

Fig. 1: map showing the Rhineland, the Netherlands and southern England. (Christopher Green)

# Steps towards English Stoneware manufacture in the 17th century Part 1 – 1600-1650

### Introduction

PRODUCTION in Europe of a perfected or "true" stoneware pottery, fully impervious to liquids and durable, and therefore attractive for use as drinking vessels and other containers, was first achieved, probably by the early 14th century, in the German Rhineland area. This considerable advance derived from an age-old concentration of large-scale and efficient pottery manufacture, of which the products had developed through centuries and were widely traded, and was owed particularly to availability in some local districts of deposits of the relatively rare plastic clays which could be fired to the point of fusion into stoneware at the required very high kiln temperatures of around 1250-1300°C. With the subsequent invention also of effective and economical glazing with common salt, the Rhineland stoneware

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continued to be developed in both utilitarian and artistic forms and to be extensively distributed, especially in Western Europe, up to modern times. Stoneware also began to be made early, but with less widespread impact, in the southern Netherlands and northern France and in other parts of Germany<sup>1</sup>.

Trading of Rhineland stoneware especially to the Netherlands and, through the agency mainly of Netherlands-based merchants and ship-men, to the British Isles also began as early as the 14th century. The quantities can be judged to have gradually increased, with fairly regular consignments in particular to most English East Coast ports and London. After two centuries, in the growing prosperity of the Elizabethan period, the stoneware is seen from archaeological evidence and in Probate inventories for people at all levels of society, and also in the

irregularly-surviving Customs import records, to have been commonly available in much of the country, though it was far from being a cheap product of mass consumption. Since, however, the production was technically difficult and specialised and, unlike the tin-glazed pottery manufacture of the Netherlands, was not to be a bonus arising from a large and continued immigration flow, actual making of stoneware in England was seemingly slow to develop<sup>2</sup>.

It still appears probable that, as has long been presumed, the establishment of the important and successful stoneware production which developed in many parts of Great Britain in the 18th and 19th centuries was eventually owed to John Dwight (c 1635-1703), who in the 1670s set up his pottery business (which still survives) at Fulham, close to London. His initiative was quite clearly of native rather than immigrant endeavour, inspired as much by scientific as commercial impulse, and his achievement has been outstandingly clarified by the extensive excavations at the Fulham Pottery in the 1970s, on which a definitive report will soon be available<sup>3</sup>. The concern in the present essay is rather with the evidence, some of it well-known and positive but all of it tantalisingly obscure, that there were others in England in the 17th century besides Dwight, both before and after he began his work at Fulham, who may have successfully attempted the making of stoneware, with the background that also it is often suggested that particular surviving items might be seen as of English rather than Rhineland 17th century origin. If the view formed here is that there was little such English achievement, it must nevertheless be conceded that further relevant documentary or other evidence might well be forthcoming, and the more rewarding scientific study of stoneware fabrics which is now possible may prove to present more problems than it is immediately able to resolve. On the other hand, the particular concentration of the interest

- 1. For Rhineland stoneware and its trading to the British Isles see most recently John G Hurst et al, Pottery produced and traded in north-west Europe 1350-1650, Rotterdam Papers VI, 1986 and David Gaimster 'The supply of Rhenish stoneware to London 1350-1600' London Archaeol 5 no. 13 (1987) 339-47. See also fn 2.
- 2. Documentary evidence for stoneware imports to England must be sought mainly in surviving Local Customs Accounts (E.122), prior to 1565, and the subsequent Port Books (E.190) in the Public Record Office, London. Relevant published work includes N S B Gras The early English Customs System, 1918; H J Smit Bronnen tot de Geschiedenis van den Handel mit Engeland, Schotland en Ierland (2 parts, 1150-1485 and 1485-1585), 1928-50; B Dietz The Port and Trade of Early Elizabethan London London Record Soc. 8, 1972; P Davey and R Hodges (eds) Ceramics and Trade, 1983; David R M Gaimster et al (eds) Zur Keramik des Mittelalters und der beginnenden Neuzeit im Rheinland, BAR Int Ser 440, 1988; J Allan Medieval and

which is found throughout in the London area does not seem surprising, since in this period, apart from its role as seat of government, London's growth in population and trading importance had been notably disproportionate; in the present context it has been seen both in the Elizabethan period and during at any rate the earlier part of the 17th century as a major centre for redistribution of stoneware and many other imported products by coastal shipping as well as, no doubt, by carriage over a large area inland.

