

## The Jacksonville 'Blue China' Shipwreck (Site BA02): the Ceramic Assemblage

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Discovered in 2003 by Odyssey Marine Exploration and subjected to rescue archaeology in 2005, the Jacksonville 'Blue China' shipwreck (Site BA02), located 70 nautical miles off Jacksonville, Florida, at a depth of 370m, was an American coastal trader transporting a cargo of largely British ceramic imports between the eastern ports. The 318 vessels recovered comprise ten principal pottery types that date generally to between 1845 and 1860 and are largely of British manufacture, except for six individual pieces that originated in China, America and Europe.

The value of the collection lies in its contextual relationship as a large, closed single deposit of mainly Staffordshire imports that reflects the cultural tastes and consumer habits of middle class America in a very narrow timeframe. The internal ceramic evidence indicates a date between 1851 and 1860 for the ship's loss, while additional artifacts from Site BA02 point to a date of wreckage in 1854. No comparable assemblage has been found on the wreck of any other merchant vessel off America.

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### 1. Introduction

The survey of Site BA02 recorded a minimum of 703 ceramic vessels on the surface of the wreck (Figs. 1-10). A sample of 318 examples was recovered for study. The most conspicuous artifacts on the Jacksonville 'Blue China' shipwreck are the concentration of ceramics clustered in Area A at the southern end representing the bows: circular plates, octagonal platters, bowls, tea bowls/tea cups, saucers, creamers, sugar bowls, jugs, mugs, jars, chamber pots and wash basins (Figs. 11-87). An analysis of the distribution of these different ceramic wares across the wreck site is presented elsewhere (Gerth *et al.*, 2011). The retrieved collection has led to extensive research and the identification and dating of the wares. In turn, this has enabled their function and significance within a broader historical context to be understood. The Site BA02 ceramic assemblage represents one of the few surviving intact collections of its kind and the only example from an American coaster of this era.

Except for a few examples, the Jacksonville 'Blue China' pottery assemblage covers the full range of British tea, table and toilet earthenwares most common on North American archaeological sites of the 1850s and 1860s. From as early as the late 18th century, England dominated the world market in ceramics, which was driven by a number of significant developments: the construction of canals for transporting raw materials and finished products in and out of potteries, steam power for working clay and pottery,

and the astute marketing of creamware from which other product lines later evolved (Miller, 1988: 172-3).

The pottery industry now revolutionized, Great Britain's Staffordshire earthenwares and stonewares, in particular, were central to the home market and Europe, as well as becoming a major force in North America. In 1762 approximately 150 separate Staffordshire potteries employed 7,000 people (Barker, 2001: 73, 86). The subsequent opening of the Trent and Mersey Canal in 1777 provided the Staffordshire potteries with direct access to the sea, expediting shipments to foreign ports through Liverpool (Barker, 2001: 81; pers. comm. Jonathan Rickard, 6 December 2010). At this same time, while promising political change the success of the American Revolution had in fact little impact on British pottery imports. Plates and dishes would continue to pour in across the Atlantic following political independence and for a hundred years thereafter (Martin, 2001: 35).

By the close of the 18th century the global conquest of British ceramic wares was illustrated in glowing manner in an account by B. Faujas de Saint-Font of his travels to England, Scotland and the Hebrides, published in 1797 (Miller, 1988: 173):

"Its excellent workmanship, its solidity, the advantage which it possesses of sustaining the action of fire, its fine glaze, impenetrable to acids, the beauty and convenience of its form, and the cheapness of its price, have given rise to a



*Fig. 1. Overview of the concentration of Type 1 shell-edged earthenware in Area A looking southwest across Area G.*



*Fig. 2. Overview looking south of Type 1 shell-edged earthenware in Area A at right and trawler-impacted ceramics in Area G at left.*



*Fig. 3. Detail of Type 1 shell-edged earthenware and a stack of Type 4D white ironstone wash basins (foreground) in Area A.*

commerce so active and so universal that in traveling from Paris to Petersburg, from Amsterdam to the further part of Sweden, and from Dunkirk to the extremity of the south of France, one is served at every inn with English ware. Spain, Portugal and Italy are supplied, and vessels are loaded with it for the East and West Indies and the continent of America.”

The continued growth in the Staffordshire pottery trade further stimulated manufacture to such an extent that by 1800 the number of workers in the industry had risen to nearly 20,000 and would continue to multiply in the 19th century (Barker, 2001: 73, 76). This increased production ultimately influenced and set the standard for manufacturing throughout much of England. With the ever-growing demand for refined earthenwares and stonewares, new pottery factories were established in many parts of the country, all of which produced Staffordshire-type wares in form, decoration and methods of manufacture. In line with these developments, by 1850 Staffordshire wares were influencing trends in consumer behavior from North America to Australia (Barker, 2001: 76, 91).

Beginning in the latter part of the 18th century, continental Europe was generally the largest export market for Staffordshire ceramics. Yet by the mid-1830s this trend had shifted to America, with its expanding population providing a fast developing market for British ceramics. Ewins’s (1997) detailed study of the scale and structure of British exports has demonstrated that by 1850 the US had imported in just two decades over 30 million pieces of Staffordshire earthenware, which in 1850 totaled twice the volume of ceramics exported to Europe. Most of these wares were transported on ships loaded in the port of Liverpool, which from the 1820s was the main hub for receiving raw cotton, the largest single export from America to Great Britain. Liverpool was the most convenient port for the Lancaster textile industry and therefore attracted the greatest volume of ships carrying US cotton. This resulted in a steady surplus of vessels returning to America requiring freight for transport at competitive rates. Because of its location, Staffordshire, in particular, was able to capitalize on the port of Liverpool to a greater extent than the other British potteries. By 1857 and 1858, one-third of the pottery manufacturers in Staffordshire were allegedly involved in the American trade, increasing to one-half of the potteries in 1861 (Ewins, 1997: 5-6, 10-11, 14).

Many Staffordshire manufacturers set up pottery outlets in several US cities. As the largest port, New York boasted the greatest presence, followed by Philadelphia, Boston and Baltimore. Also essential to the transatlantic ceramics trade were the merchants, American importers and agents with whom the Staffordshire manufacturers

<b>'Blue China' Wreck Type</b>	<b>Generic Type</b>	<b>Forms</b>	<b>No.</b>	<b>Date</b>
Type 1A	Shell-edged ware (whiteware)	Dinner plates, British	105	1845-55
Type 1B	Shell-edged ware (whiteware)	Soup plates, British	35	1845-55
Type 1C	Shell-edged ware (whiteware)	Octagonal platters/ serving dishes, British	17	1845-55
Type 2Ai	Dipped wares (whiteware)	Bowls (London shape), slip decorated, British	35	1845-55
Type 2Aii	Dipped wares (whiteware)	Bowls (London shape), slip decorated, 'common cable' pattern, British	2*	1845-55
Type 2B	Dipped wares (whiteware)	Jugs, slip decorated, British	8	1845-55
Type 2C	Dipped wares (whiteware)	Mugs, slip decorated, British	4	1845-55
Type 3A	Underglaze painted whiteware	Saucers, British	27	1845-55
Type 3B	Underglaze painted whiteware	Teabowls (London shape), British	19	1845-55
Type 3C	Underglaze painted whiteware	Cream jugs, British	9	1845-55
Type 3D	Underglaze painted whiteware	Sugar bowls, British	4	1845-55
Type 3D	Underglaze painted whiteware	Sugar bowl lid, British	1	1845-55
Type 4A	White granite/ white ironstone china	Dinner plates, British	3	c. 1850-60
Type 4B	White granite/ white ironstone china	Bowls, British	17	c. 1850-60
Type 4C	White granite/ white ironstone china	Chamber pots, British	5	c. 1850-55
Type 4D	White granite/ white ironstone china	Wash basins, British	4	c. 1850-55
Type 4Ei	White granite/ white ironstone china	Salve jars, British	12	c. 1850-60
Type 4Eii	White granite/ white ironstone china	Salve jar lids, British	4	c. 1850-60
Type 4F	White granite/ white ironstone china	Small, fluted bowl, British	1	c. 1850-60
Type 5A	Dipped wares (yellow ware)	Mug, slip decorated, British	1	1850-60
Type 5Bi	Dipped wares (yellow ware)	Chamber pots, slip decorated, British	1	1850-60
Type 5Bii	Dipped wares (yellow ware)	Chamber pots, slip-decorated 'dendritic' style, British	4	1850-60
Type 6	Oriental ware (Porcelain)	Ginger jars, Canton	4	1840-60
Type 7Ai	Transfer-printed wares (whiteware)	Plate, 'Asiatic Pheasants' pattern, British	1	1850-60
Type 7Aii	Transfer-printed wares (whiteware)	Soup plate, 'Willow' pattern, British	1	1845-55
Type 7B	Transfer-printed wares (whiteware)	Sauce boat, British	1	1850-60
Type 8	Salt-glazed stoneware	Jug, New York	1	1850-60
Type 9	Salt-glazed Stoneware	Mineral Water Bottle, German	1	1850-60
Type 10	Bristol-glazed stoneware	Jar, British	1	1850-60

\* Not recovered.

Table 1. Typology of ceramic wares from the Jacksonville 'Blue China' shipwreck (Site BA02).

<b>'Blue China' Wreck Type</b>	<b>Generic Type</b>	<b>Forms</b>	<b>No.</b>
Type 1A/1B	Shell-edged ware (whiteware)	Dinner & soup plates, British	118
Type 1C	Shell-edged ware (whiteware)	Octagonal platters/ serving dishes, British	17
Type 2A	Dipped wares (whiteware)	Bowls (London shape), slip decorated, British	345
Type 2B	Dipped wares (whiteware)	Jugs, slip decorated, British	12
Type 2C	Dipped wares (whiteware)	Mugs, slip decorated, British	1
Type 3A	Underglaze painted whiteware	Saucers, British	12
Type 3B	Underglaze painted whiteware	Teabowls (London shape), British	56
Type 3C	Underglaze painted whiteware	Cream jugs, British	15
Type 3D	Underglaze painted whiteware	Sugar bowls, British	4
Type 4B	White granite/ white ironstone china	Bowls, British	10
Type 4C	White granite/ white ironstone china	Chamber pots, British	18
Type 4D	White granite/ white ironstone china	Wash basins, British	4
Type 4Ei	White granite/ white ironstone china	Salve jars & lids, British	8
Type 5A	Dipped wares (yellow ware)	Mug, slip decorated, British	1
Type 5Bi/Bii	Dipped wares (yellow ware)	Chamber pots, slip decorated, British	13
Type 6	Oriental ware (Porcelain)	Ginger jars, Canton	4

Table 2. Pre-disturbance count of ceramics visible on the surface of the Jacksonville 'Blue China' shipwreck (Site BA02). In some cases counts are lower than the volume recovered due to concealment of underlying deposits subsequently exposed by excavation.

dealt. For example, the Staffordshire-based ceramic merchant John Hackett Goddard of Longton purchased ceramics from British manufacturers, while his US partners John Burgess and Robert Dale operated the American wholesale ceramic outlets from Baltimore and New York. Goddard typically toured the Staffordshire potteries to determine what wares would best suit the American market and regularly sent out samples to his American-based partners (Ewins, 1997: 88-91, 105-107, 109).

Throughout the 19th century New York was the major port for imported wares (Miller and Earls, 2008: 70), beginning largely after the war of 1812 fought between Britain and the United States. As Albion observed in *The Rise of the New York Port, 1815-1860* (Newton Abbot, 1970), the British "settled upon New York as the best port for the bulk of their "dumping" of manufactures", which English merchants had stockpiled in Liverpool, Halifax and Bermuda during the war, awaiting the eventual reopening of the American market. New York apparently was better suited for these purposes than Boston, which had not been deprived of European goods to such an extent (Miller and Earls, 2008: 76).

By the 1850s the bulk of Staffordshire exports was handled by New York ceramic importers and dealers, who controlled the distribution network for the internal American trade. Inland and Southern dealers would frequently travel to East Coast ports to make their purchases, as reported in the *New York Commercial Record* of May 1862: "a moderately active business has been done during the past week and several out-of-town buyers have been in the market." When a buying trip was not possible, regular orders from the country or the West were sent to New York. This city, however, did not hold a total monopoly, but had to compete with ceramic importers located in other East Coast ports, such as Boston, Philadelphia and Baltimore (Ewins, 1997: 58, 91). The ceramic importers Henderson & Gaines, for instance, were based at 43 Canal Street in New Orleans from 1836 to 1853 (Ewins, 1997: 58) and sold their imported Staffordshire wares to customers in the American West (see Section 2 below). The 'country trade' was especially relevant, whereby New York importers and wholesalers supplied stores in small towns and rural areas. Surviving invoices document that in 1790 the consumers serviced by these country stores represented 90% of the



population and more than 40% in 1880 (Miller and Earls, 2008: 67, 70).

Over 90,000 packages of ceramics were exported from Liverpool to the United States in 1871 and the quantity continued to increase at the end of the 1870s (Ewins, 1997: 17, 66). The *London Pottery Gazette* of 1880 recorded that British ceramics shipped to the United States in 1879 comprised about 75% of the country's total imports, representing over one-third of Britain's total ceramic exports worldwide (*Reports of the United States Commissioners to the Paris Universal Exposition*, 1878, 1880: 192). Of more than 75,000 packages of British pottery sent to America in 1879, the majority arrived in the northern ports of Boston, New York, Philadelphia and Baltimore. From the previous year, British pottery imports to the United States had increased by more than 11,000 packages (*Reports of the United States Commissioners to the Paris Universal Exposition*, 1878, 1880: 193).

By this time, however, protective tariffs and duties on the importation of foreign wares and an infusion of capital were beginning to encourage increased American domestic pottery production, supported by the construction of over 30 new kilns in the year 1879 alone (*Reports of the United States Commissioners to the Paris Universal Exposition*, 1878, 1880: 194). Some 800 potteries now employed 7,000 workers.

Just 30 years prior there had been little encouragement to introduce new capital for the opening of additional clay beds or to erect more kilns, compounded by the prevailing prejudice of most people in favor of imported wares (*Reports of the United States Commissioners to the Paris Universal Exposition*, 1878: 191). In fact, throughout much of the 19th century many Americans considered English wares superior to any others available to the American market (Martin, 2001: 35). According to the US census returns of 1860, there were only 557 domestic pottery establishments nationwide, employing some 908 hands. The dismal state of the American pottery industry in the mid-19th century is effectively conveyed in the following excerpt from the *Reports of the United States Commissioners to the Paris Universal Exposition* (1878: 191):

“Despite an abundance of the best materials for pottery lying at our very doors, with transportation by water and rail for the breadth of the State, alongside of inexhaustible beds of the finest clay, with fuel, either coal or wood, abundant and cheap, and men seeking employment, we were importing nearly all of our domestic ware from the ancient potteries of Staffordshire...”

