

man named Cambacères invented a braided wick impregnated with a mineral material that helped to make it self-consuming.

Snuffers were manufactured in silver, brass, and iron, from at least as early as the beginning of the seventeenth century. They resembled a pair of scissors with a rectangular box attached to one blade and a vertical pad to the other that fitted snugly inside the box when the scissors were closed. The pad was attached to the end of its blade, but the box was not, there being a tapering projection beyond it. The handles of seventeenth-century examples were often looped around like rather tight shepherds' crooks, while those that came later had the loops or bows welded or braised into a closed ring. The same evolutionary step occurred with the loops of ordinary scissors. (Fig. 87) Handle fragments are often found in excavations divorced from their blades, and sometimes it is hard to distinguish between those from snuffers and those from early sugar tongs, though as a rule the latter were smaller.

Finally, a word should be said about candle molds; being made of tin or sheet iron, they rarely survive intact in the ground but are often represented by clusters of six or a dozen rusted cylinders too fragile to be salvaged. These multiple molds usually terminated in a rectangular, spread-collar foot matching a comparable lip at the top, and often had a strap handle attached to one side. Single molds were usually without feet but had small circular lips. Close dating for either type is impossible.

GROVE, JOHN R.: *Antique Brass Candlesticks 1450-1750*. Queen Anne, Md., 1967.

LINDSAY, SEYMOUR, JR.: *Iron and Brass Implements of the English and American Home*. London, 1964 (first pub. 1927).

SCHIFFER, PETER et al.: *The Brass Book: American, English, and European, Fifteenth Century through 1850*. Exton, Pa., 1978.

§ CERAMICS, American

Pottery-making in the British American colonies had begun by 1625 and by the mid-century much of the colonists' ceramic need was filled by local craftsmen. The word *local*, however, remained the

key to American potting well into the eighteenth century, for most of the products were vastly inferior to imported wares and so did not find markets beyond their area of manufacture, where they had the advantages of cheapness and availability. In the lowly field of coarse, lead-glazed earthenwares the colonial potters were the match of their English cousins. In New England, slipware potters of the second half of the seventeenth century were turning out products similar to the "Metropolitan" wares of Essex, while from the mid-eighteenth century onward German immigrants in Pennsylvania manufactured traditional slipwares of excellent quality, sometimes affito-decorated through a white slip onto a red body, or marbled in the manner of Staffordshire but with the addition of splashes of copper green. The latter wares were widely distributed in the late eighteenth and early nineteenth centuries. At Green Spring plantation in Virginia in the 1680's a potter was throwing coarseware dishes of shapes comparable to the delftware chargers produced at Southwark (London) in the same period. In the second half of the eighteenth century, Moravian potters at Bethabara and Salem in North Carolina were producing teacups, saucers, and plates of a thinness that would have done justice to Whieldon of Staffordshire. Unfortunately, the clays and glazes were as important to the final product as was the skill of the thrower, and none of the early American earthenware products matched their English counterparts. The Salem potters received instruction from an English Staffordshire potter in the art of making creamware in 1773, but as far as can yet be determined, the products resembled it only in shape. Ellis, the English potter, had worked for another Staffordshireman, John Bartlem, who three years earlier advertised that he was making cream-colored earthenwares in Charleston, South Carolina. Unfortunately, not one of the Bartlem products has yet been identified.

Another effort to make creamware was launched at Red Hook Landing on New York's North River in 1798. None of its products appear to have survived, and our knowledge of it is confined to an advertisement of intent published in *Argus, Greenleaf's New Daily Advertiser* for May 12th of that year. Mr. J. Mouchet then informed the public that he had established "A new Manufactory of yellow or cream Ware, such as never was made in this country before . . . under the name of Tivoli Ware, where any command for

all sorts and shapes of ware, with different colored edges" would be met. The notice ended by offering apprenticeships and adding that the lucky lads would be "taught by the most skillful European hands."⁵

The first American attempt to make porcelain that enjoyed any measure of success was launched in the fall of 1769 by the Philadelphia firm of Gouse Bonnin and George Anthony Morris. Production, however, was slow to start, and their "first Emission of Porcelain"⁶ was being advertised in January 1771. Very few examples of their ware survive. Those that are known are not sufficiently hard to be called porcelain and are decorated in underglaze blue with floral motifs reminiscent of Derby but tending to run in the manner of Bow. Fruit baskets and trinket boxes were decorated at the rim with a wide lattice pattern of intersecting arcs, with applied flowers at the junctions. The Bonnin and Morris advertisement in the *Pennsylvania Journal* for January 10, 1771, stated that "all future emissions from this factory will be marked s."⁷ The known examples are, however, clearly marked P. Recent excavations on the kiln site by John L. Cotter, an archaeologist for the United States National Park Service, yielded extremely important wasters, including pieces of the flower-decorated lattice rims as well as fragments of bowls and saucers in both biscuit and glazed states. Unfortunately, like so many early American quality potting ventures, Bonnin and Morris did not prosper, and the factory and its contents were for sale in November 1772.

In the field of stonewares the colonial potters were much more successful, and in the second quarter of the eighteenth century William Rogers of Yorktown, Virginia, was producing brown-stoneware tavern mugs, bottles, and pitchers every bit as good as those manufactured in English kilns at the same date. In addition he made a series of excellent hemispherical bowls with a brown band at the rim, a type unknown elsewhere. In Philadelphia, in the 1730's, Anthony Duché was making the first American cobalt-

⁵ Quoted in Rita Susswein Gottesmann, comp.: *The Arts and Crafts in New York, 1777-1799* (New York, 1954), pp. 95-6.

⁶ Alfred Cox Prime, comp.: *The Arts and Crafts in Philadelphia, Maryland and South Carolina, 1721-1785* (Philadelphia, 1929), p. 117.

⁷ Ibid.

decorated gray stoneware in the manner of Westerwald. The ware was good but different from the German in that Duché's products were produced largely by hand, while the Germans mass-produced their chamber pots and tavern mugs making much use of templates and jigs. The Duché achievement does not seem to have been sustained, but by the end of the eighteenth century and well through the nineteenth century American-made "blue and gray" stoneware was produced in many kilns and was to be found in most homesteads, kitchens, dairies, and taverns. A successful gray stoneware kiln was in operation at Cheesequake near Madison, New Jersey, by 1775 and was operated by General James Morgan. Fragments from the waster dumps are now in the Brooklyn Museum and included jug sherds dated 1775 and 1776. Some poorly fired mug fragments found on domestic sites in the Hudson Valley suggest that there was a stoneware potter there who copied German forms, probably in the second half of the eighteenth century, but the majority of the American "blue and gray" products were larger items such as harvest bottles, creampans, storage crocks, pinched-neck pitchers, and cuspidors. They are generally much thicker than the German stonewares, and, whereas the latter are decorated with incised and molded ornament and made use of cobalt and manganese to block in the devices thus created, the later American wares were generally adorned with the cobalt alone, either painted in freehand or applied through a stencil. Size numbers and factory labels are often stamped on examples of the early to mid-nineteenth century. Some of the later jugs and pans are coated on the inside with a dark brown, high-gloss surface known as an Albany slip.

Almost as common as the "blue and gray" stonewares in the mid-nineteenth century were pitchers and large teapots thrown or cast in a hard yellow body and coated with a thick, molasseslike lead glaze creating a somewhat uneven, blotched brown surface in the manner of the English Rockingham ware developed at Swinton, Yorkshire, in about 1788. The American versions were made in a number of factories, notably at Bennington, Vermont, and in Baltimore, Maryland, where jugs molded in relief depicting "Rebecca at the Well" were particularly popular.

LAMSEY, JOHN: *American Potters and Pottery*. Clinton, Mass., 1939.

WATKINS, LURA: *Early New England Potters and Their Wares*. Cambridge, Mass., 1950 (reprinted 1968).

§ CERAMICS, British

English pottery of the seventeenth century can be divided into three sections, lead-glazed earthenwares, delftware, and stoneware. As in America, the earthenwares were the easiest to make, also the cheapest, and so the most widely used. Those reaching America came predominantly either from southeastern England or from the West Country, largely from Devonshire and perhaps from Somerset. Bulbous drinking mugs with padlike feet in a buff ware, decorated on the outside with a mottled tortoise-shell glaze and on the inside with the same, or alternatively with a yellow or apple-green glaze, were produced in the southeast and were common from about 1590 to 1640. Mugs with straight necks and bulbous bodies of a similar ware with a bright apple-green glaze appeared in the mid-sixteenth century and continued into the seventeenth century, and these, too, came from southeastern England, possibly from Surrey. Tall, black-glazed, red-bodied mugs, generally with two or more handles, are known as "tygs" and were produced in various parts of England from the fifteenth century into the first half of the seventeenth century. Examples are often found on early colonial sites, and many of these probably come from kilns near Harlow in Essex. They usually date prior to 1640, though they are sometimes found in contexts dating twenty years later. Also common in the southeast of England were yellow-bodied tripod-legged pipkins with ribbed walls, hollow tubular handles projecting from one side, and decorated on the inside only with a yellow or pale-green glaze. These occur on American sites of the first half of the seventeenth century and were long thought to be of Flemish origin, but recent researches have revealed their English manufacture.

Readily identifiable slipwares were made in the Harlow area (1625-80) and at Wrotham in Kent (c. 1610-1715), and examples of the former occur on American sites of the mid-seventeenth century. Their export, however, does not seem to have continued as long as the wares were produced. The so-called "Metropolitan"



Fig. 26. A late "Metropolitan" slipware dish, lead glaze over a red body decorated with white slip, the latter appearing yellow under the glaze. Discarded c. 1680. Diam. 10 $\frac{3}{4}$ ".

slipwares of Essex are red-bodied and are coated with a clear glaze which gave them a bright ginger-brown surface. (Fig. 26) They were ornamented beneath the glaze with white pipeclay which, when applied to pitchers, small mugs, and chamber pots, often took the form of pious or secular exhortations such as PRAISE GOD AND HONOUR THE KING (Fig. 57) or BE QUICK AND PIFF, and sometimes THE GIFT IS SMALL GOOD WILL IS ALL. Such inscriptions were sometimes followed by the date, which ranged from c. 1630 to at least 1656.

The Wrotham slipwares were also red-bodied, but their glaze was generally deliberately darkened and the white slip was applied in sprig-molded pads containing initials and dates, the latter ranging from c. 1612 to the early eighteenth century. Floral and other devices were also applied in sprig molds, and additional pipeclay

was applied in spots and runs to give the majority of Wrotham pieces a "busyness" that is often excessive. Large "tyg"-like drinking vessels, sometimes with as many as nine double-looped handles capped with pipeclay finials are the best known of the Wrotham slipwares (Fig. 27), though it is probable that many other shapes less characteristically ornamented were also produced and are not now recognized.

In the West of England, principally in the Barnstaple-Bideford section of North Devon, an entirely different type of slipware was being produced throughout the second half of the seventeenth century, and much of it was exported to the colonies. The ware was red, coated with a white slip through which geometric and floral patterns were incised; the result was then covered with a clear (really a pale-yellow) glaze that produced a rich yellow surface and light-brown ornament where the body color showed through. (Fig. 28) This sgraffito technique continued to be used in the West Country as recently as the early twentieth century. The principal seventeenth-century shapes were dishes, single-handled mugs with bulbous bodies and straight collar necks, and pitchers with heavily ribbed necks. The earliest examples yet found occur in Virginia in contexts of about 1650, and they seem to have continued through to the end of the century. Unfortunately, none of the excavated examples is dated. There is in existence, however, a harvest jug dated



Fig. 27. Posset cup of Wrotham slipware, dark-brown lead-glazed body with thick white pipeclay slip appearing yellow under the glaze. Dated 1695. Ht. 6¾".



Fig. 28. Examples of North Devon sgraffito slipware, pink body beneath a white slip turned yellow under the lead glaze; all found at Jamestown, Virginia. C. 1670-90. Diam. of foreground dish 12".

1698 that is reputed to have a long Delaware history. These jugs stand as much as 18" in height, have bulbous bodies decorated with sgraffito birds, animals, portraits, ships, and doggerel; dated examples occur at least into the early nineteenth century. I have yet to hear, however, of any of this West of England sgraffito ware being found in American archaeological contexts dating later than c. 1740. Rather similar sgraffito wares were produced at Crock Street and at the nearby village of Donyat in Somersetshire, but they differ in that they were splotched with copper green under the glaze. Dated examples occur from the eighteenth to the present century, though the only example from an American context that I have seen was discarded in about 1765. (Fig. 29, bottom right)

The most important ceramic development in England in the seventeenth century was the successful growth of the so-called delftware industry which had been started by immigrant potters from Antwerp in Norwich in about 1567; at least one of these potters moved to London some three years later. The ware is pale-yellow or

sometimes pink, coated with a lead glaze containing oxide of tin that turns it opaque-white, the result generally being known as a tin enamel. This enamel could be painted before firing with cobalt blue, manganese purple, copper green, antimony yellow, and an orange derived from iron rust. It was not a new technique, for it had been used in Spain and Italy from the fourteenth century onward and was there known as maiolica. The same term described the products of Italian craftsmen who moved to Antwerp in the sixteenth century and thence to England. In France similar tin-enamelled wares were known as faïence, but in England the term *delftware* (which was actually not used there before the eighteenth century) became the generic term for the ware, just as it did in Holland where the town of Delft (previously renowned as a brewing center) did not develop its tin-enamelled earthenware industry until the mid-seventeenth century. Thus, when writing of the English counterparts, *delftware* should always be written with a small *d* to avoid confusion with the products of Delft itself. In England, through most of the seventeenth century, the pottery was known as "galley ware," a term dating back to at least 1465, when it probably referred to maiolica brought from the Mediterranean aboard galleys.

