RED EARTHENWARE POTTERY FROM THE CHANDOS GLASS CONE, BRIDGWATER

ERIC BOORE AND TERRY PEARSON

with contributions by Brian J. Murless and †Frank Hawtin

Fool! All that is, at all,
Lasts ever, past recall,
Earth changes, but thy soul and God stand sure,
What entered into thee,
That was, is, and shall be:
Time's wheel runs back or stops: Potter and clay endure.

R. Browning from *Rabbi Ben Ezra*

INTRODUCTION

The excavation of the Chandos glass cone in Bridgwater, Somerset, by the Somerset Industrial Archaeological Society in 1976–77 led to the discovery of a large quantity of 19th and early 20th-century pottery. It included wasters and seconds (Hawtin and Murless 1981). Subsequent documentary research showed that the glass cone was closely associated with the production of bricks, tiles and pottery between 1827 and 1939. The brick and tile industry flourished in Somerset and particularly in Bridgwater due to the extensive alluvial clay and marl deposits there (Aston and Leech 1977, 14; Murless 1982, 87). Pottery production accompanied the manufacture of brick and tile in varying degrees ranging from the humble flower pot through to full-size statuary (Appendix II; Brown 1971, 9). Roofs of Bridgwater tiles can still be seen in Taunton, Weston-super-Mare, Bristol and elsewhere. These reflect the coastal and river trade routes and may also indicate the extent of the distribution of the pottery (Poole 1987, 17). The original glass cone was a major feature of the town as shown in watercolours and photographs (see front cover and frontispiece). This report sets out to describe and illustrate the range of pottery found in the Bridgwater Glasshouse.

DOCUMENTARY EVIDENCE *Brian J. Murless*

James Brydges, first Duke of Chandos, intended that the brick-built conical stack that he had commissioned in 1725 should function solely as a glasshouse (Hawtin and Murless 1981). The glassmaking venture ceased in 1733, however, and after a long interval which included its use as an iron foundry (Murless 2010, 6–12), the structure eventually became a pottery, a conversion similar to that undertaken at the Newent Glasshouse, Gloucestershire (Vince 1977, 18–19). The first known use of the Bridgwater glasshouse as a pottery was in 1827 when James and Joseph Jeboult were assessed for poor rates on the premises (SRO, D/B/bw, 16/1/1, Overseers Accounts, 1823-1830). The

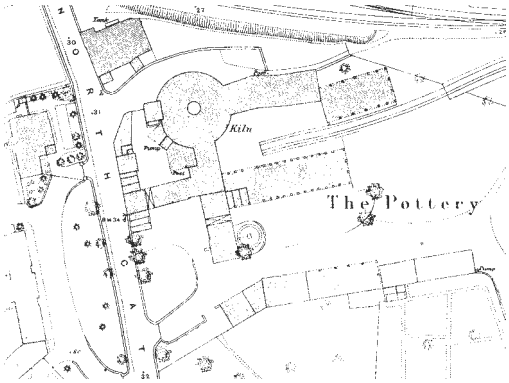

Fig. 1 Glass cone and pottery as surveyed in 1886; OS 1:500

pottery was to manufacture 'salting and pickling pans, water pitchers, and all kinds of vessels for kitchen and domestic use' (Bush 1983, 12). The Census of 1841 records a number of potters living in the vicinity of the cone. By 1849, when the building was slightly damaged by fire, the pottery had begun its long association with John Browne, a prominent local politician who had built his reputation chiefly on the manufacture of bricks and tiles (*Bridgwater Times* 1849, 19 July; Murless 1977, 2).

In the 1840s the pottery appears to have been operating as a complete working unit within the former glasshouse (BRO, STG/II, map of Bridgwater, undated, *c.* 1850). At a later date, three smaller updraught kilns were constructed inside the cone. By 1865, when proposals were put forward for an extension of the Bristol and Exeter Railway into Bridgwater Docks, the structure had become part of a complex of buildings and sheds in Browne's Pottery and Deal Yard (SRO, Q/Rup 322, Bristol and Exeter Railway, extension to Docks at Bridgwater, 1865). In 1892 the site became part of the Somerset Trading Company Ltd. The pottery ceased operations on the outbreak of war in 1939 and the cone was demolished in 1943 (*Bridgwater Mercury* 1943, 18 May).

THE EXCAVATION †Frank Hawtin

The glass cone is located on the west bank of the river Parrett at NGR ST 298375. When excavations began the site was a level area with a standing brick wall on its northern side and was considerably overgrown with coarse vegetation.

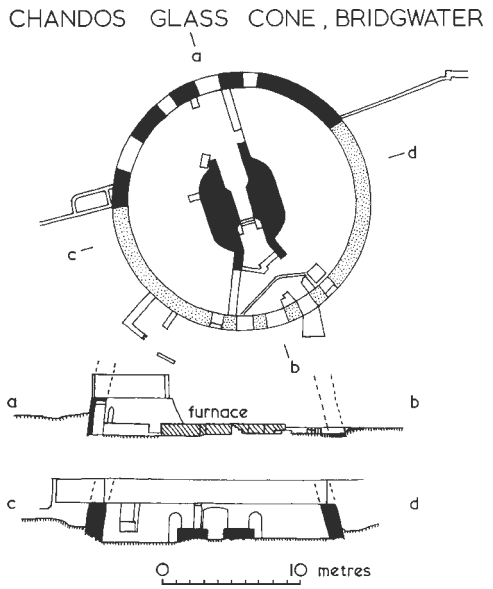

Fig. 2 Glass cone excavation plan and section (reproduced from SANH 122 *(1978), 145)*

The excavations revealed the foundations of a circular wall of hand-made bricks, 1.22m (4ft) thick, resting on slabs of Blue Lias limestone sloping inwards at an angle of 15° from vertical. This represented the base of the cone which had an external diameter of 19.51m (64ft) (Figs 1 and 2). The interior circular floor was 0.91m (3ft) below the present ground level. It consisted of earth in its western half, covered with a layer of pottery sherds, mainly of glazed red earthenware, 0.1m (4in) thick; the eastern sector had been levelled with a layer of sand sealed by a floor of red tiles, each 0.305m (1ft) square. In the higher northern wall there was an opening with an arched head 2.74m (9ft) high and 1.68m (5ft 6in) wide, flanked by two smaller round-headed openings. Diametrically opposite in the lower south wall were the bases of three similar arches. Aligned on the axis through the central openings were the remains of the original glass furnace. This consisted of a flue running approximately north–south across the circular interior, flanked by massive walls of 18th-century hand-made brick. There was a floor in its middle section of blackened earth, soot and ashes.