By the 19th century the major type of ceramics available was English earthenware, which included creamware,



Fig. 4. Detail of Type 1 British shell-edged earthenware and Type 2A dipped whiteware bowls in Area A.



Fig. 5. Detail of a stack of Type 4D white ironstone wash basins in Area A.



Fig. 6. Type 1 shell-edged earthenware, Type 2A dipped whiteware bowls and Type 4D white ironstone wash basins in Area A.



Fig. 7. Scatters of largely Type 2A and 2B dipped whiteware bowls and jugs and Type 4B and 4C white ironstone bowls and chamber pots in Area G.



Fig. 8. A Type 2B dipped whiteware jug in front of a Type 6 Canton ginger jar to the northwest of Area G, surrounded by broken glass window panes spilled out of Area D.



Fig. 9. A Type 2Aii dipped whiteware bowl decorated in the 'common cable' pattern alongside two Type 5B dipped yellow ware chamber pots in Area G. Alongside are Type 2Ai dipped whiteware bowls, glass tumblers and the two parts of leather shoes.



Fig. 10. A second Type 2Aii dipped whiteware bowl decorated in the 'common cable' pattern in Area G alongside Type 4B white ironstone bowls.

pearlware, whiteware and stone china (Miller, 1988: 172). The ten different types of ceramic wares recovered from the Jacksonville 'Blue China' wreck (Table 1) are classified largely by their decoration – according to the names they were given by mid-19th century potters, merchants and consumers. The assemblage includes shell-edged earthenware, dipped wares, painted wares, white granite/white ironstone china, transfer-printed wares, Canton (porcelain) ginger jars and stoneware (Miller, 1988: 172; Miller and Earls, 2008: 71). Of the above, all are white-bodied earthenware, with the exception of the dipped yellow ware and stoneware examples, as well as the porcelain ginger jars. Apart from a few individual pieces, all of the ceramics were being shipped as cargo, and would have first arrived at one of the major American ports such as New York, Philadelphia or Boston (cf. *Reports of the United States Commissioners to the Paris Universal Exposition*, 1878, 1880: 193; Tolson *et al.*, 2008: 166).

## 2. Jacksonville 'Blue China' Wreck Type 1: British Shell-Edged Earthenware

The most conspicuous concentration of earthenware on Site BA02 is Type 1 British shell-edged earthenware, plates, platters and shallow soup plates produced for use on tables and recognized as "the most popular and long-lived style ever produced by the English ceramics industry" (Hunter and Miller, 1994: 433). Statistically this ware was the second most numerous class of ceramic on the wreck based on counts of surface artifacts: 134 examples or 14% of the total (Table 2; Gerth *et al.*, 2011: 25; Figs. 1-4, 11-27). Initially marketed for upper middle class families and sold as complete dinner services, British shell-edged ware very



quickly became accessible to the masses, especially shell-edged pearlware, which resembled Chinese porcelain, but was far less expensive (Hunter and Miller, 1994: 441).

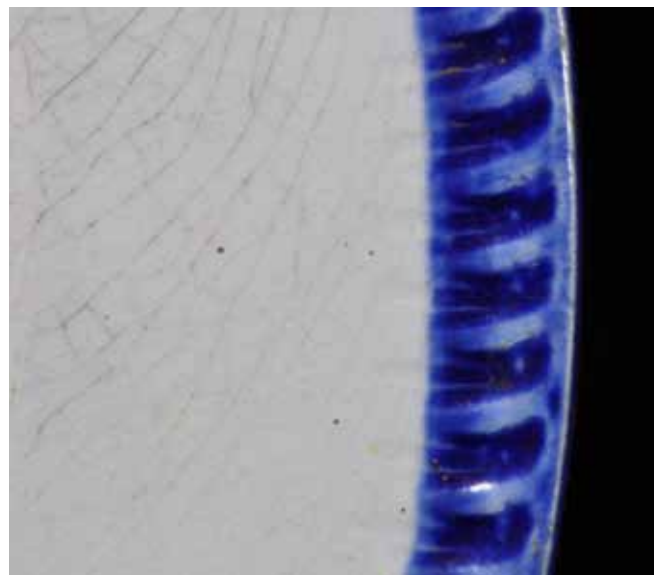
Contributing to its popularity was the decorative pattern itself, a molded rim frequently colored blue or green, which excelled at framing the food on the plate. While the rim design was sometimes highlighted in red, brown, black and purple on early shell-edged ware, both blue and green remained the most popular and cost-effective colors (Hume, 1969: 24; Hunter and Miller, 1994: 434, 437; 2009: 9-10; McAllister, 2001:10; Meteyard, 1875: 330).

British shell-edged earthenware was produced and exported in such large volumes between 1780 and 1860 that it appears to have been used in almost every American household (Hunter and Miller, 1994: 433). Even the most modest consumers could afford small sets of plates or dishes or a serving bowl (Miller, 1991: 6; Hunter and Miller, 2009: 9). In terms of quantity, being the least expensive English earthenware available with color decoration, shell-edged ware was in fact one of the most successful developments in ceramic production during the 18th and 19th centuries (Hunter and Miller, 1994: 443).

The use of shells as a decorative element is rooted in antiquity and was a common motif in the 18th-century Anglo-American world. The subsequent introduction of the shell-edged pattern was inspired by mid-18th century rococo design elements on Continental porcelain and earthenware, although at this time it was a minor component of more elaborate enameled decoration. By comparison, when it was introduced into English earthenware the molded shell edge served as the principal decoration (Hunter and Miller, 1994: 434; 2009: 10).

Josiah Wedgwood was the earliest documented potter to use the molded shell edge on uncolored creamware in the mid-1770s: the decoration first appeared in the company's pattern book published in 1775 and was later presented in the Leeds pattern book of 1783 (Hume, 1969: 24; Hunter and Miller, 1994: 434; 2009: 8; Miller, 1991: 5). Both blue and green shell-edged ware was apparently popular at this time, listed among the fashionable patterns and borders available (Meteyard, 1875: 330; Hunter and Miller, 1994: 434). Shell-edge proved to be so successful for the mass market that virtually all British manufacturers involved in the export trade quickly appropriated the pattern, adapting it to creamware and the blue-tinted pearlwares of the 1780s.

In the last quarter of the 18th century virtually every imaginable vessel form – from teapots to soup tureens and chamber pots – carried the distinctive shell-like molded edge. However, after the turn of the century potters began limiting the shell-edge to mostly plates and



*Figs. 11-12. A Type 1A British shell-edged whiteware dinner plate, Diam. 24cm (BC-05-00040-CR). (Figs. 11-87 by Alan Bosel, Odyssey Marine Exploration.)*

platters. By the 1830s the shell-edged rim pattern rarely resembled shells (pers. comm. Jonathan Rickard, 6 December 2010). By the 1840s the so-called shell edge was being used on the cheaper and sturdier whitewares that had now become the standard earthenware for the British ceramic industry (Hunter and Miller, 1994: 437; 2009: 8-9; McAllister, 2001: 10, 32). More than 50 British manufacturers representing all the major Staffordshire potters have been identified as producing shell-edged ware and it was also one



Figs. 13-14. A Type 1A British shell-edged whiteware dinner plate, Diam. 23.7cm (BC-05-00233-CR).

of the standard products of potteries in Leeds, Castleford, Northumberland, Bristol and Devonshire (Hunter and Miller, 1994: 434).

The prevalence of British shell-edged ware is well documented in the archaeological record through ceramic fragments unearthed from most archaeological sites of the period, regardless of socio-economic class. In Williamsburg, Virginia, for example, these wares were present in the ruins of fine houses in the city, as well as in cabins formerly occupied by slaves on the outlying plantations

(Hunter and Miller, 1994: 440; Tolson *et al.*, 2008: 167). Excavations of this former town's establishments have also yielded the same products, such as blue-rimmed examples recovered from a well behind Anthony Hay's Cabinet Shop, which date to c. 1800 (Hume, 1969: 25).

The excavation of British earthenware from a slave cabin at the Stafford Plantation on Cumberland Island, Georgia, further attests to the use of these wares by diverse socio-economic communities. Dating from the early-to-mid 19th century, the cabin site yielded a high frequency of blue and green shell-edged sherds. At least part of the ceramic assemblage is believed to have been used initially by the planter family before being given to the slave family when chipped or no longer considered of use or value.

The ceramic evidence from Couper Plantation, a contemporary site on St. Simon's Island, Georgia, presents a similar scenario. Interestingly, Robert Stafford was not only the major planter on Cumberland Island during the antebellum years, he was also the key exporter and importer for the island, suggesting that he possibly played a role in the import of its British earthenware, including the blue shell-edged examples discovered at the site. Coastal trading vessels, such as that present at wreck Site BA02, were probably active in this island trade.<sup>1</sup>

The prevalence of shell-edged wares in early American homes is further highlighted by a study of the types of dishes used in several middle class New York households dating to the early 19th century. Those recovered from privies and basements reveal that all of the households from this period possessed sets of shell-edged plates with the typical blue or green-painted decoration around their rims (Cantwell and diZerega Wall, 2001: 214). Contemporary diary entries document how middle class women were putting substantial thought into the dishes they purchased. Sherds from archaeological sites provide insights into the types of ceramics these women were choosing to grace their table – particularly relevant in a period when greater emphasis was being placed on the meaning of family meals and family life within the homes of the city's middle class (Cantwell and DiZerega, 2001: 213, 215).

Beyond the Eastern Seaboard, shell-edged wares also appealed to the inhabitants of America's Western frontier, with steamboats such as the *Arabia* transporting shipments up the Missouri River. Outward bound from St. Louis, the primary supply depot for the West, on 5 September 1856 the *Arabia* struck a submerged walnut tree, which pierced her hull, sinking the vessel and her 222 tons of cargo (Hawley, 1998: 34-37). Excavation of the steamboat, now silted 13.5m under a Kansas farmer's cornfield, uncovered a diverse cargo of trade goods still preserved in wooden barrels and crates (Cunningham Dobson and Gerth, 2010:



64-5; Hawley, 1995: 32-3). Included in this enormous shipment was a large quantity of blue shell-edged wares: plates, soup bowls, octagonal platters and casserole dishes, whose proportions and volume are very similar to those found on the Jacksonville 'Blue China' wreck (Hawley, 1998: 204; Tolson *et al.*, 2008: 183). Unlike the Site BA02 wreck assemblage, however, which bears no maker's marks, the majority of the *Arabia*'s shell-edged wares feature the mark of the Davenport pottery of Longport in Stoke-on-Trent, Staffordshire, which was in operation between 1794 and 1887 (Campbell, 2006: 304; Rickard, 2006: 4).

Fragments of shell-edged wares dating from 1810-35 have been found in an antebellum home site in Washington, Arkansas, a growing gateway community on the edge of the Western frontier. It has been suggested that these everyday pieces may have served both the family and its slave community. Beginning in the 1820s, the Southwest Trail brought explorers, merchants and families to this small outpost town, which by the middle of the century had become a major commercial center supplying the plantations and communities of southwest Arkansas. Merchants shipped in goods from New Orleans, the East Coast and Europe (Kwas, 2009: xi, 55).

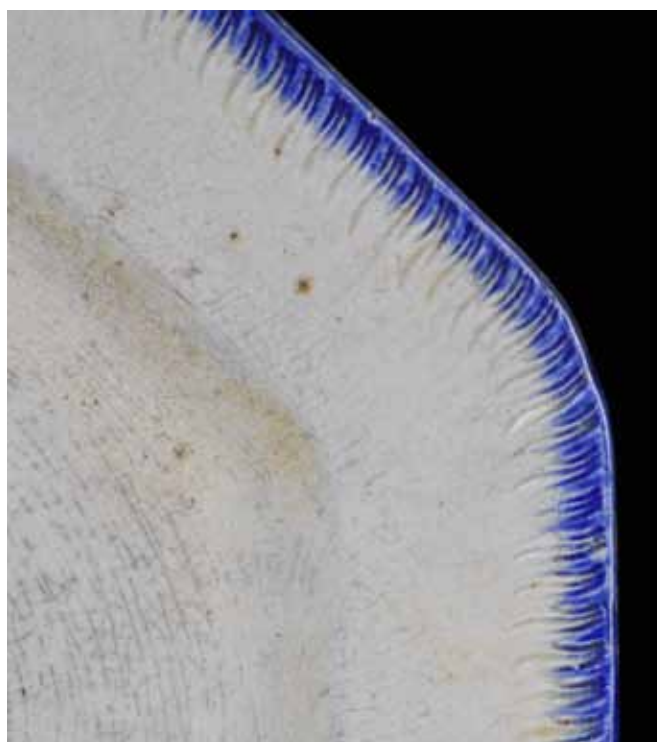
Shell-edged pottery has also been found in western sites in eastern Oklahoma and Kansas, many associated with Native American groups, which resettled there from the 1820s onwards. A number of the wares are found in habitation sites affiliated with the Shawnee and Pottawatomie in Kansas and with the Creek, Choctaw, and Chickasaw in Oklahoma, suggesting that such ceramics were important high-status utilitarian items serving a similar function to the ceramics found on American sites of the same period. Especially striking, however, is the presence of shell-edged wares, plates in particular, in Native American burials. In some cases the pottery is arranged around the body and nested, suggesting a clear pattern of structured deposition. In addition to serving a domestic function, these European ceramics also apparently functioned within a religious/sacred context in these antebellum Native American cultures and, when placed in their burials, symbolized domestic usage continued in the afterlife (Lees and Majewski, 1993: 3-4). In the same light it is also likely that shell-edged wares enjoyed higher status within Native American society, presumably because these less affluent groups coveted these imports as luxuries.

