

# Border Ware

## At Port Royal, Jamaica

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Port Royal, Jamaica, was a defensive colonial port settlement, captured by the English from the Spanish in 1655. By the late 1680s, Port Royal was one of the largest English trading centers in the New World. With a population of nearly 6500 and with over 2000 buildings, it was a city unequaled in North America for economic prosperity. The success story of Port Royal, however, was destined to be very short. Around midday on June 7, 1692, the high-rolling city was devastated by a massive earthquake. The ensuing tidal wave submerged over half of its area into the Caribbean Sea, killing approximately 2000 people. Another 2000 people died from injury, sickness, and plague in the weeks following the disaster.

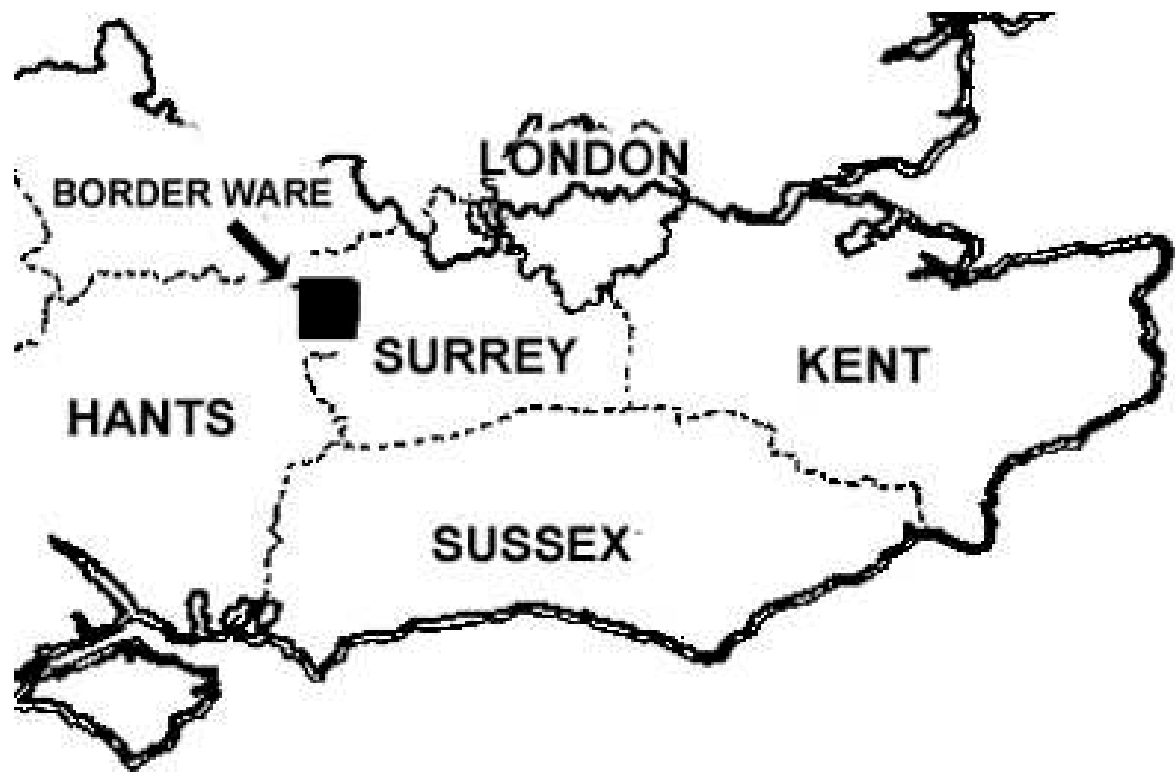
In 1981, Texas A&M University, in joint sponsorship with the Jamaican National Heritage Trust and the Institute of Nautical Archaeology, began archaeological excavations on a portion of the submerged area of colonial Port Royal. Ten years of investigations successfully uncovered several 17th-century structures and a wide array of artifacts, such as metal, glass, and pewter objects; various types of textiles; and faunal remains and organic materials. Numerous ceramic wares were also recovered, including tin-glazed earthenwares, slipwares, stonewares, and Chinese export porcelain.

This study presents the numerous Border ware vessels that were also found. First, the history of the development of the ware, including production techniques and common Border ware vessel types, is discussed. The Port Royal Border ware assemblage is then analyzed and interpreted. A list of bibliographic sources is also provided. As with all of the artifacts recovered from the site, the presence of Border ware ceramics allows for a more holistic sense of what everyday life was like in this 17th-century English colonial port town.