The finds included 25 open-mouthed jars (Figs 3 and 5.7–10), each 255mm (10in) high, lying on their sides against the north-west inner perimeter wall, and a vast quantity of miscellaneous sherds from the western floor. Many fragments of glass shaft-and-

Fig. 3 Jar no. 8, Blake Museum, Bridgwater; photo David Dawson

globe bottles were found on the tiles of the eastern floor, as well as a few 'crowns' or 'bullions', the centres of blown discs of window glass. Situated outside the north-western sector of the perimeter wall, which had been previously occupied by the office of the foreman during the later pottery-producing period, was a large collection of glass furnace waste, including clinker, and some distorted bottle remains.

The remains of the base of the glass cone have been consolidated by Somerset County Council and the then Historic Buildings and Monuments Commission for England, and are open to the public. The site is a Scheduled Ancient Monument and is entered in the Somerset Historic Environment Record (PRN 11119). The pottery and the archive are deposited with the Admiral Blake Museum, Bridgwater, accn no. 1990/154. Additional records are lodged with Somerset Record Office (SRO DD/HWN/5) and the Somerset Industrial Archaeological Society.

THE POTTERY

Introduction

The pottery was recovered during rescue excavations which were carried out partly by machine. Two distinct groups were apparent: one consisted of fragmentary waste, where few sherds fitted together; the other consisted of a number of complete or near-complete vessels including the large jars (Fig. 5.7–10). The latter group was probably stored in the glass cone, presumably at a later stage in the industry.

Documentary evidence suggests that kilns were situated within the glass cone, probably on a higher floor level with storage or drying space below (Hawtin and Murless 1981, 4–5). It is probable that considerable waste pottery deposits still lie outside the glass cone in unexcavated areas. The pottery illustrated in the catalogue reflects the entire period of production through the 19th and into the early 20th centuries including the tenure of John Browne and the Somerset Trading Company (Appendix II). More excavated examples will help to refine the dating of the many forms found at Bridgwater.

The pottery is all made of an iron-rich earthenware clay which produces a hard red fabric when fired. The surface texture varies with the inclusions in the fabric although the overall appearance of sherds is similar. The inclusions do not appear to have been intentionally added and were probably already present in the clays; their variation would suggest that seams of different consistency were used. Small voids of pin-head size can be seen in most sherds. These were probably caused by the loss of small limestone or organic inclusions. Limestone flecks and in some cases larger grains, such as in the large jars, have often caused parts of the fabric to blow out during and after firing. They are more frequently found in the larger vessels. The other predominant inclusions are flecks of iron ore which appear as red spots in the fabric. Isolated and infrequent fragments of chert and shell also occur. The fabric was fired from hard to very hard with a smooth-grain to striated surface texture. The majority of the pottery is fully oxidised to red, orange-red, orange-buff and buff colours; some was, however, reduced to a blue-grey colour. Unglazed or biscuit sherds tend to be much lighter in colour (buff or buff orange).

The vessels were all wheel-thrown and fairly thickly made. Excess clay had been pared with a knife from the bases of the vessels. The pottery had all been fired in an oxidising kiln and only wasted,

partially vitrified sherds were reduced. The condition of firing was seen to vary with the class of vessel, which would reflect the stacking procedure of the kiln. It might also suggest that the pottery was fitted in with other types of product such as tiles and garden furniture.

Some forms, such as the dishes, were covered in a decorative glaze. In others the glaze was used inside to seal the porous fabric, as with the large bowls and pancheons. It was used for both effects on chamber pots where it was desirable not to allow the contents to permeate the body. In addition, a decorated and glazed rim was needed as a selling point. Where the glaze was purely decorative a rich colour was obtained by covering the vessel's surface with a red slip. Decoration otherwise consists of white slip trailed over both bare fabric and red slip. The designs produced were regular patterns freely translated onto the surface of the pot and include wavy lines, irregular 'star' shapes and spirals. The lead glaze varies from brown-black in colour on the jugs and jars to a brown-yellow and yellow-green on chamber pots, dishes and pancheons. Iron flecks in the glaze are the result of bleeding of the iron inclusions in the body fabric.

The wide range of forms produced at Bridgwater perhaps reflects those made at established earthenware industries such as that at Donyatt in Somerset. They may indicate the potential market, particularly in relation to the imitation stoneware. The products are grouped into the following six functional categories:

1. Agricultural vessels: ceramic equipment and containers used in connection with the farming industry, such as chicken feeders (Fig. 13.80–2, 84).
2. Horticultural vessels: flower pots and pans, and decorative statuary used in gardens (Fig. 6.26–33; Fig. 12.70–5; Fig. 13.86).
3. Domestic containers: vessels used to contain household goods or produce such as large jars and pancheons (Fig. 4.5–6; Fig. 5; Fig. 6.19–25; Fig. 10.54–60; Fig. 13.76–9, 85).
4. Domestic tableware: vessels internally decorated for use at table or as ornamental features including dishes and saucers (Fig. 4.1–4; Figs 7–9; Fig. 10.45–53; Fig. 12.61–9).
5. 'Art' wares: for example a puzzle jug by J.Nicholls (Glaisher collection, Cambridge, no. 181) and souvenir-type ornaments such as small statues and busts of well-known contemporary figures like Queen Victoria and Gladstone (Fig. 13.83; Brears 1974, 111; Hawtin and Murless 1981, 4).
6. Building materials: for example, bricks, tiles (roof and floor), finials and louvers (not illustrated).

The production of both domestic containers and tableware occurred at a time when there was a ready supply of more decorative transfer-printed wares and more robust stonewares (Price 2005, 99, 109). The diversity in the forms of dishes and shallow bowls (flat-rimmed shallow bowls, nos 34–7; dishes, nos 38–41; shallow dishes, nos 42–4; small dishes or saucers, nos 48–53) reflects both their utility and market demand. The decorated bowls and dishes are similar to those produced earlier at Donyatt and Wanstrow (Good and Russett 1987, 38–40). This may represent a speculative attempt to capture and revive a previously healthy market when the traditional Somerset earthenware industries were in decline. It may have been a last ditch effort to maintain the pottery. Similar attempts at producing more decorative forms as opposed to the household products like jars, bread pans and pancheons in order to maintain a market, were tried at Verwood in Dorset (Algar *et al*. 1979, 23; Draper 2002, 155–72). Neither effort achieved lasting success. As with Verwood, if it had been possible to continue post-war, such attempts could well have been successful with the contemporary revival and interest in both functional, decorated and 'art' earthenwares.

The decorated wares may have been a specific order for a particular customer or event (eg Fig. 11). They may have served simply as containers for flower pots. Another possibility is that they accompanied the more domestic and horticultural wares as 'sweeteners'. The markets and fairs would have been ideal outlets for such pots, perhaps as 'souvenirs'. The household containers like the jars, bowls and pancheons have many storage uses ranging from bread-crocks to pickling vessels and may have contributed towards coastal trade as containers of goods or even as ballast. Particular Bridgwater forms are imitative of stoneware vessels and this may have been an attempt to offer a cheaper substitute for the stonewares from Bristol or elsewhere, particularly the jugs (Fig. 4.1–4) and bottles (Fig. 4.5–6).