Just as "delftware" is a misnomer, so also is the much-used word *Lambeth* to mean London delftware of the seventeenth century. The original center of the industry was in the Borough of Southwark further east on the south bank of the Thames, principally in the vicinity of Tooley Street near London Bridge in what is now the Borough of Bermondsey. One or more factories were in production there as early as 1618 and for at least a century thereafter. Other potters were working further west near Southwark Cathedral and beyond it on the Bankside. It was not until 1671 that a Dutchman took out a patent to make delftware tiles at Lambeth, while the first-known record of an Englishman making "Holland China" in Lambeth occurred two years later. These enterprises would appear to have launched the Lambeth-Vauxhall industry, which continued until the early nineteenth century. The first centers to be established outside the London area were at Bristol and Brislington, where delftware production seems to have begun in the 1660's or perhaps a decade earlier. Later, in the first years of the eighteenth century, production began at Liverpool, and both Bristol

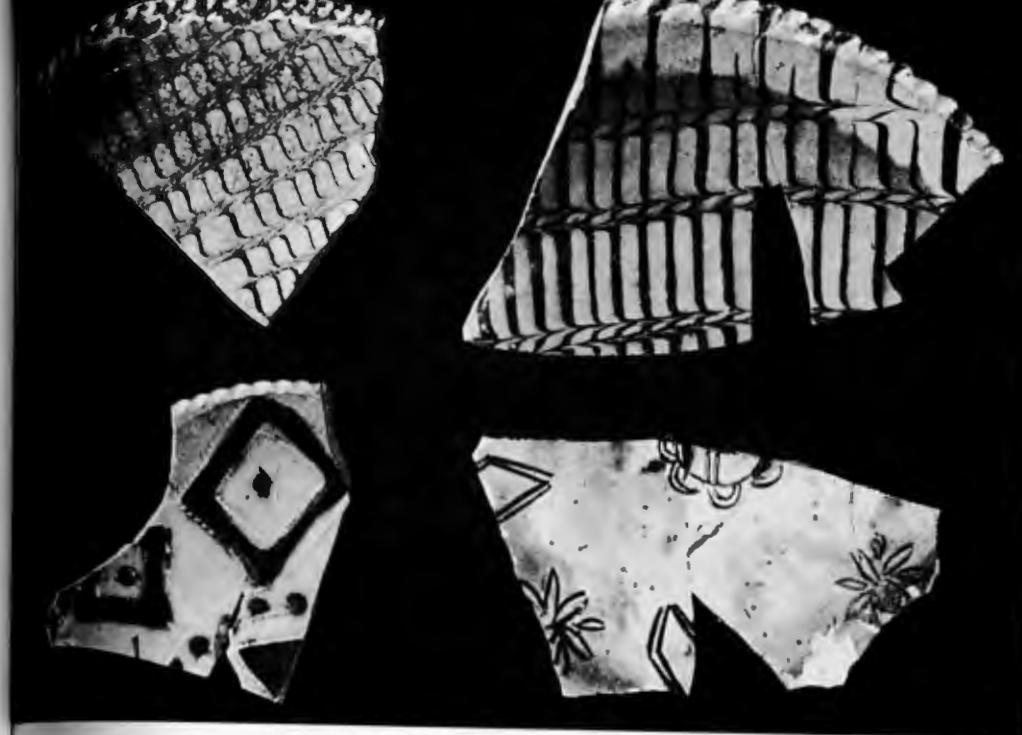


Fig. 29. Fragments of lead-glazed slipware dishes. *Top row:* both combed with iron-oxide stripes through a white slip on a buff body; left, probably third quarter of the 18th century; right, second quarter. *Bottom row:* left, bat-molded decoration with thick iron-oxide coloring over white slip on a buff to pink body, Staffordshire, second quarter of the 18th century; right, sgraffito decoration cutting through white slip splashed with copper green over a red body, probably from Donyat, Somersetshire, third quarter of 18th century. Length of the sgraffito sherd 7".

and Liverpool delftware manufacturing declined together as the ware was superseded by other, better products in the third quarter of the eighteenth century. The same was true of Glasgow in Scotland, whose Delftfield pottery began production in 1749 and continued until about 1800. Much of its output was shipped to America in the third quarter of the eighteenth century, and it continued to be exported as late as 1791. In the late 1760's and 70's, however, Delftfield followed Bristol and Liverpool in the march of fashion and technology, adapting part of its operation to the manufacture of white salt-glazed stoneware and creamware. To be strictly accurate, therefore, delftware made in Great Britain after 1749 but whose factory cannot be positively identified should be described as *British* rather than *English* delftware. The same should be said of



Fig. 30. *Left*: English tin-glazed earthenware (delftware) "blue dash charger" or dish decorated in blue, yellow, orange, and green, depicting Adam and Eve reviewing the merits of a piece of fruit; c. 1640; diam. 14". *Right*: dish of similar ware and type decorated with a tulip design in blue, yellow, and red; c. 1680; diam. 13½". Both lead-glazed on the backs and both probably from London kilns.

imperfectly provenanced salt-glazed stoneware and creamware after the early 1760's.

The earliest English delftware was generally elaborately ornamented with Italianate or chinoiserie designs, and it was not until the 1640's that potters in need of mass production methods began to produce plain white vessels entirely without decoration. This simplicity may, to some extent, have been influenced by the sobering effect of the Civil War and the subsequent era of the Commonwealth, for London was the principal center of Parliamentary influence, and the delftware industry was still confined there.

After the restoration of the monarchy in 1660, colorfully painted delftwares became popular again, particularly the large dishes with blue dashes round their rims (known to collectors as "blue dash chargers") and with the centers adorned with floral and fruit patterns (Fig. 30, right) or Adam and Eve cartoons or royal portraits, sometimes standing but more often on horseback. In addition to sketches of all the monarchs from Charles II to George I, these dishes are sometimes ornamented with portraits of other na-

tional figures who are identified only by their initials. Such dishes were intended to be decorative as well as useful and were frequently used as wall or dresser ornaments. Fragments occur on colonial sites of the second half of the seventeenth century, but they are not nearly as common as they are in England.

Plain white plates, both round and octagonal, and with wide rims, were manufactured in London in the third quarter of the seventeenth century. Most of those that have survived in museum and private collections are decorated in the centers with dates and convivial inscriptions in blue. In the last quarter of the century the rims became narrower and the bases proportionately broader. Inscriptions (often only initials and dates) were contained in a cartouche having a crown above and a faintly angelic face below and flanked by griffins or winged horses' heads. A group of plates and other items decorated with the griffin cartouches (painted on the rim and to one side of the plates) was long thought to be the work of Dutch painters employed at Lambeth, a conclusion based on the evidence of their garbled English inscriptions. More recently, this class has been reclassified as having been made in Holland for English customers. To the same general class belong the plain-rimmed English plates of the eighteenth century which are decorated in the centers with blue-painted wreaths containing initials, dates, and inscriptions. Many of these last are numbered from one to six and carry such cheerful observations as the following: (1) "What is a merry Man"; (2) "Let him doe what he Cann"; (3) "To Entertain his Guests"; 4) "With Wine & Merry Jest"; (5) "But if his Wife does frown"; (6) All merriment Goes Down." Dated examples are recorded between 1710 and 1742. Although it will hardly concern the archaeologist, collectors would do well to note that these inscribed plates are among delftware's more common fakes.

The later seventeenth-century delftware potters produced mugs, jugs, candlesticks, flower vases with pedestal bases, and, of course, common chamber pots and washbasins, as well as apothecaries' drug pots. (Figs. 56 and 67) Pseudo-Chinese motifs, human figures, birds, and perforated rocks in Ming style, reappeared in the 1670's (Fig. 31, No. 2) and continued into the early eighteenth century, when even more elaborate Chinese designs were copied.

Most alleged "experts" seem to believe that they are liable to

Fig. 31. English delftware plates exhibiting design features encountered on American colonial sites. *Top left to bottom right:* 1. mimosa pattern painted in underglaze blue and overglaze red, perhaps Bristol, c. 1720-35; 2. chinoiserie motif in a style typical of the second half of the 17th century, painted in shades of blue, London, c. 1680; 3. chinoiserie motif painted in a rich blue, Bristol or London, c. 1730; 4. peacock design in polychrome, the trees in sponged manganese, probably Bristol, c. 1725-40; 5. squirrel motif with other features attributed both to London and Bristol, painted in blue, c. 1750, rather later than is often supposed (the squirrel, foliate, and ground features have all been found in Williamsburg, but on separate items—the squirrel on plates, a bowl, and a tankard, the leaves on plates, and the ground “wheels” on a bowl); 6. geometric design in pale blue, red, green, yellow, and purple, the style sometimes attributed to Liverpool, c. 1750. Nos. 4 and 5 were found in Williamsburg. Diam. of No. 5: 11½”.

lose face if they are unable to distinguish between the products of London and Bristol. I venture to suggest, however, that such distinctions, at least in the seventeenth century, must be treated with caution, as painters moved from factory to factory and everyone produced the designs most popular at the moment. It has been claimed that Bristol wares can be identified by the use of a deep red that had to be added in a second, low-temperature firing and which is therefore raised and rough to the touch. I have, however, found similar fragments on the Tooley Street kiln sites in very early eighteenth-century contexts. The design known as the “mimosa” pattern and the distinctive square brush strokes associated with it (Fig. 31, No. 1) are both features that have been attributed to Bristol (Brislington), yet comparable sherds have been found at Lambeth. The large dish with the squirrel design in the center (Fig. 31, No. 5) is usually classified as Lambeth, though I have seen another plate decorated with identical foliate brushwork that is said to be Bristol and a bowl with the same two-tone wheel-like flowers with a like attribution. All three motifs—squirrel, leaves, and flowers—have been found on separate examples from Williamsburg excavations, none of them in contexts datable prior to about 1750; yet the most recently published example of the combined designs—as Figure 31, Number 5—is claimed to date as early as c. 1720. The novice should be warned that he is entering dangerous and poorly charted waters,



and he would do well to avoid committing himself. Instead, he should seek published parallels by reputable authors and cite their contributions—with acknowledgments.

Delftware tried to compete with the Englishman's desire for Chinese porcelain, but such small vessels as teacups were prone to lose their glaze at the lips and so were never very popular. As a rule it is fair to contend that they are rarely found in colonial use after about 1750. Larger tablewares such as plates, mugs, and punch bowls held their glaze better, and as they did not come in contact with the mouth they were accepted by the public much longer; and we know that plates were being made as late as 1802 and decorated mugs until at least 1793. Pharmaceutical pots were produced considerably later, and London directories of the early nineteenth century still listed makers of “delph,” though generally in conjunction with other wares. The firm of Alfred Singer Sr. Co., of Vauxhall, was thus identified as late as 1852.

The manufacture of salt-glazed stoneware had been a virtual Rhinish monopoly through most of the seventeenth century until



Fig. 32. English brown stoneware mugs of half-gallon and pint capacities, a type made in London, Bristol, and elsewhere through most of the 18th century. The pint mug exhibits the usual WR excise stamp below the rim. The large example at left is rare in this undecorated form. It was found at Lightfoot, Virginia, and stands 8" in ht.

John Dwight of Fulham perfected an English version in 1671. Dwight's stoneware is thought to have copied the so-called Bellarmine bottles, and a number of not very well-made examples are attributed to his factory. At the other end of the scale he produced some magnificently sculptured busts of Charles II, James II, and Prince Rupert, and a recumbent figure of his daughter Lydia, who died in 1673. Between these extremes were numerous small drinking mugs with reeded necks in gray to white stoneware, as well as a marbelized version of the same form. At least one fragment likely to belong to this class has been found on a late seventeenth- to early eighteenth-century site in Virginia.

Just as Lambeth became synonymous with London delftware, so



Fig. 33. A fine-textured brown stoneware loving cup, dated 1759; the ware was developed at Nottingham but was closely paralleled by others produced in Staffordshire, Derbyshire, and Yorkshire through much of the 18th century. Possibly Swinton. Ht. 9 $\frac{7}{8}$ ".

