.0-3.4 cm, body W. 0.8-1.0 cm (Figs. 6C, 15-19).

Rim Style D is a relatively short, and less bulky sub-form with a thickened and rounded anatomy. The rim angle is comparable to Style C and extends at an angle of 37º off horizontal. Surviving examples are badly eroded, but some are possibly scalloped. Rim Style D seems to occur in two sizes, with mouth diameters of 25.0-26.0 cm and 28.0-30.0 cm. Rim Th. 1.3-1.7 cm, rim W. 2.8-3.7 cm, body W. 0.8-1.0 cm (Figs. 6D, 20-23).

**Tortugas Type 9B**

Tortugas Type 9B represents a simple hemispherical pot form. The body curves gently and continuously inwards towards the base, without any carination or widening of the waist (Figs. 6E, 24-26).
Rim Style E is of moderate thickness and exhibits a sub-rectangular profile. The rim extends at an angle of 90° off horizontal and the lip is bent downwards. A sharp transitional ridge occurs between the inner rim edge and inner body wall. Some sub-forms incorporate a scalloped rim edge. Mouth Diam. 35.0-37.0 cm, rim Th. 1.3-1.6 cm, rim W. 3.7-4.0 cm, body W. 1.0-1.4 cm (Figs. 6E, 24-26).

Tortugas Type 9C
A short, narrow and open bowl-like form whose gently curved Rim Style F features a minimal overhang, resulting in little differentiation between the vessel shoulder/body and rim. The rim extends at an angle of 39° off horizontal. The body descends relatively gently inwards from the rim to a rounded base. This vessel type is the most shallow of the Tortugas Type 9 colonoware series. H. 9.6 cm, mouth Diam. 29.0 cm, rim Th. 0.6 cm, rim W. 2.0 cm, body W. 0.9 cm (Figs. 7A, 27).

Tortugas Type 9D
Tortugas Type 9D is anatomically similar to Tortugas Type 9A, Rim Style B, but in this case the body of the vessel at the mid-section is broader and more bulbous, forming a more accentuated globular cooking pot.

The single example within the Tortugas shipwreck collection has a Rim Style G that consists of a short, flat rim extending at an angle of around 15° off horizontal. Its shape is similar to Rim Styles B and E, but it is slightly less bulky and the vessel has a thinner wall. The outer lip is characterized by having been finger pressed so that it undulates to form a mildly scalloped finish. Mouth Diam. 34.0 cm, rim Th. 1.1 cm, rim W. 3.5 cm, body W. 0.9 cm (Figs. 7B, 28).

Tortugas Type 9E
Tortugas Type 9E is a very wide-bodied cooking pot characterized by an indistinct strongly inverted Rim Style H, whose thin pointed lip (Th. 0.8 cm) simply assumes the form of an abrupt rounding of the body wall (Th. 1.0 cm). The rim is curved inwards at an angle of 48° off vertical. The wide mouth broadens to a sharp shoulder with a maximum vessel diameter of 33 cm (Figs. 8A, 29).

Tortugas Type 9F
Tortugas Type 9F is a substantial section of the lower quarter of a base of a broad cooking pot with a gently rounded base. Fragment Diam. 34.7 cm, base Th. 1.2 cm, body Th. 1.0 cm (Figs. 8B, 30).

Tortugas Type 10A
A very shallow griddle (burén) form with heights of 3.2-3.5 cm and diameter at the mouth ranging from 30-34 cm (Figs. 7C, 31-35). The vessel is gently curved, descending to a flattened base. The thickening of the rim creates a low-ridged ledge around the interior of the vessel mouth, which was originally surmounted by two semi-circular loop handles set horizontally on opposite sides of the griddle and raised 1.3 cm above the rim so they point upwards at a steep angle of 55°. The upper section of the handle is attached to the top of the lip, while the lower section merges onto the top of the base. One example (TOR-90-01182-CS) is heavily charred to the point where the vessel may have become incapable of use. The buff colored form is visibly shell-tempered. Handles: L. 4.6 cm, W. 3.1 cm, Th. 1.8 cm. Body wall Th. 0.8-1.0 cm, base Th. 1.0 cm.

Rim Style I is thickened on both the internal and external edge to form a 1.5-1.8 cm thick low-ridged ledge on the interior edge (Figs. 7C, 31-35). This may have helped prevent cooked foodstuffs spilling over the mouth edge. The inverted rim is a simple thickening of the body wall. The lip shape is curved inward and presents a rounded half-circle in profile (less angular relative to Type 10C, Rim Style K).

Tortugas Type 10B
A second variant of shallow griddle (burén) with a height of 4.7 cm and mouth diameter of 30.0 cm (Figs. 7D, 36). The vessel base is curved and more rounded than Type 10A. The vessel’s mouth/rim is surmounted by one (of originally two) lug handles consisting of a crude sub-rectangular section of clay elevated 1.4 cm above the mouth at an angle of 59° off horizontal. Reddish-buff fabric, shell-tempered. When intact this vessel form would have likely possessed a pair of lug handles on opposite sides of the vessel (as represented amongst the Christophe Plain assemblage from Puerto Real, Haiti; Smith, 1995: 348 and section 5 below). Rim Th. 1.4 cm, body wall Th. 1.3 cm. Handle: L. 3.2 cm, W. 2.4 cm, Th. 1.9 cm.

Rim style J displays an inverted profile and, as far as the example’s very poor preservation permits reconstruction, the lip contour appears to be semi-circular (Figs. 7D, 36).

Tortugas Type 10C
A third variation of a shallow griddle (burén) exhibits a more sharply rounded rim than the rest of the Type 10 series that curves strongly upwards to form a deeper pan (Figs. 7E, 37) and extends upwards almost vertically at and angle of 85° off horizontal. The height of the griddle is 4.5 cm and its diameter is 34.0 cm. A breakage point on one of the vessel sherds represents the likely location where one of a probable two loop handles were formerly attached; this griddle probably incorporated a pair of loop handles comparable to Type 10A. The fabric’s surface is
smooth and seemingly compacted as the result of burnishing: what appear to be burnish marks are visible on the vessel exterior and interior. Grayish in color, less coarse in texture than Types 10A-10B and seemingly containing less grit temper impurities.

Rim Style K is relatively steep in relation to the base of the pan and is angular in form. Unlike the rounded Type 10A and 10B rim forms, the top of the lip is flattened. It curves slightly inwards, creating in effect an inverted profile. Rim Th. 1.6cm, body Th. 0.8cm (Figs. 7E, 37).

3. Colonoware Background
Recognition of colonoware pottery first emerged in the early 1960s with the excavation of unglazed coarse pottery from the earliest sites associated with the English colonization of Virginia. Ivor Noël Hume, former Chief archaeologist at Colonial Williamsburg, originally coined the term ‘colono-Indian ware’ because the varieties recovered resembled local Native American pottery found throughout the eastern United States, but bore similarities to European vessel shapes, largely kitchen and cooking vessels, including simple bowls and pots, shallow pans, jugs, pipkins and porringer. Manufacturing techniques and rim types appeared to have evolved out of a native tradition, suggesting production by indigenous peoples exposed to European influences (Noël Hume, 1962: 7-8, 12; Orser, 1996: 118; Singleton, 2010: 157).

This hybrid pottery, encountered in excavations at Williamsburg and Jamestown in the early 1930s, was thought to have been made by the local indigenous people for exchange with British settlers and for use by African slaves, who either purchased wares with meager funds or obtained them through barter (Roland and Ashley, 2000: 36; Espenshade, 2011: 135). At the time the Indian potters responsible for their manufacture were thought to live on the Mattaponi, Chickahominy and Pamunkey reservations (Noël Hume, 1962: 7, 12; Deetz, 1992: 81; Orser, 1996: 118), where colonoware sherds associated with 18th- and early 19th-century European ceramics were identified (Mouer et al., 1999: 84). Both historical and ethnographic sources indicate that these Native American communities produced and traded this pottery with blacks and whites well into the early 20th century (Singleton, 2010: 157).

Colonoware has been unearthed in well-stratified European contexts, including plantations along the James and York Rivers (Mouer et al., 1999: 84). In Virginia it most commonly post-dates 1680 (pers. comm. Beverly Straube, 19 November 2012) and appears to have become increasingly common towards the second half of the 18th century (Noël Hume, 1962: 12; Deetz, 1993: 81). Similar indigenous wares have been discovered on numerous 17th- and 18th-century Indian sites in southeastern Virginia. Northern Virginia sites formerly inhabited by Algonquian-speaking groups also yielded similar colonoware pottery alongside European artifacts dated to the late 17th/early 18th centuries (Mouer et al., 1999: 84-5).

In terms of origins (long before the British settlement of Virginia), in the 1540s the Guale and Yemassee Indian women of Coastal Georgia and the Sea Islands produced low-fired pots in imitation of Spanish forms for exchange with Spanish missionaries, a tradition that continued deep into the 17th century, when the Apalachee Indians in the Florida panhandle supplied colonoware vessels to Spanish soldiers. The Indians of the Catawba confederacy were perhaps the most prolific native producers, mass-producing and marketing colonoware to Low Country plantations, where their pots were used in both slave communities and planter’s homes (Orser, 1996: 118, 122; Espenshade, 2011: 138).

The Colono-Indian interpretation was subsequently re-examined in light of continued discoveries associated with enslaved Africans, particularly in the Carolinas, Maryland, Virginia and west into Tennessee (Deetz, 1993: 83). For example, the correlation between colonoware and sites occupied by enslaved Africans was clearly evident in South Carolina, where this pottery type accounted for over 75% of all sherds discovered within certain slave communities (Hyman and Rice, 2011: 136). Excavations of Caribbean and
South American plantations, where enslaved Africans had replaced indigenous labor eradicated by disease, similarly yielded large quantities of colonoware, now more commonly referred to as ‘Afro-Caribbean’ ware (Hauser, 2008: 93, 95; Meneketti, 2011: 1). However, as Africanists caution, “no single African group held over-riding influence over the formation of Afro-Caribbean or American identity throughout the entirety of the trans-Atlantic slave trade... Therefore all things termed ‘Afro’ must be placed within their specific, local context” (Gijanto and Ogundiran, 2011: 244).

In light of increasing archaeological evidence, another school of emerging thought proposed interpreting some colonoware recovered on colonial-period New World sites as hybrid pottery of African manufacture resulting from contact between Europeans and African slaves (Smith, 1995: 340; Orser, 1996: 119; Roland and Ashley, 2000: 36). Supporting this theory was the fact that while the Indian population decreased, across the board the quantity of colonoware increased corresponding to the rise in colonial settlements’ African slave populations (Deetz, 1993: 80-3; Smith, 1995: 3, 40, 373). The reality is further complicated because in some contexts, including the earlier years of Puerto Real, Haiti, Africans and Indians jointly produced colonoware, the pottery being the product of creolization resulting from the interaction between diverse enslaved Indians and Africans and European cultures.

The idea of producing low-fired, hand-formed imitations of European vessels may, in part, have been inspired in some social contexts by Native Americans, reflecting indigenous experimentation with foreign designs. As Card suggests, “the initial impetus by indigenous potters may have been to sell their modified serving vessels – new or blended Spanish forms of plates, bowls, jugs and the like – to those Europeans unable to obtain favored imported or European colonially produced glazed wares” (pers. comm. Jeb Card, 18 February 2014). Such wares have alternatively been termed ‘copywares’, hybrid wares or colonoware (Card, 2007: 7). Research into colonial Ciudad Vieja in El Salvador demonstrates how the indigenous Pipil population closely copied Spanish tin-glazed forms (largely brimmed plates), while maintaining traditional Pipil painted designs and broader Mesoamerican technological practices (pers. comm. Jeb Card, 18 February 2014; Card, 2007: 7).