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## HISTORY OF BORDER WARE DEVELOPMENT

The term 'Border ware' developed as a description for the post-medieval pottery being produced in the border region between England's northeast Hampshire and western Surrey counties. The pottery being made in this region gave way, in the 14th century, to a type known as 'Coarse Border ware,' which represented a refinement of earlier ceramic traditions. The development of this Coarse Border ware was most likely influenced by migrations from the European continent, as well as burgeoning trade networks.



Coarse Border ware developed briefly in the late 15th century into a tradition termed 'Tudor Green,' the name paying homage to England's then-enthroned noble lineage. Tudor Green (examples of which are shown opposite), while distinct from what was to become classic Border ware, was likely a direct precursor, since historic and archaeological evidence has shown that both were produced in the same kilns.

During the second half of the 16th century, the Surrey-Hampshire pottery industry consolidated its hold on the London ceramics market with its fully developed Border ware, which is characterized by distinctive yellow and green glazes. It was made from local white firing clays, and its paste was coarser than the earlier fine, thin-walled Tudor Green types. It quickly became the main source of domestic pottery for the inhabitants of London and remained as such until the end of the 17th century.

There are two distinct classes of Border ware: White Border ware is characterized by a hard paste with moderate to abundant inclusions of quartz sand particles. It may also exhibit moderate amounts of reddish quartz, minor and infrequent amounts of red and/or black ironstone, and white (Muscovite) mica. Red Border ware is, as the name implies, characterized by a red or reddish brown fabric. Inclusions are similar to those found in white Border ware, except for quartz particles, which are relatively infrequent. White streaks typically found within red Border ware may provide evidence for a blending of materials. Red inclusions in white Border wares are, however, not common.



Throughout the 16th and most of the 17th centuries, white Border ware production outpaced that of red by a substantial margin. In a study of early 17th-century London assemblages, white outnumbered red by approximately 6 to 1 (Pearce 1992). While it was noted that red ware quantities increased as the century progressed, the numbers remained below that of the white

variety. Red Border ware only begins to dominate London Border ware assemblages in the 18th century.

Border ware production reached its peak in the 17th century. Throughout the 17th century, and into the early 18th century, Border ware was one of the principle sources of good-quality household pottery used in London. The waning popularity of the ware, an issue inextricably entwined in the socio-economic apparatuses of the period, can be principally linked to the rise of the various Staffordshire potteries, which inspired the market collapse of white earthenware in general. Staffordshire quickly established a foothold in the London pottery market; by the mid 18th century, it was the dominant domestic ceramic producer for the city.

## **BORDER WARE PRODUCTION TECHNIQUES**

All Border ware vessels were wheel-thrown, and some forms exhibit evidence of knife-trimming on their bases. Yellow, green, or mottled brown glaze was usually applied to one surface of the vessel. Toward the end of the 17th century, some vessel types, such as chamber pots and mugs, were glazed on both the interior and exterior surfaces.

Coarser cooking and storage vessels tended to be made of unmixed red-firing clay. Examples can be best seen in 17th-century chamber pots, as well as a select few costrels. Mixed clay was more often used for finer tablewares, such as dishes and porringers (which vary widely in their fabric matrix), and tended toward a pale fabric color.

Standard Border ware base forms generally are either flat or slightly kicked. Some forms exhibit wheel-impressed concave bases, which may have been to serve the utilitarian purpose of decreasing the amount of surface area likely to come into contact with other vessels during firing. Indeed, kiln scars left by the joining of vessels during firing are not uncommon on Border ware vessels.

Vertical looped handles were constructed principally for drinking vessels, chamber pots, certain bowl forms, chafing dishes, and candle sticks. Horizontal loop handles tend to be found on porringers but are also found on bowls, chafing dishes, and fuming pots. As is shown opposite, handles were typically attached to the body at one end and smoothed all around the joint at the other end. Wiped handles, rather than those which are thumb-impressed, are more common on all vessel forms, although thumb impressions on wiped handle-attachments may be seen on occasion.



The majority of Border ware forms are glazed on a single surface, usually the interior. Glaze was poured into a fired vessel's interior and then swirled around, often resulting in some spillage over the vessel sides. Higher quality Border wares, as well as more completely glazed forms, such as drinking vessels, were completely submerged in the glaze. Iron-rich compounds found within the glaze sometimes left dark brown or red spots, as well as occasional streaks in clear glazes on white wares and red wares (most commonly found in association with late 16th- and early 17th-century pieces). These iron marks may be within or under the glaze. By the 17th century, glazes were improved and more evenly mixed, eliminating the problem of iron staining.