Additionally, it has been suggested that the selection of edge-decorated wares in these burials, as well as other types including dipped/mocha bowls and hand-painted cups (see Section 6 below), was consistent with long-standing artistic traditions of the Native American groups in question. In



Figs. 15-16. A Type 1B British shell-edged whiteware soup plate, Diam. 26.8cm (BC-05-00102-CR).

terms of design and colors, the most striking comparison can be made between the British ceramics found in these sites and contemporary beadwork (Lees and Majewski, 1993: 4). Of particular interest is a shell-edged plate from a possible Native American Creek burial in Oklahoma that bears the stamp of 'Henderson Walton & Co. Importers, New Orleans, Davenport' (Lees and Majewski, 1993: 4). This highlights the role of American ceramic merchant dealers and import agents located in the major port cities, including New Orleans, many of whom established



Figs. 17-19. A Type 1C large British shell-edged whiteware octagonal platter, L.39.9cm (BC-05-00323-CR).

connections with British potteries, such as Staffordshire's Davenport, and distributed their imported wares throughout the US (Barker, 2001: 82). Many of the Davenport wares associated with the Washington, Arkansas, home site bear the mark of 'Henderson & Gaines', suggesting that Henderson had a number of partners in the British pottery import business (Kwas, 2009: 55).

Supporting the archaeological evidence, records of Staffordshire potters document the vast quantities of shell-edged wares that were made both for the British market and for export (Hunter and Miller, 1994: 440-41). While shell edge was used all over the world, pottery-hungry Americans were the largest consumers. Enoch Wood's Burslem pottery works shipped 262,000 pieces in a single consignment (McAllister, 2001: 5). The surviving invoices of American merchants are especially telling: shell-edged products accounted for 40-70% of dinnerware sold in America between 1800 and the eve of the Civil War in 1861, despite the introduction of a number of more fashionable styles during this period (Hunter and Miller, 2009: 9; Hunter and Miller, 1994: 441; Tolson *et al.*, 2008: 167).

Equally revealing shipping records of the period confirm the importation of huge cargos of earthenwares into America. According to a single invoice of 1791, Liverpool exporters Rathbone & Benson shipped 5,724 shell-edged plates with many other ceramics on the vessel *Ceres* to Andrew Clow and Company in Philadelphia. Manifest records of other vessels indicate similarly large shipments (Hunter and Miller, 2009: 9). In addition to crockery, Rathbone and Benson also exported hardware and textiles, highlighting the variety of British goods transported on ships bound for America. While not all of the records of Rathbone and Benson have survived, the fact that they had 20 to 25 ships loading or unloading at Liverpool at any one time underscores the scope of their operations, of which British pottery exports to America appear to have been a major element (Wake, 1997: 28-29). Shell-edged whitewares, it would seem, were the main staple of mid-19th century tablewares used by the average American consumer household representing every economic and social strata (Martin, 2001: 34; McAllister, 2001: 5; Tolson *et al.*, 2008: 183).

The dating of shell-edged wares is based on the typological evolution of the rim shape and design. The earliest shape, fashionable between 1775 and 1880, was an asymmetrical, undulating scallop with impressed curved lines. Around 1800 the scallops of the shell edge became even and symmetrical; tablewares reflecting this style were produced largely in blue or green shell edges and were made almost exclusively of pearlware until well into the 1830s. As noted above, by the 1840s heavy whiteware replaced

pearlware and, to cut costs, impressed lines typically colored blue were used instead of the scalloped rims (Hunter and Miller, 1994: 437; McAllister, 2001: 10-11; Tolson *et al.*, 2008: 168).<sup>2</sup> By now green shell-edge had become rare, while blue shell-edged wares remained a commonly available type listed in potters' and merchants' invoices into the 1860s (Miller, 1991: 6).

Further production changes in the second half of the century (1860s-90s) eliminated the impressed lines and, instead, simulated the blue shell-edged pattern with simple brush strokes of underglaze blue coloring (Hunter and Miller, 1994: 437; McAllister, 2001: 11). At this time the quality of manufacture declined to the point where blue shell-edge became a basic, generic, everyday utilitarian ware. Any sense of the exotic had disappeared. Although production continued into at least the 1890s, shell-edged wares are not commonly found in these later archaeological assemblages (Hunter and Miller, 1994: 437; Miller, 1991: 6; Tolson *et al.*, 2008: 168).<sup>3</sup>

The shell-edged products recovered from the Jacksonville 'Blue China' shipwreck are heavy whitewares featuring unscaloped, straight rims impressed with simple repetitive lines colored blue, indicative of mid-19th century production of the 1840s to 1850s (Figs. 11-21). As noted above, by the 1850s blue shell-edge had become a common, generic ware produced by virtually all of the British manufacturers involved in the pottery export trade. Thus, without identifiable maker's marks it is virtually impossible to attribute the objects to a particular manufacturer since most potteries were producing largely indistinguishable wares.

The examples on Site BA02 appear to have been made from fairly new, crisp molds, as opposed to worn molds, which make it far more difficult to see the pattern, especially when it is filled with glaze and heavy blue color (pers. comm. George Miller, 21 August 2007). Most of the shell-edged wares bear on their underside an impressed stamp in the form of an encircled floral-like design with dots or, in a few cases, a variant (Figs. 22-27). These are likely 'tally' marks, also known as 'potters batch marks', used by pottery workers to keep track of the vessels that came out of the kiln in marketable condition (Draper, 2001: 50; Tolson *et al.*, 2008: 168-69). Workers in the typical British earthenware factory were paid on a 'good-from-oven' basis on the number of pots that successfully made it through the many different manufacturing steps from the initial forming of the vessel shape through the glaze firing (i.e. the process of glazing and firing ceramic ware, which had previously been fired at a higher temperature). Naturally, some pieces made it through with flaws and were sold nonetheless, but as seconds (Rickard, 2006: 106).



Fig. 20. A Type 1C medium British shell-edged whiteware octagonal platter, L.36.5cm (BC-05-00326-CR).

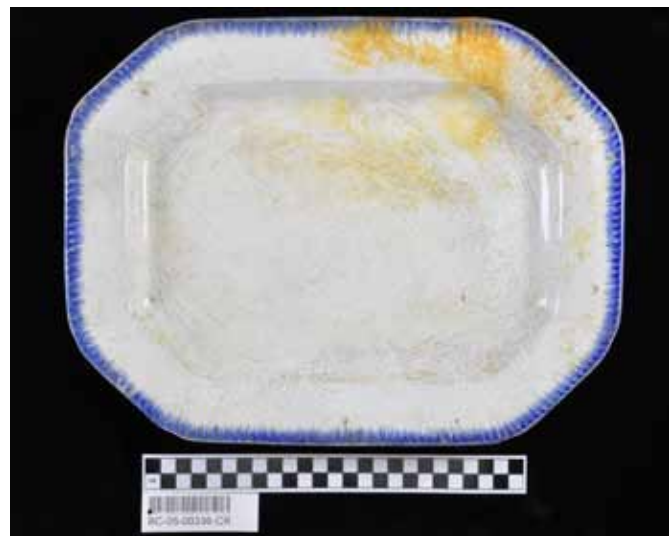


Fig. 21. A Type 1C small British shell-edged whiteware octagonal platter, Diam. L. 34.4 cm (BC-05-00336-CR).

Of the 105 Type 1A circular dinner plates from the Jacksonville 'Blue China' wreck (Diam. 23.8cm, H. 2.8cm, Th. 0.45cm, raised rim W. 3.5cm, blue edged rim band decoration W. 0.6-1.0cm, base Diam. 13.6cm), 80 bear the impressed tally mark mentioned above (Diam. 1.6cm) and 11 feature an impressed number '5'. Two general shades of blue applied over the shell-edged border were noted in the assemblage, ranging from medium blue to a very dark blue (Figs. 11-14).

Some 35 Type 1B soup plates were also recovered from the site (Diam. 26.7cm, H. 4.3cm, Th. 0.42-0.53cm, raised rim W. 3.9cm, blue edged rim band decoration W. 0.9cm but with incised striations continuing through





*Figs. 22-24. Impressed tally marks on the bases of British shell-edged whiteware soup plates.*

*Figs. 25-27. Impressed tally marks on the bases of British shell-edged whiteware platters.*

the white plate edge for a total L. 1.4cm, base Diam. 13.6cm), all of which incorporate the darker cobalt blue border (Figs. 15-16); 19 of these bear a tally mark on the bottom (Diam. 1.9cm), four feature a variant of the tally mark, one has a mark too illegible to identify, and one has no mark at all.

Some 17 Type 1C octagonal platters or serving dishes were recovered from the wreck in three sizes, with minimal variation: six small, five medium and six large (Figs. 17-21). All feature the dark cobalt blue rim. Most of the platters bear an impressed number on the underside: the smaller varieties exhibit a number '12', the medium a '13', and the largest the number '14' (Figs. 25-27). Such impressed numbers on plates and platters typically reflect their size, designated in inches. In this case, however, while the numbers do suggest graduated sizes, the pieces do not precisely correlate to the numbers indicated. One small and one medium platter have a tally mark in the form of a pinwheel blossom with triangular petals (Tolson *et al.*, 2008: 168-71).

The dimensions of the larger Type 1C platters are: L. 39.7cm, W. 30.6cm, H. 4.0cm, rim Th. 0.65cm, raised rim W. 4.5cm, blue edged rim band decoration W. 1.0cm but with incised striations continuing through the white plate edge for a total L. 1.5cm, base L. 27.8cm, base W. 19.2cm. The medium sized variants measure: L. 36.5cm, W. 28.4 cm, H. 3.3cm, Th. 0.53cm, raised rim W. 4.3cm, blue edged rim band decoration W. 1.0cm but with incised striations continuing through the white plate edge for a total L. 1.3cm, base L. 25.7cm, base W. 17.8cm. The dimensions of the small examples are: L. 34.8cm, W. 26.7cm, H. 3.1cm, Th. 0.6cm, raised rim W. 3.8cm, blue edged rim band decoration W. 1.2cm, base L. 25.1cm, base W. 17.6cm.

### 3. Jacksonville 'Blue China' Wreck Type 2: Dipped Wares

The largest category of ceramics visible on the surface of the Jacksonville 'Blue China' wreck site in Areas A and G were 358 British slip-decorated utilitarian earthenwares representing 37.3% of the total pottery (Tables 1-2; Figs. 4, 7-10). They comprise an assortment of bowls, jugs and mugs referred to in contemporary sources as 'dipped' or 'dip' ware. A sample of 47 examples was recovered for study (Figs. 28-40). First produced in the late 18th century by Staffordshire potters on creamware and pearlware bodies, by the mid-19th century they had become generic whitewares (pers. comm. Jonathan Rickard, 6 December 2010). Along with shell-edged ware, dipped wares enjoyed a long period of popularity and were the least expensive



Fig. 28. A Type 2A British dipped whiteware bowl, 'London' shape, H. 7.8cm (BC-05-00146-CR).



Fig. 29. A Type 2A British dipped whiteware bowl, 'London' shape, H. 8.7cm (BC-05-00269-CR).



Fig. 30. A Type 2A British dipped whiteware bowl, 'London' shape, H. 8.0cm (BC-05-00384-CR).





Fig. 31. A Type 2B large British dipped whiteware jug with slip-banded decoration, H. 18.6cm (BC-03-00003-CR).



Fig. 32. A Type 2B large British dipped whiteware jug with slip-banded decoration, H. 18.9 (BC-05-00019-CR).

imported decorated earthenware available to American consumers from the 1780s well into the 1850s (Carpentier and Rickard, 2001: 115, 133; Miller, 1988: 178; Tolson *et al.*, 2008: 171). Advertisements from the first half of the 19th century often used the term 'fancy' to describe these products, a concept which was applied at the time to a

form of decorative arts intended to appeal to a burgeoning 'underclass' unable to afford the best imported or city goods (Rickard, 2006a: 15).

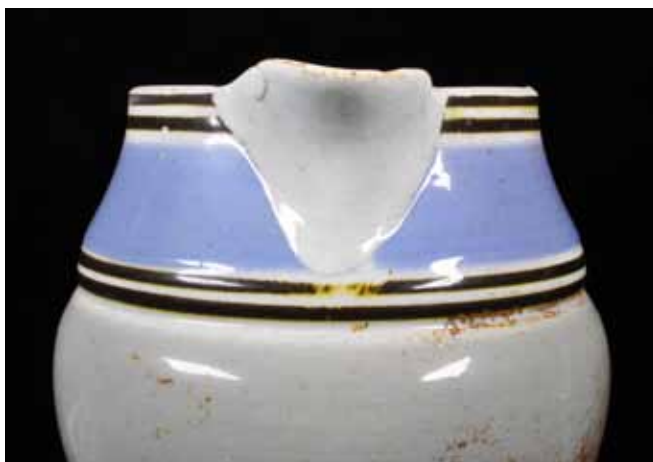
The most common slip decoration, comprising simple slip bands in one or many colors (as represented within the Site BA02 examples), was used on a wide range of utilitarian vessels throughout the nearly 170-year period of dipped ware's production. Also prevalent were wares ornamented with the fanciful 'cat's-eye' slip decoration, which is present on two of the wreck's mugs (Figs. 38-40). These wares are well represented amongst archaeological assemblages excavated in American taverns and households of the first half of the 19th century along the Eastern Seaboard. The British manufacture and export of these bold and colorful dipped wares was in fact so extensive that their sherds are found on nearly every American domestic archaeological site.

The most common form of dipped ware present in archaeological contexts is the bowl (Carpentier and Rickard, 2001: 115, 121, 128). This form is consistent with the majority presence of Type 2Ai slip-decorated bowls (35 examples) fashioned in the distinctive 'London' shape recovered from the Jacksonville 'Blue China' wreck (Figs. 28-30). Two bowls observed and left *in situ* just east of Area A, again in the 'London' shape, are more elaborately decorated and distinct from the rest of the assemblage and presumably derived from a small stack of these wares stowed in the ship's bows (Figs. 9-10). These Type 2Aii slip-decorated whiteware bowls with a gray, tan or pale yellow field feature a decorative motif known as the 'common cable' pattern (Rickard, 2006a: 63). The decoration is bracketed by two thin black lines or annular bands above and below. The 'London' shape was introduced in 1807 and by 1810 was the dominant form of earthenware production to the exclusion of former Chinese-style hemispherical bowls.

In imitation of Chinese porcelain shapes, British bowls of the last three decades of the 18th century were hemispherical, with a comparatively tall foot ring, slightly tapered in profile. The shape of these bowls, however, changed quite abruptly in the first decade of the 19th century when the porcelain industry introduced the so-called 'London' shape attributed to the Spode factory. The shape resembles an inverted truncated cone with a steeply angled shoulder directly above a high standing foot ring. Other potters referred to this shape as 'Grecian'. The 'London' or 'Grecian' shape occurs in all sizes of bowls as well as cups (Miller, 1991: 15). Earthenware manufacturers were quick to copy this popular form (Carpentier and Rickard, 2001: 121; Tolson *et al.*, 2008: 171).