The colonoware produced by the Apalachee at the early 18th-century French site of Old Mobile, Alabama, and by the Guale Indians, particularly in the late 17th century after their move to Amelia Island, Georgia, similarly focused mainly on serving vessels copying French and Spanish forms respectively (Saunders, 2000: 150-53, 157; Cordell, 2001: 47-8; 2013: 85-6, 88). With the passage of time, these modified European vessel forms were more
readily adopted as indigenous wares (pers. comm. Jeb Card, 18 February 2014; Cordell, 2013: 95). This trend developed more markedly in the context of forced resettlement, as at Old Mobile, where the new refugees’ difficult social environment was a likely contributing factor. Here European-style brimmed colonoware vessels were enlarged in size to accommodate traditional indigenous communal dining practices (Silvia, 2000: 137-38; Cordell, 2013: 87, 91).

Also evidenced amongst the Apalachee at Old Mobile are thicker vessels, an elimination of incising and reduction in the complexity of painted designs (Cordell, 2013: 92-4). Parallel change has also been recorded amongst the Guale, whose hybrid Spanish colonoware pottery over time exhibits simpler decoration and less elaborate vessel form (Card, 2007: 310-311).

Comparable ceramic transformations are attested in early 16th-century Hispaniola when Spanish society became more deeply established amongst the indigenous Taino. As in the case of Puerto Real, the original hybrid colonoware imitations of Spanish forms, which carried traditional decorations, soon dropped out of the Taino ceramic range. Utilitarian traits including thicker vessel walls became increasingly prevalent at the expense of design and elaboration, as evident in both the indigenous and later Creole pottery (Card, 2007: 291).

When enslaved Africans brought to the North American colonies began making colonoware, in some cases it crudely imitated the hybrid serving or copywares produced by Indians for trade with Europeans (Hyman and Rice, 2011: 136-7). The complexity of distinguishing between indigenous ceramics and those made by people of African descent is evidenced on an early 18th to late 19th-century cotton estate on the island of St. John, where distinctive pottery attributes suggest the African laborers were influenced by the native
Taino or by direct interaction with the indigenous population, and consequently incorporated stylistic elements into their own tradition (Hauser, 2008: 115).

The broader picture of colonoware interpretation is now understood to represent a strong African element, much of which appears to derive from a long-standing African pottery tradition (Ferguson, 1980: 17, 24), embedded within “the African ability to adapt, thrive and create under the harshest conditions” (Smith, 1995: 374). As some scholars have explained, production permitted enslaved African potters to impart meaning to material things in the face of oppression (Orser, 1996: 122). Rooted in the ‘African Diaspora’, colonoware represents one of the few handicrafts associated with enslavement. Furthermore, it embodies one of a limited set of material culture predominantly made, used and traded by enslaved laborers, probably women, that has survived in the archaeological record (Hauser, 2008, 93; Singleton, 2010: 157).

The term colonoware – as it is now more commonly known (as opposed to colono-Indian ware) – thus refers to a genre of colonial-period earthenware that exhibits broad regional distinctions in fabric and form (Roland and Ashley, 2000: 36). As Hauser rightly argues (2008: 94), “Simply put, the range of pottery traditions categorized as colono-ware is not a single type”. The complexity in defining its ethnic origins derives from the reality that this pottery was produced by a diversity of cultures: Native Americans of various tribes and by enslaved Africans imported from many parts of West and Central Africa into the American Southeast, the West Indies and the Spanish Main (Espenshade, 2011: 138). The interaction and intermarriage of diverse peoples of African and native/indigenous origins contributes yet further intercultural complexity, and highlights the pitfalls of proposing catch-all cultural classifications for this ware.

In the Eastern Caribbean there is considerable evidence of enslaved African laborers and indigenous Caribbean peoples interacting, intermarrying and influencing each other in this way (Hauser, 2008: 95, 110).

Colonoware was used in rural plantation and urban slave contexts, in native households and in planter’s kitchens, and represents a thriving cottage industry whose produce was traded in informal local markets (Hauser, 2008: 93; Espenshade, 2011: 135). Typified by the case of the Caribbean, not only was trade conducted within island contexts, it also occurred between islands, providing the opportunity for potters to copy their neighbors while highlighting the inter-dependency that emerged between Caribbean planters and the enslaved laborers of different colonies. An analysis of pottery from the Virgin Islands (Danish, British and Spanish) reveals a lively inter-island and inter-colonial trade network, which is also evident from the similarities between the pottery on St. Lucia and Martinique, and other West Indian islands (Hauser, 2008: 111, 112, 114). Compositional analyses of pottery sherds from St. Kitts provides evidence for some inter-island exchange of Afro-Caribbean ware amongst elements of enslaved Africans (Ahlman, 2008: 109, 120).

The outstanding feature of colonoware is not its similarities, but rather heterogeneity and the lack of a single defining ethnic marker. As Hauser elaborates (2008: 94), “this pottery is no longer used analytically as a marker of identity, but rather is a residue of independent production, use and sale, which can reveal the complex social networks of the enslaved”. Some scholars suggest that assigning a cultural affiliation to colonoware and its manufacture will require further archaeological and ethnological research involving West Africa, the West Indies and the Americas (Anthony, 2002: 49). As discussed in sections 4 and 13 below, in the specific case of the Tortugas shipwreck its colonoware assemblage may have derived from the Caribbean, within whose waters and ports the ship ventured. Geographic, social and chronological considerations may also point towards its use by African slaves on the Tortugas ship.
4. Interpreting Colonoware: Socio-Economic Contexts

Colonoware is a term that has evolved in meaning over the years in historical archaeology into a tangible expression of the New World settlements’ multi-cultural encounters and interactions (Smith, 1995: 240; Orser, 1996: 122; Deagan and Cruxent, 2002a: 293). Colonowares of varying forms have been discovered across much of the Americas (Melcher, 2005: 2). They represent a non-homogenous pottery tradition that appeared as a general phenomenon largely in North America and across the Caribbean, where it was expressed differently as the result of many factors, including distinctions in local pottery traditions, population displacement, oppression and differences in social interactions and economics (Deetz, 1993: 90; Deagan and Cruxent, 2002a: 293; Hauser, 2008: 93-4).

In some socio-economic settings these earthenwares were produced by the Native peoples of North America and the Caribbean, where they often combined both Spanish and Indian ceramic attributes and design elements (Deagan, 1987: 103-4). In a number of early colonial contexts, colonoware – largely serving and display vessels – was made for Spaniards by the indigenous people, when comparable imported wares were unavailable. This was likely the case at 16th-century Concepción de la Vega, where a pottery industry using Indian potters seems to have been introduced (Deagan and Cruxent, 2002a: 294). Commonly associated with Hispanic New World households, colonoware often resembles European forms (Deagan, 1987: 103; Smith, 1995: 340). A parallel phenomenon occurred in the Chesapeake and Mid-Atlantic coastal areas in later centuries, where the archaeological record, supported by historical data, clearly indicate that some native potters produced European-style wares that they traded with British colonists during the first years of settlement in America and into the 20th century (Noël Hume, 1967: 7; Ferguson, 1980: 16; Mouer et al., 1999; Singleton, 2010: 157).

The picture is seemingly different during the early part of the occupation of the South Carolina Low Country and Virginia, where production of colonoware has been linked to enslaved Africans, many of West African origins, who brought with them a deep-rooted tradition of
Fig. 17. Tortugas Type 9A, Rim Style C colonoware cooking pot (TOR-90-01209-CS).

Fig. 18. Tortugas Type 9A, Rim Style C colonoware cooking pot (TOR-90-01208-CS).

Fig. 19. Tortugas Type 9A, Rim Style C colonoware cooking pot (TOR-90-01198-CS).
low-fired pottery (Ferguson, 1980: 17-18). The quantity of colonoware discovered on non-Indian European sites associated with black slaves leaves no doubt that certainly some of this pottery within the archaeological record was produced, used and traded by enslaved laborers of African descent (Ferguson, 1980: 16-18; Orser, 1996: 118-20; Hauser, 2008: 93). Such a development coincided with the vast numbers of African slaves introduced to the New World to replace the indigenous populations that had been largely wiped out following the European conquest, particularly across the Caribbean and Brazil, where sugar cultivation created an insatiable demand for laborers by the end of the 16th century (Hodges and Lynn, 1995: 100; Gallay, 2009: 18). While the early 18th-century Low Country continued to support a relatively large enslaved Indian labor force (one-third of the slave population: Mouer et al., 1999: 93), by the 1550s much of the Spanish-occupied western Caribbean (Greater Antilles) was dominated by a population comprised of enslaved Africans forced together from many different tribes and kingdoms and who spoke different languages and held different religious beliefs (Menekitti, 2011: 2).

As the plantation economy developed, similar patterns emerged in the eastern Caribbean decades later with the colonization of these islands by other Europeans. It was not until the early to mid-17th century that African slaves were brought to the Lesser Antilles, where, for example, the Leeward Islands (once part of the British West Indies) supported some of the highest proportions of slaves known in colonial societies anywhere in the western hemisphere. As in the western Caribbean, where the production of pottery by African slaves under Spanish control exhibits only slight influence from the former Amerindian inhabitants and little influence from the Spanish, the African slaves introduced into the eastern Caribbean also began to produce similar ceramics, some of which were distinctly non-European and generally similar to the pottery produced in African contexts among the Spanish. In particular, comparable pottery is known from 16th-century contexts at Puerto Real in modern Haiti (Petersen et al., 1999: 158-59, 162 and section 5 below).

Colonowares appear most frequently in slave plantations and sites occupied by enslaved Africans in the latter 17th century and throughout the 18th century (Ferguson, 1980: 24; Orser, 1996: 117-18; Menekitti, 2011: 3). In these contexts its distribution is a socio-economic marker directly linked to the slavery and plantation economy (Deetz, 1993: 86l; Galke, 2009: 320). Slaves working
plantations possessed few material comforts: a roof over their heads, and perhaps an ax and iron pot. In this harsh new environment subsistence was dependent on pottery making derived from a tradition with which the African slave was familiar (Deetz, 1993: 89). Many enslaved Africans sold to the Americas and the Caribbean arrived with a traditional knowledge of producing low-fired earthenwares (Ferguson, 1980: 17), and at slave auctions prices were high if the enslaved was a potter.2

In West Africa, where many slaves originated, villages continue to specialize in the manufacture of these wares today, pursuing a tradition that the archaeological record shows extends back at least to the 15th and 16th centuries (Ferguson, 1980: 17). The rounded vessel form incorporated into the colonoware style facilitated West African culinary preferences for preparing and serving soups and stews. Hollowware vessels also accommodated African cooking traditions, whereby pots were placed directly into hot coals, unlike flat-based European vessels used for cooking practices that relied on flat-top surfaces (Fennell, 2011: 13, 20).

The production and usage of colonowares in the Caribbean varied from island to island, a difference related to production and consumption that is comparable to the regional differences identified in the North American southeast (Singleton, 2010: 161). Understanding how and why the enslaved of North America and the Caribbean produced a similar class of wares is embedded in the context of a material culture that was the result of displaced populations and traditions (Menikitti, 2011: 2-3).