The pottery illustrated and described below is all derived from the fill of the glass cone and includes material from every category except art-wares. The Somerset Trading Company catalogue entries are included as STC numbers.

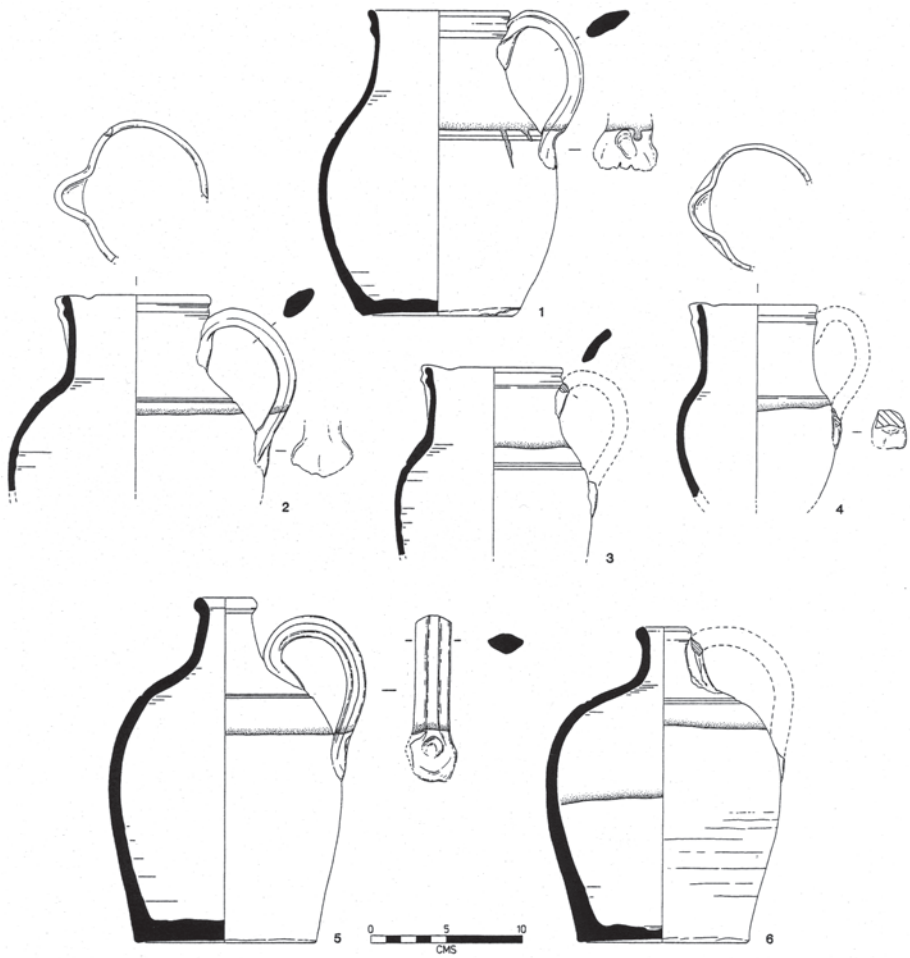

Fig. 4 Jugs (1–4) and bottles (5–6)

Catalogue

Jugs (Fig. 4)

These are in a distinctive form whose diagnostic features are the shape of the rim and bulbous body; neither feature is common to other forms (STC no. 352). All examples have a large pulled spout. Jugs were produced at Donyatt during this period but are of a different form. The form of the Bridgwater jug rims is similar to Donyatt examples of the 18th century (Coleman-Smith and Pearson 1988, nos 4/264 and 4/266). A small milk jug of the Bridgwater fabric was excavated at St Bartholomew's Hospital, Bristol (Accn no. BRSMG: 21/1977 GAX; none of the 18th and 19th-century wares are published in Price *et al.* 1998) which is similar to no. 3 below, but which has an inscribed groove beneath the rim.

1. Oxidised buff to cream fabric with internal brown to light-brown lead glaze with iron flecks, externally mottled light-brown in colour over the rim and neck.
2. Oxidised buff fabric with internal overfired brown lead glaze with iron flecks, extending over the rim and neck.
3. Oxidised buff to cream fabric with internal brown-black lead glaze, extending over the rim and neck.
4. Oxidised light-buff fabric with internal brown lead glaze tinted yellowish-green and iron-flecked. External reddish-brown glaze over the neck.

Bottles (Fig. 4)

The form of the bottles is comparable to stoneware vessels made in Bristol particularly in the shape and method of fixing the handle (see below). The lead glaze may also have been intended to resemble the iron-rich slips under saltglaze on stoneware examples. The internal glazes are all badly developed and thin. Similar forms were produced at Donyatt (Coleman-Smith and Pearson 1988, no. 4/274, dated 1847). A handle sherd of a Bridgwater bottle was found at Marisco Castle, Lundy Island (pers. comm., Steve Dunmore), and rim sherds from the conduit at Greyfriars, Bristol (Ponsford 1975).

5. Oxidised orange-buff fabric with internal mottled brown-to-green lead glaze and external yellow-brown glaze over the rim. Fabric impressions around the base.
6. Oxidised orange fabric with internal thin brown lead glaze and external brown lead glaze with iron flecks.

Large jars (Fig. 5)

These vessels are similar to stoneware forms from Bristol. The *c*. 1911 catalogue refers to this form as a 'steen'. There is no evidence that they were produced at Donyatt apart from one example, which is more highly decorated than those from Bridgwater (Coleman-Smith and Pearson 1988, no. 14/61). They appear to have been a local product strongly influenced by stoneware forms (STC no. 346). Several sherds of this shape were found at St Bartholomew's Hospital excavations, Bristol (Accn no. BRSMG: 21/1977 GBB) and Castle Moat, Bridgwater (Langdon and Richardson 1981, 43, fig. 16, 32).

7. and 8 (Fig. 3). Oxidised orange-buff fabric with internal brown lead glaze with iron flecks, extending over the rim.
9. Oxidised orange-buff fabric and internal brown lead glaze with yellowish patches, extending over the rim. Wasted during firing and dented on its side. Stylised figure four on underside.
10. Oxidised creamy-buff fabric with internal brown, mottled yellow glaze with iron flecks, externally overfired and mottled dark brown in colour.

Small jars (Fig. 5)

This form may be a further example of the copying of stoneware forms. The rims of nos 11–16 are similar to stoneware blacking bottles. It is not a shape that was produced in other known earthenware industries in Somerset. Number 17 is the base of a cylindrical vessel with a small handle affixed above the base.