The late Elizabethan import monopoly

As is well known, the earliest record found to have suggested that stoneware manufacture might be established in England is in an undated application to Queen Elizabeth's long-serving minister, Lord Burghley, by William Simpson, a Londoner and member of the Merchant Taylors' Company, for the grant of an import monopoly for the "drinking stone pots, made at Cologne". The petition, patriotically reflecting the contemporary prejudice against foreign merchants, many of whom had settled in England and were profitably engaged in more enterprising trading than their English rivals, complained that the stoneware trade to England and elsewhere was being monopolised by a single foreigner, named as a Garrett Tynes residing in the Imperial city of Aachen (some 70km west of Cologne – see Fig. 1), and added the thought that, if it was granted, it might be possible for the manufacture to be established in "some decayed English town" and thereby give employment to "manie a hundred poore men".

It is possible only to speculate about the actual date and background of Simpson's petition, though it at least indicates that, from a viewpoint in London, there was a promising prospect for stoneware. The suggestion of establishing the manufacture in England may not have been intended too seriously. In 1593, however, a 15-year monopoly for importing stone pots and stone bottles, and also earthen pots and

Post-Medieval Finds from Exeter 1971-80, Exeter Arch Reports 3, 1984.

- Evidence of Probate inventories is well seen in, for example, M A Harinden (ed) *Household and Farm Inventories 1550-90* Oxford Record Soc 44, 1965 and D G Vaisey and F Celoria 'Inventory of George Ecton, 'Potter' of Abingdon, Berks' *Journ Ceram Hist* 7 1974.
- 3. Christopher Green 'Excavations at Fulham Pottery, London, 1971-1979' forthcoming in Post-Medieval Archaeol. Documentary sources are assembled in D Haselgrove and J Murray (eds) 'John Dwight's Fulham Pottery 1672-1978' Journ Ceram Hist 11 1979; see also R Edwards 'London Potters circa 1570-1710' Journ Ceram Hist 6 1974. For the history of the English stoneware industry and its products see A Oswald et al, English Brown Stoneware 1670-1900, 1982; Robin Hildyard Browne Muggs Victoria and Albert Museum 1985 and Jonathan Horne A catalogue of English Brown Stoneware from the 17th and 18th Centuries 1985.

bottles, was indeed granted to a Royal courtier, Henry Noell. Two years later, in 1595, as Adrian Henstock established as recently as 1975, William Simpson, with William Brunynck (Browning), a merchant of Netherlands descent established in London, made an agreement, of which the text has survived, for a German in London, Joos Croppenburg, to go to reside in Cologne for three years and to purchase stoneware for them<sup>4</sup>. Whether this arrangement was licensed by Noell is not apparent, but in any case the Patent conferring the monopoly had proved difficult to enforce. A point that can be added is that the relatively isolated survival also of the London Port Book recording imports by aliens during the six months from March to Michaelmas in 1593, the period during which the Patent was granted, shows that Croppenburg, either as an agent or on his own behalf, was already then prominently importing stoneware, by way of the Netherlands river port of Dordrecht, situated in the newly-independent Dutch United Provinces or Northern Netherlands, and he might thus have been involved in Tynes' supposed monopoly. Whatever may have been the roles and relationships of Simpson and the others named, it seems likely that from the outset of the matter we are glimpsing the changed trading pattern of the early to mid-1590s which resulted from the failure of the long drawn-out struggle by Spain to maintain its control throughout the entire Netherlands, with the consequent isolation from the sea of Antwerp, which it still held, and its elimination as previously the main focus during the 16th century of west European general trade<sup>5</sup>. From this time the sole remaining route for effective trading from the Rhineland to England was through the United Provinces, with shipment down the Rhine from the marketing centre of Cologne and warehousing and trans-shipment for England largely at Dordrecht. The supply of stone-