By the middle of the century dipped wares had undergone a number of changes. They now had a thicker, heavier





Figs. 33-35. A Type 2B small British dipped whiteware jug with slip-banded decoration, H. 15.5cm (BC-05-00341-CR).

Figs. 36-37. A Type 2B small British dipped whiteware jug with slip-banded decoration, H. 15.9cm (BC-05-00356-CR).

body resulting from a consumer need for relatively strong utilitarian wares. Yet, while technical advances created pottery that resisted breakage, the quality of the ware was compromised (Rickard, 2006b: 5). They thus presented a less elegant appearance than wares manufactured between 1790 and the 1830s and also now featured fewer decorative features. The need for faster manufacture demanded by price competition eliminated most slip decoration beyond the banded and dendritic patterns (Carpentier and Rickard, 2001: 132; Rickard, 2006b: 5; Tolson *et al.*, 2008: 171), the latter of which is described below under 'Yellow Ware' (see Section 6 below).



Fig. 38. A Type 2C British dipped whiteware mug with slip-banded decoration, H. 11.1cm (BC-05-00161-CR).

A number of features related to production changes that took place in the 19th century independently confirm the date range of 1850-60 for the dipped wares found on the Jacksonville 'Blue China' shipwreck, while additional artifacts from the site narrow its most plausible date of loss to 1854. One was a reduction in color choices. Originally slips comprised a variety of earth colorants. Iron oxide produced reds and rusts, and manganese produced black and dark browns. Cobalt oxide yielded blue, copper oxide green, and antimony and uranium yellow. The lead glaze that vitrified the objects also enhanced these earth colors. When the toxicity of many of these substances became realized, they were removed from circulation and became obsolete. As a result, the colors found on dipped wares in the second half of the 19th century are predominantly black, blue, gray and white and lack the earlier vitality (Carpentier and Rickard, 2001: 122; Rickard, 2006b: 2; Tolson *et al.*, 2008: 171). However, blue-banded ware, such as is represented by mugs and jugs on Site BA02, became the most common type of dipped ware after the 1840s and continued to be produced well into the 20th century (Miller, 1991: 6-7).



Figs. 39-40. A Type 2C British dipped whiteware mug, with 'cat's-eye' slip decoration, H. 9.2cm (BC-05-00193-CR).



Demands for even lower priced wares caused the variety of decorative techniques to diminish to the point that the market for the above imported dipped wares reduced to a trickle, seemingly in the second half of the 19th century. They were soon superseded by less expensive British white granite/white ironstone, along with yellow-bodied dipped wares produced by American pottery manufacturers now catering to the home market (Rickard, 2006b: 2).

Interestingly, no dipped wares were found on the 1856 wreck of the steamboat *Arabia*, perhaps confirming the ceramic production trends and changes in consumer preference noted above. The presence of so many dipped wares on the Jacksonville 'Blue China' wreck of 1854, compared to the *Arabia's* cargo of the much more fashionable white ironstone china, seems to reflect the changes in tastes when the latter emerged as the preferred wares used in American households (Tolson *et al.*, 2008: 183).

Of the 35 Type 2A 'London' shape bowls recovered from Site BA02 from a total visible cargo of 345 dipped bowls on the wreck's surface (96% of the total Type 2 products on the wreck), two different sizes (12 smaller sized bowls and 23 larger bowls) were recorded. Some comprise a cream ground with a tan band enclosed by double narrow brown bands raised on a foot ring. Others display a gray-tan band, and two of the bowls have a cream ground with a wide brown band enclosed by double narrow brown bands (Figs. 28-30). The largest Type 2A bowls measure H. 8.7cm, Diam. 16.9cm, rim Th. 0.34cm, base H. 0.55cm, base Diam. 8.3cm, upper band W. 1.4cm, lower band W. 1.2cm, W. between bands 3.9cm. The smaller variety measures H. 7.8-8.0cm, Diam. 14.1-14.3cm, rim Th. 0.37cm, base H. 0.55-0.6cm, base Diam. 6.7-7.0cm, upper band W. 1.1-1.4cm, lower band W. 1.0-1.4cm, W. between bands 3.3-3.8cm.

Also retrieved from the wreck site were eight Type 2B dipped jugs of baluster form with a shaped pouring lip, an extruded handle with molded foliate terminals and a turned base (from a total of 12 visible on the site's surface, representing 3.4% of all of the Type 2 dipped wares). All are unmarked and feature similar decoration (Figs. 31-37): a wide, blue-gray or tan central band flanked by two brighter light blue bands. Eight narrow brown slip lines define the boundaries of four main bands. Two principal sizes are recorded, with two sub-types evident within the larger examples: one displays an everted rim, the other a vertical rim. As in the case of the shell-edged wares, the quantity recorded leaves no doubt that these items were cargo. Especially noteworthy was the discovery that five of the jugs each contained a single clear glass tumbler stowed within; a sixth contained fragments of two pale green glass tumblers. This suggests a packing strategy that maximized all available space within the relatively small hold of this coastal schooner (Tolson *et al.*, 2008: 171-2).

The larger jugs measure: H. 18.8cm, Diam. of mouth 13.1cm (excluding pouring lip), pouring lip L. 3.8cm, max spout W. 5.4cm, handle L. 13.7cm, handle W. 2.3cm, handle Th. 1.0cm, max body W. 15.3cm, base H. 1.2cm, base Diam. 10.5cm, upper band W. 1.5cm, second band W. 1.2cm, third band W. 1.1cm, lower band W. 1.1cm.

The dimensions of the small jugs are: H. 16.0cm, Diam. of mouth 10.8cm (excluding spout), spout L. 3.1cm, max spout W. 4.0cm, handle L. 11.7cm, handle W. 1.7cm, handle Th. 0.9cm, max body W. 12.9cm, base H. 1.1cm, base Diam. 9.0cm, upper band W. 1.3cm, second band W. 1.7cm, third band W. 1.3cm, lower band W. 1.2cm.

The assemblage also includes four Type 2C dipped mugs featuring an extruded handle and turned stepped base (Figs. 38-40), with measurements corresponding to one-half and one full pint capacities (H. 9.2-11.7cm, mouth Diam. 7.4-8.7cm, rim Th. 0.3-0.37cm, handle L. 7.2-9.5cm, handle W. 1.1-1.6cm, handle Th. 0.65-0.76cm and base W. 7.4-9.3cm). Two of the mugs are decorated with combinations of wide blue and/or gray bands plus six or eight brown stripes. No maker's marks have been detected. One of the mugs has a cream ground with blue bands and is decorated with a 'cat's-eye' pattern below a blue and cream band separated by six narrow brown bands. Another features the 'cat's-eye' decoration enclosed by double narrow brown bands (Tolson *et al.*, 2008: 172). Although stylistically similar to the jugs referenced above, these wares were typically not sold as sets (pers. comm. Jonathan Rickard, 21 August 2006).

## 4. Jacksonville 'Blue China' Wreck Type 3: Painted Teawares

The sample of 60 Type 3 underglaze painted whitewares recovered from the 87 examples recorded on the surface of the Jacksonville 'Blue China' wreck (9.1% of the total wreck pottery count: Tables 1-2) incorporate three different variations of a floral motif (Figs. 41-58). Based on the quantity found, these British products of c. 1845-55 were also a component of the vessel's cargo. They have been identified as elements of a tea set, and include tea bowls (cups in the 'London' shape), saucers, creamers and sugar bowls. No teapots were recovered or observed, although one would certainly expect these items to have been included in such shipments (Tolson *et al.*, 2008: 175, 183).

Blue-painted teawares with floral motifs became popular in the 1820s and a decade later witnessed the introduction of new colors that included red, black and lighter shades of green and blue. Further stylistic changes occurred in the floral painting, which included the introduction of sprig-painted wares bearing simple stylized floral motifs – isolated flowers, sprays and leaves – such as those represented by the Site BA02 examples (Miller, 1988: 174; 1991: 8). These new painted teawares, called 'sprig' or 'sprigged' patterns in advertisements and invoices of the period, were common from around 1835 to the beginning of the Civil War in 1861. An advertisement of 10 September 1831 of

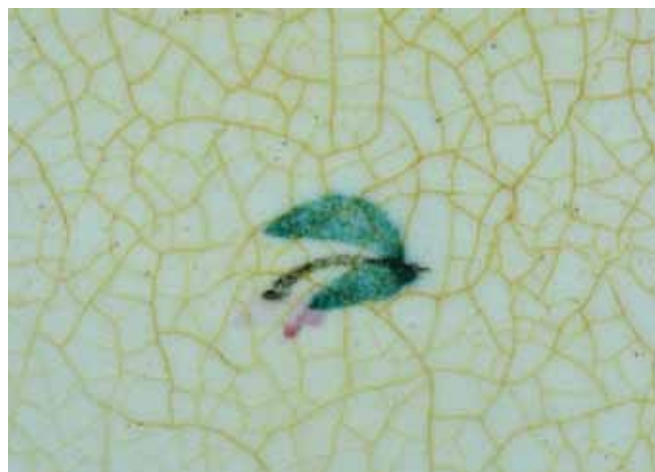
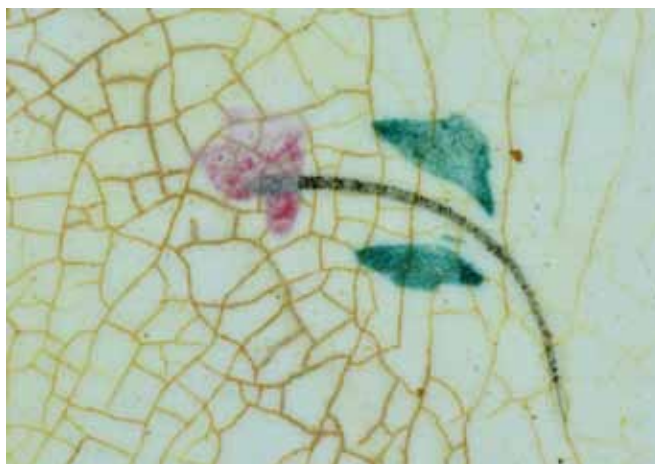




R. Wright of Washington, listing “printed and sprigged tea china”, is the earliest known reference to sprig teawares, which may initially have appeared on porcelain. A later invoice dated to 14 April 1841 from New York importer-Joseph Cheeman and Son again listed “Sprig Teas” (Miller and Earls, 2008: 95).

These hand-painted wares required much less color, very few brush strokes and thus just needed artisans with minimal skill to duplicate patterns. Sets of matched pieces could be assembled faster than any of the previous floral patterns (Miller and Earls, 2008: 95). Painted decoration at this simple level, used largely on utilitarian tea, table and toilet wares, created products that were typically more costly than the shell-edge and dipped wares of the period; and yet they were relatively cheap compared to the much higher quality painted wares produced by more skilled artisans that ranked amongst the most expensive wares available. These painted wares are amongst the less expensive wares of this class and are commonly found on North American sites after the late 1840s (Miller, 1988: 174; Miller and Earls, 2000: 93).

Some 27 Type 3A saucers with six floral motifs on the edges and a seventh at the center (H. 3.2cm, Diam. 14.9cm, Th. 0.36cm, base Diam. 7.1cm) and 19 Type 3B ‘London’-shaped teabowls with four floral motifs painted onto the exterior and three within the interior (H. 6.4cm, Diam. 10.5cm, rim Th. 0.34cm, base H. 0.5cm, base Diam. 5.4cm) were recovered from the wreck site (Figs. 41-55). At least two different floral decorations are present: roses in full bloom with green leaves, and sprays in cobalt blue, green and red. Four different impressed marks characterize the tea bowls and saucers, and are probably tally or workmen’s marks to pay for piece work. Workers’



*Figs. 41-44. A Type 3A British underglaze painted whiteware teabowl saucer, with details of floral (small sprig) motifs, Diam. 14.9cm (BC-05-00313-CR).*

wages were frequently based on the number of vessels that came out of the kiln in good shape. However, it should also be born in mind that merchants not only bought seconds, but also thirds (Shaw, 1900: 207). “Send the best thirds”, an 18th-century Portsmouth merchant of New Hampshire wrote in a letter to a ‘Liverpoole’ supplier of earthenware (Rickard, 2006b: 8). These tally marks unfortunately do not help identify a particular manufacturer because similar marks were used at a number of different factories (Tolson *et al.*, 2008: 175).

The painted wares also include nine Type 3C cream jugs in two sizes (Figs. 56-57) with six floral motifs running across mid-body and a black wavy-line extending down the center of the handle (H. 11.4-11.7cm, mouth Diam. 8.0cm, spout L. 3.0cm, spout W. 3.6cm, rim Th. 0.39cm, handle L. 8.5-9.5cm, handle W. 1.4cm, handle Th. 0.8cm, max body W. 9.7-10.2cm, base H. 0.6cm, base Diam. 6.0-6.8cm); four Type 3D sugar bowls with four floral motifs mid-body and three more adorning the rim (H. 8.4cm, mouth Diam. 11.2cm, rim Th. 0.38cm, max body W. 10.9cm, base H. 1.2cm, base Diam. 8.0cm); as well as one sugar bowl lid bearing a single floral motif (H. 2.8cm, Diam. 8.3cm, rim Th. 0.27cm, handle Diam. 1.2cm; Fig. 58). The jugs feature two different painted designs: red berries and green leaves, with a painted black symmetrical stripe on the ear-shaped handle; on the other example green leaves and a blue tulip with a painted black symmetrical stripe on the simple extruded loop handle. The four painted sugar bowls were found in two different sizes.

The Site BA02 floral wares feature many stylistic characteristics in common with teacups and saucers bearing the impressed mark ‘ADAMS’. The Adams family opened potteries in Staffordshire as early as 1650. At that date two brothers, William and Thomas, ran separate ventures in Burslem. In the latter part of the 18th century, and continuing into the 19th, three William Adams, all of whom were cousins, operated their own large potteries independent of one another and, with one exception, were succeeded by sons bearing the same given name. At various stages the potteries were located in Tunstall, Burslem, Co-bridge and Stoke-upon-Trent, all in Staffordshire. The Adams company survived into the 20th century (Jervis, 1911: 98; Rickard, 2006b: 4).<sup>4</sup>

Similar hand-painted wares have been recovered by Earth Search, Inc. from an archaeological context of c. 1850 in downtown New Orleans. These also bore the maker’s mark (which remained in use until 1864) of the Adams Pottery (pers. comm. Jill Yakubik, 2006). The 1856 wreck of the steamboat *Arabia* also yielded similar unmarked floral teaware, largely 20 cups, five saucers and a single teapot (Hawley, 1998: 205; Tolson *et al.*, 2008: 183).