11. Oxidised orange-buff fabric with internal and external brown lead glaze.
12. Oxidised orange-buff fabric with overfired brown to yellow lead glaze extending over the rim.
13. Oxidised orange-buff fabric with brown lead glaze and iron flecks, extending over the rim.
14. Oxidised orange-buff fabric with internal brown-yellow lead glaze and external brown lead glaze.
15. Oxidised orange-buff fabric with well-developed brown lead glaze and iron flecks.
16. Oxidised orange-buff fabric with well-developed lead glaze over white slip.
17. Oxidised orange-buff fabric with internal brown to yellow lead glaze with iron flecks. Small handle scar above the base.

Decorated jars (Fig. 5)

Large decorated jar or bread crock. Open-necked form with white slip-trailed decoration externally below the rim.

18. Oxidised orange-red fabric with white slip bands and trailed wavy-line decorated below the rim with internal and external orange-brown lead glaze.

Chamber pots (Fig. 6)

There are two basic forms of chamber pot in the Bridgwater group (no. 19 and nos 20–5). The former, no. 19, may be a paint-pot as it is apparently a very squat vessel (Amis 1968, 13). Several examples of pots used for paint have been found in early 19th-century groups in Taunton. Similar vessels from the Donyatt kilns were of large porringer or handled bowl form (Coleman-Smith and Pearson 1988, 7/88 and 7/90). The chamber pots from Donyatt are larger with distinctive flat rims which were either plain or had slip decoration. They are similar to the Bridgwater examples nos 20–5 (Coleman-Smith and

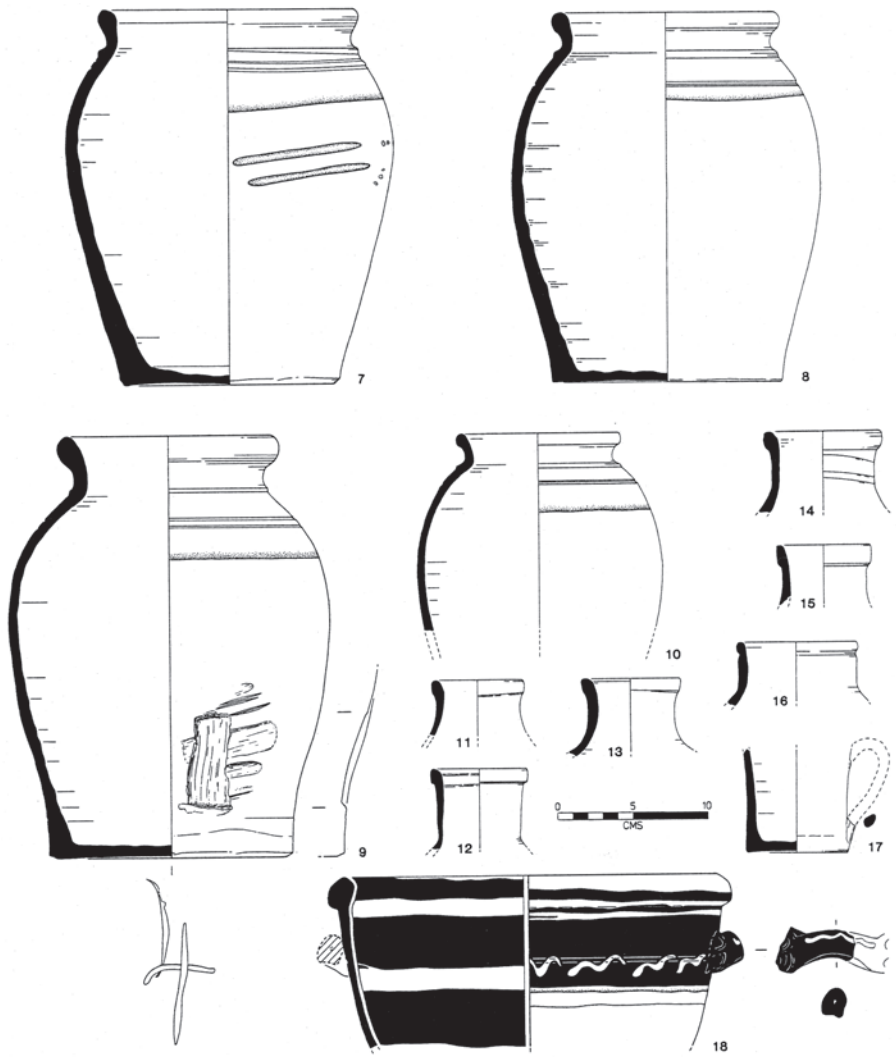

Fig. 5 Large jars (7–10), small jars (11–17) and decorated jar (18)

Pearson 1988, figs 161–2). It is possible that regional development led to the production of distinct forms for paint pots and for chamber pots. Rim sherds of Bridgwater chamber pots have been found at St Bartholomew's Hospital, Bristol (Accn no. BRSMG: 21/1977 GBA).

19. Thick heavily-made rim in orange-red fabric with internal brown-orange lead glaze, extending over the rim. Handle scar.
20. Oxidised orange-buff fabric with internal and external yellow-brown lead glaze. White slip trailed decoration on the rim.
21. Oxidised orange-red fabric with internal and external brown-orange lead glaze over white slip decoration on the rim.
22. Oxidised orange-red fabric with internal and external brown-orange lead glaze over white slip decoration on the rim.
23. Oxidised orange-red fabric with internal brown lead glaze extending onto the rim, over white slip-trailed decoration. The rim is slightly