- 4. A Henstock 'The monopoly in stoneware imports in late Elizabethan England' *Post-Medieval Archaeol* **9** (1975) 219-224. As Henstock shows, there is no basis for the date of *c* 1580 usually suggested for Simpson's petition. A further point is that there were two freemen of the Merchant Taylors' Company, not apparently closely related, by the name of William Simpson, of whom the elder died in 1590. The other became a freeman in 1582; the petition might not have long preceded the Patent of 1593. Garrett Tynes has not been identified at Aachen. See also fn 5.
- 5. The concentration of international trading at Antwerp before the final Spanish occupation in 1585 probably attracted a considerable part of the stoneware trade from all the Rhineland centres, not least the major industry at Raeren, close to Aachen; see the account (in English) of trading at Bergen-op-Zoom by V Vandenbulke and G Groeneweg in David R M Gaimster et al (1988) (see fn 2). However, trading by way of the Rhine and the ports of Holland and Zeeland had also been important. It is curious that Simpson should have represented the trade as controlled by a resident of Aachen, but this might have reflected a temporary phase in the early 1590s when, prior to the

ware, now apparently encountering increasing demand for its more utilitarian domestic and commercial uses in both the United Provinces and England, was able to be developed and controlled by a relatively small number of general and specialised trading partners, largely Netherlanders, who operated in the United Provinces and at Cologne and London; those settled in London lived mainly as a group close to the quays below London Bridge at Billingsgate. A virtual monopoly for the English trade was undoubtedly now secured for the established manufacturing centre of Frechen, close by Cologne, and the traders financed the production there, evidently bringing pressures on both the potters and the previously high quality of the products in order to maximise supplies. In England Noell's monopoly continued in force, at least formally, until 1601, though re-assigned in 1599 after he had died. In 1601 a relative of Brunynck and another importer of Netherlands origin were associated with it as partners, but it was revoked later the same year following complaint in Parliament that it had caused a two- to three-fold price increase<sup>6</sup>.

# The manufacturing Patent of Thomas Browne and Tobie Steward, 1614

For the period 1600-1640 there is more substantial survival of the London Port Books detailing imports, and a major study by Mrs A. M. Millard of commodity values in available years is deposited in the Public Record Office<sup>7</sup>. Relatively much less information has survived for importers of English nationality than for aliens, but it appears that withdrawal of the monopoly probably had little effect and the imports of stoneware were still mainly by a small group of alien merchants. Between 1615 and 1624 the German, Joos Croppenburg, who during his life may have spent a good deal of time on the Continent, appears again to have dominated the trade in London.

- successful campaigns of Prince Maurice in 1591, the Spanish forces had cut communications between the Rhineland and the United Provinces. Aachen was a resort of Protestant refugees from the southern Netherlands. By a coincidence Joos Croppenburg, who came to England in about 1575 as a boy or a youth, is recorded as having been born at "Eswellen" in the Duchy of Jülich, i.e. probably Eschweiler, near Aachen. In 1615-25, when Croppenburg in London was again importing much stoneware, a Reinhard Kroppenberg is documented as dealing in Frechen stoneware at Cologne. Joos Croppenburg died in 1625; his eldest son was also Joos.
- 6. The partners joined in the Patent in 1601 were Brunynck's relative, Nicholas Brackleman, and a Derrick Lipson. Both died a year or two later. A prominent importer in 1608-9 was Arnold Lulles, one of Lipson's executors.
- 7. The Imports of London 1600-40 ms. by A M Millard (1960), shelved in the Round Room, Chancery Lane, 17/87. For details of individual consignments and importers, and to check on certain questions arising on the statistics, it has, of course, been necessary to refer selectively to the relevant ms. Port Books.

The economic situation in the United Provinces was strengthened by the 12-year Truce which was finally conceded by Spain in 1609-1621 and accepted that Antwerp continued to be cut off from maritime trade. At London the stoneware imports are seen to have been initially somewhat increasing but apparently reached a peak in about 1615, with a probable total in that year of about 80,000 *cast* of what were now normally termed "stone pots", equivalent in theory (on the basis of a new 1604 definition by which the cast represented 1 gallon of vessel capacity) to 320,000 quart-sized vessels<sup>8</sup>. After 1615, however, the quantities imported at London were gradually tailing off.