These coarse generic earthenwares became integral to a widespread cottage industry – similar to what endures in parts of Africa today (Ferguson, 1980: 18). Life documented in 18th-century Jamaica reconstructs how these low-fired wares, known as yabbas, were made, used and traded locally in informal markets by enslaved African laborers, probably women, and sold to a variety of customers (Hauser, 2008: 93; Hauser et al., 2008: 123, 124). The yabbas of Jamaica and the Caribbean are considered examples of African-influenced colonoware, a phenomenon found throughout the circum-Caribbean region (Hauser and DeCorse, 2003: 67; Hauser, 2013: 57; Card, 2013: 10). The Jamaican markets were well patronized by town dwellers, who bought their necessities with ready cash (McDonald, 1993: 28). The Jamaican context, which perhaps offers some comparative insights into earlier Caribbean colonial settlement patterns (Fig. 46), demonstrates

---

Fig. 22. Tortugas Type 9A, Rim Style D colonoware cooking pot (TOR-90-01210-CS).

Fig. 23. Tortugas Type 9A, Rim Style D colonoware cooking pot (TOR-90-01193-CS).
Fig. 24. Tortugas Type 9B, Rim Style E colonoware cooking pot (TOR-90-01199-CS).

Fig. 25. Tortugas Type 9B, Rim Style E colonoware cooking pot (TOR-90-01202-CS).

Fig. 26. Tortugas Type 9B, Rim Style E colonoware cooking pot (TOR-90-01212-CS).
how the internal trade in colonoware (and other goods) was economically and socially multi-functional (Hauser, 2008: 2, 122; Hauser et al., 2008: 132). As noted in 1793 by Bryan Edwards, a well-known Jamaican planter (Halcrow, 1982: 27), “Upward of ten thousand [African slaves] assemble every Sunday morning in the market of Kingston where they barter their provisions… Some of them find time on these days to make a few coarse manufactures… such as mats for beds, bark ropes of strong durable texture, wicker chairs and baskets, earthen jars and pans ready for sale” (Hauser, 2008: 93).

Historical accounts abound with references to street markets through which both enslaved and freed African Jamaicans bought and sold goods, including earthenware vessels and their contents (Hauser et al., 2008: 123). Colonial Jamaican markets were apparently established by law and provided ‘higgles’ (free and enslaved itinerant peddlers, mostly women of African descent) an opportunity to sell their surplus produce and manufactured wares in order to feed themselves, accumulate cash and material wealth and to develop social networks and communities.

Fig. 27. Tortugas Type 9C, Rim Style F colonoware cooking pot (TOR-90-01211-CS).

Fig. 28. Tortugas Type 9D, Rim Style G colonoware cooking pot (TOR-90-01207-CS), with detail of scalloped rim and section view.
These markets economically benefitted plantation owners because they provided enslaved laborers with a means of provisioning themselves (Hauser, 2008: 2, 8; Hauser et al., 2008: 132). The Jamaican estate furnished the slaves with only a meager protein ration; planters expected slaves to obtain the rest of their food from individual provision plots and the sale at the weekly market of commodities they had raised, made or appropriated (McDonald, 1993: 18, 26, 28).

Both the historical and archaeological records strongly suggest that enslaved blacks in South Carolina’s Low Country were similarly active in a market trade that entailed transporting goods to market by canoe. Products ranged from surplus garden crops to fish, bread, milk and cheese, as well as manufactured wares such as sweet grass baskets and very likely colonoware pots. Some scholars have interpreted the significant numbers of intact colonoware vessels found in the rivers of the South Carolina Low Country as the result of overturned canoes bound for market (Joseph, 2007: 3-4). Similar maritime connectivity is evidenced along the coasts and waters between the islands of the Caribbean (as in the Lesser Antilles, West Indies, see section 10 below).

By selling and bartering their produce and handicrafts, slaves acquired small amounts of cash to buy extra food, clothing, tobacco, alcohol and other semi-luxuries. Although marketing by slaves was more restricted in North America than in the Caribbean, many planters accepted the opportunity with the hope that it would give slaves greater security and purpose to stay at home provisioned and content (Berlin and Morgan, 1993: 32-3). The Americas model thus mirrors the wider colonial system in Spain of incentivizing slaves through controlled and limited economic opportunities to create stability by transitioning from barter to a low-level monetary system (see section 13 below).
Fig. 31. Tortugas Type 10A, Rim Style I colonoware griddle (burén) (TOR-90-00164-CS).

Fig. 32. Handle fragment from Tortugas Type 10A colonoware griddle (burén) (TOR-90-01183-CS). From the same vessel as TOR-90-00164-CS.

Fig. 33. Tortugas Type 10A, Rim Style I colonoware griddle (burén) (TOR-90-01181-CS).
Some colonoware has been recovered from 19th- and 20th-century contexts (Ferguson, 1980: 24; Deetz, 1993: 82; Hauser, 2008, 111; Galke, 2009), yet in North America this class of pottery appears to have been mainly abandoned by the end of the American Civil War, perhaps because by the 1860s it had become a negative indicator of African oppression (Espenshade, 2011: 136-37), and thus reinforced the “powerlessness embodied by enslavement” (Galke, 2009: 320). Meanwhile in the Caribbean, the centuries-old tradition of producing colonoware – African-derived pottery generally referred to as Afro-Caribbean ware – largely disappeared during the 19th and 20th centuries, but has persisted in some settings into the present (Hauser and Handler, 2009: 1; Ahlman, 2008: 109; Petersen et al., 1999: 162, 193).

Though relatively ubiquitous in the archaeological record of the Caribbean, the challenge of interpreting these Afro-Caribbean wares is in large part confounded by the relative obscurity of historical records related to the production of this pottery. Despite observing colonoware...
being made, marketed and consumed across the region, the dominant minority of European and European-derived observers left behind very little relevant historical commentary (Petersen et al. 1999: 193).

In the following sections the locations and contexts of colonoware assemblages excavated in the Americas and Caribbean are discussed in order to identify potential parallels to the Tortugas shipwreck collection. Similar forms and thus potential geographic origins and social settings are specified.

5. Hispaniola: La Isabela & Concepción de la Vega (Dominican Republic) & Puerto Real (Haiti)

Griddle sherds comparable to Tortugas Type 10 colonoware have been recovered from 15th-century La Isabela, founded by Christopher Columbus on the north coast of the Dominican Republic. Despite the differences in date between the Tortugas wreck and this settlement, the inverted, rounded rim of two La Isabela burén fragments are highly comparable to the shape of the Tortugas Type 10A rims (Deagan and Cruxent, 2002a: 173), suggesting that the tradition was long-lived.

The use of the burén at La Isabela is most strongly associated with Spanish settlers who inhabited the town: the densest concentration of sherds was located in what is interpreted as the elite residential zone. The second highest concentration occurred in the playa zone, the beach front exploited for shipbuilding and careening, pointing towards the possible domestic shipboard use of burenes for cooking. These shallow pans are attributed to the Taino Indians baking of cassava bread, a staple of this indigenous people described in historical sources (Deagan and Cruxent, 2002a: 171, 173).

Colonoware consisting of poorly finished, plain handmade pots in simple bowl forms was the most abundant non-European pottery found at both Concepción de la Vega and Puerto Real, two of the earliest Spanish colonies established on the island of Hispaniola. While similar in form, both sites reflect entirely different local economic distinctions, as well as differing population compositions and fates of their respective laborers. As Spanish society became better established on Hispaniola, generally the pottery increasingly emphasized utilitarian traits in both Taino and later Creolized pottery. Thickened walls formed more heat-resistant vessels as surface decoration and treatment disappeared (Card, 2007: 291).

At Concepción de la Vega in the modern Dominican Republic, colonoware accounted for 74% of the non-European ceramics in contexts dating to the early 16th century and is interpreted as Native American in origin, yet largely the product of non-local tribes who replaced the Native Taino people (Deagan and Cruxent, 2002a: 292-3). Also present at Concepción was a ceramic type unique to the Americas, known as Ceramica Indo-Hispano, which incorporated European forms but was clearly non-European in production and decoration. These wares seem to combine Caribbean, European and possibly South American hybrid elements, and may represent a directed,
Fig. 38. Detail of Tortugas shipwreck colonoware clay sections (inv. nos. followed by Type and Rim Style).
V. TOR-90-01189-CS (Type 10B/Rim J). W. TOR-90-01185-CS (Type 10C).
yet unsuccessful, effort by the Spanish to train native potters to produce European-style ceramics (Deagan and Cruxent, 2002a: 294). Ceramica Indo-Hispano comprises another class of colonoware that is very different to the simple, plain earthenware represented in other Caribbean assemblages and on the Tortugas shipwreck. However, it demonstrates the complex roots of much colonoware as a pottery tradition.

The colonowares from Puerto Real, founded on the island of Hispaniola in present-day Haiti, represent 55% of the site’s non-European pottery and comprised two entirely different classes, one a creolized Indian and African variety, which was ultimately replaced by pottery made and influenced exclusively by African potters (Smith, 1995: 347; Deagan and Cruxent, 2002a: 292-94). The two colonoware types that dominated Puerto Real’s assemblage are defined as Unidentified Plain pre-1550 and Christophe Plain after the mid-16th century. Both locally produced styles are simple, non-wheel-thrown, thick walled and coarsely tempered pottery primarily in the form of hemispherical bowls (Smith, 1995: 347-9).

Christophe Plain collared pot rim and body fragments appear to bear some similarity to the Tortugas globular cooking pot forms exhibiting the Type 9A everted rims (Smith, 1995: 359-60). A few of the Christophe Plain pottery appendages featuring lug handles resemble Tortugas Type 10B griddle fragments (Smith, 1995: 348, 360). Another vessel from Puerto Real appears to have been a two-handled cooking pot, which, like many of the settlement’s Christophe Plain pots, seems to share stylistic and manufacturing characteristics with African pottery as well as Afro-Caribbean wares (Deagan and Cruxent, 2002a: 295), whose production has persisted into the present day. This particular pot, however, is deeper than the Tortugas Type 10 griddle form. The Christophe Plain bowls appear to have functioned as cooking pots: a significant percentage of the sherds are heavily charred with external hearth blackening and display burned organic adherents (McEwan, 1986: 44; Smith, 1995: 347, 359).

Puerto Real’s burén fragments are described as very thick (2-5cm), with a generally medium brown surface coloration. The griddle cores often contain large quartzite inclusions and the rims are rounded, with a flat base that is slightly concave at center (Smith 1995: 350-1). Although the griddles appear to be thicker than the Tortugas examples, other features, such as the rounded and slightly inverted rims, flat base and concave central section, appear to share some similarities with the 1622 shipwreck assemblage.

Colonoware cooking vessels fulfilled the Spanish need for inexpensive and accessible local pottery for food preparation (Smith, 1995: 372). As in the case of other New World settlements in Spanish Florida and the Caribbean, Puerto Real’s non-European pottery served an important food preparation and cooking necessity, while utilitarian and tablewares of European origin provided a traditional and socially visible serving and storage function (Smith, 1995: 372). This bipartite division is also observed on the Tortugas shipwreck.

The production of Puerto Real’s colonoware is largely attributed to the influx and influence of an enslaved African population, which by 1540 had grown to about 12,000 on the island of Hispaniola (Guitar, 2006: 41-2), many of whom were set to work on the island’s sugar estates, which numbered 25 by 1527. The scale of African slave exploitation is reflected in the more than 7,000 runaways (maroons) who reportedly escaped slavery, as recorded by the Italian traveler Girolamo Benzoni.3

The importation of African slaves corresponds chronologically with the indigenous population dynamics of Hispaniola’s Taino Indians, which are vividly described in the first-hand account of Nikolaus Federmann, a German settler and temporary resident of Santo Domingo from 1529-32. Federmann’s observations emphasize the demise of the island’s natives: “because forty years have passed since the conquest of the island, and…almost all are gone…of five hundred thousand…there remain fewer than twenty thousand living. A large number died from an illness they call viroles [small pox], others have perished in the wars, others in the gold mines where Christopher Columbus forced them to work against their nature…” (Cook, 1998: 22).