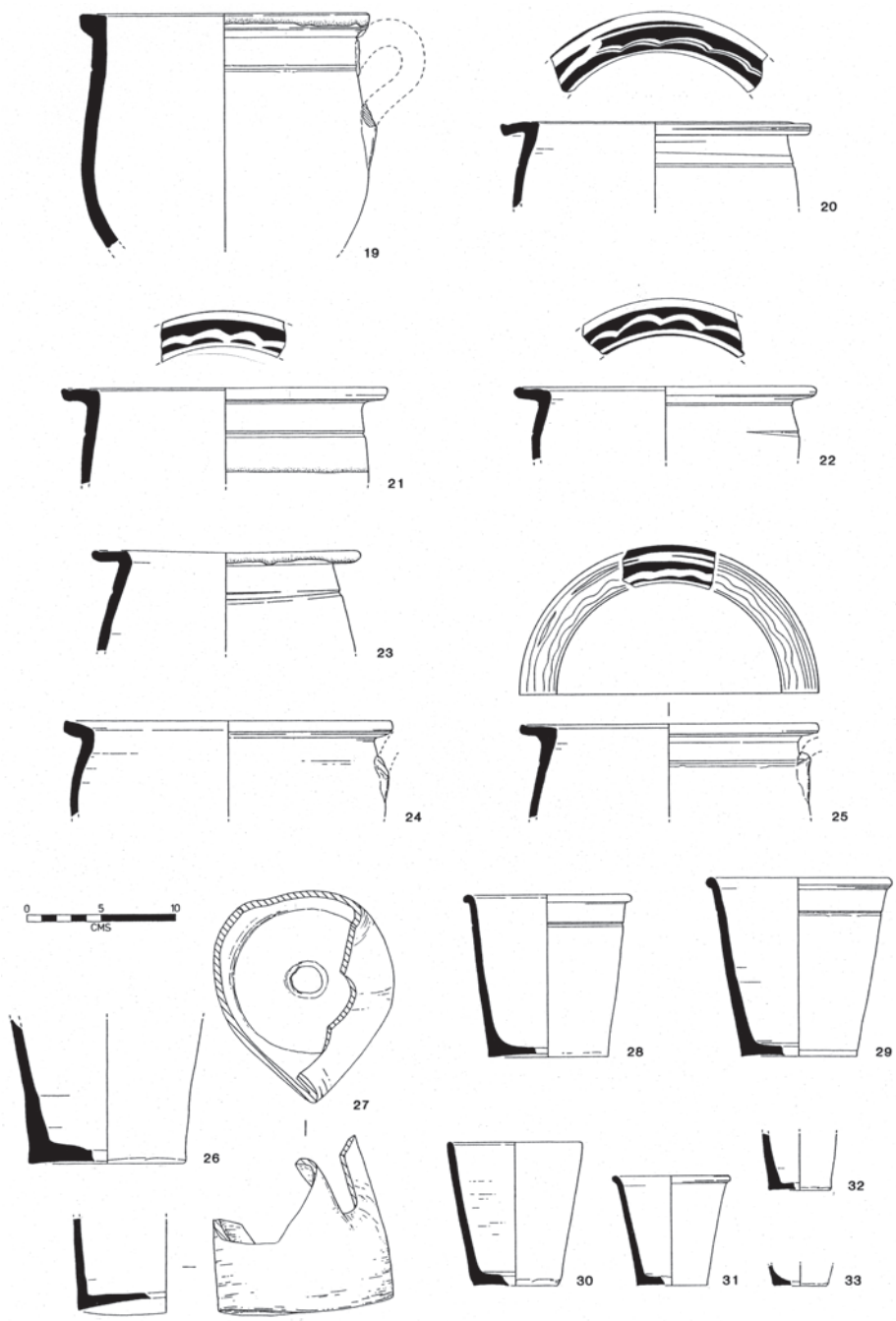

Fig. 6 Chamber pots (19–25) and flower pots (26–33)

warped and the vessel is probably a second.
24. Oxidised orange-red fabric with internal yellow-brown lead glaze, extending onto the rim. Handle scar below rim.
25. Oxidised orange-red fabric with all-over brown lead glaze, tinged green, also covering white slip-trailed decoration on the rim.

Flower pots (Fig. 6)

These vessels were probably one of the major forms produced (STC no. 353). A considerable number were recovered. The pots were oxidised ranging from orange to orange-buff. A large proportion were over-fired resulting in a reduced grey fabric (no. 28) and many were wasted (no. 27). It is possible that these forms were not as carefully positioned in the kiln as other vessels, a factor which would account for the quantity of waste. The rims are either plain (no. 30) or beaded (nos 28, 29, and 31) and some vessels were decorated with a single incised line below the rim (nos 28 and 29). A considerable range of sizes is represented and further work would enable the reconstruction of rim diameters and height. For the purposes of this report, base diameters only have been given. All the examples are unglazed. A flower pot in the Bridgwater fabric from St Bartholomew's Hospital excavations, Bristol, has white slip around the rim.

26. Oxidised orange fabric (105mm (4in) base diameter).
27. Reduced dark grey fabric, wasted and warped (120mm (4¾in) base diameter).
28. Reduced grey fabric (79mm (3in) base diameter).
29–33. Oxidised orange-buff fabric (base diameters respectively 76mm (3in), 55mm (2¼in), 47mm (1in) and 35mm (1½in).

Flat-rimmed shallow bowls (Fig. 7)

This form is a variation on the dish shape and has steeper sides and flat rims. These were fired on their sides and many examples are warped. One rim sherd from Peter Street, Bristol, is identical in form and decoration to no. 35. The fabric is less coarse and oxidised cream-buff in colour with a paler brown lead glaze and may be a Bristol product (Accn no. BRSMG: 57/1975, JY; Boore 1982).

34. Oxidised red-orange fabric internally covered with red slip and decorated with trailed white slip under a yellow-brown to brown lead glaze. Warped with external red slip splashes.
35. Oxidised red-orange fabric internally covered with red slip and decorated with trailed white slip under a brown lead glaze. Red slip splashes on rear.
36. Oxidised orange-red fabric internally covered with red slip and decorated with trailed white slip under a brown lead glaze.
37. Oxidised orange-red fabric with internal white slip-trailed decoration under a brown lead glaze.

Dishes (Fig. 8)

The wide-rimmed, sloping-side form of these vessels is of the same shape as those from Donyatt (Coleman-Smith and Pearson 1988, 8/192, 8.193, 8/199, 8/200, 8/201 and 8/202). The free slip-trailed decoration of no. 39 is similar to the Donyatt examples (*ibid.*, 8/192 and 8/193). The slip-trailed decoration on nos 40 and 41 can also be seen on Donyatt examples (*ibid*., 8/199, 8/200 and 8/201). The base designs on the Bridgwater dishes are not found at Donyatt (see also Langdon and Richardson 1981, 43, fig. 16, 34). The glaze on the dishes is applied as far as the inside of the rim.

38. Oxidised buff-orange fabric with internal yellow-green lead glaze with yellow patches.
39. Oxidised buff-orange fabric with internal freely trailed slip under a light brown lead glaze.
40. Oxidised orange-buff fabric internally covered with red slip with white slip-trailed decoration under a brown lead glaze. Thickly made.
41. Oxidised orange-red fabric with internal red slip below white slip-trailed decoration under a brown lead glaze. Thickly made.

Shallow dishes (Fig. 9)

This form has very low, slightly rounded sides with a simple rim. Decoration is in many respects similar to that on the dishes and the flat-rimmed shallow bowls.