In 1614 an English monopoly Patent for the actual manufacture of "stone jugs, stone pots and stone bottles", valid for 21 years, was granted for the first time, so coinciding more or less with the peak of imports. The recipients were two London businessmen established close to the Thames above London Bridge at Queenhithe dock: Thomas Browne, a member of the Tilers' and Bricklayers' Company, and Tobie Steward, a Pewterer of Scottish descent. Unfortunately, whatever may have been their plans, there has been no evidence to suggest any likelihood that the Patent was effectively put into operation or that the falling-off in stoneware imports during the following ten years was due to their initiative, or indeed, though Browne regularly took on staff as apprentices, that they were directly involved in any actual pottery manufacture. Certainly Browne's will, when he died in 1636, shows no sign of this, though confirming that he had been enterprising and had become involved in shipowning and trading to North America. In the Heralds' Visitation of 1634 he had boldly described himself as "Potter to King Charles",

8. In the 17th century (until 1660) virtually all consignments of imported stoneware appear to have been listed in the Port Books simply as "stone pots" and quantified by the cast. The earlier descriptions as "stone cruses" (drinking pots) and references to vessels with "covers" (metal mounts and lids) (counted in both cases per 100) have not been found; and the "stone bottles" of the Elizabethan period (counted per dozen) seem always to have been the French stoneware, brought from Dieppe, Rouen or Havre (i.e. presumably the Martincamp Type II flasks of the period). A new edition in 1604 of the Book of Rates (PRO ms. E122 173/3) fixing nominal values for imported goods for calculation of Custom duties (replacing that in force effectively since 1558) increased the nominal value for stone pots from 10s 0d per 100 cast to £1 5s 0d and the cast, previously defined as comprising 3 vessels, was redefined as the equivalent of a gallon of capacity, whetherd and the cast, previously defined as comprising 3 vessels, was redefined as the equivalent of a gallon of capacity, whether in one vessel or more. The cast, also used for imports of earthenware pots, was the Continental unit of the werp or worp (Dutch) and Wurf (German) and the redefinition in 1604 was probably needed to reflect more closely the development in the Continental industry of a more varied and precise size range; the gallon in this context should have but in this century this term as often as not meant merely a pot-seller, and the business at Queenhithe may have been essentially a wholesaling business, with interests in all kinds of pottery and glass and perhaps also in Steward's trading in pewter. In 1635, with John Steward the younger, likely also to have been in the business, Browne was prominently involved in a first attempt to establish a corporate London Glass-sellers' Company, which did not succeed and did not eventually come to fruition until 16649. In 1621, for which exceptionally there is a surviving Port Book showing London imports by English nationals, John Steward had been noted importing consignments of earthen dishes, stone pots and melting pots (Hessian crucibles used largely by goldsmiths), but the quantity was small compared with the amount of stoneware still regularly imported by Croppenburg. In this year the Patent escaped cancellation in a major review of monopolies. It would not be surprising if Browne may regularly have tried to encourage potters in and around London with whom he had dealings to try to make stoneware; a case in point might have been the pottery at Cove, near Farnborough in north-east Hampshire, excavated by Jeremy Haslam, which was dated to the first half of the 17th century and at which some earthenware imitations of Rhineland stoneware Bartmänner or bellarmines were found to have been made<sup>10</sup>. But there has been no evidence that Browne sought to engage the Continental expertise likely to have been essential<sup>11</sup>, and in 1626, when the Patent had nine years still to run, the authorities awarded another.

# The Patent of Thomas Rous and Abraham Cullen, 1626

This further Patent, similarly for manufacture of stone jugs, pots and bottles, was given for fourteen years.

been the "wine gallon" with a value in the 17th century of generally about 3.75 l. Individual consignments of stoneware to the alien merchants in London in the period 1600-40 were often very large; it was noted that in May 1633 Thomas Rous received one consignment of 10,000 cast, valued at £125. Standard "Tunnage and poundage" Custom duties were at the rate of 5 per cent.