Fulham became the popular attribution for a wide range of tavern tankards and bottles made in the London area throughout the eighteenth century. (Fig. 32) Excavations in Southwark have demonstrated that they were also made there, while digging in Bristol has yielded almost identical wasters. The mugs of pint and quart size are normally stamped below the rim with an impressed, crowned WR (William III Rex) indicating that they are made to conform to government-prescribed standards of capacity. It should be noted, however, that the WR stamps continued to be used as late as 1792, although occasional AR (Anna Regina) and GR (Georgius Rex) stamps are known. Many of the mugs were incised with the name of the tavern keeper and the date, as well as being adorned with sprig-

molded panels depicting the sign of the tavern to which they belonged. By the 1760's the names and dates were frequently stamped into the body with printer's type, robbing the mugs of much of the character provided by the earlier free-hand inscriptions. These mottled brown saltglaze mugs also came in much larger sizes, some holding two and a half quarts, and many of those were decorated with sprig-molded hunting scenes, trees, houses, and sometimes with a relief rendering of Hogarth's famous painting *The Midnight Modern Conversation* (1733). It is safe to say that all English mottled brown stoneware mugs found on American domestic sites date between 1690 and 1775. Exceptions are likely to be found in New York, which continued to receive British exports during the Revolutionary War years, and on British military sites to which the troops brought their own supplies undeterred by American boycotts.

In 1684, Dwight sued James Morley of Nottingham for infringing his patent. The latter (and his family after him) produced a smooth brown stoneware with a glossy surface over a drab body, the principal products being tavern mugs, bowls, pitchers, and double-handled loving cups. These vessels were often inscribed in incised freehand with names and dates, the latter ranging from 1700 to 1799. As a rule all of these shiny-surfaced brown stonewares are attributed to Nottingham, but it is now known that similar products were made at Burslem and probably at other locations in Staffordshire and Derbyshire as well as at Swinton in Yorkshire. (Fig. 33) It is generally possible to tell the difference when the examples are in fragments, for the Nottingham pieces have a thin white line separating the glaze from the body. Insufficient evidence is yet forthcoming to determine the full date range of the Burslem ware, though it is frequently found in contexts of the mid-eighteenth century.

By far the most important stoneware development was the production of an entirely white ware, the earliest-known documented example of which, a two-handled loving cup, is incised with the date 1720. Small, waisted cups with flaring rims comparable to those made by Morley were in use in colonial America by the mid-1720's. So, also were cups, mugs, and jugs of a drab, gray ware coated with a white salt-glazed slip. Because the slip tended to fall away in the firing from rims, spouts, and the tops of handles expos-



Fig. 34. *Left*: dipped saltglaze mug, white-slipped over a gray core and the rim and handle topped with an iron-oxide slip to prevent the body from showing through. *Right*: a regular white saltglaze mug illustrating the finer and more elegant treatment of the foot and handle not possible in the heavier, dipped ware. Both mugs found together in a context of c. 1755. Ht. of left $5\frac{1}{2}$ ".

ing the gray body beneath, these extremities were coated with a band of brown iron-oxide slip. It was generally supposed that this represented the earliest of the widely produced white saltglaze wares, but since fragments of this type have been found in contexts on through the eighteenth century up to the Revolutionary period, it must be deduced that it continued to be made alongside the solid white. (Fig. 34) Nevertheless, it has been found in the ruins of a plantation house that burned in 1729, and another is dated 1723.

The true white saltglaze that became the typical English tableware of the mid-eighteenth century severely damaged the delftware potters' business. By the late 1730's block molds had been introduced to enable saltglaze plates, teapots, tankards, caddies, etc., to be cast in elaborate relief. Thus, it is reasonable to contend that the well-known series of plates with their rims ornamented in "dot, diaper and basket" or "barley" patterns (Fig. 35) date no earlier than about 1740. Popular in the 1750's were plates with rims decorated with elaborate floral patterns in relief. To the same period belong a group of saltglaze plates lauding Britain's alliance with Prussia during the Seven Years War. The rims bear a portrait

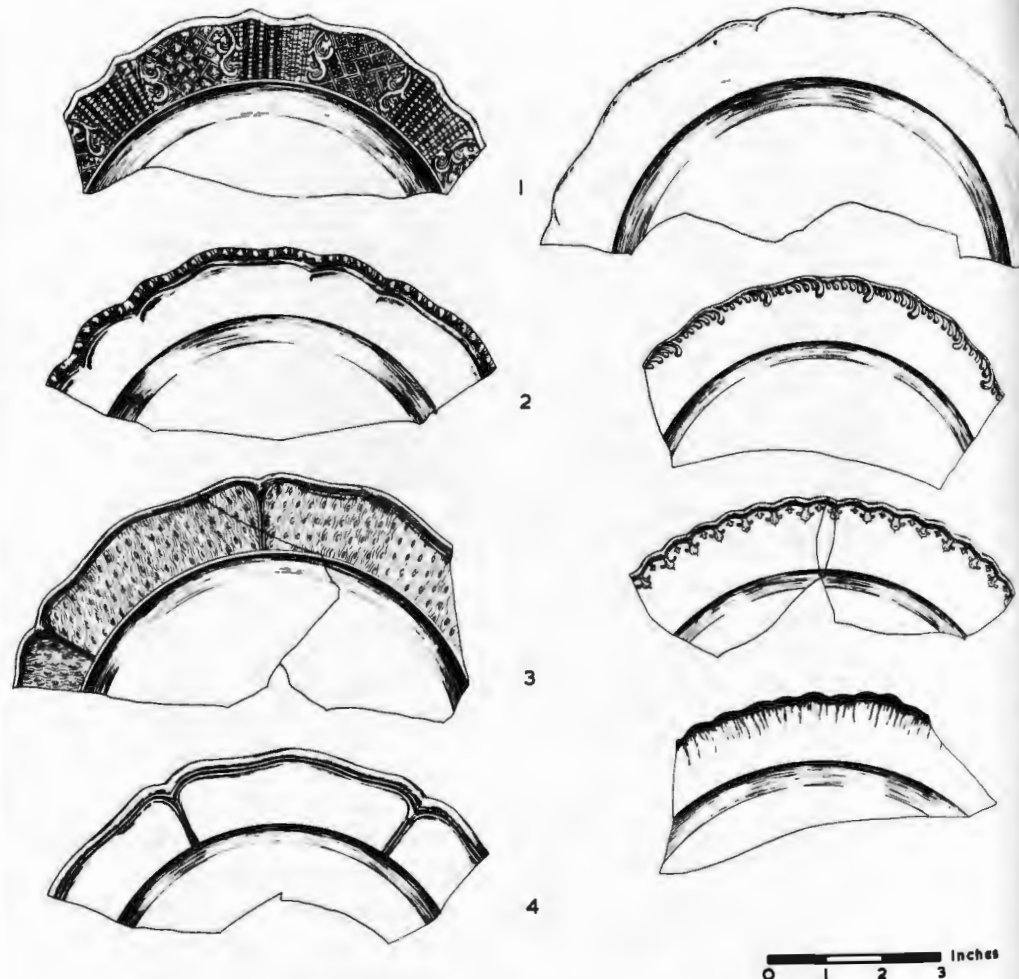


Fig. 35. The evolution of English plate rims from white saltglaze to pearlware, c. 1740-85. 1. Dot, diaper and basket pattern, saltglaze. 2. "Bead and reel," saltglaze. 3. "Barley" pattern, saltglaze. 4. Queen's shape, creamware. 5. Royal pattern, creamware. 6. Feather-edged creamware. 7. Spearhead, creamware. 8. Shell-edged pearlware. Nos. 1-3 also occur in Whieldon-Wedgwood clouded ware, Nos. 4-6 in saltglaze, and No. 8 in creamware. Nos. 4-6 and 8 are original rim names.

bust (or very occasionally an equestrian figure) of Frederick the Great, as well as an eagle, a military trophy, and the molded inscription: SUCCESS TO THE / KING OF PRUSSIA / AND HIS FORCES. As far as I can determine, all the known surviving examples are nine-inch plates, as are all the fragments I have seen from American excavations. However, an advertisement in the *Boston Gazette* for November 13, 1758, offered "White Stone, Prussian & Basket work'd

Plates and Dishes," and a rim sherd from one such dish has been found at Port Royal, Jamaica. Other, rather later border designs were confined to edges rather than the entire rim and occur in what is known as "rope" and "bead and reel" designs. These continued to be made into the 1770's, though it is uncertain whether the more elaborate patterns went quite as late.

In the mid-eighteenth century white saltglaze began to be decorated with incised ornament that was filled with cobalt before firing, great care being taken to brush off all excess color so that the result would be patterns of thin blue lines. This technique has come to be known as "scratch blue," and the bulk of it was confined to the third quarter of the century. (Fig. 36) It was much used to ornament cups and saucers, usually with simple floral motifs, and also to decorate and inscribe pitchers, punch pots and loving cups. The ware is fairly common on late colonial sites and is a valuable dating guide. Occasionally one encounters pieces whose scratched lines are filled with brown iron oxide instead of the cobalt-blue. Such examples are invariably early, predating "scratch blue," and are attributable to the 1720's and 1730's. The earliest recorded specimen is a pocket flask inscribed in brown slip $\frac{1}{2}$ M 1724.

Although common utility wares such as washbasins and chamber pots were produced in white saltglaze in large quantities up to the 1760's, the imported German blue and gray stonewares of the Rhineland commanded a considerable part of the British market. (Fig. 93) At that time the English saltglaze potters made a strong

Fig. 36. English white saltglaze tea bowl with "scratch blue" decoration. C. 1760-75. Diam. 3".



and successful bid to oust the German imports by producing chamber pots, mugs, and pitchers in "scratch blue" but allowing the excess cobalt to remain roughly within the areas of the incised design in the German manner. They also adorned all three items with sprig-molded medallions bearing the cypher of George III and sometimes a profile portrait of the monarch. (Fig. 37) This debased "scratch blue" was at its best in the period 1765-75, but it continued much later and was exported to America after the Revolution, the royal medallion being replaced by a poor rendering of the Great Seal of the United States. It seems unlikely, however, that the ware was made after about 1790. (For additional details, see CHAMBER POTS.)

There were a number of variations on the white saltglaze theme, the most distinctive being the black-bodied stoneware with a white slip on the inside and thin trails of white pipeclay in bands around the exterior. This black-and-white ware was fired in a regular saltglaze kiln which gave the white slip its characteristic pitted surface. The ware was patented by Ralph Shaw of Burslem in 1733, at which time it was described as "a curious ware . . . whose outside will be of a true chocolate colour, striped with white, and the inside



Fig. 37. Chamber pot of debased "scratch blue" stoneware with crowned cypher medallion of George III. Probably Staffordshire, c. 1770. Ht. 4 $\frac{3}{4}$ ".



Fig. 38. Dark-brown to black stoneware jug and can decorated with a white slip on the inside and similar bands and ornament on the outside, fired in a saltglaze kiln. This distinctive combination conforms to the description of a ware that Ralph Shaw of Cobridge tried to patent in 1732 but which was subsequently widely copied. Staffordshire, c. 1740. Ht. of jug 4 $\frac{3}{8}$ ".

white, much resembling the brown chinaware, and glazed with salt."⁸ Shaw's patent, however, was withdrawn as invalid in 1736 and the ware was produced by other potters up to about 1750. (Fig. 38) Another, rather later technique was the coating of white saltglaze with cobalt blue mixed with clay and frit to produce a lustrous blue surface known as "Littler's blue," being named after William Littler of the porcelain factory at Longton Hall, who, with his brother-in-law Aaron Wedgwood, developed it. Contrary to popular belief the blue coating could be applied before firing and did not require a second trip through the kiln. The principal items treated in this way were teapots (often with tripod zoomorphic feet and collar necks), pitchers, and bowls. (Fig. 39) They were fre-

⁸ Quoted in Simeon Shaw: *History of the Staffordshire Potteries* (London, 1900), pp. 146-7; first pub. Hanley, Staffordshire, 1829.



Fig. 39. White saltglaze teapot coated with a cobalt-colored leadglaze known as "Littler's blue," with additional overglaze oil-gilding. Staffordshire, c. 1760. Over-all ht. $3\frac{3}{4}$ ".

quently decorated after firing with white enamel or oil-gilding. Exact dates for the production of "Littler's blue" saltglaze have not been established, but a bracket of c. 1750–65 seems probable.

The stoneware revolution launched by Dwight in the late seventeenth century was not his only achievement, for he also produced a hard dry-bodied redware that was described as "red porcelain" and which had been developed in the Netherlands in imitation of a similar product, a dry-bodied red stoneware, imported from Yi-hsing in China. Dwight sued the brothers Elers (two Dutch silversmiths turned potters) for stealing his secrets and his workmen, but that did not prevent them from setting up shop in Staffordshire and producing a comparable, finely turned redware that now bears their name. Many students have erroneously attributed all dry-bodied redwares to Elers, but the truth of the matter is that they were produced by many Staffordshire potters well through the eighteenth century; Josiah Wedgwood called his version "rosso antico." Teapots are the most common form, usually copying silver shapes and adorned with very thin and cleanly molded sprigged ornament in rococo motifs. (Fig. 40) Some pieces

are marked on the base with pseudo-Chinese marks, and some bear the figure 45 in their design, a political jibe referring to the forty-fifth edition of John Wilkes's radical newspaper *North Briton*, which was published in 1763 and brought down the wrath of injured majesty upon his head. Other teapots in this ware were engine-turned (a technique that Wedgwood claimed to have introduced into the potteries in 1763) and some were lead-glazed, obscuring the characteristic red body. Both varieties are found in American contexts of the third quarter of the eighteenth century, but as far as is known, not one truly Elers piece has yet been recovered from a colonial site.

