Stoneware Pottery

Paul B. Cromelin III
May 22, 1975
Anthropology 377
Dr. McDaniel

Pledged in Full
During the Liberty Hall years, 1782-1803, stoneware pottery served so many and such basic functions that it was found in virtually every household and was simply taken for granted.

"Salt-glazed stoneware pottery from Europe was used in America from the earliest settlement, and began being made in a limited way in the early 18th century. Not until the late 18th century, however, did stoneware come into really universal manufacture in the United States—a period when it was already declining as a primary pottery type in Europe."¹

Since the stoneware of this period was manufactured for the mass of the people and was used according to their daily needs, archaeologists often find it more interesting than potteries made essentially "for exhibition or ego gratification."

"Decoration was secondary, and applied mainly to superimpose an aesthetic appeal on the utilitarian product. This was, then, pottery which reflected the needs and desires of the people who used it as much as the skills of the potters who produced it."² By dating and determining its origin as closely as possible, archaeologists have been able to answer questions concerning the social habits as well as the technical skills of the time it was made.

"Since ceramics are not affected by any of the agents that attack metal, wood, or textiles, they are often found virtually unchanged after being buried for thousands of years, while other artifacts from the same period are partially or completely destroyed."³

A careful examination of stoneware pottery, with particular emphasis given to its evolution, should shed some light upon the mode of life that existed at Liberty Hall and elsewhere at the end of the 18th century.

Description

Stoneware is essentially a vitreous or vitrified pottery, meaning simply that it has a dense body which will not absorb water if it is left in

Stoneware
unglazed form. Stoneware is so hard that it will strike sparks from steel and ring like glass when struck. The color of the body can be red, brown, gray, white, or black.

Stoneware is fired in a very hot kiln between 1200°C and 1400°C. Although usually opaque, some stoneware is so thinly potted that it is somewhat translucent. Since stoneware is nonporous, it is glazed solely for decoration. The three main kinds of glazes are: lead glaze, salt glaze, and feldspathic glaze.

The early Chinese stoneware of the Sung dynasty (AD 960-1279) was covered with a feldspar glaze, the same material later used in the body and glaze of porcelain. Although stoneware covered with lead glaze is sometimes seen, the salt glaze is by far the most common.

"In this process a shovelful of common salt is thrown into the kiln when the temperature reaches its maximum. The salt splits into its components, the sodium combining with the silica in the clay to form a smear glaze of sodium silicate, the chlorine escaping through the kiln chimney." On salt-glazed stoneware the outer layer has minute pitting somewhat resembling the texture of an orange-peel. The glaze could be colorless or it could be stained in varying shades of brown with iron oxide or blue with cobalt oxide. All other colors were painted over the fired glaze and fixed by a second firing at a much lower temperature than the first.

Virtually all stoneware made in North America was salt-glazed, and it was based on much earlier European forms and methods. Considerable quantities of European stoneware had been imported into North America since the early 17th century. Numbers of these pieces continue to be found, especially in excavations of early settlements and military sites. Despite the widespread use of this most durable and impermeable type of common pottery, its actual manufacture in the New World had to await the discovery of deposits of suitable clay, an
accumulation of knowledge about the critical salt-glazing process, development of adequate technology, and the emergence of a market that could not be wholly served by imported ware.¹¹

History

Fine white stoneware originated in China as early as 1400 BC (Shang dynasty).¹² When tea was first imported to Europe from China in the 17th century, each chest was accompanied by a red stoneware pot made in I-hsing, Kiangsu Province.¹³ These teapots were called "Buccaro" in Europe. They were so highly prized that the ware was copied in Germany, England, and the Netherlands.

One of the most important contributions made by Germany to the ceramic art was the development of salt-glazed stoneware from the hard-fired pottery of the High Middle Ages.¹⁴ This took place near the end of the 14th century either as Siegburg or in the Eifel region. The salt-glaze left a thin, colorless, glassy film on the surface of the pot. Any coloring of the glaze was achieved by a wash of vitrifiable brown clay, known as a slip.¹⁵

Due to the rich deposits of clay, the stoneware came mainly from the Rhineland and, in particular from Cologne, Westerwald, Siegburg, and Raeren. The busy commercial river and the trading facilities at Cologne guaranteed not only a lucrative German market, but also opened up a thriving export trade to the Netherlands, England, Scandinavia, and France. The records of Siegburg mention potters as early as the 14th century.¹⁶ Manufacture probably began in Cologne about 1540.¹⁷

The early German stoneware was extremely hard and ranged from almost white (Siegburg) to bluish gray (Westerwald); a brown glaze over a drab body is also to be seen (Raeren and Cologne).¹⁸ It was all slightly pitted, like
an orange peel, due to the salt glaze. By mixing the salt with red lead, they were able to achieve a very smooth glaze.