- For Browne and Steward see R Edwards (1974) (fin 3). See also S Young History of the Worshipful Company of Glass-sellers of London 1913.
- 10. J Haslam 'Excavation of a 17th century Pottery Site at Cove, East Hampshire' Post-Medieval Archaeol 9 (1975) 164-87. Another interesting vessel is the unprovenanced earthenware Bartmann with green lead glazing and the arms and Garter badge of the Earl of Dorset(R L Hobson British Museum, Catalogue of the English Pottery C23, 1903) which should date to 1628-35. (Bartmann is the German term for a stoneware jug or bottle displaying the traditional bearded face, in England commonly (both as a contemporary term and now) bellarmine).
- 11. Although possibly the Woolwich kiln (see below) should not be entirely ruled out.

The recipients were brothers-in-law of Netherlands descent who had come to London from Norwich by 1618 and were general import merchants. Rous had been born at Gorinchem in the province of South Holland, some 25km from Dordrecht; Cullen, though born in England, was descended from an old Brabant family. In this case there is certainly evidence of serious intent to establish stoneware manufacture in the London area, provided by records made in the winter of 1626-7 by a Dordrecht lawyer, which were noted by the late Karl Göbels, Frechen archivist, in the course of his studies of the history of Frechen stoneware. These show that there were negotiations between a Dordrecht merchant, Pieter Jaspersz Leysten, acting for Rous in London, and a Frechen potter, Hermann Statz, with a view to the latter moving to London with his family to make stoneware for Rous<sup>12</sup>. It seems clear that the background would have been an unexpected breakdown in the supply of stoneware from Frechen as a result of the serious involvement of the Rhineland in the complex

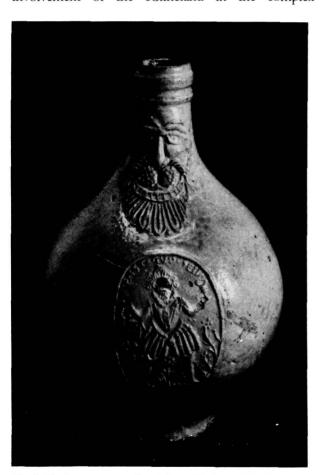


Fig. 2: Frechen stoneware bottle from Platform Wharf, Rotherhithe, London. Excavated 1986. (Photo: Museum of London)

struggles and plunder of the Thirty Years War, which had begun in Bohemia in 1618 and was to continue in varying phases until the conclusion of the Peace of Westphalia in 1648. In London the surviving Port Book recording imports by aliens in 1627 shows uniquely that almost no stoneware was imported, and Göbels also found in records of the digging of clay by Frechen potters on the nearby estates of the Count of Culemborg the isolated account of 1626 showing that no clay at all was dug in that year, with a note that navigation on the Rhine was suspended. Nevertheless, it is not established that Statz did actually come to England and, if he did, other records show that he was back in Frechen at least by 1630 and remained there<sup>13</sup>. The further series of London Port Books available for years between 1633 and 1640, when Rous died, shows that he and others of Netherlands descent were again importing much stoneware through Dordrecht, though the quantity was irregular<sup>14</sup>. It would seem that at best Rous's manufacturing project cannot have been very successful. In this period there is interestingly a reference in 1635 by Sir William Brereton in his account of his Travels showing that he bought three dozen "quart" and "half-gallon" stone bottles, some containing wine, at Bristol; evidently he considered this not unworthy of note15.

Taking as a whole the evidence concerning Rous's project, it is difficult to repress a conviction that it could also be evidenced by the finding and excavation in 1974 of a Frechen-type stoneware kiln, of only brief use, at a pottery site at Woolwich Old Ferry, down river from London. This is the only such discovery to date that has provided evidence of a clear attempt