To create green and brown glazes, powdered copper and manganese, respectively, were applied to a basic clear lead glaze. Brown glaze was generally relegated strictly to forms used at the table, such as mugs, bowls, and porringers. Brown was the most typical color for mugs, while green or yellow appear to be the most common colors used for all other vessel forms. Within each of the main glaze colors used, the range of hues is considerable, the end color being heavily dependent upon both the fabric color and glaze thickness. For example, depending on how thickly it is applied, clear lead glaze can appear clear, orange, olive, or brown on the red ware variety. It ranges from yellow through amber to a muted sandy shade when applied to white Border ware.

Forms with different glazes and fabrics were often fired within the same kiln. Abundant kiln scars on the forms from Port Royal attest to this practice. The orientation a given vessel assumed within a kiln may be reconstructed by the direction of the glaze run, as well as diagnostic markings left on the vessel. White Border wares, and to a lesser extent, red wares, may have lighter or darker patches in their fabric, demonstrating uneven firing.

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## Examples of Border Ware Vessel Forms

### Porringers



A porringer is a circular vessel, shaped like a small bowl or large cup, with one or two horizontal, rather than vertical, handles. Border ware porringers occur in archaeological assemblages in London from the late 16th century (Pearce 1992). They are typically groove-incised at or just below the mid-point of the profile (although the late 17th-century trend toward simplicity of style partially eradicated this practice). The majority of Border ware porringers are also ribbed around the upper body, above the carination.

Porringers were used for food consumption, so they are commonly glazed on the interior. In the case of Border ware porringers, the glaze often extends slightly over the rim edge. It is unknown whether this was done on purpose or whether it is a result of careless splashing. Most white Border ware porringers are glazed yellow. Some are glazed green; brown glaze and red ware forms appear only in the mid 17th century. Many Border ware porringers also exhibit a thin, glossy glaze on the exterior surfaces.

Pearce's (1992) study revealed that the early 17th century witnessed a noticeable increase in the number of Border ware porringers found in London's households. At this time, they displayed a standard corrugated profile with a ribbed upper margin. By the end of the 17th century, plain-walled and slightly ribbed vessels became more prominent.

## Tripod Pipkins



A tripod pipkin, a common Border ware form, is a round- to pear-shaped cooking vessel with three support legs and at least one handle. The amount and prominence of ribbing, as well as body width, may possibly serve as chronologically diagnostic indices.

The tripod pipkin form exhibits internal and external ‘steps’ to accommodate the fitting of a lid. The location of the step may also facilitate dating of the vessel: external lids were a later addition and most likely were an improvement in design to accommodate a tighter fitting lid that was more capable of preventing both heat loss and spillage.

That the tripod pipkin form was used in food preparation is evidenced by the fact that over 75 percent of the samples recovered from London (Pearce 1992), as well as the total sample from Port Royal, show partial scorching or burning. Most tripod pipkins are glazed yellow. Some may show a mixed yellow/green glaze; fewer are green glazed. Glaze was applied exclusively to the interior of these forms.

## Chamber Pots



Pearce (1992) distinguishes Border ware chamber pots by dividing them into two general types, based on overall shape, rim form, and glaze color: Type 1, an earlier form, characterized by its rounded shape, and shown opposite left, usually has an everted rim and is commonly glazed yellow on the interior only. The later Type 2 form (opposite right) is noticeable squatter than

Type 1. Rims are broad and generally flat-topped, and glazes, which are applied on both the interior and exterior surfaces, are predominantly green.

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## Port Royal Border Ware Assemblage

### Tripod Pipkin Base (PR89 683, PR90 944-2)



This artifact has been cross-mended from two sherds, each found in association with the [Building 4/5 complex](#). Post-depositional factors have resulted in the two sherds exhibiting variations in their respective glaze hues. Both sherds are interior-glazed white ware. PR89 683 exhibits a yellow (Munsell 10YR 6/6) glaze hue, while PR90 944-2 exhibits a green (5Y 5/4) glaze hue. There is no exterior glaze in either case, with the exception of some green (5Y 5/6) glaze associated with a 2-mm thick fabric scar, a result of adhesion during firing. Interestingly, this sample exhibits a white clay matrix, while the scar is clearly from a red Border ware vessel. Fire markings are evident and clearly point to the heating and/or cooking function of the vessel. The vessel walls of Sample 1 measure 4 mm thick.

### Tripod Pipkin (?) Rim/Body (PR90 944-2, PR90 947-2 [x2], PR89 670-2)



This artifact has been cross-mended from four sherds, each found in association with the Building 4/5 complex. This artifact is interior-glazed white Border ware. The glaze hue tends toward green (5Y 5/4). The body thickness measures 4 mm, while the rim thickness measures 7 mm. The design of the rim is to accommodate a vessel lid by means of an interior step. While Samples 1 and 2 do not cross-mend, both were found in the same location; their glaze, fabric, and form all suggest that they are part of the same vessel.