The pottery from two different domestic occupation sites within the Puerto Real community provides insights into highly divergent adaptive strategies. The higher status household, predominantly a post-1550 occupation, continued to rely heavily on European ceramics for their standard tableware, while only locally made pottery was used for cooking, a chore probably undertaken by an African slave (McEwan, 1986: 47; Hansen, 2008: 230). At the other spectrum, a lower socio-economic context yielded larger proportions of indigenous pottery across the board, clearly denoting access to less luxury wares such as finer Iberian ceramics (McEwan, 1986: 44).

Unidentified Plain colonoware is most common in pre-1550 contexts at Puerto Real and declined over time, mirroring population upheaval and indigenous Taino Indian decimation that occurred during the earliest years of settlement. At the same time the incidence of traditional Taino Indian pottery declined. Commensurate with this change was the replacement of Indian workers with African laborers. The Unidentified Plain pottery is thus believed to be a colonoware of multi-ethnic manufacture, whereby...
production was very likely “in the hands of many laborers, both Taino and African” (Smith, 1995: 348, 368).

Significantly, the presence of Christophe Plain pottery increased in frequency during the life cycle of Puerto Real to become more common towards the mid-16th century, when very few American Indians were left in Hispaniola, and occurred most dramatically as the imperial Spanish influence dwindled, particularly after 1578 (Smith, 1995: 347; Willis, 1996: 165; Deagan and Cruxent, 2002a: 295).

The increase in the new hybrid colonoware, which supplanted the earlier Unidentified Plain pottery, thus reflects the replacement of the Caribbean Taino Indian labor on Hispaniola by an African slave labor force. As such, Christophe Plain is not thought to be a Euro-Indian hybrid, but rather the result of European-African interaction (Smith, 1995: 340). This assemblage is importantly amongst the oldest examples of Afro-Caribbean pottery known anywhere in the western hemisphere and, notably, exhibits vessel morphology traits similar to later Afro-Caribbean ceramics, dominated by bowls and cooking pot forms, as evidenced, for example, in the Lesser Antilles. Some degree of continuity has thus endured over several centuries (Petersen et al., 1999: 162).

Decades later, the Tortugas colonoware cooking assemblage appears mainly to reflect the prevailing preference for large open-mouth bowls and pots, mirroring the archeology of 16th-century Puerto Real. Following similar ethnic transformations, the Tortugas colonoware may very likely have been the product of Afro-Caribbean slaves, who certainly used the vessels and perhaps even exploited the Caribbean's early plantation era market opportunities.

6. Cuba

While the study of Indo-Hispanic contact in early Spanish settlements is largely under-developed in Cuba (Rojas et al., 2010: 107), colonoware has been found on the island at post-contact sites, where it is commonly referred to as ‘Ceramica de Transculturacion’ related to Indo-Hispanic interaction (Deagan, 1987: 104; 2002: 293; Knight, 2010: 38). The term ‘transculturacion’ implies a creolized manufacturing tradition similarly attributed to other post-Spanish (and European) contact colonowares (Hauser, 2008: 116-7). This hand-thrown, largely undecorated pottery exhibiting “elements of both European and aboriginal form” (Deagan, 1987: 104) was present in Cuba from the 16th through the 18th centuries. Deagan and Cruxent (2002a: 293) include this pottery within the broader category of colonoware found throughout the Caribbean region, which was produced locally by Indians or Africans.

Ceramica de Transculturacion pottery has been recovered from the grounds of the Spanish colonial Casa de la Obrapia (Domínguez, 1980: 18) and the Habana Vieja (Old Havana) home of Captain Martin Calvo de la Puerta y Arrieta, a wealthy Spanish nobleman and philanthropist who took up residence in the mid-17th century (Ellis and Yogers, 2002: 121; Beltrami et al., 2011: 73). This grand home erected in 1665 boasted baroque-style additions, including a highly embellished massive stone portico imported from Cadiz, Spain, in 1686 (Lobo Montalvo, 2000: 82-5).

The nearly 20,000 fragments of pottery found in the horse stables at the east side of the house included the simple undecorated hemispherical cooking pot form consistent with colonoware recovered throughout the New World. The Habana Vieja stable ceramic fragments are similarly thick, undecorated coarse earthenwares. The pottery is described as deriving from red mud (clay) and exhibiting characteristics otherwise inconsistent with the indigenous pottery. The vessels are larger than the traditional forms, while the shapes of the loop handles are described as being non-Indian and closer to Spanish examples (Domínguez, 1980: 17, 19, 22).

The profile of a single cooking pot from Casa de la Obrapia (Domínguez, 1980: 22) appears to be very similar to one of the Christophe Plain bowl rim profiles recorded at Puerto Real (Smith, 1995: 360), whose production is attributed to European-African interaction. However, in the case of Casa de la Obrapia, the potters are not identified.

As noted above, the Casa de la Obrapia assemblage includes the remains of handled forms (Domínguez, 1980: 22-5), which are also present amongst the Christophe Plain assemblage from Puerto Real (Smith, 1995: 360). At least one of the loop vessel handles from Habana Vieja bears some resemblance to the Tortugas Type 10A examples.

Cuba seemingly experienced several traditions of local pottery manufacture, much attributed to enslaved laborers. The category of colonoware included 19th-century low-fired utilitarian earthenware devoid of decoration believed to have been produced by Amerindians, many of whom were imported from the Yucatan for labor on Cuban estates and whose ceramic manufacture is documented in contemporary accounts. The archaeological record, however, is restricted to a few examples from the Guanabacoa suburb of Havana. Without further information on the historical context of ceramic production in Cuba and the Yucatan, determining the origins of much of this pottery is difficult (Hauser, 2008: 116).

It has also been suggested that peoples of African descent may have manufactured some of these ceramics (Hauser, 2008: 116), many of whom may have been brought to Cuba during the 17th-century regional slave trade (Falola and Warnock, 2007: 122). The matter is complicated further because the forms represented are
common throughout the Caribbean, an issue which highlights the difficulties in attributing ethnicity on the basis of vessel forms alone (Hauser, 2008: 116).

Africans, mostly enslaved, started to arrive in Cuba in the early 1500s (Boyce Davies, 2008: 339). In 1557 the first shipment of 1,400 African slaves landed directly from Africa; 300 remained in Cuba, while the others were trans-shipped to Jamaica (Miller, 2009: 37). Together with Cartagena and Veracruz, Havana evolved into a center of the trans-Atlantic and inter-American slave trade, supplemented by a steady supply of new slaves from Africa (Falola and Warnock, 2007: 122). These bozales provided labor in the island’s arsenals, building ships, constructing forts, mining copper, cutting timber and growing food for the Spanish military (Falola and Warnock, 2007: 122). For these reasons it would be logical to assume an African inspiration behind the colonowares produced in Cuba after the mid-16th century, following the demise of the Caribbean’s Native Indian slave population.

7. Nueva Cádiz, Venezuela

Similar to the pottery recovered from Concepción de la Vega and Puerto Real, locally-produced open bowl colonoware forms dominate the indigenous pottery assemblage found on Nueva Cádiz in eastern Venezuela. Established in the early 16th century on the small island of Cubagua along the Pearl Coast, Nueva Cádiz was the first Spanish settlement on Venezuelan soil. Pearl harvesting derived from the exploitation of enslaved Indian divers from all over the Caribbean, and later African slaves, provided a lucrative livelihood for the settlers, and the town developed into a busy port (Willis, 1980: 30-1).

Natives from the Venezuelan mainland were vital to operations, but it was Lucayan Indians from the Bahamas who were initially favored because of their expert swimming and diving proficiency developed through the underwater harvesting of conch shells. By 1518, however, the Bahamas had been completely depopulated of its 60,000 Lucayans for slave labor. The high mortality rate of divers led to an unavoidable change in workforce procurement, whereby African slaves were imported for Cubagua’s pearl fisheries from 1526 (Cruxent and Rouse, 1958: 58; Romero, 2003: 1017, 1019; Warsh, 2010: 347).

The prosperity of Nueva Cádiz peaked between 1530 and 1535, when the pearl fisheries supported a total population of 1,500 people. The town was destroyed by a hurricane in 1541 and completely abandoned four years later (Willis, 1980: 30-1). Nevertheless, the Tortugas ship, the Buen Jesús y Nuestra Señora del Rosario, is recorded as having visited Cumana along the same stretch of the Pearl Coast during its outward bound voyage of 1622 (Kingsley, 2013: 134-39), when additional fisheries had evidently been replenished and recognized anew.

Ceramics of European and native origin represent the greatest quantity of material recovered from Nueva Cádiz. The indigenous pottery (5,017 fragments or 37.5% of the total 13,000 sherds) includes the broad and generic Caribbean-style colonoware (Deagan, 1987: 104). The assemblage incorporates two different types: vessels seemingly produced on the island in accordance with local customs, and pottery that was either brought to Cubagua or produced in a style representative of the areas from where the Indians were transported (Cruxent and Rouse, 1958: 58; Willis, 1976: 106-7, 142). This latter possibly intrusive type is represented by only nine sherds (Cruxent and Rouse, 1958: 59).

Nueva Cádiz’s colonoware is coarse and heavily tempered with large crushed rock and shell inclusions. In color it varies from gray to orange and tan and brown, and most examples are undecorated. With few exceptions the primary shape appears to be an open bowl that is mainly flat, but sometimes annular. Bowl rims typically taper and are rounded in cross section. Globular-body jars were also present (Cruxent and Rouse, 1958: 58-9; Willis, 1976: 142). The vessels’ function is unspecified. However, the presence of firing clouds suggests production and use for cooking in line with parallel forms from 16th-century Puerto Real, Haiti, and throughout the Spanish Caribbean.

While it is suggested that little acculturation took place between the Spanish and indigenous cultures at Nueva Cádiz, the new type of local colonoware pottery is described as representing a simplification in style that might partly have been inspired by Spanish conquest practices. As appears to be the case with the colonoware recovered from other New World sites, the change in pottery style at Nueva Cádiz similarly corresponded to the “greatly altered cultural matrix within the aboriginal population” (Willis, 1976: 143).

8. Panamá La Vieja (Old Panama)

Early colonoware recovered from excavations at 16th- and 17th-century Panamá La Vieja (the old city of Panama) is predominantly undecorated pottery mostly produced in a plain red buff paste. The hemispherical bowl shape and sub-globular bowls with strap handles are amongst the most common forms represented. Both the color, form and strap handles (Baker, 1969: 20, 24, 29) are possibly similar to Type 10B fragments from the Tortugas shipwreck collection.
Originally described as Colono-Indian ware and Hispano-Indigenous Ware, the Panamá La Vieja assemblage was attributed to native potters influenced by European cultures. Believed to have been used in Spanish kitchens in conjunction with Spanish utilitarian wares for food preparation and storage, it was initially interpreted as the only pottery that was available to the majority of Indian slaves and servants in the town (Baker, 1969: 19; Gaitan Ammann, 2012: 284). Contrary to this preliminary indigenous attribution, the colonoware recovered from more recent excavations at Old Panama is identified as the product of people of African descent due to stylistic and technological features similar to a wide range of West African pottery traditions, including the distinctive Jamaican yabba (Gaitan Ammann, 2012: 284-5).