A comparable dry-bodied stoneware in black (fired in a reducing atmosphere) began to be made after 1750, and this was brought to prominence by Josiah Wedgwood, who used it for his famous Etruscan vases and called it "black Basaltes." It continued to be used, however, at a more mundane level by the makers of thrown, cast, and engine-turned tea wares, and in 1787 there was at least one



Fig. 40. Dry-bodied redware teapot decorated with sprigged ornament comprising a crowned griffin within a rococo cartouche flanked by floral scrolls and topped by a figure of Britannia. The 45 on the latter's shield refers to the 45th edition of John Wilkes's radical newspaper, the *North Briton*, which was issued on April 23, 1763. Staffordshire or Leeds. Ht. 3".



Fig. 41. Bowl of rich, lead-glazed redware with sprigged decoration in white pipeclay commemorating the capture of Porto-bello by Admiral Vernon in 1739. Probably from the factory of John Astbury. Staffordshire. Ht. 3".

Burslem potter who made nothing but "black and red china ware."⁹ The unglazed black ware retained its popularity after that of the red declined, in part because it had become the fashion to use it in times of mourning.

The new techniques developed by Dwight, Morley, and the Elers brothers marked the beginning of the English conquest of the world-wide ceramic market, which it enjoyed well through the nineteenth century. The finely turned redwares were quickly copied and adapted by other potters, notably by John Astbury, who

⁹ "Survey of the Counties of Stafford, Chester and Lancaster, compiled and published at Namptwich in 1787 by Wm. Tunnicliffe, land surveyor, of Yarlet near Stone; and a Directory of the principal merchants and manufacturers"; quoted in Josiah Wedgwood and Thomas H. Ormsbee: *Staffordshire Pottery* (New York, 1947), pp. 65-6.

is reputed to have stolen secrets from the Elers brothers. The products known as "Astbury ware" are hard, red-bodied, and lead-glazed to give them a ginger or light-chocolate-brown surface generally decorated with sprig-molded birds, squirrels, flowers, and royal arms, in white pipeclay. (Fig. 41) Such pieces usually belong to the second quarter of the eighteenth century and were actually made by numerous factories. A similar product, though with pipeclay ornament usually confined to bands at rims, feet, and spots on the tops of handles, was made at Newcastle-under-Lyme by Samuel Bell in the period 1724-44. However, almost identical wasters from an unidentified kiln have been found at Bristol.

Another easily recognized class of thinly turned wares is loosely known as "Jackfield" and was produced in quantity from about 1745 to 1790. The body is usually fired to purple or gray and is coated with a deep-black glaze, which in turn was often oil gilded in floral and foliate designs. The Jackfield Pottery in Shropshire was founded by Maurice Thursfield in about 1750, but a very similar ware was made in the same period by Thomas Whieldon and others in Staffordshire, Whieldon's having a red body and a slightly more brilliant black glaze. Both produced tea wares and pitchers, and examples are common on American sites in contexts of the 1760's. (Fig. 42)

The most important development of the eighteenth century was the gradual perfection of a thin, hard-firing, pale-yellow or cream-colored earthenware which, after a preliminary firing, could be dipped in a clear glaze. Pioneer efforts in this direction were made by Thomas Astbury and Thomas Whieldon, who mixed ground flints into the clay that yielded white saltglaze when high-fired and produced a cream-colored body at lower temperatures. The combination of the cream body and the dip glaze resulted in the production, in about 1750, of tea wares colored under the glaze in purple, blue, brown, yellow, green, and gray, which are generally known as "clouded" wares. (Fig. 43) The new cream body was used in virtually every manner that the current state of ceramic technology permitted. Excavations in Williamsburg, Virginia, in 1966 have revealed fragments of a cream-bodied teapot coated with "Littler's blue" and of the same shape as the blue saltglaze pots. Such a piece was hitherto unknown. The 1750's also saw the emergence of tea



Fig. 42. Teapot and jug having a hard, purplish body coated with a lustrous, black leadglaze often known as Jackfield ware. The teapot has a crabstock handle and is oil-gilded, while the jug is undecorated and has a handle typical of white salt-glazed stoneware. Shropshire and Staffordshire (?), c. 1755. Jug ht. $6\frac{5}{8}$ ".

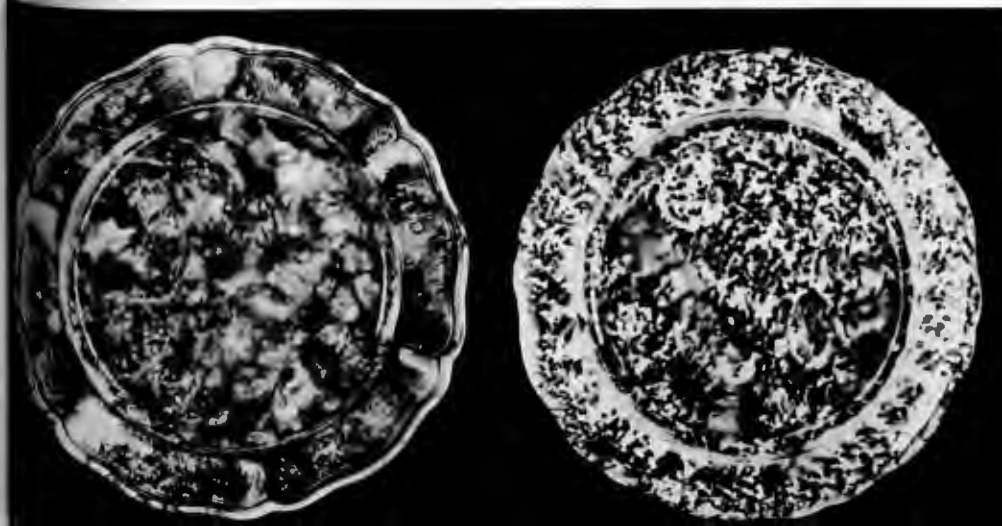
wares cast in relief in naturalistic designs derived from pineapples and cauliflowers. All these colorful styles are loosely classed as "Whieldon ware," though here again Whieldon was not the only manufacturer. Their date range covers the period 1750–75.

In the late 1750's Josiah Wedgwood was in partnership with Whieldon, and together they worked to refine the cream-colored body and also to produce an even-firing, rich green glaze. The latter was achieved in 1759, and therefore the presence of wholly green-glazed cream-bodied wares on archaeological sites provides a valuable *terminus post quem*. In that year Wedgwood went into business on his own at Burslem, initially to produce the new green ware. It was not particularly popular, however, and he quickly turned his attention to the further refinement of the plain cream-colored ware, later dubbed "Queen's ware" and now universally known as cream-

ware or (most misleadingly) "Leeds ware." It is impossible here to pursue the history of Wedgwood or to discuss the many elaborate innovations that were his. It is the creamware that is of archaeological importance, for it turns up on most American sites of the late eighteenth and early nineteenth centuries. Indeed, so ubiquitous was it that I have found fragments on the now-uninhabited edge of a steaming volcano on the West Indian island of Nevis and high on Admiral Rodney's lookout point on tiny Pigeon Island off St. Lucia.

Wedgwood may have perfected creamware by 1762, at which date he is said to have presented a caudle and breakfast set to Queen Charlotte, the plates' rim design being taken from "barley" pattern molds used on saltglaze but omitting the barley. (Fig. 35) Shortly afterward, according to some authorities, the raised ridges that extended across the body, dividing it into panels, were omitted, creating a style known as the "Royal" pattern—traditionally created at the request of George III. Somewhat later, perhaps around 1765, an entirely new rim design using relief-molded fronds was produced and called "feather-edged." (Fig. 45) The ornament was simultaneously cast in white saltglaze, perhaps by Wedgwood himself, who

Fig. 43. Left: front of Whieldon-type dinner plate, cream-colored body, molded in the barley pattern and decorated with "clouded glazes" in gray, green, yellow, and brown. Right: the back of the same plate decorated with purple manganese "tortoise-shell" stipple. Staffordshire, c. 1760. Diam. $9\frac{1}{2}$ ".



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Fig. 44. Creamware dinner plate in the Queen's shape and decorated with a popular Liverpool transfer print in black. Staffordshire, c. 1770. Diam. 9 $\frac{3}{4}$ ".

Fig. 45. Creamware plate with feather-edge and chinoiserie decoration in underglaze blue. The house-and-willow motif was widely used on pearlware in the last years of the century. This plate with pseudo-Chinese mark on the back. Possibly from the Wedgwood factory. Staffordshire, c. 1770. Diam. 9 $\frac{1}{2}$ ".

made that ware as late as 1772. In 1765, Wedgwood obtained, seemingly by default, an order to make a large tea service for the queen "with a gold ground and raised flowers upon it in green,"¹ and presumably it was after the delivery of it that he was able to style himself "Potter to Her Majesty." The date at which the "Queen's" and "Royal" shapes were so named is uncertain, but these and the "feather" and "shell" patterns (see below) are listed and identified in Hartley, Greens, and Co.'s design catalog published at Leeds in 1783.

In the early 1770's Wedgwood also produced a cockled-edged creamware with the rim underglaze-painted in blue, green, red, or very occasionally in "wine" purple, a style appropriately known as the "shell-edged" pattern. Although the blue-painted shell edge was used on Bow porcelain as early as c. 1755, this design is rare in creamware and belongs predominantly to a later period. Creamware plates were also produced prior to 1783 with entirely plain rims, but these are generally found in contexts of the 1790's and of the early nineteenth century. The problem of how early creamwares became popular in America has yet to be resolved. One would expect to find them appearing at least by 1765; however, I have yet to encounter them in Virginia inventories before 1769.

As a general guide it may be assumed that the earliest pieces are of a deeper yellow than are the later and that the difference has become pronounced by about 1785. This is by no means infallible,

¹ Ann Finer and George Savage, eds.: *The Selected Letters of Josiah Wedgwood* (London, 1965), p. 34; Josiah Wedgwood to John Wedgwood, June 17, 1765.



as Wedgwood himself admitted having difficulty in maintaining the same color from batch to batch.

Wedgwood had no patent on his creamware and anybody who knew how to make it did so in factories ranging all the way from Bovey Tracey in Devonshire to Leeds in Yorkshire and Glasgow in Scotland. However, the products of Wedgwood, and of the Leeds factory of Hartley, Greens, and Co. (later Humble, Hartley, Greens & Co.) are given most of the credit by collectors and curators. It is frequently difficult, even impossible, to tell the difference between the two, while few attempts have been made to pin down the peculiarities of the many other factories. An important exception is provided by the creamwares of William Coles's Swansea pot house (established 1764), which were often decorated in "scratch blue," the best-known pieces being tea jars incised with names and dates in the 1770's; e.g.,

the

Mary Evans : 5 : 1775

From 1765 to the early 1770's Wedgwood was experimenting with the production of a whiter ware than creamware which, in 1779, he termed "Pearl White." The body had an increased flint content and the glaze contained a small quantity of cobalt to negate its natural yellow tint. Wedgwood, himself, did not then think it was in his best interests to produce the ware in quantity, but other potters who were not so committed to creamware had fewer reservations, and by 1787 in Burslem alone there were no fewer than eight factories producing "china glaze, blue painted," and one "enameller and printer of cream colour and china glazed ware."² This last is of considerable importance in that it shows that transfer-printing on "china glaze" or "pearlware" had begun by 1787.

The art of mass production transfer-printing was claimed to have been perfected by Messrs. Sadler and Green of Liverpool in about 1756. However, prints in red and purple on white saltglaze plates that have long been attributed to them are now believed to have been made three years earlier by Messrs. Janssen, Delamain, and Brooks at York House, Battersea. Be that as it may, Sadler and Green are best remembered for their black prints on Liverpool

² See fn. 9, p. 122.



Fig. 46. Blue shell-edged serving dish, pearlware, with Chinese-house motif painted in underglaze blue. C. 1790-1800. Length 18¾".

Delftware tiles and also for their black printing on creamware. (Fig. 44) But printing in underglaze blue on earthenwares does not seem to have become popular until the end of the century, though it had been used on Battersea enamels as early as 1753. Much more common was the continued use of hand-painted decoration (the design first stenciled in charcoal onto biscuit) in underglaze blue, most frequently in simple Chinese-house patterns borrowed from porcelain. This motif occurs on creamware before 1775 (Fig. 45) and continued on pearlware to about 1805 or 1810. (Fig. 46) From about 1795, pearlware was also decorated in underglaze polychrome colors usually in floral or geometric patterns. Examples of 1795-1815 are generally in soft pastel hues, but thereafter, and continuing to about 1835, directly stenciled floral patterns in bright blue, orange, green, and a pinkish red became the vogue among the poorer classes.