42. Oxidised orange-red fabric internally covered with red slip and white slip-trailed decoration under a brown lead glaze.
43. Oxidised orange-red fabric internally covered with red slip and white slip-trailed decoration under a clear brown lead glaze. Slightly overfired.
44. Oxidised buff-orange-red fabric internally

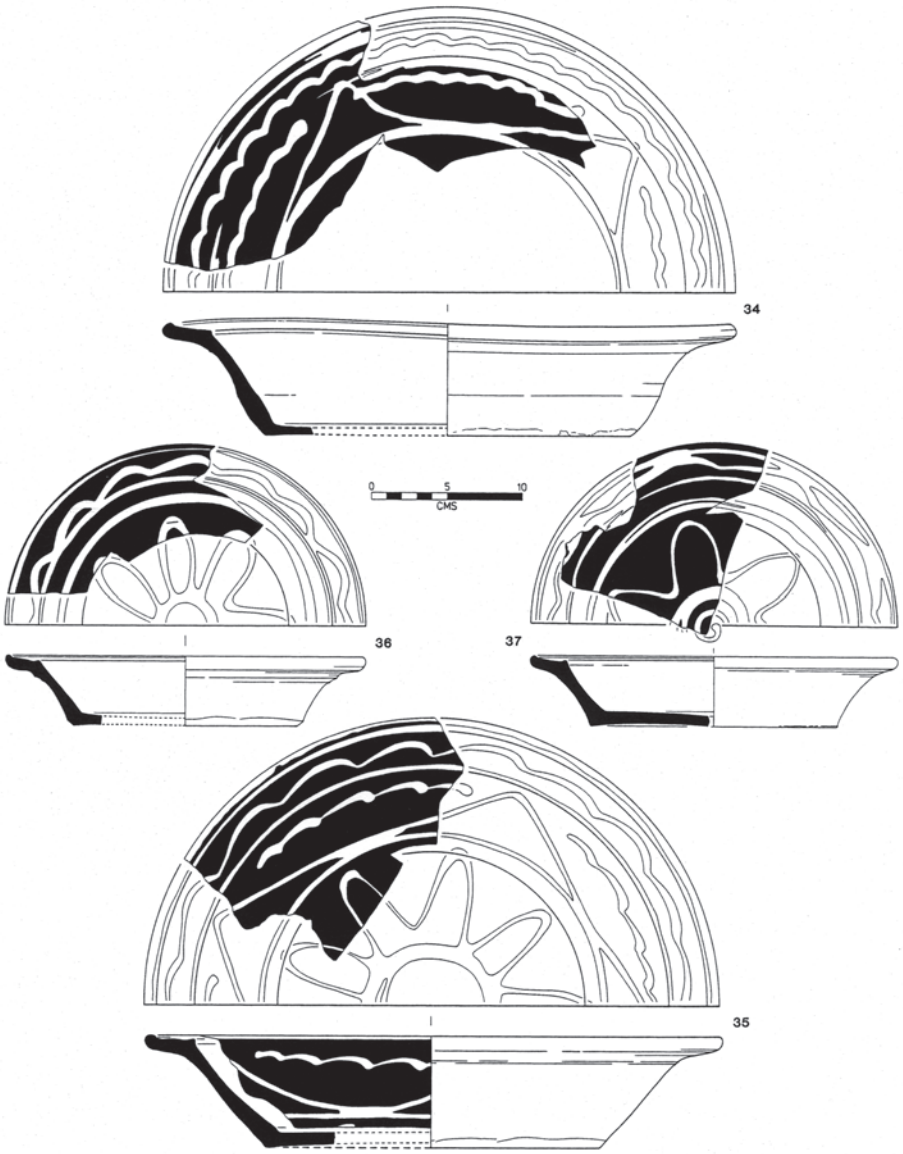

Fig. 7 Flat-rimmed shallow bowls (34–7)

covered with red slip and white slip-trailed decoration under a clear brown lead glaze. Slightly overfired.

Flat-rimmed shallow bowls and dishes (Fig. 10)

45. Oxidised orange-buff fabric covered internally with red slip under a white slip-trailed decoration and brown lead glaze.
46. Oxidised orange-buff fabric covered internally with red slip under white slip-trailed decoration and brown lead glaze.
47. (Fig. 11) Oxidised orange-red fabric covered internally with red slip under white slip-trailed decoration under a brown lead glaze. Kiln prop marks inside.