Panamanian low-fired earthenware, described as Hispano-Indigenous ware and later redefined as Creoleware (Gaitan Ammann, 2012: 284), ranges in color from tan to dark brown, often having a reddish wash that is sometimes burned. The pottery forms most frequently represented include globular pots or jars with relatively long, wide and everted rims and others with short, narrow rims and wide, flat ring handles, as well as bowls in a number of different sizes from very small to quite large. Baker’s work describes the most common Panamanian colonoware represented as undecorated red-buff colored sub-globular bowls with loop or strap handles intended for food preparation (Baker, 1969: 20, 24, 29). Most of the fragments show evidence of exposure to smoke or fire, indicative of a cooking function (Gaitan Ammann, 2012: 285).

Creoleware constitutes between 18% and 63% of the ceramic assemblages excavated in Old Panama. The earthenware recovered from one large slavers’ compound, in particular, La Casa de los Genoveses, is especially revealing. This structure included the residence of agents who worked for two Genoese bankers, who were also major slave traders. The site annexed a succession of warehouses and a small infirmary, where many African slaves died after being forcibly transplanted through the Panamanian Isthmus (Gaitan Ammann, 2012: 5, 8, 35, 286).

Although the frequency of Creoleware from the slavers’ site is relatively low, representing only 11% of all pottery, a concentration of charred fragments was excavated from the service area of the house and along the courtyard walls associated with the warehouses to the rear of the domestic compound. The lower concentration of colonoware in Spanish living spaces (Gaitan Ammann, 2012: 286), compared to its higher occurrence in work areas associated with enslaved African laborers, is consistent with the archaeological record from Puerto Real, Cuba’s Casa de la Obra Pía and the Tortugas shipwreck, which reveals a distinct social division in the users of this coarse earthenware.

Like the case of Puerto Real, and as documented throughout much of the Caribbean, it appears quite plausible that the production and use of these Creolewares is attributable largely to enslaved people of African descent (Gaitan Ammann, 2012: 285-6). In this instance first brought to Panama in the early 16th century, no doubt in response at least partly to the demise of the indigenous population, many of whom fell prey to European diseases or could not withstand the Spaniard’s forced labor, particularly in the mines (Robe, 1960: 3).

While it is impossible to demonstrate that the Panamanian coarse earthenware potters were of African descent, the fact that throughout the 1600s 80% of the population of Tierra Firme derived from Africa certainly provides strong evidence. A further point of relevance is the fact that Panamanian Creoleware bears similarities to a wide range of West African pottery traditions expressed, for example, in the distinctive style of the Jamaican yabba (Gaitan Ammann, 2012: 285-6), a coarse, low-fired earthenware produced by African Jamaicans as early as 1692 and up to the present day. Handmade and sometimes glazed or slipped, the yabba form generally “refers to a large restricted-orifice, direct-rim bowl used to cook stews, rice and fried foods” (Hauser et al., 2008: 124). Examples have been recovered from archaeological contexts associated with laboring and enslaved peoples of African descent (Hauser et al., 2008: 124).

Panamá la Vieja was founded in 1519 and abandoned after Henry Morgan’s raid in 1671 (Schreg, 2010: 137). The Isthmus of Panama was the first major arrival point for African slaves, particularly those from West Africa (Boyce Davies, 2008: 744), and became the largest slave market of all New World Spanish colonies (Mirza, 2007: 99; Gaitan Ammann, 2012: 6-7). Excavations at Panamá la Vieja have uncovered a slave market (Baker, 1969: 5), and some scholars have argued that African slaves represented 76% of the city’s entire population during parts of the 17th and 18th centuries (Boyce Davies, 2008: 744). In the 1600s the slave population may have numbered more than double the Europeans in town (Gaitan Ammann, 2012: 255).

Unlike other regions of the Americas, slavery in Panama was not linked to plantation life. Most enslaved blacks were imported to work in the mining industry, the most important local economic resource. Black slaves were also exploited to build roads, churches and monasteries, and served as domestic servants (Boyce Davies, 2008: 744), a role that would have demanded cooking responsibilities, a reliance on food preparation and cooking pots that were culturally familiar.
The first Spanish settlement on the Pacific coast of the Americas, Panamá la Vieja served as a crossroads for international travel and trade. The ‘El Camino Real’, the Royal Road, facilitated the transport of South American treasure, supplies and other commodities by mule from the city of Panama to Portobello in the Caribbean, where the Tierra Firme fleet sailed prior to converging with the New Spain fleet in Havana for the voyage back to Spain (Baker, 1969: 3, 70, 71, 73). Given these traditional trade routes, both by land and sea, it is geographically possible that the Tortugas colonoware assemblage could have originated in Panama.

9. Jamaica
As on Hispaniola, Cuba and the other islands of the Greater Antilles, European diseases were also responsible for the disappearance of Jamaica’s native population. Africans were first brought to the island in the 16th century: as early as 1513, Juan de Esquival requested the king’s permission to bring three enslaved Africans to Jamaica due to a shortage of indigenous labor. Spain’s reliance on African labor increased throughout the 16th century, so that by the mid-17th century Jamaica – now under British control – had become the crown’s most valuable overseas possession. Enslaved African labor was relied on in sugar, cotton and indigo plantations, as was the case across the British West Indian colonies (Hauser, 2013: 58).

Throughout the central region of Jamaica, significant quantities of low-fired earthenwares referred to as yabbas have been found in 17th, 18th and 19th-century contexts, including domestic contexts associated with the dwellings of enslaved Africans, the house yards of slave villages and middens from Planters’ homes. Certainly by the 18th century this pottery was one of many items in circulation amongst enslaved and freed peoples of African descent and appears to have been an important commodity in the informal market economy on the island (Hauser et al., 2008: 128, 132, 133).

Referring to the pottery form, the term yabba is believed to derive either from the Twi word ‘ayawa’ meaning earthenware dish or a local Arawak word for ‘Big Mouth’. This local coarse pottery was used by people of African descent, and, based on the ethnographic record, was the product of enslaved women who made the pots using systems of knowledge learned from their mothers, which in some cases had been brought with them from Africa. Modern descriptions of 20th-century pottery production by female Afro-Caribbean potters in Jamaica in fact relate to coiled clay pots that were smoothed with a piece of wood and evened with a scraper, followed by burnishing and then firing with green wood. The pots may be slipped, glazed or untreated. The connection to colonial potters is evidenced in similarly coiled pots that have been recovered from 17th-century Port Royal (Hauser et al., 2008: 125-26).

Caution must be exercised, however, because referring to a distinct type of yabba or colonial Jamaican ceramic misrepresents the archaeological record and the variation in production strategies that co-existed. Further, “Even if the ceramics illustrate some uniformity, they would not represent the diversity of peoples arriving in Jamaica between 1665 and 1897” (Hauser et al., 2008: 133), a point that once again illustrates the difficulty in establishing a distinct cultural affiliation with this pottery production.

10. Lesser Antilles, West Indies
Corresponding to the growth in the African population in the Caribbean’s Lesser Antilles, colonoware appeared comparatively late in these islands (Deagan and Cruxent, 2002a: 293). Historical evidence confirms its manufacture and use by slaves in the latter half of the 17th century and possibly earlier (Hamilton and Hodges, 1995: 407-8). Crude earthenware colonoware, frequently called Afro-Caribbean ware, has been recovered from Nevis (Meniketti, 2011: 1), a small island that forms part of the Leeward Islands chain of the West Indies claimed by the Spanish, but settled by the English in the early 17th century (Hubbard, 1993: 13-15). Nevis served as a waypoint in the slave trade from Africa and was often the first stop in the New World for tens of thousands of Africans bound for the Caribbean and North America. The island’s colonial economy was dominated by sugar plantations supported by enslaved Africans drawn from myriad tribes and kingdoms. As a result, the local manufacture of Afro-Caribbean wares very likely incorporated elements from different ethnic groups (Meniketti, 2011: 1-3).

Dated later than the colonoware from the Spanish colonial settlements discussed above, Nevis’s low-fired coarse pottery was embedded within an entirely different socioeconomic context. The examples recovered – the earliest dating to 1700 – are comparable to the colonoware from Jamaica and Antigua (Hauser and Handler, 2009: 1; Meniketti, 2011: 4-5), and comprise shallow platters, bowls and jugs of robust proportion. Hundreds of dark reddish to brown colonoware sherds have been collected from different contexts on Nevis and are frequently found in planters’ homes, where they possibly functioned as pantry wares for food storage provisions. However, they are not confined to household utilitarian ware or limited to slave quarters. Excavations at the Bush Hill Estate in St. John Parrish, served by as many as 100 enslaved Africans, have produced numerous colonoware sherds disassociated
from distinct Afro-Caribbean households. Colonoware sherds were recovered across the site, but primarily in the industrial zones, the largest quantities deriving from the blacksmith’s workshop and the boiling room units (Meniketti, 2011: 4-5).

Also part of the Leeward Island chain, St. Eustatius or Statia has similarly yielded quantities of Afro-Caribbean pottery including 1,300 sherds excavated from a 19th-century dump found within an 18th-century synagogue. The majority of vessel forms identified were pots with everted rims and rounded bases. Other forms include jugs, dishes and bowls, as well as loop, lug and strap handles (Heath, 1999: 200, 209), the latter of which are seemingly similar to the Tortugas shipwreck examples associated with the Type 10 griddles.

By the last decade of the 18th century, St. Eustatius was home to approximately 2,400 whites representing less than half the island’s nearly 5,500 individuals of African descent: 4,844 slaves and 511 free blacks. Visitors to the island provide no direct descriptions of the production or sale of handicrafts, including pottery made by the enslaved. However, a number of historical documents clarify that slaves could use allotted time to cultivate provision grounds to collect raw materials and fashion pots (Heath, 1999: 205).

Documentary evidence includes punitive legislation that strongly suggests that by the latter part of the 18th century, and possibly earlier, both rural and urban African slaves were participating in an internal market, which involved regularly operating canoes to transport goods between islands (Heath, 1999: 203, 204-5). Regulations attempted to discourage smuggling through warnings of punishment for “the head of a canoe, if he is a slave” (Heath, 1999: 203). Both free and enslaved blacks apparently participated in the internal market, as did their counterparts throughout the Caribbean.

Further contributing to the Afro-Caribbean pottery record in the Lesser Antilles are the cooking pot forms and flat griddles, including rare intact vessels, recovered from pre-emancipation sites on Antigua (Heath, 1999: 201) and associated with British colonial military sites dated to c. 1760-1834. Afro-Caribbean ceramics have also been collected from plantation sites around the island, most notably Betty’s Hope, which was established c. 1650-60 and operated into the early 20th century, well after emancipation in 1834.

Afro-Antiguan pottery is produced today in one village in the center of the island, where the potters are all women and the pots are coiled, modeled and open-fired (Petersen, 1999: 167), replicating traditional potting and firing techniques. Two forms of cooking pot and shallow bowls have been reported from St. Croix, while two plantation sites and a cemetery in Montserrat have yielded similar hollow forms. The pre-emancipation pottery record in the Lesser Antilles illustrates the prevalence of the two most common Afro-Caribbean vessel forms, although other styles including cassava griddles were also manufactured (Heath, 1999: 201, 207, 217).