- 12. For Rous and Cullen, see A J Toppin 'Rous and Cullen, merchants and potters' *Trans English Ceram Circle* 1 no 5 (1937) 38-48 and R Edwards (1974) (fn 3). For the records at Dordrecht, see K. Göbels *Rheinisches Töpferhandwerk* (1971). Göbels' work is a fully-researched account of the Frechen stoneware and earthenware industries and of the trading at Cologne and in the Netherlands and was reprinted by the Rheinland-Verlag GMBH, Cologne, in 1985.
- 13. Imports of Rhenish wine in London were also much reduced in records available for 1628 (see Millard ms (fn 7)). For the Culemborg records see Göbels (1971) (fn 12) pp. 26-8.
- 14. Import of stoneware by Rous in 1640, with part transcript of the Rous and Cullen Patent, was noted by A R Mountford and F Celoria 'Some examples of sources in the history of 17th century ceramics' Journ Ceram Hist 1 (1968). Others who have been noted as importers of stoneware in London in 1633-40 are Pieter Leysten (Lister), apparently the son of Pieter Jaspersz Leysten, who acted for Rous at Dordrecht (see also R Edwards (1974) (fn 3)) and Jacob Strauss (Struce), who also had relatives at Dordrecht. In the 1630s stoneware imports by native English merchants appear to have been still minimal; in 1634 Mrs Millard recorded arrival of a total of only 100 cast. Total imports probably continuously remained below the 1615 peak.
- 15. Chetham Society 1 (1844) 178, noted by A R Mountford and F Celoria (1968) fn 14.

(earlier than at any rate the 1670s) to introduce the expertise of Rhineland stoneware manufacture in England. Frechen-type jugs and Bartmann bottles of quite good quality were made. No local or other documentary evidence has been found to provide a context. However, the considered view in the excavation report was that the kiln would have been operated shortly before it was succeeded by an earthenware kiln in about 1660 and, in the absence of contrary indications, such a conclusion, based on interpretation of the stratification, cannot well be gainsaid<sup>16</sup>. Nevertheless, although a good deal of more recent work at Frechen itself has emphasised the long continuity of kiln design and production there and the difficulties of close dating of the structures and artefacts, it may in due course be possible to see the brief period of activity at Woolwich more clearly in Frechen contexts. It seems likely that some of the very interesting material found, including some actual vessels, and also one or more of the moulds used in decoration, may have been brought over from Frechen; and the former might certainly include the small quantity of cobalt-decorated ware of which a cache of similar products found near Frechen has been dated to c 1630<sup>f7</sup>. Only two medallion designs can be associated beyond doubt with the quantity production attempted at Woolwich of the Frechen-type jugs and Bartmänner, and of these the so-called "sportsman" figure – appearing also on the sole example of a Woolwich product identified elsewhere than from the

16. K Blockley 'Post-Medieval Pottery Production at Woolwich' London Archaeol 3 no. 6 (1978) 153-8 and S Pryor and K Blockley 'A 17th-century Kiln Site at Woolwich' Post-Medieval Archaeol 12 (1978) 30-85; see also Jonathan Horne (1985) fn 3. For kilns at Frechen see Göbels (1971) (fn 12) and more recent work described by A Jürgens in David R M Gaimster et al (eds) (1988) (fn 2).

17. Göbels (1971) (fn 12) see pp. 146-7.

18. For illustrations of Frechen Bartmänner in the Museum of London with "sportsman" medallion see M R Holmes 'The so-called Bellarmine Mask on Imported Rhenish Stoneware' Antiq J 31 (1951) 173, plate XXIIIa and b, but a still closer pattern for the Woolwich figure holding a goblet is a vessel excavated by the Museum of London Department of Greater London Archaeology in 1986 at the moated manor house site at Platform Wharf, Rotherhithe (London Archaeol 5 no. 15 (1988) 395-401); this carries an inscription "HIE IST GUD SEIN" (It's good to be here) (Fig. 2). The mould for the other design, with merchant's mark and "GH TT" lettering, was a much more professional production, and the context must probably be sought in Germany. Use of the same device by the stoneware trader Jan op de Kamp (see Göbels (1971) and J van Loo 'Pieter van den Ancker en Jan op de Kamp' Antiek 21 (1986) 22-9) raises the possibility that some established trading or transport organisation is indicated; and with the far-flung Imperial postal organisation of the Counts of Thurn and Taxis in mind, it might not be too fanciful for the Woolwich version to point to Gerhard von Taxis, who in the later 1620s was widely active in procuring equipment for the new army raised by Wallenstein in support of the Emperor Ferdinand.