Pearlware is undoubtedly the most common ceramic item found



Fig. 47. Pearlware soup plate decorated with a fine quality "willow pattern" print in underglaze blue; the unusual rim print occurs on pieces attributed to Swansea. C. 1810-20. Diam. 9½".

on sites of the early nineteenth century; it can readily be distinguished from late creamware by the way in which the glaze appears blue in crevices of footrings and around handles. Creamware glaze, on the other hand, appears yellow or green in the crevices. It should be noted that the earliest transfer-printed "willow pattern" and related chinoiserie occur on pearlware. (Fig. 47) The "willow" design is thought to have been conceived by Thomas Milton at Chaughley; it was then shipped to China for use on export porcelain, and the first products arrived back in England in 1792, thus making all "willow pattern" Chinese porcelain later than that date. Its use as a transfer for pearlware seems to have occurred around the same time, though the only-known dated piece is marked "Thomassine Willey 1818." By 1820, pearlware was on its way out, being superseded by various forms of hard white wares and semiporcelain

Ceramics, British

that are extremely difficult to date with accuracy (unless bearing factory marks) and which ran parallel to the "stonechina" produced by Spode in 1805 and Mason's celebrated "Ironstone China" of 1813.

Although pearlware had been used for everything from close-stool pans to eggcups, it is most commonly found in the form of shell-edged plates with rims painted in either blue or green. (Fig. 35) The early examples (c. 1780-95) are generally well painted, the brushwork being drawn inward to create a feathery edge (not to be confused with the molded creamware feather-edged pattern), but later, as the market swamped the craftsman, it was common to sweep the brush laterally around the edge to produce a mere stripe. Such debasement is usually found on examples dating later than 1800 or 1805, though it does occur earlier—just as better examples were made later. Sometimes the rims were embossed with feather-like devices, fish scales, floral garlands, and even human and animal figures, and although they were often better painted than their plain cousins they are unlikely to date prior to 1800.

Next to the blue- and green-edged plates, pearlware is most commonly found on early nineteenth-century sites in the shape of mugs, jugs, and bowls decorated in horizontal bands of color—black, green, light brown, pale blue, etc.—that were sometimes used to fill in broad, engine-turned grooves. Such products are collectively known as "annular wares" and were popular in the period 1795-1815. (Fig. 48) The technique, however, may go back as far as c. 1785 when found on a creamware rather than on a pearlware body. At the other end of the scale, a thicker and drab yellow ware, decorated with bands of light blue and with raised ridges in white, continued to be made both in England and America into the present century. Belonging to the earlier group, but continuing into the second half of the nineteenth century, was the ware known as "mocha," which is characterized by brown fernlike ornament on otherwise annular wares, the fronded device being created from a mixture of tobacco juice and urine. (Fig. 48, top left) The earliest-dated example is marked 1799. It should be noted that collectors frequently call all annular wares "mocha," though the latter term actually refers only to vessels decorated with the fern ornament.

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Fig. 48. Examples of hand-painted pearlware from a privy pit at McKnight's Tavern in Alexandria, Virginia, and discarded c. 1810. *Top:* 1. mocha-decorated bowl in green and brown, with a blue rim border flanked by dark-brown lines; 2. engine-turned bowl with annular decoration, the cut body slip dark-brown, the rim border sienna-brown flanked by blue lines; 3. bowl with annular decoration, reddish-brown lines below a green band at the rim. *Bottom:* 1. saucer with typical Chinese-house motif in underglaze blue; 2. blue shell-edged plate with an American eagle rather crudely executed in polychrome colors, the wings, tail, arrows, and stars brown, the leaves green, the head and stripes golden-yellow, and the upper shield blue; 3. engine-turned mug with over-all blue slip cut through to expose the pearl body and alternating bands decorated with dashes of black or deep orange. All probably Staffordshire. Diam. of plate $7\frac{3}{8}$ ".

Also occurring on banded pearlware are zones of cloudlike swirling lines generally in black, blue and white, and which are sometimes known as "finger-painted" wares. The technique was popular during the first twenty years of the nineteenth century. The effect was rather like marbling, which was yet another ornamental technique used on late eighteenth- and early nineteenth-century annular wares. This involved the swirling together of different colored slips, most commonly green and light-brown, and the result is generally known as "marbled" ware. It should not be confused with those wares that achieved rather similar effects by the mixing of two or more body clays of different colors to create veins that went right through the ware and could be seen both inside and out. These are known as "agate" wares and were used extensively by the Astbury-Whieldon partnership in the mid-eighteenth century, not only for such things as teapots but also for toys and mantle ornaments, and even for knife handles.

A much thicker agate ware combining a red and a yellow clay was common in the third quarter of the eighteenth century and much of it reached America. These light-brown bowls and dishes are often decorated with yellow bands at the rims frequently incised with rouletted impressions. (Fig. 49) The blending of two clays of different colors, however, was not always done for ornamental purposes; it could also serve to make a poor clay more workable. This



technique was characteristic of the potters of the Buckley district of North Wales, where vast quantities of coarse earthenware cream-pans, storage jars, and pitchers were made and shipped to the colonies from Liverpool. (Fig. 50) The vessels are characterized by their purplish-red bodies which, when broken, show an agatelike section of yellow and red clays, and which are coated with a thick, black glaze. The potting itself is as ponderous as the ware, and the body exteriors are frequently heavily ribbed, while the rims of pans are generally square and hammerlike. I have yet to see this ware in contexts dating earlier than 1720 (though I am told it has been found in one of the late seventeenth century), but it becomes increasingly common thereafter, the trade seemingly terminating at the time of the Revolution.

A second coarse earthenware exported to America in large quantities during the eighteenth century came from North Devon and was confined to cream-pans and to jugs and small storage jars, though the latter are uncommon after about 1720. The principal characteristics of this ware are a pink body (often with a gray core) heavily gravel-tempered, a light-brown to apple-green glaze and, on the cream-pans, gently curving folded rims. It is possible that this ware was being shipped over along with the sgraffito slipwares throughout the second half of the seventeenth century (*see* p. 104); however, fragments are uncommon on sites dating before 1680. It

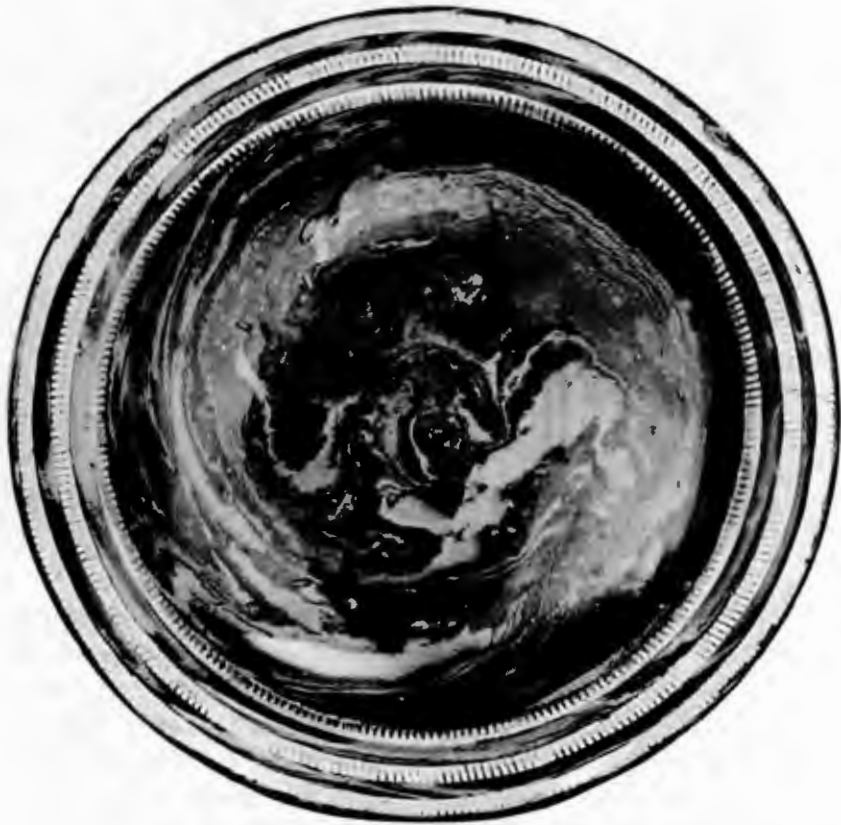


Fig. 49. Coarse agateware dish using pale-yellow and pink-firing clays beneath a lead glaze that turns them to a deep yellow and reddish brown. The same blend would eventually be used for 19th-century doorknobs. This dish is characteristically decorated around the rim with bands of rouletted pipeclay, which appear yellow beneath the glaze. Probably Staffordshire, c. 1760. Diam. $8\frac{5}{8}$ ".

seems likely that the trade declined in the mid-eighteenth century and that it ended before that of the Buckley ware.

Falling between the coarse earthenwares and the refined tablewares of the Astbury-Whieldon class were the ornamental slipwares that continued to be imported into the American colonies up to the 1770's. The majority of these were buff- to yellow-bodied and decorated with combed lines in iron oxide or manganese under a clear to pale-yellow glaze. (Fig. 29) Mugs, pictures, posset cups, chamber pots and chambersticks were made in this ware in Staffordshire and

also in Bristol, and it is virtually impossible to distinguish between them. These sources also made what might be termed the reverse style, covering the buff bodies with a black or dark-brown slip and trailing pipeclay designs over it before glazing. Both types were frequently decorated around the rims and necks with light or dark spots causing some collectors to dub them "dot" wares. The earliest versions go back to the last quarter of the seventeenth century in both Staffordshire and Bristol, at which time bowls and mugs were often straight-sided, while the combing was generally zigzagged or in panels of alternating combed scales and stripes. Although applied horizontally, the designs appeared vertical in the period c. 1680–1700, whereas, thereafter, the combing ran in more or less parallel lines around vessels that were invariably bulbous-bodied below straight collar necks with slightly everted lips.

There seems to be as yet no evidence that slipware dishes were made in Bristol in the eighteenth century. They appear to have been a Staffordshire speciality, the most common varieties being made from a buff to yellow clay thinly mixed with pink, and sweepingly combed in black over a white slip and beneath a lead glaze to create a wasplike effect of yellow and black stripes. As a rule of thumb it may be contended that the later the piece the straighter and wider the stripes. Other variations occur with light trailed

Fig. 50. Storage jar of black, lead-glazed Buckley earthenware, the body a mixture of pink-firing and yellow clays. The ribbing and thick, angular rim are typical of the ware. Found at Yorktown, Virginia. Imported from Flintshire, North Wales, Mid-18th century. Ht. $10\frac{5}{8}$ ".



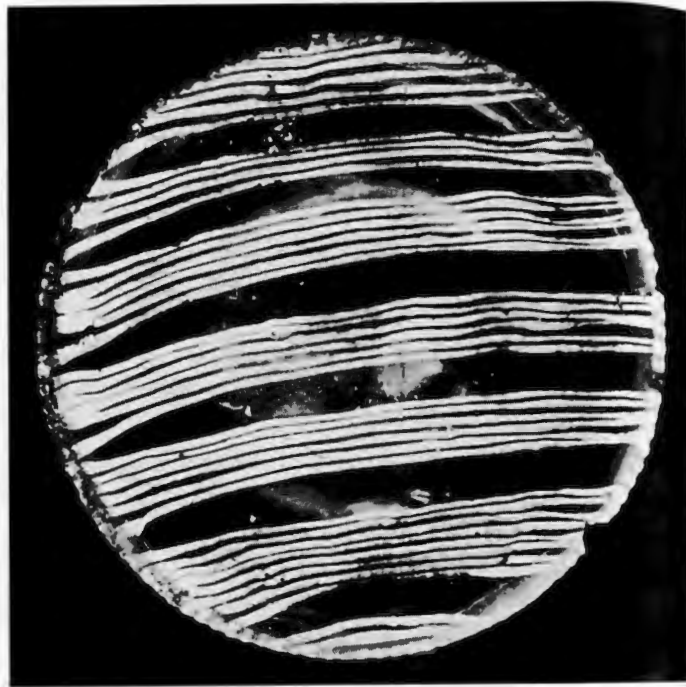


Fig. 51. Slipware dish, the body buff with inclusions of pink-firing grog clay, the decoration in dark brown under a trailed white slip appearing yellow under the leadglaze. Staffordshire, c. 1750. Diam. 13½".

stripes over a black slip (Fig. 51) or with a skillfully marbled blend of white and dark- and light-brown slips. These dishes are difficult to date with accuracy, but they do not seem to have been imported after the Revolution.

The combed and marbelized Staffordshire dishes are common on American eighteenth-century sites, but they do not by any means represent the best of English slipwares. Those began in the late seventeenth century with the famous signed pieces by Thomas Toft and Ralph Simpson, decorated with lions, royal portraits, a mermaid, Adam and Eve, and other popular designs generally executed in trailed red-brown slip on a white ground. The Toft dishes are all attributable to the 1670's, while those of Ralph Simpson run as late as 1707. I know of no examples yet having been unearthed

on American sites. Another elaborate dish type does occur, however, both on American and West Indian sites, the pieces being shaped over bat molds decorated with incised ornament that was thus transferred in relief to the dishes. The latter were then painted in brown slip over a white (yellow when glazed) ground. The technique was used in the late seventeenth century on dishes with a crude piecrust edge, the designs usually very "rustic" in the shape of prehistoric figures. The technique was revived in the second quarter of the eighteenth century, when the designs ranged from standing figures to clock faces and suns with human faces in the centers. (Fig. 29, bottom left) These later dishes usually have a notched rim similar to those of the combed dishes, and the decoration is much more restrained than was that of the earlier examples.