Figs. 45-47. A Type 3A British underglaze painted whiteware teabowl saucer, with detail of floral (small sprig) motif and a tally/workman’s mark, Diam. 14.9cm (BC-05-00387-CR).

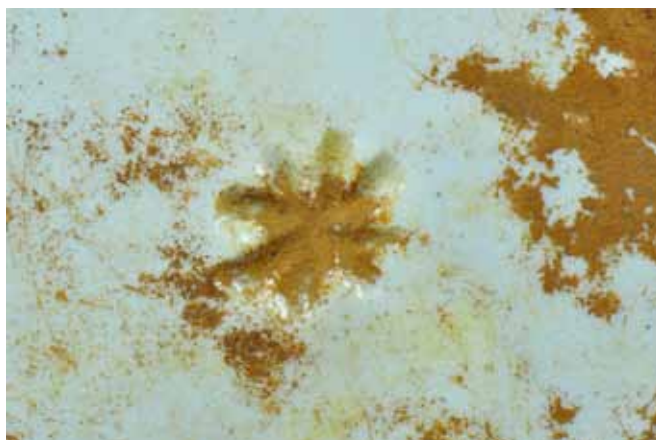
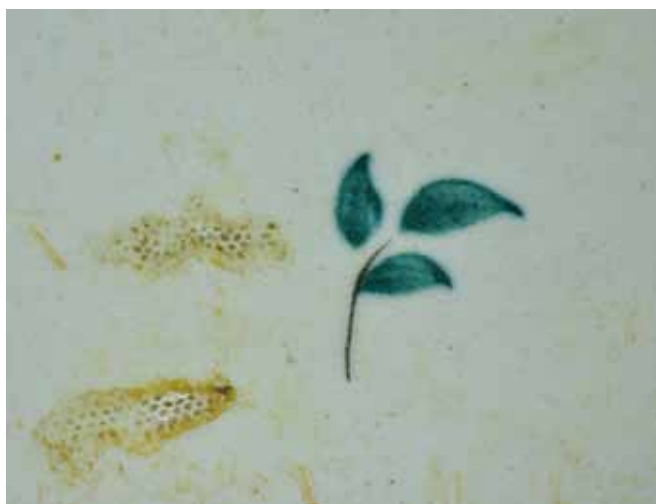




## 5. Jacksonville 'Blue China' Wreck Type 4: White Granite/ White Ironstone China

Six different forms of Type 4 British undecorated ironstone china (originally known as white granite) were recovered from Site BA02: three molded dinner plates, 17 flared bowls, one fluted bowl, five chamber pots, four wash basins and 12 salve jars with four lids (Figs. 3, 5-7, 59-67). None of the examples bear identifiable tally or maker's marks.

White ironstone is a heavy, thick-bodied utilitarian ceramic ware that was mass-produced primarily for the American market by England's Staffordshire potters (Blacker, 1911: 177; Godden, 1999: 160-62). By the mid-19th century this ware had become quite popular with both commercial and domestic consumers across the country and was the least expensive ceramic product of the period (Miller, 1988: 175).<sup>5</sup> The Staffordshire district, in particular, home to hundreds of large and small potteries, produced thousands of tons of white ironstone wares (Godden, 1999: 160). Staffordshire offered proximity to the major seaports of Liverpool and Hull from where the majority of these wares were exported to North America and northern Europe respectively (pers. comm. David Barker, 11 November 2010; pers. comm. Jonathan Rickard, 6 December 2010; Wedgwood, 1913: 92). The potteries of Staffordshire monopolized the vast and ever-growing American market with its white ironstone pottery, which, as noted by an American authority writing about British ironstone in the 1850s, was "the English export *par excellence*" (Godden, 1999: 162). Although clay was



Figs. 48-51. A Type 3B British underglaze painted whiteware teabowl, 'London' shape, with details of floral (small sprigs) motifs and a tally/workman's mark, H. 6.4cm (BC-05-00390-CR).





plentiful in areas of the United States, most dinner and toilet wares, including chamber pots and wash basins, were imported until the late 19th century (*Reports of the United States Commissioners to the Paris Universal Exposition*, 1878: 191). American clay was reserved for making bricks, tiles and other practical utensils, such as crocks and jugs (Cunningham Dobson and Gerth, 2010: 49).

Also known as English porcelain, opaque porcelain, stone china, and white granite, ironstone china was first introduced by Staffordshire potters in the early 19th century, in large part to emulate the popular Chinese-style porcelain dinner services, yet without the cost of these finer wares and with the added advantage of great strength and durability. William Turner of the Lane End potteries at Longton, Stoke-upon-Trent, is said to have achieved the first successful manufacture of stone china and obtained a patent in 1800. Others soon followed, including Josiah Spode's stone china introduced c. 1813, who also called his bluish gray wares 'new stone', as well as the stone china produced by John Davenport's Longport pottery c. 1815 or slightly earlier. However, the more common term 'ironstone' applied to these hard white stonewares derived from the products that Charles James Mason marketed as 'Mason's Patent Ironstone China' from 1813 (Blacker, 1911: 190; Coutts, 2001: 214; Godden, 1999: 160, 226; Miller, 1991: 9; Orser, 2002: 336).

The early ironstone china produced by these potters was seemingly originally intended to replace the Chinese



Figs. 52-55. A Type 3B British underglaze painted whiteware teabowl, 'London' shape, with details of floral (small sprigs) motifs and a tally/workman's mark, H. 6.4cm (BC-05-00396-CR).



Fig. 56. A Type 3C British underglaze painted whiteware cream jug, H. 11.4cm (BC-05-00378-CR).



Fig. 57. A Type 3C British underglaze painted whiteware cream jug, H. 11.7cm (BC-05-00380-CR).



Fig. 58. A Type 3D British underglaze painted whiteware sugar bowl, H. 8.4cm (BC-05-00365-CR).

porcelain that the British East India Company stopped importing in 1791. By 1799 a customs duty of over 100% was placed on the import of Chinese porcelain into England, providing the incentive and opportunity to successfully introduce the cheaper stonewares, including 'Mason's Patent Ironstone China'. Most of the English stone china and the ironstone-type wares manufactured prior to the 1830s in fact were heavily decorated, often in a Chinese style and were produced to imitate the popular Chinese export-market porcelains in both design and shape (Godden, 1999: 60-62; Miller, 1991: 10).

The later ironstone and granite wares introduced after 1830 were denser, more thickly potted, often relief-molded or undecorated utilitarian vessels mass produced by a host of Staffordshire manufacturers in large part for the export markets (Godden, 1999: 160). Invoices of earthenware shipped to Philadelphia show that by the early 1840s America had started receiving steady shipments of undecorated ironstone china and 'white granite' (Miller, 1991: 10). English potters had discovered that the inhabitants of the 'colonies' greatly preferred this modestly priced, plain and durable earthenware to more expensive, exotic wares. The name ironstone china, in particular, was especially fitting because it was immediately identifiable, implied high quality, and yet was dense, hard and very durable (Cunningham Dobson and Gerth, 2010: 49; Godden, 1999: 160).<sup>6</sup>

Ironstone china's mass appeal was also explicable because of its physical similarity to white porcelain, yet economically it undercut the popular white French porcelains produced by Haviland and other Limoges and Paris makers (Godden, 1999: 160, 162). White granite, in effect, was a cheap substitute for French china. It offered a

similarity that “could be consumed by a section of American society that, whilst unable to aspire to owning French china still sought to imitate trends identified with the more affluent” (Ewins, 1997: 47). Innovative crockery dealers placed advertisements that promoted a visual resemblance between English white granite and French china. The success of this marketing strategy is highlighted in the 1857 obituary of the Dale Hall manufacturer James Edwards, who was noted as bringing “to its present state of perfection the “granite body” which competes so successfully in the markets of the States with French China” (Ewins, 1997: 47-49).

By the 1850s these British white wares were dominant in the American market. In 1852 a ten-piece fine white granite toilet set could be purchased in Baltimore for as little as \$2.25, while a 133-piece white ironstone dinner set sold for \$25.00. At the same time New York importers of Staffordshire pottery were selling 44-piece white granite teawares for a highly competitive \$2.63. By contrast, in the 1860s a New York crockery dealer offered fancy French 44-piece tea sets for \$20.00 to \$25.00 per piece (Ewins, 1997: 48-9).

While its porcelain-like appearance was certainly a key selling point, other ceramic dealers focused on the durable advantages of Staffordshire white ironstone and began expanding their market to include services used by large steamship companies, clubs, taverns, colleges and hotels, advertising in city newspapers and via popular trade cards (Blacker, 1911: 194).<sup>7</sup> This is exemplified by the case of a Philadelphia crockery dealer in 1848, who promoted the virtues of Francis Morley’s white ironstone china with the advertising phrase “suitable for Hotel and Steamboat services” (Ewins, 1997: 47).

As documented in the archaeological record, ‘public houses’ on the Eastern Seaboard, including eating and drinking establishments such as Trenton, New Jersey’s Eagle Tavern, relied heavily on ironstone china to serve its growing clientele. From the mid-1840s onward the tavern flourished with the founding of iron rolling mills and wire mills at two nearby sites (which research suggests specialized in the production of iron and steel rails for the American railroads, structural I-beams for building construction and telegraph wire, bridge wire and wire fencing, respectively). In addition to catering to the many factory workers settling in the neighborhood, the tavern likely provided meals to teamsters hauling coal to the ironworks. The sherds of ironstone china recovered from the site comprise much of the domestic and tavern-related ceramic assemblage dating to the mid-to-late 19th century (White *et al.*, 2005).

Further afield, based on an early advertisement the trade in white ironstone china appears to have reached the



Fig. 59. A Type 4A British white ironstone dinner plate, Diam. 22.7cm (SC-04-00003-CR).



Fig. 60. A Type 4B large British white ironstone bowl (flaring ‘London’ shape), Diam. 16.2cm (BC-05-00277-CR).

Western frontier by 1839, supplied in large part by a network of wholesalers working in St. Louis, who had strong ties with large-scale wholesalers and importers in Philadelphia and New York. It was not uncommon to see St. Louis storefront displays showcasing ironstone china alongside the more costly French white porcelain that they imitated. By the 1850s the St. Louis wharf was the major entrepôt for steamboats supplying the burgeoning American frontier. As the primary depot for goods needed to colonize the westernmost regions, the St. Louis wholesalers supplied





Fig. 61. A Type 4B non-flaring small British white ironstone bowl, Diam. 12cm (BC-05-00298-CR).



Fig. 62. A Type 4B medium British white ironstone bowl (flaring 'London' shape), Diam. 14.2cm (BC-05-00280-CR).

numerous small-scale retail merchants with essential necessities, such as ironstone table and toilet wares that were then further transported to some of the more remote frontier settlements (Hawley, 1995: 4).<sup>8</sup>

Extensive urban salvage excavations in the city of St. Louis have exposed a large collection of ironstone wares bearing both regional and non-local importers' marks. While local consumption was no doubt very great, the Mississippi Valley and the territory west of St. Louis formed an extensive further market for these goods, supported in large part by the growth of the river trade. As Western

settlements grew and trade flourished, the Missouri River in fact became a major commercial highway supporting hundreds of tons of cargo at any one time. By the 1850s river traffic had reached its peak (Hawley, 1995: 5).<sup>9</sup>

The steamboat *Arabia*, laden with 222 tons of frontier-bound cargo, is an example of one such vessel involved in this profitable ceramics trade. Lost in the Missouri River in September 1856, excavations over a century later uncovered crates of ironstone china, including bowls, plates, dishes, casseroles, cups and saucers, as well as water pitchers, wash basins and one odd chamber pot, most marked with the names of Staffordshire potters. Over a hundred unmarked examples were also present (Cunningham Dobson and Gerth, 2010: 64-5; Hawley, 1998: 203-204; Tolson *et al.*, 2008: 183).

While shipping records are sadly lacking, the importance of the ironstone china trade in mid-19th century America is especially apparent from the discovery of the side-wheel steamer the *SS Republic*, which sank in a fierce hurricane off the eastern coast of the United States in October 1865 (Cunningham Dobson *et al.*, 2010). Bound for New Orleans, the steamship's enormous cargo of ironstone table and toilet wares, from which a sample of nearly 3,000 individual pieces was recovered, many bearing the mark of well-known Staffordshire potters, may very possibly have been destined for further trans-shipment up the Mississippi River (Cunningham Dobson and Gerth, 2010: 25).

Upon arrival in the port of New Orleans the *Republic's* ironstone shipment would likely have been received by agents or wholesale merchants established by the pottery manufacturers or perhaps even commission merchants, the latter of whom played an important role in the city's trade through their handling of incoming (and outgoing) goods. Commission merchants in New Orleans were quite common at this time, particularly for the cotton export industry. Commission merchants were the planter's agent, serving as the intermediary between the planter and the mercantile world (Reinders, 1998: 40). Similarly, the commission merchants of San Francisco had strong international ties to maritime trade and were integral in the development of the Gold Rush frontier through the trans-shipment of goods. Many of these West Coast commission merchants were no strangers to the process, having in fact been instrumental in developing the Mississippi frontier before the California Gold Rush (Delgado, 2009: 8-9).

While the mainstay of the ceramics trade in the first half of the 19th century had been the thousands of crates of imported shell-edged, slip-decorated, painted and printed earthenware, similar to the ceramic examples highlighted above, by the middle of the century a steady stream of strong and attractive table and utilitarian ware – the equivalent

of thousands of tons – served the American consumer (Godden, 1999: 160-62). Its popularity is further confirmed by the invoices, receipts and export documents of the mid-1850s, which began listing large quantities of undecorated white ironstone china in ceramic marketing records. At this time undecorated ironstone china appears to have moved into a position of status comparable to transfer-printed wares, which they soon even replaced in popularity, at least temporarily before printed wares made a comeback after 1870 (Miller, 1988: 175; Miller and Earls, 2008: 87). Now more commonly referred to as white granite ('W.G'), perhaps to avoid confusion with the highly decorated stoneware or earlier ironstones, these wares had become the dominant type in use and would remain so through the Civil War and into the 1880s (Godden, 1999: 162; Miller, 1991: 10; Miller and Earls, 2008: 84).