site itself, from Coleman Street in London - may be seen as a crude locally-made imitation of typical Frechen designs which might be dated quite early in the 17th century (see Figs. 2 and 3). The other design, showing an unidentified "merchant's mark" in the form of an X with the upper points joined and lettering "GH TT" might well, on the other hand, be from a Frechen mould, and it is interesting that versions of the same device, with his initials, were made for a Jan op de Kamp, who is documented between at any rate 1655 and 1673 as a leading trader of stoneware who resided successively at Frechen and Cologne (see Figs. 4 and 5)<sup>18</sup>. It may perhaps be suggested that a context for the Woolwich venture would not be very likely in c 1660 and indeed, if it were so recent, it is surprising that it was not recalled when Dwight obtained his Patent in 1672 or afterwards in the 1690s when his claim to have originated stoneware manufacture in England as a new invention was being disputed in affidavits by potters which quoted "chapter and verse".

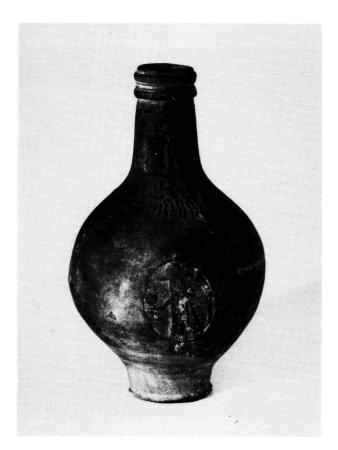


Fig. 3: Woolwich stoneware bottle from Coleman Street, London. Accession no. 6401. (Photo: Museum of London)

### David Ramsay's Patent for furnaces, 1636

Attention is often drawn to the reference to possible use for making of stone jugs and bottles in the Patent for a design of high temperature furnace which was granted in 1636 to David Ramsay, in partnership with two London brewers. However, apart from the indication this gives of some continuing interest in the possibility of English stoneware manufacture, there is probably no particular significance, since other products, also regularly imported, for which possible use was indicated were the traditional "earthen wicker bottles" from Normandy, melting pots and bricks and tiles.

## The Civil War period to 1650

After 1640 there is a long gap in the record of extant London Port Books until after the Restoration of King Charles II in 1660, and information about the stoneware imports is lacking. In 1642, the year of the outbreak of the Civil War, Parliament approved a new edition of the official Book of Rates which increased the nominal values of many imported goods for 19. There is a printed edition of the revised 1642 Book of Rates in Guildhall Library, London. This remained in force until 1657.

20. Göbels (1971) (fn 12). The estimated quantity of clay dug in

Fig. 4: medallion used on Woolwich stoneware bottles and jugs from 1974 excavations (Plumstead Museum). (Photo: Christopher Green)

calculation of import duty; for stone pots the previous 1604 value of £1 5s 0d per 100 cast was doubled to £2 10s 0d. An additional 5% tax was also levied<sup>19</sup>.

On the Continent the severe effects of the Thirty Years War continued to be experienced until after peace was established in 1648. Göbels' investigation of Frechen clay-digging records found a further gap in the surviving series after the 1630s until 1648, though he found other records confirming that some stoneware production and trading was continuing. In 1648 there was apparently a massive revival in the clay-digging, but it was suspended entirely in 1649, with an annotation in the record that this was because of "the war in England"20. The actual impediment may have been the blockade enforced by the English Royalist fleet based in the United Provinces during the period before the execution of King Charles I in January 1649, but the implication seems to be that some significant trading of stoneware to England had previously continued.

(to be continued)

1648, 1456.4 tonnes, was more than three times as much as in any other recorded year in the period 1560-1660 and nearly twice that of the further final record in the series, 757.3 tonnes in 1664.



Fig. 5: medallion used on Frechen stoneware bottle in private collection with initials "O. D. K." for Jan op de Kamp, excavated Frechen (waster).

(Photo: R Jaeschke, Aachen, by courtesy of J van Loo)

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