I have said nothing about English porcelain on the ground that anyone capable of recognizing the difference between it and the ubiquitous Chinese export wares will already have referred to books devoted wholly to the subject. It is enough to note that English porcelains are generally less hard than the Chinese, that they are often decorated with transfer prints in underglaze blue (while the Chinese are always hand-painted), and that, in the ground, blue-decorated Bow porcelain tends to lose both its surface and its decoration—which Chinese never does.

The principal English porcelains found on American sites are generally confined to tea wares handpainted in underglaze blue and come from Bow, Worcester, Liverpool, and Caughley, nearly all of it in the period 1755–75. The distinctions between the various factories are hard to comprehend without the specimens in front of one, and when the piece is unmarked it is often possible to extract different attributions from different specialists.

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- See also BOTTLES, Pottery; CHAMBER POTS; DRUG POTS; and TILES.

§ CERAMICS, European

(except STONEWARE, Rhenish, q.v.)

Prior to the introduction of the Navigation Acts of 1651 and 1660 requiring that foreign goods (including most ceramics) should be imported into England and her colonies only aboard English ships, pottery reaching America came from more or less any available source. Colonists fresh from England brought along many of their household wares, which included Netherlandish, Italian, and Iberian maiolica, Rhenish stonewares and slipwares, and Flemish earthenwares. Unfortunately, little close dating has yet been established for any of these early wares, save for the Rhenish stonewares and



Fig. 52. Dish decorated with heavy white slip, copper green, and with sgraffito detail in the central medallion cutting into the red body beneath, all under a leadglaze. Wanfried, c. 1625. Diam. 12¼".

one variety of slipware. The latter, the red-bodied sgraffito ware from Wanfried (often described as Hessian) was frequently dated and ranged from the 1580's to about 1625. (Fig. 52) Examples found at Jamestown are confined to deep dishes with short, vertical rims and two horizontal loop handles striped with pipeclay, as also are the interiors of the rims. The interior walls and base are coated with a white slip, cut through in designs which frequently include human figures in Elizabethan garb and which are filled in with copper green over the slip. Later versions from the Limburg area are more "peasant" in concept, though retaining the same basic shape. In place of the sgraffito ornament the potters made use of thickly trailed white slip in bands, swags, and crosses, some of which were overlaid with copper before firing under a lead glaze. Such wares are found on American sites prior to 1650.

Attributable to the same period is a group of red-bodied bowls, plates, and dishes with slightly rising pad feet, folded or everted rims, and decorated with marbled patterns predominantly in white and green under the rich lead glaze. A few omit the green and appear as red and white; some use the latter on the outside and the more elaborate coloring on the inside, and others include touches of black-firing iron oxide. These all belong to the same class as the costrels discussed on p. 77 and are of French or Italian origin. The same ware and bowl forms were also coated with white slip and decorated with sgraffito motifs (usually birds or flowers) and with haphazard splashes and lines of green and a golden yellow.

Other imports belonging to this period include chafing dishes and cooking vessels in a coarse buff ware coated with a drab-green gallena glaze. These are considered to be Flemish. Much further up the ladder of elegance, and alongside the Dutch delftware, is the maiolica found at Jamestown and attributed to Lisbon. The designs are frequently in the classic Wan Li and Ming styles, but others belong to the simple geometric and floral motifs favored by the Dutch and English potters of the second quarter of the seventeenth century. The Lisbon ware seems to have been painted in rather darker blues than its northern counterparts, the designs often outlined in purple or black. Extreme caution, however, should be exercised in making such an attribution, for it is probable that a number of pieces hitherto claimed for Lisbon are actually Dutch.

The 1651 Navigation Act was re-enacted by Charles II as a further attempt to limit Dutch maritime influence, and it remained in force until 1685. In the meantime the Staple Act of 1663 had specifically stated that goods bound for the colonies could only be shipped through English ports after paying English duties. In 1672 a proclamation was issued banning the importation into England of "any kind or sort of Painted Earthen Wares whatsoever (except those of China, and Stone bottles and Jugs)."³ Four years later the restriction was further defined, customs officers being ordered to seize and destroy all imported painted earthenwares "as well white

³ Order in Council, July 22, 1672; quoted in Aubrey J. Toppin: "The China Trade and Some London Chinamen," *English Ceramic Circle Transactions*, No. 3 (1935), p. 40.



Fig. 53. Faïence dish, the tin glaze often with a blue tint, the decoration in pale blue outlined in dark blue to black, the back coated with a rich brown (iron-oxide) leadglaze. The type occurs on French sites before 1755, but on British colonial sites it is generally confined to the Revolutionary period. Rouen. Length 17".

or Blew or any other colours."⁴ Thus, the trade in European maiolica, faïence, or Delftware was prevented from reaching the British American colonies, for thenceforth it was not to be bought in English ports even if the ships were ready to carry it. The embargo remained in force until 1775 and served also to prevent any open trade in European porcelains. It is true that the London port records from 1697 to 1776 do show that some earthenwares, including "galley dishes," were imported from Europe in small quantities, but it is apparent that most of the trade was reduced to German and Flemish stonewares shipped from Holland. Nevertheless, to all intents and purposes it may reasonably be contended that, apart from stonewares, very little European pottery reached the British American colonies in the eighteenth century.

⁴ Ibid. (Order in Council, November 24, 1676.)

Even though the embargo on "Painted Earthen Wares" was lifted in 1775, the taste for it had declined virtually to vanishing point. The British ceramic industry was in full gear, and even immediately after the Revolution it was busily designing specifically to feed the new American markets. The European potters really had no chance to step in. The only attempt of any consequence was made by the French potters of Rouen, whose once famous faïence industry was in a rapid decline. Newspaper advertisements in the period 1778-84 refer to the importation of "Rhoan" and "Deph and Roan wares," and there is little doubt that these relate to a heavy, red-bodied faïence, brown-glazed on the exteriors or undersides and white on the interiors of cooking wares and on the upper surfaces of dishes. Only the dishes seem to have been decorated, generally in purple or in blue outlined in black, the designs being limited to very simple baskets of flowers in the centers and bands of hatched and dotted zones divided by sprays of short, radiating lines around the rims. (Fig. 53) They are a far cry from the celebrated and highly complicated lambrequin motifs for which Rouen was famous earlier in the century. The late dishes were either round or oval and sometimes of large size, while the plain wares (their white tin glazes frequently pink-tinged) ranged from tubular-handled pipkins to pans, saucers, and strap-handled storage jars and mixing bowls.

Virtually no serious ceramic studies have yet been attempted on erstwhile French colonial sites in the United States, and therefore the dating of French pottery is extremely sketchy. It is reasonably certain that little or none came into the British colonies by sea from c. 1660 to 1775, but that does not mean that it did not filter down in that period from Canada or eastward from Louisiana. A few possible pieces of Moustiers faïence have turned up in contexts of the mid-eighteenth century, generally decorated in pale blue, while a few painted in bright yellow have been attributed to Marseilles. Most common among the anomalies encountered on sites having French contacts are plain white plates decorated around the rims with a single stripe of pale blue. Such plates are common on French colonial sites in contexts of the mid-eighteenth century, but their full date range is unknown. There are also numerous faïence cups with patterns below the rims similar to those found on Rouen

dishes and having bodies decorated either with small foliate sprays or a checker pattern in blue, sometimes with small manganese crosses at the intersections. These, too, seem to occur in contexts of the mid-century. Plain white faïence plates, usually with shell-like edges, occur on Revolutionary sites, and these two are almost certainly French, though it is not known whether they came over with French troops or were merely the products of trade with France during the war years.



Fig. 54. Iberian storage jar with thickened rim and vestigial arched handles, coarse redware streaked externally with white slip, and lead-glazed on the inside. Common in the period c. 1745-80. Ht. 32½".

Spain's principal contribution seems to have been the manufacture of bulbous or carrot-shaped jars with small round necks and rims, and no feet, which were originally intended as containers for olives or olive oil. They range from the sixteenth century well into the eighteenth century, have a buff to yellow body and sometimes a thin, pale-green glaze on the inside. Another variety has a flat base, slopes up and outward to a generously rounded shoulder topped by a vestigial folded rim. The jars stand some 18" in height, have a sandy-pink body, and were apparently sealed by flat clay discs of the same ware. The exact place of origin for any of these "olive" jars has not been determined, but it seems reasonable to classify them as Iberian, and the flat-rimmed variety seems to have been confined to the eighteenth century. The same may also be said of another group of much larger ollae which stand 3' and more in height, have vestigial crescent-shaped handles on either side below the shoulder, and possess thick folded or rolled rims. The ware is generally a flowerpot red, sometimes coated on the outside with a buff or yellowish slip and on the inside with a clear (appearing brown) lead glaze. The body areas capped by the handles are sometimes decorated with molded relief medallions bearing initials or religious symbols; others have letters painted in pale-buff slip. In the latter instances the slips over the bodies are often confined to groups of vertically painted stripes. (Fig. 54) Although the shapes of the jars found on British colonial sites seem to be fairly standard, many variations of size and ornament are to be seen in the West Indies where they are still used by the peasants as water containers. We know that George Washington had six at Mount Vernon and kept soap in them, and two fine specimens have been recovered from British vessels sunk during the Battle of Yorktown. Most of the examples so far recovered seem to date in the period 1745-80. The prevalence of these large jars on British colonial sites has led some authorities to conclude that they are of English manufacture. But although examples are not uncommon in England, the only specimens with a known history that I have encountered there were brought back early in the present century from Portugal.

As already noted, any British-American trade in European porcelains in the eighteenth century was thwarted by the embargo on painted wares, but undoubtedly a few pieces came over amid the

effects of European immigrants. A few pieces of yellowish and middecomposed porcelain decorated in pale underglaze blue have been found in unstratified contexts in Williamsburg and are attributed to Tournai in Belgium, a center that began porcelain production in 1751. Fragments of marked German Fürstenburg blue and white porcelain have been found on the site of the glass factory built by John Frederick Amelung, who arrived in Maryland from Bremen in 1784, and it is highly probable that many more such people had similar wares. However, this is a very specialized field and it is unlikely that the average archaeological historian will be able to pin them down. I mention them only as a reminder that all porcelain found on American sites (particularly those of the late eighteenth century) does not have to be either Chinese or English.

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See also BOTTLES, Pottery; and STONEWARE, Rhenish.

§ CHAMBER POTS, BEDPANS, and CLOSESTOOL PANS

As happened in so many other areas, silver was initially the chamber pot style setter, and the silversmiths' designs were copied by both the pewterers and the potters. Both silver and pewter pots are naturally extremely rare, but those of pottery are among the most common items found on archaeological sites dating after about 1640.

cobbler. Nevertheless, it would seem that thimbles dating from the sixteenth and early seventeenth century were generally squat and heavy and were sometimes reinforced with an inner brass lining. They seem also to have been made from a single piece of metal, whereas, by the mid-seventeenth century, they were usually made in two pieces, the sides being fashioned from one strip brazed at the joint while the crown was made separately and joined to the wall in the same manner. The earliest examples have no decoration around the open end other than a single incised line, nor is the edge rolled or otherwise reinforced. The indentations on these early thimbles were applied unevenly and in a spiral, beginning at the open end, continuing up onto the crown, and often terminating before reaching the center so as to leave a smooth tonsurelike area at the apex. I have yet to see this last feature on an example in an archaeological context later than the third quarter of the seventeenth century. Some of the early spiral-indented examples had no crowns and were made as simple bands less than $\frac{1}{2}$ " in height. These sometimes bear a stamped maker's mark preceding the first indentation at the commencement of the spiral.

By the mid-seventeenth century very tall thimbles seem to have been popular, these being made in two parts and with the open end rolled outward or with a separate band about 1mm. in width being attached to the outside. By this time the indentations on the wall were applied in a wide strip using a multitoothed tool in place of the single punch used to impress the earlier spiral. However, the spiral treatment of the crown was sometimes used in association with the new technique. By the beginning of the eighteenth century the crowns were also pattern-stamped, the indentations being in straight lines giving the top a hatched appearance. However, the spiraled crown is sometimes found on nineteenth-century specimens. It is not certain how early patterned collars were stamped around the open ends, but it seems likely that they were in use by the end of the seventeenth century, as also was the turning of thimbles to ornament them with grooves and bands at the collar and at the junction of wall and crown. There seems to be no appreciable difference between thimbles of the eighteenth century and those of the nineteenth, though all the examples that I have seen from the latter contexts are short and of light weight. Like glass beads, thimbles were used in nineteenth-century trade with the Plains Indians,

and many examples have been found on Indian sites with small holes punched through the crowns enabling them to be hung on thongs over a bead as "tinklers" to ornament clothing and pouches.

LONGMAN, E. D., and S. LOCK: *Pins and Pincushions*. London, 1911.