As noted above, 19th-century ironstone china was largely of British Staffordshire manufacture, yet the influence of Staffordshire potters in America is witnessed by the development of early industries producing white granite ware in potteries in East Liverpool, Ohio, and Trenton, New Jersey, amongst others, whose workers in many cases had in fact originated in Staffordshire and were competing directly with the home-produced British products (Barker, 2001: 82). By the mid-19th century, even the American South produced some high-fired ironstone wares after the establishment of the Southern Porcelain Company in 1856 by potters and businessmen associated with the US Pottery Company in Bennington, Vermont. The factory continued in operation until 1864 when it was destroyed by fire (Steen, 2001: 226).

The ironstone china discovered on the Jacksonville 'Blue China' wreck, although unmarked, is believed to be of British production and was clearly cargo because the wares were found alongside the bulk of the ceramics at the bow end of the site in Area A and scattered across Area G to the southwest. The undecorated ironstone found on Site BA02 includes the following:

- A. Three molded Type 4A dinner plates (H. 3.0cm, Diam. 22.7cm, rim Th. 0.64cm, base H. 0.25cm, base Diam. 12.9cm) with no identifiable maker's marks (Fig. 59).
- B. 17 Type 4B 'London' shape fluted bowls featuring flared sides and resting on a pronounced foot ring in three sizes, 10 large, five medium and one small bowl (Figs. 60-62): small bowl H. 7.0cm, Diam. 12.2cm, rim Th. 0.28cm, base H. 0.6cm, base Diam. 6.0cm, tally mark Diam. 0.68cm; medium bowl H. 8.4cm, Diam. 14.7, rim Th. 0.32cm, base H. 0.6cm base Diam. 6.7cm; large bowl H. 9.2cm, Diam. 16.2cm, rim Th. 0.35cm, base H. 0.75cm, base Diam. 6.9cm.



Fig. 63. A Type 4C British white ironstone chamber pot, H. 12.5cm (BC-05-00134-CR).



Fig. 64. A Type 4D British white ironstone wash basin, H. 9.9cm (BC-05-00292-CR).

- C. Five undecorated Type 4C chamber pots differing slightly in size: H. 12.3-12.8cm, Diam. 20.5cm, rim Th. 0.52-0.56cm, rim W. 2.2-2.4cm, handle L. 8.9-9.1cm, handle W. 2.0cm, handle Th. 0.99-1.1cm, base H. 0.6cm and base Diam. 10.6-11.2cm. Each has an extruded handle with a leaf terminal and standing foot



*Figs. 65-66. A Type 4E British white ironstone salve jar, closed and with the lid opened, H. 3.1cm, Diam. 8.3cm (BC-05-00204-CR).*





Fig. 67. A Type 4F British white ironstone small fluted bowl, H. 5.7cm (BC-05-00299-CR).

ring. No tally or maker's marks are visible on any of the chamber pots (Fig. 63).

- D. Four Type 4D wash basins with no visible tally or maker's marks. All measure H. 9.9cm, Diam. 27.1cm, rim W. 2.3cm, rim Th. 0.46cm, base H. 1.55cm and base Diam. 12.4cm (Fig. 64).
- E. 12 Type 4Ei salve jars and four Type 4Eii lids (Figs. 65-66): jar H. 3.1cm, Diam. 8.3cm, rim Th. 0.23cm, body Th. 0.66cm; lid H. 1.3cm, Diam. 8.4cm, Th. 0.34cm. Three of the jars contain a salve or grease-like substance, possibly cosmetic or medicinal in nature (Tolson *et al.*, 2008: 177-79).
- F. One Type 4F sturdy small ironstone bowl with a gently incurved rim and vertical fluted sides consisting of 12 concave zones: H. 5.7cm, mouth Diam. 9.4cm, rim Th. 0.46cm, max body Diam. 10.5cm, base H. 0.55cm, base Diam. 6.9cm (Fig. 67).

## 6. Jacksonville 'Blue China' Wreck Type 5: Yellow Dipped Ware

Two types of artifacts made of yellow earthenware were recovered from Site BA02, a mug and five chamber pots, all of which bear a slip decoration (Figs. 9, 68-71). A total of 14 examples of Type 5 ceramics (all but one, chamber pots) were counted on the surface of the wreck and account for 1.5% of its total ceramic assemblage. The yellow bodies resemble American-made yellow wares produced by British immigrant potters who established a number of potteries

in the United States in the 1830s. Much of the yellow ware produced at this time was decorated in the British tradition with slip predominating. US pottery manufacture locations included Bennington, Vermont; Trenton, New Jersey; East Liverpool and Cincinnati, Ohio; Troy, Indiana; and Louisville and Covington, Kentucky. Since no commercially viable white-firing clay sources were found in America until later in the 19th-century, yellow ochre bodies predominated.

North American dipped wares of the period are not easy to distinguish from the yellow-bodied wares produced in potting centers in Great Britain. However, given the predominance of British ceramics identified on the Jacksonville 'Blue China' shipwreck, the yellow wares are also very probably of English manufacture, most likely from the south Derbyshire region renowned for its yellow-bodied wares (Rickard, 2006b: 2; Tolson *et al.*, 2008: 179). Bristol, the northeast and Scottish potteries were also engaged in its manufacture (pers. comm. David Barker, 9 November 2010).

The slip decoration on the one Type 5A yellow ware mug recovered from the wreck (H. 7.8cm, mouth Diam. 6.7cm, rim Th. 0.32cm, handle L. 6.3cm, handle W. 1.2cm, handle Th. 0.64cm and base W. 7.4cm), with a light buff discolorisation, consists of four thin brown stripes, two at the top and two at the bottom (Fig. 68). The handle has broken off and no tally or maker's mark is present. Interestingly, while similar to the slip-decorated whiteware mugs referenced above (see Section 3), this yellow ware mug is the only example recovered from the ceramic assemblage.

Of the five yellow earthenware chamber pots recovered (Fig. 69), one features Type 5Bi slip decoration (H. 12.6cm, mouth Diam. 22.1cm, rim Th. 0.57cm, rim W. 2.1cm, handle L. 8.7cm, handle W. 2.2cm, handle Th. 0.94cm, max body W. 19.1cm, base H. 0.8cm, base Diam. 13.4cm, upper band W. 0.95cm). It is unadorned except for a series of thin, slip-trailed blue lines encircling the body and rim of the vessel. All five of the pots incorporate an extruded handle and are raised on a foot ring. The handle on one of the pots has broken off. No tally or maker's marks are apparent on any of the examples.

The other four Type 5Bii chamber pots (H. 13.0cm, mouth Diam. 21.9cm, rim Th. 0.64cm, rim W. 2.2cm, handle L. 8.5cm, handle W. 2.2cm, handle Th. 0.93cm, max body W. 18.6cm, base H. 0.65cm, base Diam. 13.2cm) are decorated with thin blue lines framing a wide white band (H. 5.7cm), over which is a blue 'dendritic' tree-like decoration (Tolson *et al.*, 2008: 181; Figs. 70-71). The clay core is merely a light buff discolorisation. Such surface-decorated slip-glazed ceramics are known as



Fig. 68. A Type 5A British dipped yellow ware mug, with slip-trailed lines surrounding the body and rim, H. 7.8cm (BC-05-00168-CR).



Fig. 69. A Type 5Bi British dipped yellow ware chamberpot, with slip-trailed lines surrounding the body and rim, H. 12.6cm (BC-05-00322-CR).

mocha ware, which of all the different types of slip-decorated wares seem to have been considered especially attractive.

Mocha ware developed in late 18th-century Staffordshire, where the earliest written reference to this pottery form is associated with Lakin and Poole factory invoices dating to 1792-96, which mention 'mocoa tumblers' (Rickard, 2006a: 46, 54). This distinctive pottery type was named after the Yemeni port city of Al Mukah, called

'Mocha' in the 18th and 19th centuries by the English-speaking world. Famous for its export of coffee, this Red Sea port city was also renowned for the large quantities of Arabian moss agate or 'mocha stone' it shipped to London in the latter part of the 18th century. Characterized by delicate and beautiful fern or tree-like (dendritic) striations, this semi-precious gemstone was imported by London merchants for setting in fashionable gold and silver women's jewelry (Carpentier and Rickard, 2001: 122; Rickard, 2006a: 46).

The popularity of moss agate seems to have inspired the production of slip-decorated white or cream earthenware, decorated with patterns simulating the stone's dendritic visual effect, and was typically featured on common utilitarian wares such as jugs, mugs, chamber pots and bowls (Rickard, 2006a: 46). The resulting name for this distinctive new pottery was 'Mocoa'. While some surviving documentary evidence points to Staffordshire's Lakin and Poole as its earliest producer, other sources alternatively identify even earlier mocha production by William Adams soon after he established his Tunstall factory, again in Staffordshire, in 1787. This colorful domestic pottery ware was sold at a moderate price and is said to have helped bring Adams' work into eminence (Turner, 1904: 37). The following decade the potter's cousin, another William Adams, was also making mocha at his Cobridge factory. By 1820 mocha ware was being produced by several additional Staffordshire potteries (Rickard, 2006a: 137).

The original process for creating the tree and branch-like pattern unique to mocha ware involved producing an acidic solution potters called 'mocha tea' (often also referred to as a 'tobacco tea'), which was then applied to an alkaline slip. The resulting chemical and physical reaction between the 'tea' and wet slip would quickly and randomly produce the underglaze's arboreal patterns. In 1833 an observer of the process described it as follows (Carpentier and Rickard, 2001: 122, 125):

"The 'Moco' pattern on the outside of the basons makes them appear as if delicate branches of seaweed have been laid upon their surfaces... The fluid employed is a preparation of tobacco-water; and in applying it the effect is brought out with little waste of either time or labour. A camel's hair pencil full of the decoction is taken in the hand, and with the point of it the surface of the bason is dotted with two or three dots where the pattern is intended to be. The fluid instantly spreads and runs into these ramifications."

Most potters however, seem to have developed their own formulas for the mocha solution, which, as described in surviving formulas of the period, called for the inclusion of printers ink, hops, tansy, urine and, in at least one case,

spirits of turpentine (Carpentier and Rickard, 2001: 125). Two different types of dendritic decoration are found: the more recognizable bearing a resemblance to trees and the other reproducing a branching, seaweed effect (Figs. 70-71). Both entailed slightly different techniques, yet were clearly the result of a dynamic process between the two liquids, the acidic tea and the alkaline slip, with the element of chance playing a key role in the final production (Rickard, 2006a: 46, 49). Of the four mocha-patterned chamber pots recovered from the Jacksonville 'Blue China' wreck, three are adorned with the vertical tree-like decoration and one with the branching seaweed design. The handle of this latter vessel is broken off.

The widespread popularity of mocha wares amongst North American consumers is well documented in early 19th-century records. This testimony, however, is likely to refer to mocha on cream and pearlwares and not to the importation of yellow wares, for which there is apparently little documentary evidence (pers. comm. David Barker, 9 November 2010). Advertisements cite the shipment of mocha to a number of eastern port cities, including New York and Boston. An 1815 entry from the *Boston Daily Advertiser* lists "53 dozen Moco Bowls" for sale. Another advertisement of 2 August 1823 presents the name of the potter as Andrew Stevenson, who was offering "30 crates Mocho...for sale by package from Liverpool. Manufacturers of goods they bring to market." Stevenson was operating out of Cobridge, Staffordshire, between about 1816-30. Like a number of British potters, it would appear that he also maintained an office or pottery outlet in New York on 58 Broadway to serve what at the time was quite likely the Staffordshire Potteries' most important export trade (Rickard, 2006a: 52).

An even earlier invoice of 2 June 1797 lists "5 doz [jugs]...Mocoa" shipped to Boston "on the Account and Risque of Wood and Caldwell of Boston", which also operated a pottery in Burslem between 1790 and 1818. Of the 80 crates of British earthenware mentioned in this invoice, a significant 19% was mocha. A further 56% of the shipment represented additional dipped wares. This consignment of mocha and other dipped wares combined represented 75% of the pottery shipment, which when compared with data from other records for this period supports the contention that these wares were amongst the cheapest British decorated hollow-wares available to the American market (Carpentier and Rickard, 2001: 115; Rickard, 2006a: 52).

Mocha was most popular during the period 1795-1835, as documented on American sites (Miller, 1991: 6). However, by the middle of the 19th century the US market for British utilitarian slipwares, including dendritic-decorated 'mocha' ware, was on the decline, supplanted



Fig. 70. A Type 5Bii British dipped yellow ware chamber pot, slip-decorated 'dendritic' pattern (vertical tree-like decoration), H. 13.0cm (BC-05-00320-CR).



Fig. 71. A Type 5Bii British dipped yellow ware chamber pot, slip-decorated 'dendritic' pattern (branching seaweed design), H. 13.0cm (BC-05-00405-CR).

in large part by American potteries populated by British workmen producing similar slip decorations on yellow bodied pots. Dendritic decoration continued to be produced for the domestic market for use in pubs and markets until 1939, spanning nearly 150 years. At this time T.G. Green, the last British company known to have produced mocha commercially, halted manufacture to concentrate on supporting the war effort (Carpentier and Rickard, 2001:125; Rickard 2006a: 56).



## 7. Jacksonville 'Blue China'

### Wreck Type 6: Canton Ginger Jars

Asian (Canton) ginger jars were popular exports to both America and Britain for much of the mid-19th century. The name 'ginger jar' derives from the fact that similar containers were used for the export of large quantities of crystallized ginger (as well as other pickled food items) from China.

Four intact Type 6 ginger jars, all the same height (H. 15.4cm, mouth Diam. 7.0cm, rim H. 0.65cm, rim Th. 0.5cm, max. body Diam. 15.3cm, base Diam. 12.9cm), were recovered from the northwest flank of Area A on the Jacksonville 'Blue China' wreck site, possibly representing a small consignment of higher value exotic ceramics aboard the vessel (Figs. 8, 72-78). All four are missing their lids and no maker's marks are present. The hand painted blue-underglaze decoration features a house by the water, a man fishing and a sailing boat. The outline of the embellishment is drawn in light and heavy blue lines and the color is washed to lighter shades to contrast with the white porcelain (Tolson *et al.*, 2008: 181). Dated generally to the period 1840-60, the proposed date of 1854 for the loss of the Site BA02 coastal schooner helps further pinpoint the period of this style's circulation.