Unlike other colonial contexts in North America, where colonoware largely disappeared from plantations by the early 19th century (Orser, 1996:118), Nevis and a number of other Caribbean islands, including Jamaica, Martinique, Barbados, Antigua, St. Lucia, and St. Kitts, continued to support a community of potters of African descent, who manufactured traditional ceramic forms with unequivocal connections to comparable hand-built open-fired pottery of the colonial period that was derived primarily, if not solely, from African origins. Intended for household use as well as internal and inter-island trade, the production of this pottery persists into the present day in a number of island contexts (Petersen et al., 1999: 162, 190; Hauser et al., 2008: 124; Ahlman, 2008: 109; Hauser and Handler, 2009: 1; Meniketti, 2011: 5).3

11. Spanish Florida
Colonoware is commonly encountered on North American sites throughout the Spanish Borderlands (Vernon and Cordell, 1991: 316), and is well represented on Spanish mission sites in La Florida, where it first appeared in the late 16th or early 17th century. In these contexts it was seemingly produced largely for Spaniards and, according to some scholars, often served as substitute vessels when preferable imported Spanish-style tablewares such as maiolica were unavailable (Rolland and Ashley, 2000: 37). As in the case of 17th-century Apalachee Province, while the evidence does not suggest that colonoware was produced exclusively for Spanish use, those vessels that apparently imitated European forms included pitchers and brimmed plates. Such wares have been referred to as ‘copywares’ (Vernon, 1988: 76, 80). Colonoware forms directly identified with traditional maiolica vessels include bowls with footrings as well as brimmed plates (Rolland and Ashley, 2000: 50).

Colonoware pottery is most often associated with Hispanic residents, having been recovered largely from Spanish households and friars’ residences, but is also found in Native American living areas (Rolland and Ashley, 2000: 37). While these ‘mission’ wares were produced using traditional native techniques to replicate European vessel forms, they typically exhibit variability in form, paste and surface treatment amongst different indigenous groups.
(Rolland and Ashley, 2000: 55). Studies in the distribution of colonoware recovered from 17th-century Spanish mission sites in the Apalachee Province of Florida offer revealing insights into which elements of Indian-Spanish society in the missions used the wares.

The 17th-century mission settlement of San Luis de Talimali yielded large quantities of colonoware from the Spanish Village, including at least one apparently high-status household. Significantly, the colonoware recovered from the village equals the percentage of imported ceramic from this context, suggesting mass use either by Spaniards or their Apalachee wives and servants or both (Vernon and Cordell, 1991: 316, 318, 326). Relatively large quantities of colonoware were similarly recovered from Fort San Luis, a Spanish military context that housed Spanish soldiers, but also served as a shelter for the entire population during the British-led attacks of 1704 (Vernon and Cordell, 1991: 316-18).

Indigenous ceramics also comprised the major part of the material assemblages from Spanish households in colonial St. Augustine. However, unlike the colonoware from the Spanish mission sites, the St. Augustine wares appear to have been adopted by the Spanish colonists with few concessions to traditional Spanish vessel form (Deagan, 1987: 104). The data obtained from Spanish Florida thus seem to support the theory that colonowares were largely made by the indigenous Indians for the use of Spaniards in order to supplement imported Hispanic tablewares and serving vessels in short supply (Vernon and Cordell, 1991: 316).

12. Colonoware & Shipwrecks
Colonoware is uncommon amongst published shipwreck assemblages. This pottery tradition is unattested on the St. John’s wreck of Spanish identity sunk off the Little Bahama Bank soon after 1554 (Malcom, 1996) and absent from the Emanuel Point I ship from the flota of Tristán de Luna lost during a hurricane in 1559 during the first European attempt to colonize Florida (Smith et al., 1998). A small globular pot from the Spanish-operated Western Ledge wreck, Bermuda, dated to the last quarter of the 16th-century, resembles the general shape of the Tortugas wreck’s Type 9A, Rim Style C (Watts, 1993: 120, fig. 24).

The comprehensive analysis of pottery associated with the 1588 Spanish Armada wrecks off Ireland ascertained that Merida-type cooking wares manufactured in south-west Spain and south-east Portugal were exploited for cooking and food preparation (Martin, 1979: 288, 290-91). Colonowares are equally absent from selectively published assemblages from the Spanish galleon Nuestra Señora de la Concepción, sunk off Hispaniola in 1641 (Borrell, 1983: 112), and the 1715 Florida fleet.

Colonowares are most conspicuous from shipwreck data outside the Tortugas collection in the form of up to seven separate vessels from the Atocha, also part of the 1622 Tierra Firme flota returning to Seville and sunk off the Florida Keys (Marken, 1994: 210-15) (Fig. 39). Tortugas Type 9A Rim Style A (Fig. 6A), Type 9A Rim Style B (Fig. 6B) and Type 9A Rim Style C (Fig. 6C) are all attested on the Atocha (Fig. 39). Tortugas Type 9A Rim Style D and Types 9B-9E, as well as the Type 10 shallow griddle form with loop handles, are not represented (Marken, 1994: 210-15). Colonowares similar to the Atocha examples have been recorded off Bermuda and in Lake Petén, Guatemala (Marken, 1994: 210-15).

Nine fragments of ‘aboriginal’ ware were recorded on the Santa Rosa Island shipwreck, interpreted as the Nuestra Señora del Rosario y Santiago Apostol, a large frigate and former flagship of the Spanish Windward Fleet. The vessel was lost in a hurricane of 1705 shortly after arriving at Presidio Santa María de Galve, near the modern city of Pensacola, Florida. Colonoware cooking vessels of the Tortugas and Atocha shipwreck forms have not been identified on wrecks in Spanish waters, where recorded cooking wares (also with handles) are unanimously glazed and superior in technological proficiency. The Tortugas type of colonoware cooking products has no parallels within Spain’s European Atlantic façade (pers. comm. Miguel San Claudio, 26 June 2013).

13. Conclusion: African Maritime Slavery in 1622?
Colonoware undoubtedly may be the simplest medium of pottery encountered across vast distances in all colonial Spanish contexts, but its interpretation has proven multifaceted. Depending on chronology and geographic and social context, this pottery form has been attributed to Native Indians, African slaves and a demographic mix of both for use by indigenous and colonial Spanish populations alike.

The Tortugas Type 9 range of large and small globular cooking pots with everted rims, as well as at least one example with an inverted rim, are the most common colonoware forms identified in the archaeological record, where they are typically associated with food preparation and cooking. Pottery documented at New World sites leaves no doubt that while the Spanish relied on traditional forms when available, most conspicuously Spanish, Italian and Mexican tin-glazed tablewares, for the highly visible landscape of food service indigenous copywares (also known as colonowares) were suitable in some contexts, particularly when favored European imports were unattainable. Non-Spanish Native American and African-produced cooking forms were acceptable and even relied on within more concealed cooking environments (McEwan, 1992: 104).

Cooking pots and griddles similar to Tortugas Types 9-10 are found throughout much of the Caribbean, including Concepción de la Vega and Puerto Real on Hispaniola, Nueva Cádiz in Venezuela and on Cuba (Deagan and Cruzant, 2002a: 292-93; Knight, 2010: 38), as well as Jamaica, where the vessels – many recovered from early 17th-century historic contexts – are either untreated, glazed and slipped (Hauser, 2008: 140-47). Several of the Tortugas cooking pots with everted rims bear some similarity to Puerto Real ‘Christophe Plain’ collared rim colonoware produced by enslaved Africans (Smith, 1995: 359), and possibly to forms found in Jamaica identified as Afro-Caribbean ware (Hauser, 2008: 142, 145).

Multiple African ethnicities have been identified for much colonoware dating especially after the mid-16th century. Certainly the generic Tortugas Type 9A, Rim Style C form was used in the Kabambienne tradition in northern Upemba, Zaire, by the end of the 14th century (Van Notten, 1978: 43-4, fig. 19). The scalloped rim decoration on the Tortugas Type 9D, Rim Style G globular cooking pot can be traced to long-lived West African potting traditions. Wide, shallow carinated bowls, mostly with rounded bases, from Bantama, near Elmina in Ghana, incorporated scalloped rims. This small stone fort of 19th-century Dutch construction has been identified as Veersche Schans and overlies undated earlier occupation (Calvocoressi, 1977: 129, fig. 5.3). Cooking bowls (isaasun) with everted and fluted rims intended for soup/stew are also attributed to the Yoruba of western and northern Nigeria (Monroe et al., 2012: 232).

The Tortugas wreck’s cooking pot forms appear to exhibit a likeness to a heterogeneous group of historic Afro-Caribbean colono pottery, which despite having few common attributes nonetheless possesses the following characteristics: the pots are neither European nor Native in form, they serve a primarily utilitarian function, and are stylistically generalized with little or no decorative features (Hauser, 2010: 117). While the precise origins of the Tortugas colonowares can only be a matter of educated conjecture, evidence for ultimate African roots is compelling: the core trio of colonoware shapes found across the Americas and Caribbean region, and replicated on the Tortugas wreck, matches precisely food preparation and consumption assemblages tied to West Africa (Deetz, 1993: 89). While colonowares appear to have met the Spanish preference for large open-mouthed bowls that could withstand long periods over an open fire (Smith, 1995: 373),
and a medieval cookery tradition characterized by liquid-based stews or pottages (McEwen, 1988: 63), the use of hollowware, identified on plantations throughout Virginia, the more southern colonies and across the Caribbean is consistent with West African culinary traditions, which catered for the preparation and serving of soups and stews (Fennel, 2011: 13). For example, large and small globular pots from South Carolina and the shallow bowls fit precisely pottery assemblages found all over West Africa that are associated with basic food preparation and consumption needs: the larger pots were typically used to prepare starches, such as manioc, samp and rice, while the small bowls were reserved for vegetables, meat or fish (Ferguson, 1980: 89). In the West Indies the evidence suggests that African-derived slaves (and possibly free blacks as well) commonly produced and used Afro-Caribbean pots for the preparation of boiled meats, while the one-pot meal or ‘pepper-pot’ appears to have become part of a broader West Indian cuisine that integrated Native American, African and European traditions (Heath, 1999: 217).

Colonial-era griddles were produced by Indians indigenous to the circum-Caribbean region, but large quantities recovered throughout much of the West Indies also bear testimony to African cultural traditions, specifically the baking of cassava. Clay cassava griddles are present in small quantities at Puerto Real, Haiti, where African slaves had largely replaced the indigenous Taino Indian population by the mid-16th century (Smith, 1995: 350-51). The excavation of sugar plantations in Antigua and Barbuda, where African slaves were purportedly engaged in pottery making throughout the 18th and 19th centuries, has yielded low-fired, multi-sized globular vessels with everted rims (seemingly similar to the Tortugas Type 9), as well as round forms analogous to Tortugas Type 10 griddles produced by the Amerindians (Hauser and DeCorse, 2003: 71; Agorsah, 2006: 76).

A New World crop with its origins in the lowland humid tropics of Central and South America, cassava was widely cultivated throughout the Americas and the Caribbean by the time European colonists arrived in the 15th century. Slave traders introduced it to West Africa from Brazil in the 1500s, and in turn it was subsequently introduced to Central Africa along trade routes from the Congo (Hershey, 1985: 1, 6; Whyte, 1985: 147; Kupperman, 2012: 80). From the mid-16th century throughout the course of the 17th century, cassava became the dominant cash crop, serving as food for European colonists aboard ships and, above all, amongst African slaves (von Oppen, 1999: 48). As both the archaeological and historical records attest, Africans brought to the Caribbean and the Americas were equally familiar with cassava as a food staple as were the indigenous Indian populations. Both were dependent on the production and use of cassava griddles for preparing bread and other foodstuffs.

In describing Christopher Columbus’s journey from Espanola to Spain in 1496, Ferdinand Colon recounted how the fleet’s crew took cassava “dough” from the Indians of Guadalupe (Deagan and Cruxent: 2002a: 170-71), having “made enough bread to satisfy their needs… and having an equal amount already on board the ships” for the duration of their voyage (Deagan and Cruxent, 2002b: 134-5). Both the historical and archaeological record, including the recovery of the remains of at least four identifiable griddle
pans from the Tortugas wreck, may thus suggest that between the 15th and 17th centuries cassava bread remained a staple shipboard foodstuff relied on for sustenance during colonial Spanish seafaring throughout the Caribbean and homebound across the Atlantic. The Tortugas Type 10 griddle, however, would be expected to have possessed a multi-function capability for cooking a variety of foods.