The Rhenish stonewares of the 16th, 17th, and 18th centuries usually took the form of containers and heavier utensils, particularly drinking mugs and tankards, chamber pots, and storage jars. Most popular amongst these were handled wine bottles called Bartmannkrüge. Manufactured in Cologne at the beginning of the 17th century, these were brown salt glazed pieces with bulbous, nearly onion-shaped profiles, relatively long necks, and characteristic grotesque and bearded masks applied in relief to the neck.\textsuperscript{19} In England, where they were imported in large quantities, they were often called "Bellarmine". (The mask was thought to be a satire on the hated Cardinal Robert Bellarmine.)\textsuperscript{20} The "mottled" brown salt glazing of Bartmannkrüge was achieved by dipping the green pottery in a light brown slip prior to firing and salt glazing.\textsuperscript{21}

Elsewhere in the Rhineland, potters produced gray salt-glazed wares decorated with cobalt-oxide blue. Mugs and tankards, chamber pots, and jars were the most common. Foliage, masks, and seals were often applied in relief. Incised work, done in combination with blue cobalt-oxide glazing, was often intricate and detailed.\textsuperscript{22}

During the Thirty Years War (1619-1648), potters from Raeren and Siegburg, the two primary stoneware producing areas during the 16th century, were forced to migrate south to the Westerwald district. This quickly became a new center for the stoneware industry. From this area came the commoner salt-glazed stonewares exported primarily to England during the 17th and 18th centuries.\textsuperscript{23} The Westerwald type is described as having an ovoid body rising directly from the foot-ring and ending in a narrow neck.\textsuperscript{24} Much of this stoneware was decorated specifically to appeal to an English market. By way of England, much of this Rhenish pottery found its way to North America where it was used
extensively during the same period and later had a profound influence on native American stoneware.25

"These jugs have a regular diaper of stamped floral and leaf motifs joined by incised lines which effectively separate the cobalt-blue manganese-purple glazes."26

Apparently the use of manganese oxide to produce purple was developed in Westerwald.

"Though never as light or as finely formed as the Chinese stonewares, the best of the early Rhenish work, heavily decorated and quite pleasing in a very Baroque manner, approached a real sophistication. It never, though, came close to achieving the stature of the 18th century white stonewares and porcelains."27

At Meissen in Saxony E.E.W.von Tschirnhaus and J.F.Böttger developed a "red" stoneware around 1710 when they were researching the secret of porcelain manufacture.28 This extremely important type of stoneware usually varies from red to dark brown and is the hardest stoneware known. An almost black type was called Eisenporzellan ("iron porcelain"). Meissen stoneware was usually decorated by means of applied reliefs, engraving, facetting, and polishing. Black glazed specimens were frequently decorated with lacquer colors, as well as with gold and silver.29 Much of the stoneware was engraved with coats of arms.

Due to the vogue for porcelain, German stoneware manufacture suffered through a period of decline in the 18th century, and it was finally abandoned around 1730.30 Red stoneware was made by Ary de Milde of Delt and others in the Netherlands during the 17th century;31 but it was in England where the manufacturing of stoneware became a permanent endeavor.

"Stonewares, whether unglazed or salt-glazed, had been reaching England from Germany in some quantity since, at latest, the end of the 15th century, and it was natural that efforts should be made in England to replace this importation by a native industry."31

By means of patents granted in 1671 and 1684, John Dwight of Fulham was
granted exclusive rights to produce salt-glazed stoneware in England. Since the majority of the German imports took the form of "Bellarmine" jugs, mentioned previously, Dwight concentrated at first upon making his own version of the German bottles. Except for slight differences in the method of manufacture and differing medallions decorating their fronts, they closely resemble the German bottles. Of greater importance were his fine stonewares, some of which were so thin that they were translucent. Dwight's fine stonewares were greyish, and some specimens were almost white. His later bottles were given a marbled appearance with lighter and darker colored clays spiralling upwards. In addition to his numerous bottles and finely potted small mugs, Dwight is well known for his figures. These "range from small mythological personages to portrait busts of almost life-size."  