§ PORCELAIN, Chinese

Although English and European porcelains are found in small quantities on colonial and Early American sites of the second half of the eighteenth century, they were not present in anything like the quantities provided by the Chinese through the India trade. Before that was established Chinese porcelain was reaching California and Mexico, presumably in Spanish ships, and is frequently found there in contexts of the late sixteenth and early seventeenth centuries, much of it the coarse, gray-cored product of Swatow in the province of Kwangtung. Just how early porcelain began to appear on English colonial sites on the American east coast is still uncertain, but numerous Ming sherds have been found in contexts dating prior to 1650. Charles I granted licenses in 1635 to a number of English merchant adventurers to trade in the Orient, but they apparently behaved so badly that the English were barred from Chinese ports from about 1640 until 1680. The first of the Navigation Acts (1651) barred the importation of Asiatic merchandise unless carried aboard English ships, and together these restrictions may have cut off the direct flow of Chinese porcelain to England almost completely in the third quarter of the seventeenth century.

Porcelain was, at least in the seventeenth and early eighteenth centuries, a fairly expensive tableware and would not have been common in the less affluent homes. Because of the small number of quality colonial homes of that period that have yet been excavated, there is no knowing how much porcelain their owners possessed. It is certainly not well represented in inventories until the second quarter of the eighteenth century. Thereafter, it seems to have become increasingly popular and available, until by the end of the century it had become one of the most common ceramic types, though the quality had declined quite appallingly.



Fig. 82. Chinese porcelain cup and tea bowls. *Top row:* left and right, decorated in underglaze blue, 17th to 18th century; center, decorated in overglaze enamels, second half of 18th century. *Bottom row:* left, can decorated in underglaze blue, mid-18th century; right, teacup with "Leeds" handle, the rim decorated with dots of blue enamel between purple lines, remains of small floral motif on side, c. 1790-1820. Ht. of handled teacup $2\frac{3}{4}$ ".

Chinese porcelain was made from a combination of kaolin clay and a finely ground feldspathic rock (pai-tun-tzû, or petuntse) and can be distinguished from other ceramic wares by a high-gloss glaze fused to the body and which never flaked as did its delftware imitations. In section the body ranges from pale gray to off-white, is extremely tight-grained, and the glaze clings to it in a thin, translucent line on both sides. Decoration is most commonly in underglaze blue, though in the period c. 1700-80 much of it was combined with overglaze red highlighted with gilding. Some of the designs created in these colors were very "busy," with emphasis on rosettes and compartmenting panels, and were copied from Japanese porcelains that the Dutch had made popular in Europe in the seventeenth century. Because the Japanese wares had been shipped from the port of Imari, the decorative style (be it Japanese or Chinese) has acquired that name, as, quite improperly, have other designs in comparable colors.

Porcelain, Chinese

Like all overglaze painting on porcelain, the "Imari" red and gold becomes unstable when buried in the ground and often clings more firmly to the dirt than to the porcelain, with the result that when the fragment is lifted the overglaze decoration sometimes remains behind in the ground. When this occurs in tightly compacted dirt it is possible to photograph the transferred decoration and by reversing the resulting negative to record sufficient of the design for a drawing to be made of it. Under no circumstances should the excavator wipe his fingers across a porcelain sherd to see whether it possesses overglaze decoration, for in doing so he is liable to wipe it off. For the same reason pieces with overglaze ornament should not be washed; they should be allowed to dry naturally until the dirt can be brushed away, whereupon the surface can be sprayed with a plastic sealer, such as Krylon, to hold the decoration in place.

Much of the Chinese porcelain made for the European market (popularly and erroneously known as "Oriental Lowestoft") was decorated entirely in overglaze colors, and many a sherd that appears to be plain white, when viewed obliquely in a strong light reveals the matt lines in the surface glaze where enamels had once lain. The entirely overglaze-decorated wares are most common in the second half of the eighteenth century and often display elaborate motifs drawn from European engravings and paintings, usually encircled with chain or spearhead borders in red and gold.

Fragments decorated with large and rather blowzy pink peonies are often found in contexts of the mid- and later eighteenth century, although this, the so-called "famille rose" palette, was first used in about 1685. The flowers are often highlighted in white, and the leaves are usually a drab and washed-out green. Although this type of ornament was much used on such things as quite small vases, most of the examples found on American sites occur on heavy-bodied wares such as tureens and large dishes. The "famille rose" designs are generally informally applied without the restraint imposed by cartouches and border devices or the limitations of small-sized subjects. Those were usually handled much more delicately by painters working in pale greens ("famille verte") and black ("famille noire"), the green often being used in panels bordered with underglaze blue. Brown was also used, often as a surface wash covering the entire exterior of hemispherical tea bowls or with enameled



Fig. 83. Chinese export plate with underglaze blue decoration typical of that which provided inspiration for the English "willow pattern." Third quarter of 18th century. Diam. 9".

reserves on bowls of somewhat larger size. This technique seems to be most common in contexts of the period c. 1740–80. Also worthy of mention are those bowls and cylindrical teacups bearing decoration painted in white slip under the glaze, which, after firing, rather resembles watermarked paper. Such pieces frequently had underglaze-blue rim borders and sometimes overglaze flowers in the "famille rose" palette. Such elaborately decorated wares are never common, and those examples that I have seen have never been in colonial contexts dating before about 1740, though the technique is thought to have been developed in the last years of the Ming dynasty in imitation of earlier Sung wares that were carved beneath the glaze.

In his *Observations on the Commerce of the American States* (London, 1784), Lord Sheffield reported that "East-India china is sometimes cheaper in Holland than in England. America gets the coarse kinds from St. Croix; but the consumption of china in America is inconsiderable, in comparison to that of British earthen ware; and since the improvements of the latter, it decreases daily."³ The rather puzzling reference to St. Croix is presumably to the then-Danish West Indian island which may have traded in porcelain received from the Spanish, the Dutch, or through the Danish East India Company's "factory" at Tranquebar near Madras on the Bay of Bengal.

Toward the end of the eighteenth century overglaze-decorated Chinese porcelain made solely for the export trade declined to a point where very little craftsmanship was involved. Cups and saucers were rimmed with thin swags, wiggly lines, or dashes in black, orange, or purplish pink, sometimes flanked by dots in a thick, light-blue enamel. Decoration in the centers of saucers and on the sides of cups, jugs, and teapots was confined to small floral or foliate sprays in the same color as the border, sometimes with a cornucopia serving as a vase for the spray. Handles for this tea ware generally terminated in relief-molded foliate springs in imitation of the floral terminals on Staffordshire and Leeds creamwares. (Fig. 82) The handles themselves were sometimes double and entwined, also in the creamware manner, but although these occurred on overglaze-enameled teapots in the last quarter of the eighteenth century, they were most common on cups in the first years of the nineteenth century, then with decoration in underglaze blue.

For every piece of overglaze-decorated porcelain found on eighteenth-century sites there are a dozen or more ornamented only in underglaze blue, and as they are generally without reign marks they are virtually impossible to date with sufficient accuracy to be useful. (Fig. 83) One can only note that the later the piece the more sloppy the painting. The pseudo-Chinese "willow pattern" (see p. 130) did not appear before 1792 and became increasingly common in America in the early years of the nineteenth century. The earli-

³ Sheffield, op. cit., pp. 23–4; for full citation, see fn. 7, p. 60.



Fig. 84. Typical late Chinese export porcelain plate, the decoration poorly executed in underglaze blue on a greenish-gray body, the rim design known as "Canton"; c. 1810-35. Diam. 7¾".

st pieces were quite well done, though the border ornaments were overly fussy and tended to become blurred. Very soon, however, the house, tree, boat, and bridge motif began to be applied to a heavier body that appears greenish-gray through the glaze, roughly hatched or scale-decorated, and the border was reduced to a wide band of blue, roughly hatched with lines of a slightly darker blue. (Fig. 84) This ware, so common in the first thirty years or so of the nineteenth century, is generally called "Canton," from which port it was shipped and where, in the second half of the eighteenth century, much of the high-quality overglaze painting for special European orders had been executed. Slightly better quality versions of the

same late blue and white wares possessed border designs with daggers or spearheads below the inner edge, a style known as "Nanking," as opposed to those with mere swags, which are termed "Canton." In neither case were the wares made in these cities, all of them apparently having been made in the kilns of Ching-tê Chên.

Marks on excavated run-of-the-mill Chinese porcelains are few and far between, and the majority (on the undersides of bases) have no dating significance. They were, as a rule, nothing more than the painters' good wishes—a square in a circle or "cash" mark representing a coin and indicating prosperity; a counterclockwise swastika meaning long life; the Buddhist symbol of a pair of amorous fish backed by a knot, for connubial felicity; etc. (Fig. 85)

Porcelain found on American sites must belong to one or other of two dynasties, the Ming (1364-1644) or the Ch'ing (1644-1912). The reign marks usually comprised six Chinese characters, three in each of two columns, and are read from top right to bottom left. Although it is difficult to remember the individual marks, it is possible to recall enough to determine whether in fact one is looking at a reign mark at all. With the exceptions of the reigns of Ch'ung Chang (1628-43) and Chia Ch'ing (1796-1820), which only used four characters, all the reign marks begin by identifying the dynasty. The first sign at top right resembles an inverted v topped by

Fig. 85. Common marks on the bases of 18th-century Chinese porcelain. *Left*: a pair of fish over a knot, symbolic of connubial felicity. *Right*: a coin or cash mark meaning wealth. Both are in underglaze blue. Diam. of right footring 1⅞".






曆大明 年製萬 啟大明 年製天 年崇 製禎	MING DYNASTY WAN LI 1573-1619 T'IENT CH'I 1621-27 CH'UNG CHENG 1628-44	正大清 年製雍 隆大清 年製乾	YUNG CHENG 1723-35 " CH'IENT LUNG 1736-95	 豐大清 年製咸	TAO KUANG 1821-50 HSIEN FENG 1851-61 " T'UNG CHIH 1862-74
治大清 年製順 南順 熙大清 年製康 南康	CH'ING DYNASTY SHUN CHIH 1644-61 " K'ANG HSI 1662-1722 "	 年嘉 製慶 光大清 年製道	" " CHIA CH'ING 1796-1820 " TAO KUANG 1821-50	 緒大清 年製光 南光 年宣 製統	" " KUANG HSU 1875-1908 " HSUAN T'UNG 1909-12

Fig. 86. Chinese reign marks of the late Ming and Ch'ing dynasties, shown both in script and seal characters. They read from top right to bottom left, thus: 1. Great. 2. Ming. 3. Wan. 4. Li. 5. in the. 6. reign of. Drawing after W. Burton and R. L. Hobson: *Handbook of Marks on Pottery and Porcelain* (London, 1928).

a cross and means "Great"; the one below it resembles two square figure-8's, the right one with tails descending at either side, for Ming, or a more elaborate character with two dots at its top-left corner, for Ch'ing. The third and fourth signs give the name of the emperor, the fifth and sixth mean "in the reign of." (Fig. 86)

By no means all marks that use letters instead of symbols relate to reigns; as an example, one small bowl found on an eighteenth-century site in Williamsburg was marked as having been made for a prominent civil servant named Kao Ch'eng-yen in the second quarter of the seventeenth century.

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For English porcelain, see CERAMICS, British.

§ RINGS, Finger

It is very rarely that rings of silver or gold are found in archaeological contexts, though those of brass are not uncommon. But here, as in the case of so many of the small artifacts of the post-medieval past, little attention has been afforded them and no acceptable chronology has been established. Gold rings made from three linked strands of wire were popular in the late sixteenth century and it is reasonable to suppose that this style continued much later, probably well through the eighteenth century. Examples in brass with the central wire beaded have occasionally been found, though not, so far as I know, in dated contexts. The most common type is the simple band, convex on the outside and flat inside, which occurs on eighteenth-century sites but which is itself undatable. The only clue to distinguish between early and late examples may be the presence on the inside of poorly spelled amorous inscriptions, such as I LOVE ERVE, I LOVE V EUER, or LOVE THY TRV FRIND. These were

better be described as a rat tail. This type of hoe was common in the seventeenth century but less so in the eighteenth.

It should be noted that the wrought-iron blade was generally reinforced with a steel cutting edge that often emerges from two hundred years in the ground in better condition than the rest of the tool. In conclusion, I should add that nineteenth-century hoe blades are generally of more even thickness, and their reinforcement, when it is present at all, is likely to be uniformly beveled.

§ SPOONS

See CUTLERY and SPOONS.

§ STONEWARE, *Rhenish*

At the beginning of the seventeenth century the most durable pottery available in Western Europe was the stoneware manufactured in the Rhineland, which was imported into England, and thence to America, in ever-increasing quantities. When, in 1672, an embargo was placed on the importation of "painted wares" to protect the growing English delftware industry, no such restriction was imposed on Rhenish stonewares and they continued to pour into England until late in the eighteenth century. Although Bellarmine (q.v.) had been made with ornament specifically designed for the English market as early as the reign of Elizabeth I, the majority of the seventeenth-century exports were no different from those sold on the Continent. It was not until the end of the century that virtually the entire range of exported Rhenish stonewares began to be decorated for the British trade, the first of them bearing the portrait or cipher of William III (1688-1702).