The totality of evidence points towards a predominant African inspiration underlying the production and use of colonoware on the Tortugas ship (see below). Historically it must be born in mind that within a few years of Vasco Núñez de Balboa's discovery of the Pacific in 1513, most native populations were reduced to as little as 10% of their former number. This demise coincided with the arrival of the first major shipments of African slaves from northwest Africa to cities like Panama (Schreg, 2010: 138). Direct European inspiration is largely non-compelling, certainly in terms of colonowares’ fabric and firing method. The Mediterranean tradition of cooking pots manufactured in the Triana district of Seville since the 12th-14th centuries, where the majority of the Tortugas ship's tablewares were manufactured (Kingsley, 2014), are stylistically unrecognizable from the ship’s colonoware shapes (Vera Reina and López Torres, 2005: 203-19). Puchero stewing pot forms excavated from both the 16th-century Augustinian Baños de la Reina Mora convent site in Seville and in 17th-century Calle Salinas in Malaga are equally absent on the Tortugas shipwreck (McEwan, 1988: 103, 105, fig. 3.7; Pérez-Malumbres Landa and González-Hernández, 1991: 8, pl. 10.64).

Extensive double-handled and charred cazuela cooking pots recovered from the 16th-century Augustinian Baños de la Reina Mora convent site in Seville (McEwan, 1992: 97-9) may conceivably have been one source underlying the Tortugas Type 10 colonoware shape. The assemblage includes both deep and shallow forms (McEwan, 1988: 102, fig. 3.6), the latter perhaps corresponding to some thinking within the winding diffusionary path that led to the production of the Tortugas colonoware griddle style. Examples from Malaga display the same horizontally-set double handles, but greater vessel depth (Pérez-Malumbres Landa and González-Hernández, 1991: 8, pl. 10.46). In this interpretation the Type 10 griddles still incorporate a deep-lying European inspiration, by the early 17th century profoundly mixed with African traditions.

To summarize, in stark contrast to the dominance of Seville tin-glazed plates used for eating at table, the pottery used for cooking the crew's food on the Tortugas ship, identified as the 117-ton Buen Jesús y Nuestra Señora del Rosario, consisted of immensely rudimentary vessels whose functional crudity would not be out of context in prehistoric settings. The tradition is neither European, nor Mediterranean. The same range of cooking wares was exploited on the Atocha in the same Seville-bound 1622 Tierra Firme fleet. Whereas this ethnically traditional colonoware is highly recognizable on Spanish colonial settlements and terrestrial sites across the New World from Florida to Venezuela, it is almost unknown from other 16th to early 18th-century Spanish shipwrecks, albeit of limited number published to date and largely associated with comparatively poorly preserved ceramic assemblages.

Although the origin of the Tortugas ship's colonoware production has not been determined, Inductively Coupled Plasma Spectrometry (ICPS) conducted for this study determined that the pottery is characterized chemically by very high sodium content typical of Valley of Mexico pottery, which tentatively may be identified as a possible source (Hughes, 2013). If correct, it is tempting to propose that these wares were purchased at Havana, the regional collecting point for colonial re-exports, where returning Spanish ships converged for supplies and into the port of which Mexican products could easily have been shipped through inter-regional trade (Kingsley et al., 2012: 94).
Based largely on geographical connectivity, the proximity of Puerto Real on Haiti to Cuba, and the similarity of its Christophe Plain bowls featuring handles representative of the Tortugas Type 10 griddle assemblage, may hint at another potential source of production. Vessels of identical color and form to the Tortugas colonowares excavated at Panamá La Vieja, including examples with loop handles, make this an additional possible source given the port’s intimate relationship in loading treasure on the 1622 fleet. Given the reality of localized production, however, it is probable that every major region and settlement produced colonoware. Regional styles are yet to be identified within the broader circum-Caribbean world. Meanwhile, attempts to interpret origins should be considered highly tentative because the published record is disparate and selective.

Colonoware is an exclusive signature of indigenous production linked to Native Americans in contact with early colonial settlements and increasingly in the 16th and 17th centuries to African slaves. An association with African diaspora populations unifies much of this disparate group of ceramics (Hauser and DeCorse, 2003: 67). While caution should be exercised in defining all colonoware as a cultural expression of slavery, in the case of the Tortugas and Atocha shipwrecks of 1622 the available evidence does point towards the presence of African slaves involved in preparing meals. This is a function of New World colonoware that has not been recognized or discussed to date, but whose historical implications warrant serious consideration.

The enforced migration of vast numbers of slaves through the Middle Passage from Africa across the Atlantic is one of the defining characteristics of the triangular slave trade ending in Europe (Morgan, 2010). A hypothesized responsibility for cooking on Spanish ships is in line with the extensive duties that slaves assumed from the hearth to the sealanes. The increasing reliance on Africans was in part a political requisite following Spain’s over exploitation of indigenous Indian populations and became economically necessary after Spain successfully transplanted the sugar cane industry from the Canary Islands to the Caribbean in 1522 (Guitar, 2006: 42).

Although expensive to ship to the silver mines in the interior of New Spain and Peru, documentary statistics for 1600 demonstrate that whereas just under 70% of workers were Indian wage workers, 14% comprised enslaved Africans and their descendants. Just as they found themselves in ancient Rome, some Africans at Potosí took the place of...
mules to push the mill wheel at the Casa de la Moneda. In New Spain over 800 enslaved Africans worked in the silver mines of Taxco in 1569, while most underground silver mining at Honduras was conducted by enslaved Africans (Jefferson and Lokken, 2011: 99).

A census ordered by Archbishop Alonso de Avila of Santo Domingo reveals that by 1533 a total of 1,880 Africans, 412 Spaniards and 200 Indians lived within the island’s 23 ingenios. By 1542 around 25,000 to 30,000 Africans worked on the island compared to only 1,200 Spaniards. Conditions were managed in an attempt to prevent the huge numbers of African slaves in Latin America from simply walking off the job. In a royal cédula dated to 9 November 1526, the Church recommended that Africans could be made more compliant if they were allowed to marry and work for wages, with the conceivable goal of eventually buying their freedom. A year later the Spanish crown recommended that a wife accompany every African slave sent to the Indies to prevent slaves rebelling and fleeing (Guitar, 2006: 41, 42, 47, 51, 53).

Fig. 45. A Missionary House in Paraguay with a hut, dwelling, fire for cooking, and cooking pots. From A Visible Display of Divine Providence; or, The Journal of a Captured Missionary, Designated to the Southern Pacific Ocean... (London, 1800). Photo: John Carter Brown Archive of Early American Images 36221-4.

Fig. 46. View of a Kingston street in Jamaica, 1904, including a woman selling local traditional pottery on a sidewalk. Photo: National Anthropological Archives/Human Studies Film Archives, Smithsonian Institution.
Most enslaved Africans sent to the Americas in the 17th and 18th centuries were born in the Bantu-speaking regions of West Central Africa, comprising the Kingdom of Kongo, the Portuguese colony of Angola and their hinterlands, amounting to around 85% of the total volume displaced. Of approximately 467,000 slaves shipped to Latin America in these two centuries, around 42,240 came from West Africa, 352,590 from West Central Africa and 6,096 from Southeast Africa. Sources included Senegambia and the upper Guinea Coast, north of Liberia, also along the Gold Coast and the Bight of Benin and the Bight of Biafra, specifically the ports of Elem Kalabari in the Niger Delta and Old Calabar on the Cross River (Lovejoy, 2006: 11, 24, 25).

In the absence of human bones on the Tortugas wreck on which lead isotope or DNA analyses could be conducted, the possible origin of African slaves in the 1622 fleet is a matter of conjecture. However, historical sources indicate that after 1575, when Paulo Dias de Novais arrived in Angola, this Central African region forcefully developed its relationship with the slave trade. Portuguese slavers based in Angola obtained the asiento to transport blacks to the Spanish possessions of the New World in the 1590s. Beneficial political conditions improved further under the governorship of Luis Mendes de Vasoncelos in Angola from 1617-21, who forged intimate relations with Madrid and enslaved 50,000 people in his three-year term (Thornton, 2006: 88-9). Total numbers of Spanish slaves from the Iberian Peninsula bound specifically for Angola never fell below 71% in the five years after 1615, peaking at 93% by 1636-40 (Boswer, 1974: 39). Angola emerges as one conceivable option for the origin of African slaves in the 1622 fleet.

A two-tiered system of African slavery existed in which Spanish-speaking Catholic ladinos filled a wide range of urban domestic, artisan and lower-status economic roles from tailoring to masonry. Urban slaves generally received better treatment than their rural counterparts, being permitted to work for themselves by hiring out their services on Sundays and feast days (Landers, 2006a: 3). Unaculturated African slaves were referred to as negros bozales (Phillips, 1985: 185). Within Spain, by the late 15th century Isabel and Ferdinand had appointed a royal servant of noble black lineage, Juan de Valladoid, to regulate Seville’s large black population and to serve as its chief and judge. The monarchy thus formalized an administrative model for ruling Africans using their own leaders, a structure that was transplanted into Spanish America (Landers, 2006b: 113).

The presence of African slaves on the Tortugas ship would not be unexpected within the world of early 17th-century slavery. Even though colonoware pottery has not been identified in Seville itself, African slaves were a common sight along its streets. Contemporary Spaniards wrote that the city resembled a giant chessboard containing an equal number of black and white figures. Slaves were owned across society by the nobility, rich merchants, physicians, lawyers, apothecaries and clergymen. They were employed in kitchens, laundry rooms and stables, and served as doorkeepers, nursemaids for children, attendants to adults, valets, porters and waiters. Merchants tended to be accompanied by black slaves during their daily duties, and as early as 1502 Seville merchant Juan de Córdoba entrusted his African slave and two other agents with selling his merchandise on Hispaniola. Maintaining domestic slaves for hire was an excellent capital investment, where they were hired out to the soap factories centered on Triana and worked as stevedores along Seville’s waterfront (Pike, 1967: 345, 349-50, 353-54). According to the census of 1565, Seville had 6,327 slaves out of a total population of 85,538 people – one slave for every 14 inhabitants (Pike, 1972: 172).

Evidence of African slaves operating within the Spanish colonial maritime world is limited, although their presence must have been significant based on various anecdotal evidence. Afro-Iberians worked as labor for the 1578 to early 1630s galley squadrons based in Cartagena, Santo Domingo, and Havana (Wheat, 2010: 328, 333). Shipmaster Francisco Hernández Moreno listed in 1570 amongst his
valuable domestic belongings in Triana, Seville, one black female slave and a silver cup and tumbler, while Juan de Escalante de Mendoza's *Itinerario de Navegación* of 1575 specified that upon abandoning ship, first gold, silver and pearls should be thrown into the ship's boat, secondly women and children, the old, sick and priests, thirdly all passengers and slaves, and fourthly the youngest pages and oldest and weakest sailors (Pérez-Mallaína, 1998: 16). Saving slaves before sailors reflected both a shipboard presence and their perceived value as commodities. In 1580, Diego Bello, a Seville resident who had just returned home from a trip to Peru, freed his slave Tomé because of "the services that the said slave had rendered him, especially on the voyage from Peru, in addition to the payment of 100 pesos" (Pike, 1972: 183). The presence of black slaves on ships accompanying merchants and masters would not be unexpected.