Mug (?)/ Storage Pot (PR90 904-44, PR90 904-14 [x2])



This vessel was cross-mended from three fragments found in Yard 5, Building 5. This artifact is red Border ware with interior and exterior glaze. The interior glaze is likely clear, allowing much of the clay's color to dominate the hue. The exterior glaze appears olive (10YR 4/4), although this is likely reflective of a thicker application of the clear glaze. This sample is a probable mug, although of a form unrecorded in existing typologies. The red clay matrix is, however, consistent with the corpus of known Border wares, as is the glaze type and elements of manufacture present (e.g, knife trimming on the base, a clockwise wheel spiral on the interior surface). Patches of gray are likely indicative of smoke present in the kiln at the time of firing. The vessel's walls measure 6 mm thick.

**Chamber Pot (PR90 469-6)**



This vessel was recovered from the Building 4/5 complex. It accords with Pearce's (1992) Type 2 form (see above). It is of the red Border ware type, with green (2.5Y 4/4) glaze evident on both surfaces. However, the exterior glaze is incomplete and haphazard, with flow running down the sides and covering portions of the base (the direction of the glaze run suggests upright firing). The vessel displays a flat lid and a broad horizontal handle, which is thumb-impressed at the lower terminal.

### **Porringer (PR89 747-5)**



This vessel exhibits classic porringer styling, with a horizontal handle and horizontal decorative trimming around its circumference. The vessel is likely brown (10YR 3/4) glazed on a red clay. Both the interior and exterior surfaces are glazed. Patches of gray (2.5YR 4/0) are present on the interior and exterior and do not appear to be a result of either contamination during firing or from use in cooking/heating. The body thickness measures approximately 6 mm; the handle is 14 mm thick. The vessel's diameter measures 97 mm. It is 57 mm tall.

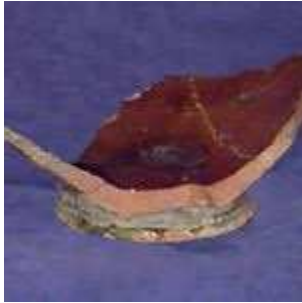
### **Porringer (PR87 423-3)**



This vessel, found in likely association with Building 4, is white Border ware with olive (5Y 4/3) interior glaze. It is here shown from two angles. The body measures 4 mm in thickness, while the base, which is noticeable kicked, is 6 mm thick. The exterior ridge immediately below the lip is finger impressed.

The vessel's handle is horizontal and upturned with one end luted (pressed) to the body and the other smoothed. Small patches of glaze exist on the exterior, along with a possible kiln scar from contact with another vessel during the firing process. The patches of glaze on the exterior range in hue from 10YR 8/2 to 7.5YR 7/6. The exterior is fire-stained in several places, which suggests a contextual association with a hearth/cooking fire.

### **Unknown Vessel (PR89 897-2)**



This vessel, found near the hearth area of Building 4 (with possible Building 5 association), may be out of the stylistic demarcation of known Border wares in existing typologies. This vessel exhibits red (2.5YR 5/6) paste and either brown (2.5YR 3/4) or heavy clear glaze on the interior only. Patches of green (5GY 4/4) glaze found on the exterior are not associated with this vessel but rather with an extant kiln scar. The vessel's base is caked with ash. It is possible that the vessel was slightly ovate, although this is difficult to substantiate given the minimal level of completeness. Its burned clay matrix suggests that it was, perhaps, broken and burned prior to catastrophic burial. The base is wheel-impressed rather than kicked.

### **Chamber Pot (PR90 908-6)**



The sample (two views shown) appears to be a hybrid between Pearce's (1992) Type 1 and Type 2 chamber pot styles. The vessel exhibits Type 1 styling in its overall evenly rounded form, with the glaze exclusively coating the vessel's interior. Type 2 styling, however, is shown in the flat, broad rim, as well as the vessel's relatively squat profile. The vessel has one flat, broad handle attached at the rim and mid-point of the body. The handle's lower terminal exhibits a thumb-impressed decorative mark. A thumb-impressed groove beneath the rim is also evident. This is a decorative effect common in chamber pot typologies. Various kiln scars are evident on the vessel's base, lid, and interior surfaces. Scars on the base are associated with small patches of green (5Y 5/4) glaze. The existence of interior scars provides evidence that during firing, smaller vessels were placed within larger ones in an effort to increase kiln productivity. This vessel was associated with the closed closet/privy area of Yard 5, Building 5.

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Examples of Border Ware Vessel Forms

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Port Royal Border Ware Assemblage

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