Americans' taste for fine china developed during the Colonial era, when Chinese goods first arrived in the New World in British hulls. After the American Revolution, merchants were freed from the embargos and monopoly restrictions formerly imposed on the colonies. The Orient, long a monopoly of the British East India Company, was now accessible to American shipping. Direct trade between the United States and China began in 1784 with the famous *Empress of China*, which sailed from New York to Canton, the only Chinese port open to Western nations (Swift *et al.*, 1939: 24). By the 1790s American trade with China had surpassed that of all other nations except for Great Britain (Layton, 1997: 24). Five American ships arrived in Canton between 1786 and 1787, a figure which increased tenfold to 59 ships from 1832-33 (Yong, 2000: 23-24).

The China trade had, in fact, become especially important to America as a prolific source of revenue to both merchants and the government and for the essential 'necessities' it provided the American consumer – tea, silks and porcelain, in particular – the importance of which was somewhat absurdly deemed "almost equivalent to that of bread" in one early 19th century account. While Chinese porcelain was largely employed by the upper and middle classes, even poorer families could boast at least a limited proportion of chinaware on their mantelpieces (Mudge, 1981: 145-46).



Figs. 72-74. A Type 6 porcelain Canton ginger jar; H. 15.4cm (BC-05-00017-CR).



*Figs. 75-76. A Type 6 porcelain Canton ginger jar, H. 15.4cm (BC-05-00150-CR).*

*Figs. 77-78. A Type 6 porcelain Canton ginger jar, H. 15.4cm (BC-05-00151-CR).*

By as early as the 1830s America's interest in Chinese porcelain appeared to be on the wane and incoming cargos diminished. In the 1833-34 shipping season, only 1,322 boxes of china wares left Canton, a quantity easily handled by a mere four or five ships. As often was the case this trend seems to have reflected a pattern established by the British, whose East India Company stopped importing porcelain in 1801, partly due to an overstocked market, as well as an apparent decrease

in consumers' interest in all things Chinese. Also relevant, of course, were the increased activities of the English ceramic industry and the imposition of high import tariffs to protect them (Mudge, 1981: 147). By the mid-1850s, as the ceramic composition of the Jacksonville 'Blue China' shipwreck verifies, Chinese porcelain was greatly surpassed by British earthenware and was no longer considered to be an obligatory necessity for the majority of fashionable American households.





*Figs. 79-81. A Type 7Ai British transfer-printed whiteware plate, 'Asiatic Pheasants' pattern, with details of decoration and pottery dealer/agent stamp on the base; Diam. 23.8cm (SC-04-00001-CR).*

## 8. Jacksonville 'Blue China' Wreck Type 7: Transfer-Printed Wares

Only three individual examples of transfer-printed wares (two circular plates and a sauce boat) were recovered from Site BA02 (Figs. 79-85). These few examples may hint at the presence of a larger consignment of decorated cargo wares not identified during the limited on-site recovery of surface material or loss through bottom trawling impacts. It is perhaps hard to imagine the crew using a relatively fancy sauce boat at sea.

The technique of transfer printing designs under the glaze on ceramics represents one of the great 18th-century English innovations that revolutionized the Staffordshire ceramic industry, enabling the application of complex decoration both quickly and relatively inexpensively. It also permitted uniformity of design between vessels that had previously not been possible (Samford, 2000: 56). Significantly, transfer printing developed at a time when businesses were searching for ways to produce more economic goods by mechanical processes. Until then, the only methods known to potters for decorating their wares was painting, which was not only labor intensive but also costly. Only the most affluent English could afford complete sets of dinnerware since every dish had to be carefully painted by an artisan. Transfer printing in effect allowed hundreds of sets of dinnerware to be produced at a fraction of the time painting took and for a fraction of the cost, thus making such table wares more readily accessible to middle class families.<sup>10</sup>

Transfer printing is the process by which a pattern or design is first engraved on a copper plate. The plate is then inked with a metallic oxide pigment and the pattern printed onto a special tissue; the inked tissue is used to transfer the design onto a biscuit-fired ceramic object. The object is then glazed and fired again, which vitrifies the glaze and transforms the metallic oxide pigment to the desired color.

Of all the economically accessible ceramic products available during the period of interest, transfer-printed products were still amongst the most expensive decorated earthenware available to the US market until the mid-19th century. By the 1790s transfer printing had become a common method of decorating ceramics in the Staffordshire potteries and its products were three to five time more expensive than undecorated plain whiteware vessels (Miller, 1988: 174). Most North American archaeological assemblages dating to the first half of the 19th century contain few wares whose cost exceeded that of transfer-printed wares (the major exception is porcelain, for which there are minimal pricing records). Gradually however, the price differential between transfer-printed wares decreased to



less than two times the cost of undecorated whiteware, and as they became cheaper consumption naturally increased. While the prices of all ceramics were falling, as documented by Staffordshire invoices for ceramics exported to America from 1809-44, the prices for printed wares fell most sharply. By the 1850s the cost of printed plates was only slightly higher than of shell-edged plates (Miller and Earls, 2008: 97, 98).

This trend is readily documented on sites dating after the War of 1812 (Miller, 1988: 174). Following this war, despite a complex set of tariffs, English wares still continued to flood the American market (Martin, 2001: 34). The increase in the consumption of printed wares at this time, as indicated by New York invoices for pottery, was probably the result of a major decline in ceramic prices. Almost 43% of the plates and soup plates ordered by New York merchants between 1838 and 1840 were transfer-printed wares. While formerly a luxury of the upper classes, by 1842 a group of New York pottery dealers considered these Staffordshire wares sufficiently inexpensive to have penetrated the poorest households (Samford, 2000: 58-9).

Staffordshire potters manufactured thousands of printed earthenware designs in a variety of colors and patterns, which gained immediate acceptance from both the British and American markets, many of which remained immensely popular until the mid-19th century. While the production span of most patterns was short-lived and often limited to one potter, designs such as 'Asiatic Pheasants' and 'Willow', both of which are individually represented amongst the Jacksonville 'Blue China' examples, were extremely popular and were manufactured by a number of potters (Samford, 2000: 56).

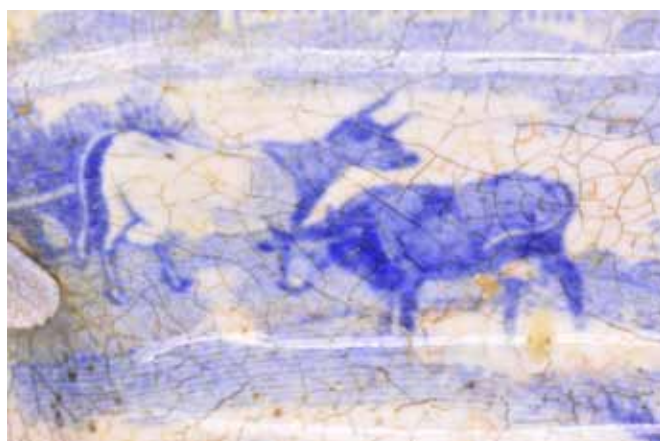
One of the two transfer-printed plates recovered from Site BA02 (H. 2.8cm, Diam. 23.7cm, rim Th. 0.48cm, base H. 0.8cm, base Diam. 13.4cm) is decorated in brown with an elaborate bird-and-flower motif known as 'Asiatic Pheasants' (Type 7Ai; Figs. 79-81), which was one of the most popular dinnerware patterns of the Victorian era and is still produced in Staffordshire today. Podmore Walker & Co., which opened for business in Well Street, Tunstall, in 1834 is generally acknowledged as being the first producer of the 'Asiatic Pheasants' pattern (although who actually originated the pattern remains unsubstantiated). The company was joined by Enoch Wedgwood in 1854 and became Wedgwood & Co. in 1860.<sup>11</sup> Well before this partnership, the pattern was used by a number of other manufacturers and not always under license. However, co-operation between pottery firms was not unusual, patterns were frequently loaned, and when large orders arrived they were often sub-contracted to other firms, even competitors, to meet demand.



Fig. 82-83. A Type 7Aii British transfer-printed whiteware soup plate, 'Willow' pattern, with pottery dealer/agent stamp on the base, Diam. 23.8cm (BC-05-00348-CN).

The town most associated with the 'Asiatic Pheasants' Pattern is Tunstall, where from c. 1838-1939 it was in continuous production by a number of different pottery firms, including the Well Street, Swan Bank, Unicorn, and Pinnox works (Jewitt, 1883: 563; Tolson *et al.*, 2008: 176). The pattern was also copied by several potteries along the Clyde in Scotland, the Tyne and Tees in Northumberland, in Yorkshire, London, Devon and South Wales (Bebb, 2004: 38; Tolson *et al.*, 2008: 176). The 'Asiatic Pheasants' pattern was so well-received, in fact, that it was considered one of the standard patterns of Great Britain and the colonies (Jewitt, 1878: 425; 1883: 563).

The reverse of this plate bears the large printed mark 'F. PRIMAVESI & SONS/CARDIFF' measuring 4.0 x 3.3cm (Fig. 81). Fedele Primavesi's firm, located in Cardiff and Swansea, Wales, specialized in the re-sale of Welsh and



Figs. 84-85. A Type 7B British transfer-printed whiteware sauceboat and detail of decoration, L. 14.3cm (BC-05-00347-CR).

Staffordshire pottery wares. The company was active from 1850-1915. Pottery agents or dealers such as Fedele Primavesi served as middlemen between the potteries and the china retailers or warehouses. In this case, the Primavesi mark was applied by the manufacturing pottery.

A second transfer-printed plate recovered from Site BA02 (Type 7Aii: H. 3.8cm, Diam. 23.8cm, rim W. 3.4cm, rim Th. 0.51cm, base Diam. 12.3cm, base stamp 4.8 x 1.2cm) is a soup plate decorated in the standard 'Willow' pattern, perhaps the best known design on early 19th-century pottery and which, by 1814, was the cheapest transfer-printed pattern available in the potters' price fixing lists (Figs. 82-83). It apparently retained that position throughout the 19th century (Miller, 1988: 8).

The standard 'Willow' pattern, produced after 1810, was developed by Josiah Spode in his Staffordshire Stoke-upon-Trent pottery and derived from an original Chinese pattern called Mandarin. However, apparently no Chinese pattern contained all of the features of the

standard 'Willow' pattern created by Spode. Spode may have produced an earlier version of the 'Willow' pattern c. 1790 and a second 'Willow' pattern engraved from copper plates about the same period, but of a finer quality. His third version became what is now known as the true 'Willow' pattern. The design is based on oriental temple landscape patterns and consists of the following principal features: a bridge with three people crossing it, the willow tree, the boat, the main tea house, two birds and a fence across the foreground of the garden (Copeland, 1980: 33-5). The dainty little design instantly became popular and for nearly two centuries thereafter remained the stock-pattern of virtually every British pottery manufacturer and amongst potters in other countries as well (Miller, 1991: 8).<sup>12</sup>

The Type 7Aii Jacksonville 'Blue China' soup plate decorated in this transfer-printed style bears a maker's mark containing the words 'STONE WARE / B H & Co.' (Fig. 83). This mark has been identified as deriving from Beech, Hancock & Co., a Staffordshire pottery workshop that began production at the Swan Bank Works in Burslem. Research indicates that this mark was used between 1851 and 1855 (Tolson *et al.*, 2008: 177).<sup>13</sup> The excavation of the 1865 wreck of the *SS Republic* yielded only one 'Willow' patterned item: a large platter without any visible maker's mark.

The third transfer-printed ware from Site BA02 is an earthenware sauce boat with a broken handle, printed with a light blue design on a white ground depicting cows in a country setting (Jacksonville 'Blue China' wreck Type 7B: H. 9.5cm, total L. 14.3cm, Diam. 7.8cm, spout L. 4.3cm, spout W. 5.0cm, spout Th. 0.36cm, body Th. 0.48cm max, max body W. 8.4cm, handle W. 1.1cm, handle Th. 0.47cm, base H. 1.1cm, base Diam. 7.8 x 4.9cm, base Th. 0.62cm max; Figs. 84-85). The discolored clay fabric core is reddish yellow, 5YR 7/6. The original name of this pattern has yet to be identified, but it is similar to the pastoral genre produced during this era. While the early transfer-printed wares typically featured popular oriental themes, historical events and pastoral settings depicting scenes from rural life with farming, cattle and others animals soon became fashionable as well. No tally or maker's mark is visible.

## 9. 'Jacksonville Blue China' Wreck Type 8: Stoneware

Stoneware vessels were an integral part of daily life in North America from the time of European settlement and were deposited on domestic archaeological sites throughout the 17th and 18th centuries (Skerry and Hood, 2009).

By the mid-19th century Americans continued to maintain a strong preference for stoneware pottery, primarily due to its remarkable durability.

Most stoneware was originally salt-glazed, creating a distinctive pitted texture on the surface, which is more evident on brown and gray than on white wares. This rough-surfaced glaze was produced by throwing common salt directly on the fire as the heat of the kiln approached its maximum temperature. The intense heat vaporized the salt, which settled in a fine mist on the pottery, giving it a transparent and exceedingly hard finish (Barber, 1907: 5; Skerry and Hood, 2009: 1). These stoneware vessels were considered safe to use, presumably because they were not made with a toxic lead-based glaze, were relatively inexpensive and especially sturdy. Impervious to the harmful effects of highly saline or acidic solutions, stoneware was also particularly well suited for use in preparing and storing a wide range of liquids and foodstuffs (Skerry and Hood, 2009: 1-2). Ralph Russell, an early Pennsylvania potter, used poetic license to describe his hardy wares. "Genuine stoneware", stated Russell, "will never sour, rust, or rot in the shape of a churn, jar, or pot." If properly cared for they would outlast their users by many generations.<sup>14</sup>

Stoneware was first produced in the West during the Middle Ages in modern Germany, with salt-glazed wares manufactured extensively from the early 16th century (Barber, 1907: 5; Greer, 1981: 180; Skerry and Hood, 2009: 1). The Rhineland region produced the first brownware to arrive on American shores, largely in the form of storage jugs for liquids, and some mugs, both of which would serve as essential objects for everyday American life over the course of the 17th century (Skerry and Hood, 2009: 7).

The oldest English salt-glazed stoneware was apparently a close imitation of the German brownware, which was being produced in quantity by English Staffordshire potters by the last quarter of the 17th century, and soon supplanted German imports. As documented in advertisements in this period, the presence of German brown stoneware in England and the American colonies declined as English salt-glazed wares became more readily available to fulfill the demands of a burgeoning market (Skerry and Hood, 2009: 66-7, 205; Weatherill, 1971: 9).