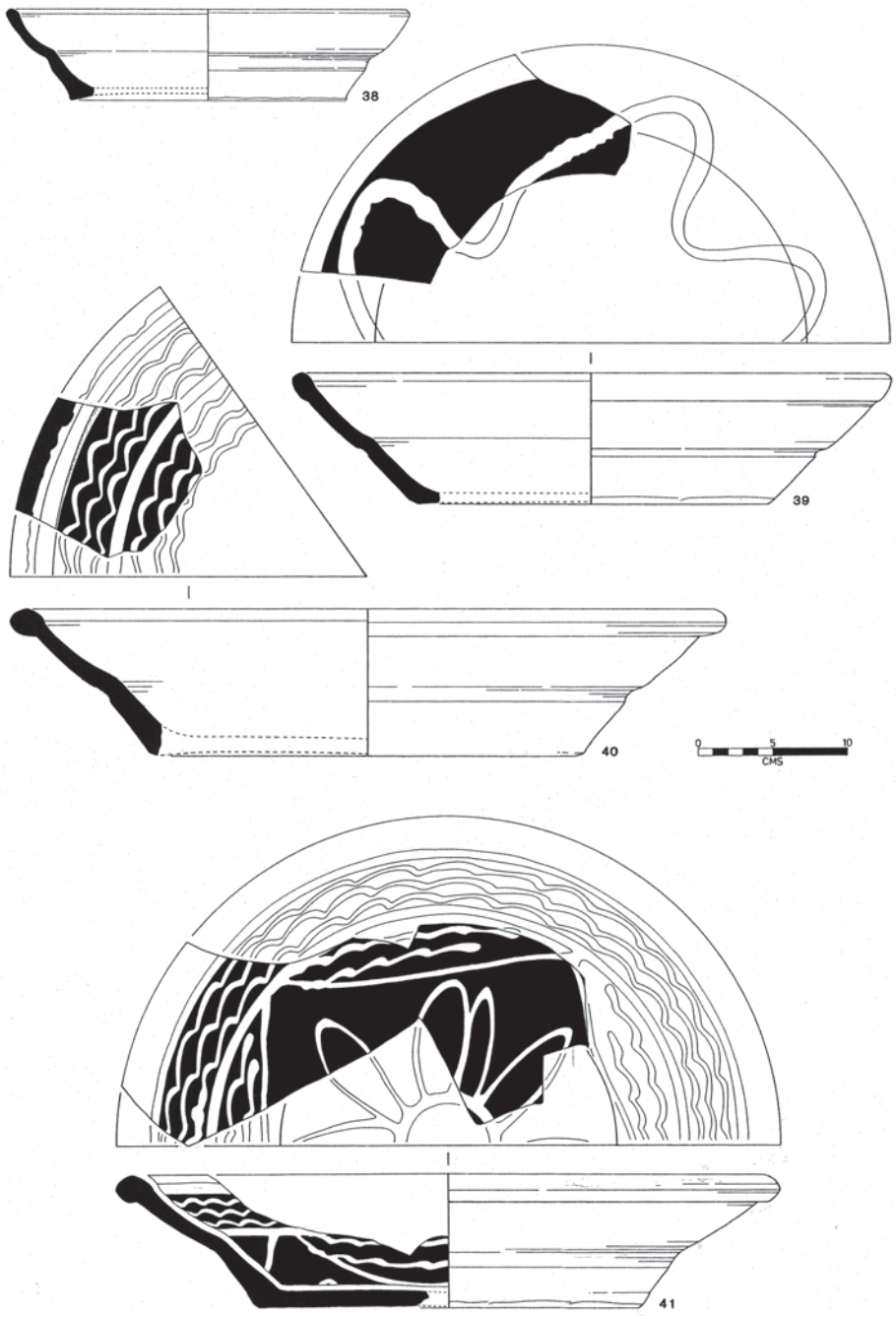

Fig. 8 Dishes (38–41)

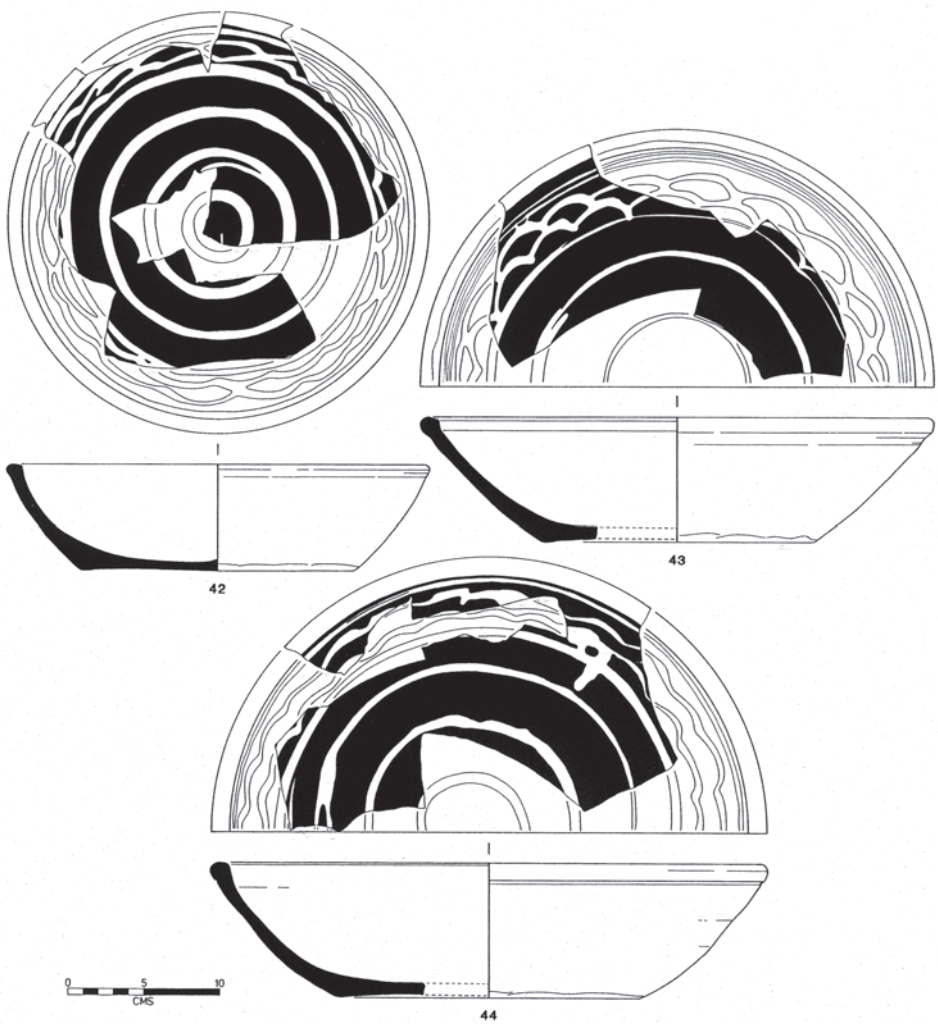

Fig. 9 Shallow dishes (42–4)

Small dishes or saucers (Fig. 10)

This form was made at Donyatt during this period (Coleman-Smith and Pearson 1988, 8/186, 8/203 and 8/204), in some cases with similar decoration, for instance, no. 48 below and Donyatt 8/204. Examples similar to no. 52 have been found at St Bartholomew's Hospital at Bristol (Accn no. BRSMG: 21/1977, GBA) and to no. 48 at Hythe in Cheddar (pers. comm., Vince Russett).

48. Oxidised red-orange fabric with internal white slip-trailed decoration under a light yellow-brown, flecked brown lead glaze.
49. Oxidised red-orange fabric with internal white slip blobs under a light brown-to-green glaze.
50. Oxidised red-orange fabric with internal white slip-trailed decoration under a light brown and brown-flecked glaze.
51. Oxidised red fabric with internal yellow-green to brown iron-flecked lead glaze.
52. and 53. Oxidised red-orange fabric with internal brown, mottled green lead glaze.