From 1693-96 Dwight commenced several suits to restrain his competitors, who had begun to infringe upon his patents and techniques. The most important defendants were John and David Elers, who had been silversmiths in Cologne before coming to England in 1690. As a result of Dwight's law suit the Elers moved to Staffordshire where they "continued their manufacture of unglazed red stonewares in the form of teapots, beakers, cups and saucers, teabottles, and small mugs with bulbous bodies and cylindrical reeded necks like those made by Dwight." The Elers acted as a catalyst in the Staffordshire pottery industry at the turn of the century.  

It is difficult to distinguish between the unglazed red stoneware of Dwight and the Elers because both used similar Chinese reliefs and fashioned their pots in the forms currently used at the time. Dwight and Elers preceeded the period between 1740 and 1780 during which the bulk of English red stoneware was made, so consequently very few specimens can be traced with confidence to either of them.
Sir Francis Place of York, a contemporary of Dwight, began to turn out more refined salt-glazed mugs and jugs. These wares, which eventually became regarded as an acceptable substitute for porcelain, vary in color from drab to off-white. The glaze was richer and more glassy in appearance due to the addition of red lead to the salt. Reliefs stamped from pads of clay and applied to the surface were often used as decoration on the earliest wares.  

"These were wares of great refinement and raised English potting to a much higher plane than ever before. Potters throughout the country were not slow to follow the lead. They were stimulated to enterprise by a new awareness of the importance of their craft, although this was accompanied by only a very rudimentary scientific knowledge, often the result of accident. Experiment succeeded experiment, but nevertheless, the industry was still a craft and each vessel was individually formed."

The industry quickly developed in Staffordshire due to the favorable conditions on hand. The wide variety of clays found there enabled them to carry on many experiments, and the nearby deposits of coal reduced the costs of transporting fuel. Along with Staffordshire other potting centers such as Nottingham were experimenting. During the early years of the 18th century the Morley family of Nottingham took the brown salt glazed stoneware of Dwight and of Staffordshire and made further refinements. The body of these beautiful wares was coated with a ferruginous wash before glazing. This produced a brown surface with a silvery sheen that was usually decorated with incised patterns and inscriptions.

"The Nottingham work in general was lighter and more finely shaped than that of Fulham, and it was salt glazed in a lustrous and remarkably smooth brown, perhaps by the mixture of a lead-oxide glaze with the underlying brown slip."

This became one of the most popular types of pottery during the first half of the 18th century. Eventually it was made not only in Nottingham but in Derbyshire, Yorkshire, and elsewhere.

The early white salt-glazed stoneware was usually in the form of mugs.
characterized by a brown band around the rim. By about 1720 this drab stoneware of Staffordshire became considerably whiter due to the discovery and use of a surface wash of white Devonshire Clay. This can be detected on the broken edges of shards of the period in which the white outer coating contrasts with the darker color of the body.43

"When John Ashbury introduced white Devonshire Clay and ground flint as an additive, Staffordshire moved rapidly away from the more basic and utilitarian gray and brown stonewares, and emerged as a center for production of fine and delicate white stonewares."44

This improved white stoneware was manufactured throughout the 18th century, but it was produced most widely between 1740 and 1760. Nearly every pottery throughout England produced vast quantities of the ware, but surprisingly enough it is comparatively scarce today. Since it was made for everyday use and was so cheap, its preservation was not a major concern. During the 1760's, the growing popularity of English creamware tended to signal the end of the white stoneware's dominance within the market.45

Many pieces of creamy-colored salt-glaze are much smoother than normal. A close examination will reveal that they have been lead-glazed as well as salt-glazed, this second glaze having filled in the pitting caused by the action of the salt. This practice was probably introduced around 1750, and it can be detected around the foot-ring of a piece where it usually shows as a yellowish color and is often crazed.46

"Although the English potters in their attempts to compete with porcelain, especially that from abroad, never succeeded in producing ware that approached it in whiteness, they exceeded it in fineness of potting, much of the salt-glaze being unrivalled for thinness of body and sharpness of detail in the moulded decorations. The hard stoneware body produced results of the greatest refinement when turned on a lathe and vessels were often no thicker than paper."47

The natural artistry of the Staffordshire potters can be seen in the delicacy, diversity, and originality of the relief decoration. Sometimes relief