The export of large quantities of both German and English salt-glazed stoneware to America discouraged local production during the Colonial period. A further major deterrent was the lack of high-firing clay suitable for manufacturing stoneware. Most of the clay used to make early American stoneware came from the Raritan Formation in New Jersey, New York and Pennsylvania (Skerry and Hood, 2009: 185). Salt-glazed stoneware production in North



*Fig. 86. A Type 8 American salt-glazed stoneware jug, New York, H. 34.2cm (BC-03-00005-BE).*

America was thus originally centered around New York and New Jersey because of their close proximity to stoneware clay beds and their ready access to the coastal trade, which marketed their product widely (Baldwin, 1993: 14).

The development of early American stoneware was largely inspired by European imports and was frequently produced by immigrant craftsmen trained in Germany or England. Stoneware production in the colonies, like so much of American history, began in Yorktown, Virginia, around 1720. The first salt-glazed stoneware objects produced in William Rogers' manufactory were close imitations of British brown stoneware, which is found in large quantities on 18th-century American archaeological sites (Skerry and Hood, 2009: 185-87).

Shortly thereafter, a domestic salt-glazed stoneware industry emerged in the northeast on Manhattan Island, favorably situated between two large deposits of stoneware clay. Production began with the migration of two German stoneware potters, first Johan Willem Crolus in 1718, and in 1731 Johannes Remmi (later known as John Remmey). Both potters originated in the Westerwald, the center of 18th-century German stoneware production, and would





Fig. 87. A Type 9 salt-glazed German stoneware bottle, H. 26.9cm (BC-03-00002-BE).

later become related by marriage, linking their American potteries (Barber, 1907: 24-5; Skerry and Hood, 2009: 192-3).<sup>15</sup>

With the discovery of stoneware deposits (originally called 'fireclay') in Western Pennsylvania in the early 1800s, Pennsylvania too became a prolific producer. While New York's Erie Canal system supported more factories, Pennsylvania's industry had greater longevity. Her immigrant population increased dramatically mid-century, and with it an increase in the number of people who depended on stoneware crockery for a variety of needs.<sup>16</sup> With its early start in Virginia, the mid-Atlantic region and the South would also support a thriving stoneware industry (Baldwin, 1993: 14; Barber, 1907: 24-26; Burrison, 2007: 119; Skerry and Hood, 2009).

Of the three stoneware vessels recovered from the Jacksonville 'Blue China' shipwreck, Type 8 is a heavy-bodied salt-glazed stoneware jug of American production dating to 1850-60, the core fabric of which is discolored today but was typically brown or gray-bodied (Fig. 86). The interior of this vessel emits a strong smell of oil or tar (H. 34.2cm, external mouth Diam. 5.4cm, rim H. 1.9cm, rim Th. 1.3cm, handle W. 3.2cm, handle Th. 2.5cm, max body W. 21.3cm, base Diam. 17.0cm). The upper rim/handle junction has a strip of burning across it and a reddish brown pitch-like residue occurs on the interior and exterior of the rim and down the outer neck. A thumb imprint impressed into the clay of the lower handle lug measures 2.2 x 1.1cm. This vessel represents the only identifiable American ceramic object found on the wreck site (Tolson *et al.*, 2008: 181). The elongated, ovoid-shaped vessel with a bifurcated handle is devoid of decoration with the exception of cobalt highlights at the handle terminal. This feature stylistically imitates jugs of Germanic tradition that often display cobalt blue brushed within an incised design around handle terminals (Burrison, 2007: 119; Skerry and Hood, 2009: 196-7).

The Type 8 style of jug was typically used to bulk store any number of liquids, such as water, wine, rum, vinegar and oil. Such vessels were produced in large quantities in the northeastern United States in New York and Pennsylvania in particular, either of which may have been the origin of the Jacksonville 'Blue China' example, although New York is most probable, as observed by ceramic historian Robert Hunter and documented for similar wares (Skerry and Hood, 2009: 197; Tolson *et al.*, 2008: 182). A similar, although slightly less ovoid-shaped, one-gallon salt-glazed jug with a large cobalt floral spray brushed on the front, bears the impressed company name 'PFALTZENGRAT & CO./York Pennsylvania' and dates to the second half of the 19th century (Greer, 1989: 165). The longevity of the form is reflected by a similar two-gallon salt-glazed jug dated to c. 1805-1810 and attributed to Frederick Carpenter of Charleston, 'Boston', with the capacity numeral impressed on the front of the vessel just below the mouth ring (Greer, 1981: 165). The form was also recovered from the 'Mardi Gras' shipwreck in the Gulf of Mexico, decorated down its body with an incised floral motif, and dated to between 1808 and c. 1820 (Ford *et al.*, 2008: fig. 5.17; Ford *et al.*, 2010: 93).

A second stoneware vessel recovered from the shipwreck (Type 9; Fig. 87), also apparently salt-glazed, is a tall cylindrical dark red (2.5YR 4/8) bottle (H. 26.8cm, external mouth Diam. 3.0cm, rim Th. 0.63cm, neck H. 2.4cm, handle L. 5.4cm, handle W. 1.7cm, handle Th. 1.3cm, max body W. 9.2cm, base Diam. 8.7cm). Seemingly originating

as a form in mid-18th century Germany with a more ovoid body (Gaimster, 1997: 271, pl. 135), this unmarked vessel is similar to stamped examples of the latter half of the 19th century that held various fluids better suited to storage in dark, cool environments: mineral water, sarsaparilla, wine, beer, vinegar cider, oil, molasses and even ink. While the origin of this jug is Rhenish, the bottle style is similar to stoneware jugs that bear foreign pottery or company marks, most frequently from Denmark, England, Germany and Sweden (pers. comm. Byron Dille, 2006; Tolson *et al.*, 2008: 181).

The sole Site BA02 Type 9 example appears to be similar to 12 bottles of Amsterdam ale packaged in tall, wheel-turned reddish-brown unglazed stoneware bottles recovered from the hull of the steamboat *Bertrand*, which sank in Portage La Force near De Soto Landing in Nebraska Territory in 1865. The cork stoppers sealing the *Bertrand* bottles are covered with thick embossed foil caps that extend onto the necks, suggesting the manner in which the Jacksonville 'Blue China' bottle was once sealed. The relief-stamped cap features the words 'WYNAND FOCKINK/AMSTERDAM.' The words 'AMSTERDAMSCH' and 'AMSTERDAM' also appear on the bottles (Switzer, 1974: 13, 15).

A single unmarked individual jug of this type was also recovered from the 1865 wreck of the *Republic*, which carried a large cargo of stamped British salt-glazed stoneware master ink bottles as well as a few unmarked examples. An almost identical example was also recovered from the deep-sea Ormen Lange shipwreck off Norway, from which recovered coins post-date 1802 (Bryn *et al.*, 2007: 142, 159).

The third stoneware vessel recovered from the site, a Type 10 English jar with a so-called Bristol glaze (Fig. 88), is the original artifact recovered in a fisherman's net that ultimately led to the discovery of the shipwreck (this artifact resides with a fisherman, so dimensions are unavailable). It bears the incised stamp of 'Pearson & Co., Whittington Moor Potteries, near Chesterfield'. Chesterfield in Derbyshire was renowned for its many potteries and James Pearson established a pottery at Whittington Moor around 1810, which continued to operate well into the 20th century (Blacker, 1911: 312; Jewitt, 1883: 354).<sup>17</sup>

The jar's form of glaze was developed in Bristol, England, in 1835, and was adopted by American stoneware potters in the late 1800s (Burrison, 2007: 116), soon replacing much of the brown salt-glazed stoneware used for utilitarian wares (Greer, 1981: 210; Sweezy, 1994: 57, 94; Tolson *et al.*, 2008: 181). The 'Bristol' glaze also supplanted the earlier British lead-glazed wares when the poisonous nature of raw lead compounds was recognized as a health hazard in the growing pottery industry in the 19th century.



Fig. 88. A Type 10 British stoneware jar, Bristol-glazed (BC-03-00002-BE).

Bristol glaze historically used zinc oxide as a substitute for lead (Greer, 1981: 212; Rhodes, 2000: 206).

To create the two-toned effect, vessels were typically dipped vertically, with a creamy-white color more often present on the bottom half and a rich yellow ochre on the top. As a result, the Bristol glaze is sometimes called 'double glazed' (Jewitt, 1883: 94; 1878: 142). Bristol-glazed wares are most commonly reported in bottle forms from American archaeological sites, yet the glaze is also found on stoneware crocks, jars and other utilitarian items (Tolson *et al.*, 2008: 181).

All three stonewares on Site BA02 occur as single examples and were recovered from the northwest end of the wreck, which represents the stern where the ship's galley and crew's belongings would have been stowed. This depositional pattern, coupled with the small size of this assemblage, suggests use as domestic assemblage by the small crew of four to five people, rather than identification as remains of cargo.

## 10. Conclusion

The ceramics recovered from the Jacksonville 'Blue China' shipwreck present a unique opportunity to study the composition of a largely British-made ceramic cargo carried by an American coastal trader in the mid-19th century. As a single assemblage the ceramic evidence is indicative of a date between 1851 (the earliest date of the transfer-printed plate bearing the maker's mark 'STONE WARE / B H

& Co.’) and 1860 at the latest, which is consistent with the evidence from other artifacts recovered from the site. Additional artifacts from the wreck point to its most plausible loss in 1854, perhaps during the great hurricane of 7-9 September, which inflicted the greatest damage to the vicinity of Charleston and Savannah in Georgia (cf. Gerth *et al.*, 2011: 64-8).

The diversity of ceramic wares present amongst the wreck’s cargo accurately reflects the range of relatively cheap table, tea and toilet wares accessible to the North American market at a time when the British ceramic industry retained a cultural dominance over US pottery consumption and strove to meet the demands of a burgeoning working and middle class by developing popular styles intended to imitate more expensive wares. The success, in fact, of the British manufacturers and Staffordshire potters in particular “was largely due to the appeal of their products by the mass-consuming lower, lower-middle and middle class markets for whom price was as significant a factor as quality” (Barker, 2001: 81).

By the mid-19th century American trade was so important that many British factories were entirely devoted to this market, with larger manufacturers retaining outlets or relying on agents in the main American ports, while the smaller firms depended more heavily on the American dealers, whose role became increasingly more important (Barker, 2001: 82). With the growth in river travel, North American importers and wholesale merchants relied on an effective network for the distribution of these British wares from the Eastern Seaboard into the American frontier, which included the channeling of goods via land, canal, and ocean transportation, with coastal vessels typified by the Jacksonville ‘Blue China’ wreck playing an active role in this commerce.

Moreover, the cargo on Site BA02 provides direct archaeological evidence of mid-19th-century purchasing and manufacturing patterns, whereby ceramics were segregated into categories of tea ware, tableware and kitchenware. While some of these functional products were available both undecorated and transfer-printed, the decorative types were almost always limited to wares of a particular function. For example, shell-edged wares were tableware; painted wares were primarily teaware; and dipped wares were limited to hollow wares such as bowls, mugs, jugs and chamber pots. The existence of such cargos is merely hinted at in contemporary shipping records, but very few of these assemblages have survived intact, making the discovery of the Jacksonville ‘Blue China’ wreck off southeastern America especially significant.

The recovery of this ceramic assemblage, albeit merely representing a minor sample of the total cargo associated

with the wreck (since it is impossible to determine how many artifacts were dragged off-site by trawlers), facilitates comparisons with the assemblage excavated from the steamboat *Arabia* dated to 1856, both of which provide insights into the composition of ceramic cargos of the period. Further, the archaeological data derived from the Site BA02, combined with primary historical documents such as shipping records, potters’ invoices, and trade catalogs, have contributed to a greater understanding of the variety, availability and marketing of ceramics in North America, while at the same time highlighting the production and consumer trends that influenced and shaped the American household during the mid-1800s. The ultimate research value of the ceramic cargo from the Jacksonville ‘Blue China’ wreck – a single-phase closed archaeological deposit – is its rare primary data that reveal the specific types, status and relationships of products that circulated contemporaneously throughout much of mid-19th century America.

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## Notes

1. See: [www.nps.gov/seac/archy79.htm](http://www.nps.gov/seac/archy79.htm) and Ehrenhard, J.E. and Bullard, M.R., *History and Archeology at the Robert Stafford Plantation, Cumberland Island* (SEAC report, 1981).
2. See also *Diagnostics Artifacts in Maryland* (Maryland



- Archaeological Conservation Lab): <http://www.jefpat.org/diagnostic/PostColonial%20Ceramics/Shell%20Edged%20Wares/Shell%20Edged%20Wares%20Main.htm>.
3. See *Diagnostic Cultural Materials*, C-2 to C- 3: <http://www.ncdot.org/doh/preconstruct/pe/ohe/Archaeology/craven/DiagnosticCulturalMaterials.pdf>.
4. See also: <http://www.thepotteries.org/potters/adams.htm>.
5. See also: <http://virtual.parkland.edu/lstelle1/len/archguide/documents/arcguide.htm>.
6. See also: <http://www.thepotteries.org/types/ironstone.htm>.
7. See also, *White Ironstone China Importers and Retailers Saint Louis Mo 1829-1860*: 4, 28, 71, <http://members-only.whiteironstonechina.com/import.pdf>.
8. See also, *White Ironstone China Importers and Retailers Saint Louis Mo 1829-1860*: 3, 70. Web link as in Note 7.
9. See also, *White Ironstone China Importers and Retailers Saint Louis Mo 1829-1860*: 51, 60. Web link as in Note 7.
10. See: [http://www.thepotteries.org/types/transfer\\_ware.htm](http://www.thepotteries.org/types/transfer_ware.htm) and <http://www.antiqueweb.com/articles/antiquepottery.html>.
11. See: [http://www.thepotteries.org/patterns/asiatic\\_p.html](http://www.thepotteries.org/patterns/asiatic_p.html).
12. See: <http://www.thepotteries.org/patterns/willow.html>.
13. See: <http://www.asiaticpheasants.co.uk/Makers/Beech%20Partnerships.html>.
14. See, Phil Schaltenbrand, *Western Pennsylvania's Stoneware Potters*: <http://www.tfaoi.com/aa/7aa/7aa782.htm>. The data in this section is also derived from an essay published in *Resource Library*, 28 June 2007, relating to an exhibit entitled *Made in Pennsylvania: A Folk Art Tradition* at the Westmoreland Museum of American Art from 23 June to 14 October 2007.
15. See: *New York State Museum 59th Annual Report* (1905: 26).
16. See Note 14.
17. See also: [http://www.oldminer.co.uk/Chesterfield/Chesterfield\\_Potteries.htm](http://www.oldminer.co.uk/Chesterfield/Chesterfield_Potteries.htm).
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