If evidence of maritime slavery is an accurate interpretation of the Tortugas shipwreck’s colonowares, was this a preference or short-term necessity? The absence of similar cooking wares on most 16th- to early 18th-century Spanish wrecks currently favors the idea that circumstances encountered in 1622 were perhaps not typical in terms of long-term history. However, the co-existence of colonowares on the larger flagship the *Atocha* is indicative of a regularized trend during at least this voyage and presumably this period, rather than purely the personal preference for African slaves of Juan de la Torre Ayala, owner of the *Buen Jesús y Nuestra Señora del Rosario*.

There is no reason to argue that any slaves on the 1622 Tierra Firme fleet were part of a formalized Carrera de Indias maritime policy. Rather they may be interpreted perhaps primarily as the personal property of *flota* merchants and officers, toiling to process meals below decks, and then cooking food in the open air. The galley typically comprised a metal firebox (*fogón*) situated in the open waist of the ship near the gunwale to maximize protection from the wind. Firewood was stored in the forward hold. Sailors went to the stove to receive food, which was eaten using a sailing knife and perhaps a wooden spoon (Smith, 1993: 144).

A document in Seville's Archivo General de Indias dated to 1577 (AGI *Indiferente General* 2498) recommended that for an above average sized galleon of 550 tons, 25m long and with a 9m beam, two cookstoves should be located on each side beneath the castle, built of firebricks and separated from the deck with sand to prevent fire spreading. Conditions at sea were extremely cramped. The majority of the crew ate off sea chests covered with cloth, as Eugenic de Salazar explained in 1573 in *Mar Descrita por los Mareados* (Pérez-Mallaína, 1998: 143):

> "With the sun already on high, I saw two of the said pages bring from below deck a certain bundle that they called tablecloths, arranging them in the waist of the ship… then they heaped on this table some small mountain of ruined biscuit, so that the biscuits on the tablecloths looked like heaps of dung in a farmer's field… After this they put three or four large wooden platters on the table, filled with stringy beef joints, dressed with some badly cooked tenons… In the twinkling of an eye, all the mariners arrived, saying 'Amen', and seated themselves on the ground… one with his legs behind him, another sticking is legs forward; this one squatting; that one reclining…"

Officers customarily carried their own cooking implements, such as pots, roasting spits and frying pans, which their servants used to prepare their food. Only the master, pilot, captain and high-status passengers dined in their chamber 'to the table' (Pérez-Mallaína, 1998: 131, 134, 142-3, 152). The presence of higher status dining equipment on the Tortugas ship is reflected by the Seville tin-glazed pottery and a three-pronged silver spoon (Stemm *et al.*, 2013: 77, fig. 41). As Enrique de Villena explained in *Arte Cisoria* (The Art of Carving) as early as 1423, written at the request of Sancho de Jarava, the official carver for Juan II of Castile, gold and silver forks took three distinct forms, one with two prongs, one with...
three prongs (as on the Tortugas wreck) and one with a long handle designed for use over the fire. The former were recommended “to pick up food and place it in front (of someone) without dirtying one’s hands, the same for bread or fruit, cut up or whole. And with the two-pronged forks, one can eat prepared food without staining one’s hands and with the other prong one can do other things, pick up and put down berries or nuts, sweets, green ginger and other gels.”

Given the anomalous presence of just a single brick fragment on the Tortugas shipwreck, but extensive artifacts that were presumably stored in the galley structure (astrolabes, metate grinding stone, bronze mortar and pestles, bronze cooking cauldron, gold bars and silver coins), combined with the conspicuous character of bricks on most wreck formations worldwide, it may be proposed that the small merchant vessel Buen Jesús y Nuestra Señora del Rosario relied on rudimentary portable stoves for cooking. Such stoves could have been manufactured in copper or bronze, but it is tempting to argue that the Buen Jesús exploited terracotta examples as were used traditionally on ships between the Hellenistic period and the Early Modern era, typified by examples found in fishermen’s nets off Bodrum, Turkey, and western Sicily (Leonard, 1973; Kapitän, 1980), and, for example, produced along with casseroles and cooking pots into the early 20th century on Sifnos in the Cyclades, Greece (Birmingham, 1967: 34). An in situ ceramic stove has recently been excavated within the small late 9th-century Yenikapi 12 ship in Istanbul (Özsait-Kocabaş, 2013: 50, fig. 2).

More sophisticated portable lead braziers decorated with lions and leaves have been recovered from Roman wrecks, including 20 examples from the coast of Israel (Ashkenazi et al., 2012; Galili and Rosen, 2012). Portable terracotta stoves with strap/loop handles built into the summit, as on Tortugas colonoware cooking pot Type 10A, were common in southern Spain from the 15th century (Flores Escobosa and del Mar Munoz Martín, 1995: 275, fig. 19.20). A millennia long tradition thus existed for the use of shipboard portable stoves. Portable Afro-Caribbean coalpots remain in use today, as in Choiseul, St. Lucia (Figs. 47–49).6

Two types of ceramic portable stoves, the bacín and anafe, are known from colonial Spain (McEwan, 1992: fig. 2), while large indigenous braziers produced in central Mexico were listed in book ten of the 16th-century Florentine Codex (Hernández Sánchez, 2012: 137). In a scene that could have been transported straight from life onboard the Tortugas ship, Diego Velázquez’s Old Woman Frying Eggs painted in Seville in 1618 depicts pottery and a bronze mortar and pestle of forms duplicated on the wreck, alongside the kind of portable ceramic brazier that could have been used for shipboard cooking (Fig. 40).

The discovery on the wreck of the Spanish nao San Diego, lost in 1600 off Fortune Island, the Philippines, of two identical terracotta cooking stove braseros (45 x 36.5cm) produced in indigenous Philippine clay is an important counterpoint to the Tortugas ship. The stoves demonstrate a similar reliance on traditional craftsmanship, as with colonoware, and potentially an enslaved workforce. The more expansive San Diego repertoire, however, included native Filipino cooking pots (with the same basic body shape as Tortugas colonoware Type 9 vessels) and lids, oil lamps and two-handled cups, all made from the same crude fabric and typically decorated with small chips of broken porcelain vessels (Veyrat, 1997: 166, 170-71, 173), presumably to enhance the products’ perceived status. In this stylistic regard these San Diego wares seem to imitate Hispanic Feldspar Inlaid ware (cf. Ewen, 1991: 74).

One final tangential piece of evidence relating to the hypothesized presence of African slaves on the Tortugas ship is Juan de la Torre Ayala’s involvement in the slave trade. Sources state that in May 1622 the Casa de la Contratación filed a lawsuit against him for failing to deliver three slaves to Seville picked up in New Spain by the Magdalena in 1616 (Kingsley, 2013: 134). The Portuguese were virtual monopolists on the Atlantic shores of Africa (Phillips, 1985: 182). From the 1560s and 1570s...
Portuguese commercial houses and syndicates enjoyed an ever-greater role, despite the Spanish Crown typically taking 25% of the sale price of African slaves sold in the Spanish Americas by 1590. Despite the opening up of the sale of monopoly contracts (asiento) from 1593-95, in reality not only were most merchants active within this mercantile realm Portuguese, but the procurement of slaves within Africa remained firmly Portuguese controlled (Bowser, 1974: 29-32). It is not beyond the realm of speculation that the presence of African slaves on the 1622 fleet was somehow bound up with these intimate commercial connections.

As crude and unrefined as the Tortugas colonowares appear visually when viewed alongside the ship’s lavishly decorated tin-glazed pottery, in many ways they reflect a far more compelling and certainly lesser known archaeological narrative. They are not just rudimentary objects, but symbols of oppression and the struggle for survival. In the final analysis, both the production of this pottery and the “slave trade should not be viewed solely as a movement of peoples. Africa, in all its cultural richness and diversity, came to the Caribbean as well. These forced immigrants brought their languages, cosmology, kinship systems, culinary practices, music, dance and art to help shape and leave an indelible imprint on the host societies” (Palmer, 2001: 44).

To the unexpected reconstruction of a possible Native American woman on the wrecked Buen Jesús y Nuestra Señora del Rosario, as well as the ship’s cat and a consignment of blue-headed parrots, can now be added the inclusion of hopefully sea-hardened African slaves preparing and cooking food, perhaps both traditional and Spanish, in Afro-Caribbean styled pottery with a hint of European inspiration. The proposed image of shipboard life on the 1622 Tierra Firme fleet contributes to the developing field of material culture used by and reflecting enslaved Africans and their descendants (cf. Samford, 1996; Handler, 2009).

Acknowledgements
The authors are especially grateful to our colleagues who generously found the time to review this paper and to provide insightful guidance and feedback: Dr. Jeb Card, Department of Anthropology, Miami University; Dr. Beverly Straube, Senior Archaeological Curator, Jamestown Rediscovery; Ivor Noel Hume, Former Chief Archaeologist, Colonial Williamsburg; and Ann Cordell, Staff Archaeologist, Florida Museum of Natural History, Gainesville. Dr. Patricia Fay, Associate Professor of Art, Florida Gulf Coast University, kindly shared her fascinating comparative insights into the colonoware tradition of the Early Modern and contemporary eras in the Caribbean, and provided Figs. 47-49 reproduced in this paper. Miguel San Claudio Santa Cruz of Archeonauta, Spain, advised on cooking wares discovered in Spanish waters.

Special thanks are extended to Alan Bosel for the excellent pottery photographs presented throughout this paper and to Chad Morris for helping develop the Tortugas wreck’s colonoware typology, for taking endless pot measurements and for producing the drawings in Figs. 6-8 (both Research and Scientific Services, Odyssey Marine Exploration, Tampa, Florida). The patience, support and professionalism of both friends are hugely valued. This paper was designed by Melissa Dolce, to whom we are continuously appreciative.

Notes
3. Ibid Note 1.
4. Ibid Note 1, p. 4.
5. See, www.uwf.edu/shipwreck/excel_files/Appendix_for_All_Artifacts.htm.

Bibliography
Agorsah, E.K., ‘Reconstructing the African Diaspora: Evidence and Interpretation”. In E.K. Agorsah and G.T. Childs (eds.), Africa and the African Diaspora (Bloomington, IN, 2010), (57-96).


Cook, N.D., Born to Die. Disease and New World Conquest (Cambridge University Press, 1998).

Cordell, A., Continuity and Change in Apalachee Pottery Manufacture: A Technological Comparison of Apalachee-Style and Colono Ware Pottery from French Colonial Old Mobile and Mission San Luis de Talimali (University of South Alabama Center for Archaeological Studies, Mobile, AL, 2001).


Deagan, K. and Cruxent J.M., Columbus’s Outpost Among the Taínos: Spain and America at La Isabela, 1493-1498 (Yale University Press, 2002a).

Deagan, K. and Cruxent J.M., Columbus’s Outpost Among the Taínos: Spain and America at La Isabela, 1493-1498 (Yale University Press, 2002b).


Ellis, K. and Yogers, J., Traveler’s Cuba Companion (Guilford, CT, 2002).


Falola, T. and Warnock, A., Encyclopedia of the Middle Passage (Westport, 2007).


Phillips, W.D., Slavery from Roman Times to the Early Transatlantic Trade (Manchester University Press, 1985).


Saunders, R., Stability and Change in Guale Indian Pottery, A.D. 1300-1702 (University of Alabama Press, 2000).


Smith, R.C., Vanguard of Empire. Ships of Exploration in the Age of Columbus (Oxford University Press, 1993).

External Influences and Internal Responses in the West African Frontier (PhD. Thesis, Syracuse University, 2008).