There is a tendency among collectors to call all these stonewares German, but such a grouping is misleading for some of the best pieces were made in Flanders. Indeed, it was the famous products of

Raeren near Aix-la-Chapelle that set the pace to the others, first by producing a rich brown glaze and later by learning to decorate the gray body with cobalt. Unfortunately, with the commencement of the Thirty Years' War, the products of Raeren lost their individuality and it became impossible to distinguish them from those made in other more prosperous factories of the Rhineland. The principal styles made at Raeren were tall jugs, some with tubular spouts, all elaborately mold-decorated with armorial devices, Biblical and mythological scenes (Susanna and the Elders, the Centaurs and the Lapithal, etc.), and friezes depicting tavern, market, and rural life. The most famous Raeren potter was Jan Emens; his initials are found amid the relief-molded ornaments on a surprisingly large number of pieces made between 1568 and 1594, though his long working life is believed to have spanned the years 1556-1603. Although its glory faded early, the Raeren stoneware industry struggled on as late as 1850, when the last kiln was fired.

Fig. 90. Rhenish brown stoneware in its best period. A pewter-mounted jug with benign "Bartmann" mask. Cologne, c. 1580. Jug height without lid 8½".



Farther south, on the north bank of the Rhine, was the city of Siegburg (near Bonn), which produced an unglazed gray or pale-buff stoneware throughout the sixteenth century and continuing into the seventeenth century. But its potting industry crumbled in the 1630's after being sacked first by the Spaniards (1587), then by the Elector of Brandenburg (1615), and finally by the Swedes in 1632. Although jugs and bottles of all sorts were made, the most characteristic product was a tall, tapering mug decorated almost to its full height with relief-molded contemporary figures or with Biblical stories told in numerous small panels. It is quite possible that examples of this easily recognizable ware reached America in the baggage of the earliest colonists, though I have yet to see an excavated example.

The field of Rhenish stonewares is beset with more misnomers than are its fair share, and to such dubious terms as "Bellarmine" and "German stoneware" we must add the name "Cologne ware," which had long been used by writers to describe the mottled-brown body of the typical Rhenish bearded jugs and bottles of the late sixteenth and early seventeenth centuries. The term is certainly not new, for as early as 1671 John Dwight of Fulham claimed that he had discovered the mysteries of manufacturing "Cologne ware." However, the principal authority on the subject, M. L. Solon, declared in 1892 that a scrutiny of Cologne's archives did "... not contain any mention of the potting trade having ever flourished in that city."⁴ Nevertheless, archaeological evidence recovered during street repairs has since produced kiln wasters which demonstrate that stoneware had been made there in the sixteenth century in at least two factories and that some of the products were of high quality. Indeed, it is probable that Jan Emens was trained there. It would seem on the basis of what little evidence is available that Cologne stoneware production was devoted largely to early pale brown-glazed variations on the Greybeard, the better quality pieces often with a molded inscription around the girth and with classical medallions and acanthus-leaf moldings above and below. (Fig. 90) The date range of such pieces would seem to be confined to the

⁴ M. L. Solon: *The Ancient Art Stoneware of the Low Countries and Germany* (London, 1892), II, 3.

Fig. 91. Rhenish gray stoneware jug, pewter mounted. Decorated with incised lines, sprigged floral ornament, and a medallion bearing the cipher of Queen Anne; the body colored with cobalt blue and the flowers with manganese purple. Grenzhausen type, c. 1702-14. Ht. 11".



years c. 1560-1600, though other types go back to the second quarter of the sixteenth century.

Most of the so-called Greybeards came to be attributed with reasonable certainty to kilns in the vicinity of the village of Frechen between Aix-la-Chapelle and Cologne, the potters allegedly having established themselves there after being driven out of Cologne in the early sixteenth century. If this is so, then, of course, one wonders why they were making stoneware in Cologne at the end of that century. The truth of the matter may be that a few potters returned and that most of the later products of Frechen were marketed there by Cologne merchants who then shipped them up the Rhine, thus causing foreigners to suppose that the pottery was actually manufactured in Cologne.

In addition to its vast trade in Greybeards (variously known as *Bartmann* bottles or *Bellarmines*) through the later sixteenth and entire seventeenth century, the Frechen potteries also produced gray stonewares decorated in cobalt blue in the manner of Raeren

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Fig. 92. Gray stoneware mugs and chamber pots with incised, stamped, sprigged, and cobalt-painted decoration, all (with one possible exception) attributable to the Westerwald district of the Rhineland. The mugs are of "3", "4", and "8" capacities, and all have GR medallions. The center example dates prior to c. 1740, but the others may run fifteen or twenty years later. Ht. of left example 6 $\frac{7}{8}$ ". The left chamber pot is of the type common in the period 1710–65 and is decorated with alternating sprigged lions and stamped rosettes. The example on the right is slightly taller, and sprig-molded wreaths substitute for the usual rosettes. This rare form may be of Flemish manufacture and has been found in contexts of the third quarter of the 18th century; ht. 5 $\frac{3}{8}$ ".

(as also occasionally did Siegburg); but that was a secondary consideration. It was not so much farther south in the potteries at Grenzhäusen and Höhr near Coblenz that gray and blue stonewares beginning in the Siegburg and Raeren traditions were made from about 1590 on through the eighteenth century, then revived again in the nineteenth century in a conscious burst of antiquarianism. The wars and other disasters that had brought about the decline of the great factories at Raeren and Siegburg caused the most talented potters to move south to safety and new clays. Thus when the Höhr-Grenzhäusen industry developed, it was launched by the most famous names in the business. So many kilns were involved, and not all of them actually in either Höhr or Grenzhäusen, that the more cautious of us prefer to classify their products as Westerwald wares, naming them after the district in which both villages were located, this in spite of the fact that Solon testily asserted that the term "... has never come into general use, and had better, we think, be forgotten altogether."⁵

Many of the early Westerwald products were virtually identical to those made at Raeren in the first half of the century, but by the last quarter of the seventeenth century they had developed a style of their own, one that was to continue in a much-debased form through the next seventy-five years. The ornamental friezes of earlier days were abandoned in favor of elaborate floral and geometric designs achieved in a combination of extremely thin sprig molding

⁵ Ibid., p. 78.



and a multiplicity of combed lines. Molded flowers would be applied and the stalks and leaves scratched or combed into the leather-hard body, the flowers then being colored in cobalt blue or manganese purple. (Fig. 91) The introduction of purple, first as a means of decorating molded ornament (and later as broad bands to be wiped around the reeded necks of jugs), was a Westerwald development that began as early as the 1660's, though it did not become common until the last quarter of the century. The earliest-recorded dated piece is a tall jug with a starlike decoration around the arms of France and is marked 1665. Solon, however, contended that a giant blue- and purple-decorated fountain jug in London's Victoria and Albert Museum may have been made as early as 1632. The earliest-dated example of blue-decorated Rhenish gray stoneware that I have seen from an American site is an incomplete oval medallion sherd from the John Hallows site (post-1644) in Westmoreland County, Virginia; it bears the legend ...]IVS 1632 ICH BR[...

The carefully applied relief-molded ornament neatly embellished with manganese and outlined in cobalt did not survive long into the eighteenth century, and in the first quarter of the century the decoration was being stamped and incised (outlined in blue)

around a central molded medallion bearing the cipher of the English monarch—AR, Queen Anne (1702–14), and then GR, George I (1714–27) or George II (1727–60)—beneath a crown and over a winged cherub. A few of these medallions bear the makers' initials and a date (usually 1724), but while this doubtless indicates the date at which the mold was cut it does not necessarily follow that it was also the date of the jug's manufacture. The common Westerwald jugs of the eighteenth century are virtually impossible to date with accuracy. (Fig. 92)

The majority of the GR jugs have straight, multiple-reeded necks coated with manganese, but a few possess ornamental cordoning highlighted with two bands of cobalt. As the latter style occurs on the necks of Rhenish jugs at least as early as the 1630's, it is reasonable to conclude that its presence on a GR jug is indicative of an early example, probably no later than the end of the reign of George I (1727). On the other hand, the manganese-painted neck appears on a few AR jugs, as also does the same reeded form coated with a wash of blue. The latter, however, would also appear to be a type that did not extend beyond the first quarter of the eighteenth century.

Of no dating significance (other than the fact that it does not appear on seventeenth-century examples), but useful for cataloging and descriptive purposes, was the practice of marking both jugs and mugs with capacity numbers ranging from ten to one. The figures were painted, stamped, or scratched onto the body, either in the undecorated area adjacent to the handle (Frontispiece) or at the rim. The approximate equivalents in English twenty-ounce pints are as follows:

- 10 = 1 gill or noggin
- 8 = 1½ pint (or 8 Dutch "mussies")
- 6 = 1 pint
- 4 = 1 quart
- 3 = 2 quarts
- 2 = 3 quarts
- 1 = 1 gallon

The most common sizes are the "8," "6," and "3" on jugs and the "8" and "4" on mugs. There is some variation within the groups, but the marks were presumably only to show that the pots did not

hold less than the stated quantity. On April 30, 1750, the *Boston Evening Post* carried an advertisement offering for sale "Dutch Ware, as gallon Jugs, two quart Jugs, quart and pint Mugs, Chamber Pots, etc., etc." These, therefore, would have been numbers "1" and "3" jugs and "4" and "6" mugs.

Archaeological evidences would suggest that Rhenish stonewares lost favor in England and in America in the 1760's and were no longer imported after the Revolution. It must be added, however, that English customs records show that "Pots, stone"⁶ were still being imported in 1776 from Holland, though in less than half the quantity that they had been five years earlier. It should be noted that this does not mean that the stonewares were made in Holland but only that they were shipped from that country, probably from Amsterdam. In 1676, Robert Plot in his *Natural History of Oxfordshire* had referred to Greybeard bottles (he called them "d'Alva bottles" after the then-hated Duke of Alva) as having hitherto been ". . . made only in Germany, and by the Dutch brought over into England in great quantities."

Stonewares had been shipped to England from Holland all through the first three quarters of the eighteenth century, but such imports direct from Germany were very few indeed. It is interesting to note, however, that stoneware from Flanders reappeared in British customs records in the 1770's.

Besides the reeded-necked jugs with their AR or GR medallions, Westerwald cylindrical tankards (with similar but smaller medallions) and chamber pots (q.v.) were exported to Britain and thence to the colonies in very large quantities until the Rhineland's virtual monopoly was broken by the saltglaze potters of Staffordshire, who went into the coarse jug, tankard, and chamber-pot business in a big way in the 1760's. (Fig. 37)

Solon had little to say about the products of Höhr as opposed to those of Grenzhausen, though he did indicate that it was to Höhr that the Siegburg potters had gravitated in the mid-seventeenth century, a migration that had begun in 1590—and Siegburg was

⁶ Aubrey J. Toppin: "The China Trade and Some London Chinamen," *Transactions of the English Ceramic Circle*, No. 3 (1935), p. 55; abstract from the London Custom House Records.



Fig. 93. Gray stoneware storage jar, porringer, and jugs, with incised, stamped, sprigged, and cobalt-painted decoration. The storage jar and porringer may be Flemish and date from the third quarter of the 18th century, while the jugs are from the Westerwald district of the Rhineland. The small jug is of "8" capacity and, in addition to the blue decoration, is painted with manganese purple around the cordoned neck. The large jug is of "2" capacity. Both date in the period 1714-30. Ht. of right jug 10 1/4".

known for its plain-white or gray wares. Perhaps for this reason salt-glazed tankards and bulbous jugs of the late seventeenth century that are sprig-ornamented but not embellished with either blue or purple are generally attributed to Höhr. Even if this, too, is really a misnomer it serves a useful purpose in distinguishing this ware from the rest of the Westerwald products. A few gray jugs are found with AR medallions (Queen Anne, 1702-14), but the majority are decorated with WR ciphers or portraits (William III, 1694-1702). The body was sometimes less highly fired than the contemporary blue-decorated wares, but the sprigged floral ornaments and combed stalks are identical. It is reasonable to attribute all these pieces to the period c. 1690-1714.

Much less common than the jugs, tankards, and chamber pots are double-handled storage jars and a class of two-handled bowls rather resembling porringers, which seem to have reached the American colonies in the second and third quarters of the eight-

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eenth century. (Fig. 93) The horizontal rolled handles of both jars and bowls are painted with cobalt, while the bodies of the jars are decorated with stamped floral devices (as on chamber pots) and the bowls with incised swags or geometric groups of stamped circles. These jars and bowls are usually of coarser quality than the regular Westerwald wares, and it is possible that they were made at some other center in the Rhineland or perhaps in a revived potting community in Flanders. Curiously enough, however, it was this coarser style that was adopted by the Early American blue and gray stoneware potters of the late eighteenth and early nineteenth centuries. It is probable, therefore, that a study of the American potters and their places of origin would help to determine the source for these mid-eighteenth-century Rhenish jars and bowls.

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See also BELLARMINES; and CHAMBER POTS.

§ TILES, Delft and Other Wares

Here, as in the case of English tin-enameled earthenwares it is wise to spell *delftware* with a small *d*, for even those tiles made in the Netherlands were not all made at Delft; on the contrary, many were produced at Rotterdam, Gouda, Harlingen, and Haarlem, and even Dutch students have difficulty in distinguishing between them. Furthermore, from the late sixteenth century onward, Dutch and Flemish potters were making almost identical tiles in England. The products fall into two classes: flooring tiles which are about 3/4" in thickness and those used for fireplaces and wall skirtings that were rarely thicker than 5/8".