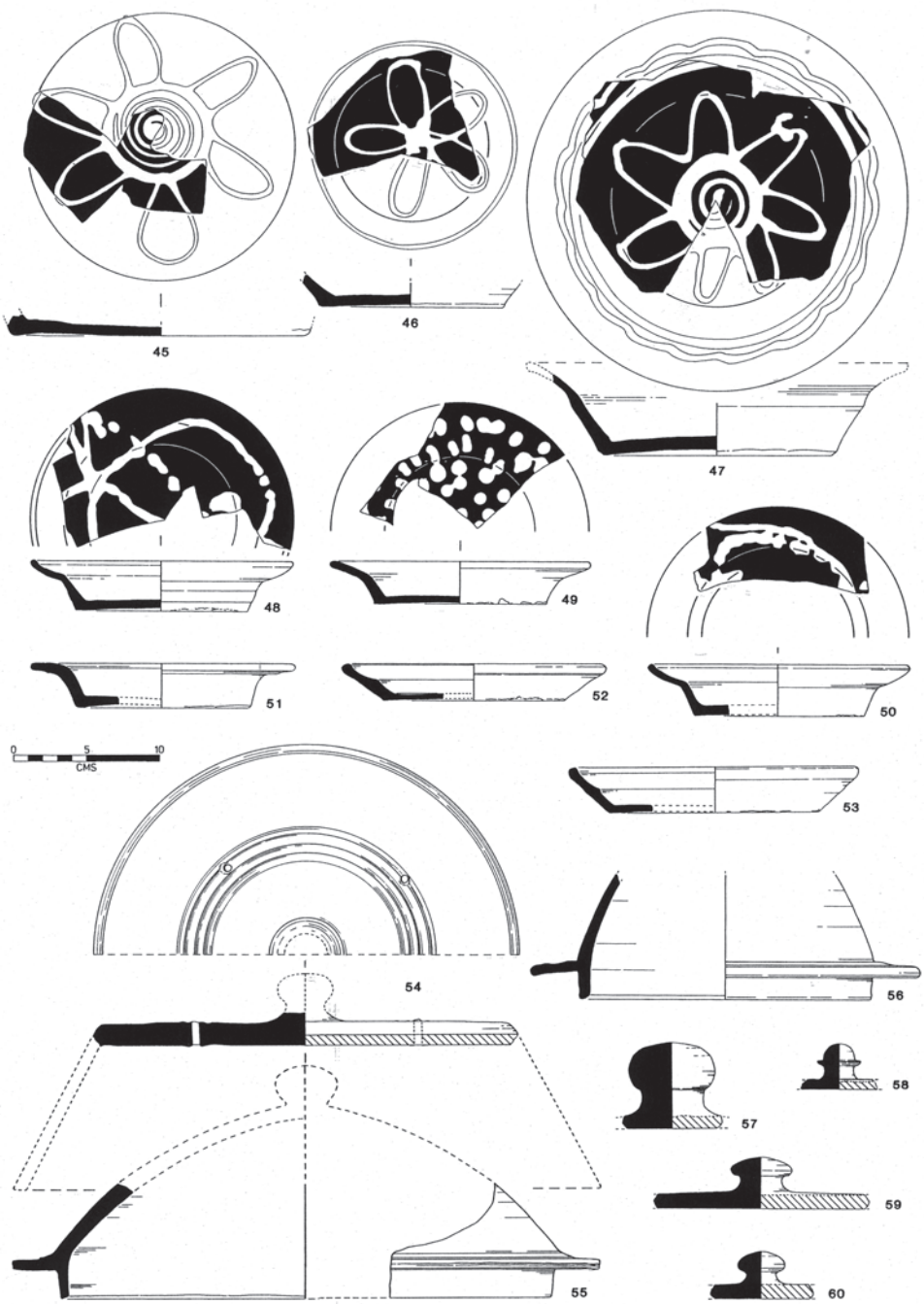

Fig. 10 Flat-rimmed shallow bowls or dishes (45–7), small dishes or saucers (48–53) and lids (54–60)

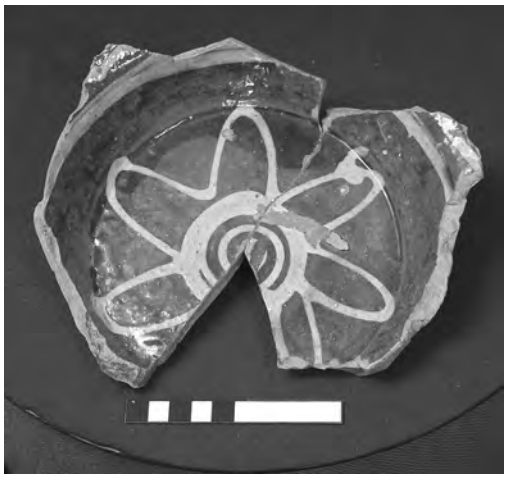

Fig. 11 Dish no. 47, Blake Museum, Bridgwater; photo David Dawson

Lids (Fig. 10)

The lids identified so far are fragmentary and it is hoped that further work will give a clearer indication of their shape. A range of lids was recovered from the excavations at Donyatt which were attributed to this period (Coleman-Smith and Pearson 1988, 20/15–20/19). These are similar to no. 54 from Bridgwater except that this example has a central knop instead of a handle. The extensive use of a knop on large lids suggests the influence of stoneware (STC nos 221, 329, 332, 336, 347 and 350).

54. Oxidised red-orange fabric with external brown lead glaze, iron flecked. The lid is pierced.
55. Oxidised buff-orange fabric with external dark brown iron-rich lead glaze.
56. Description as no. 55, with external light brown lead glaze.
57. Oxidised orange-red fabric with external dark brown, iron-rich lead glaze.
58. Oxidised orange-red fabric with external light brown lead glaze.
59. and 60. Oxidised buff-orange fabric, unglazed.

Bowls, porringers and cups (Fig. 12)

A wide range of forms is represented in this class of vessels and further subdivisions may eventually be made (STC nos 324, 334 and 344). The decorated bowl or porringer is the largest group of this class (nos 62 and 63); although no handles have been found for these forms they should be compared with similar vessels from Donyatt (Coleman-Smith and Pearson 1988, 7/97 and 7/98). A small bowl similar to no. 64 was found at Greyfriars, Bristol, in excavations in 1973. Another similar to no. 69 was found at Peter Street, Bristol (Accn no. BRSMG: 57/1975, KH). See also material from Castle Moat, Bridgwater (Langdon and Richardson 1981, 43–5).

61. Large open bowl, oxidised orange-red with internal yellow-green lead glaze, extending over the rim.
62. and 63. Bowl rims and bases, oxidised orange-red fabric with internal white slip-trailed decoration under a clear brown-yellow lead glaze.
64. Small bowl, oxidised red-orange fabric with internal light brown iron-flecked lead glaze.
65. Small handled bowl or porringer, oxidised red-orange fabric with internal brown lead glaze.
66. Description as no. 65.
67. Small cup? oxidised red-orange fabric with internal light brown lead glaze with iron flecks.
68. Small bowl oxidised orange-red fabric with internal light brown lead glaze.
69. Small jar or cup? oxidised orange-red fabric with internal brown lead glaze.

Pans (Fig. 12)

Two varieties of pans are represented. The first is an internally-glazed vessel with a wide diameter; the second, unglazed seed pans. These were widely made along with flower pots.

70. Oxidised orange-red fabric with internal white slip bands under a brown lead glaze with iron flecks.

71–5. Oxidised orange-buff to orange fabrics, unglazed.

Large bowls and pancheons (Fig. 13)

These forms were made over a wide area and similar examples can be seen from both Donyatt and the Weston-super-Mare Royal Potteries. Both large bowls (some with two opposing handles), and pancheons similar to nos 76 and 78 have been found in Bristol at Temple Street (Accn no. BRSMG: 101/1975 OK: Williams 1988) and St Bartholomew's Hospital (21/1977 GBA and GBB). An almost complete large bowl similar to no. 76, an obvious second with a warped rim and cracked base, was found at Dundas Wharf, Bristol (Accn no. BRSMG: 21/1982 AAA and AHX: Good 1990/91).

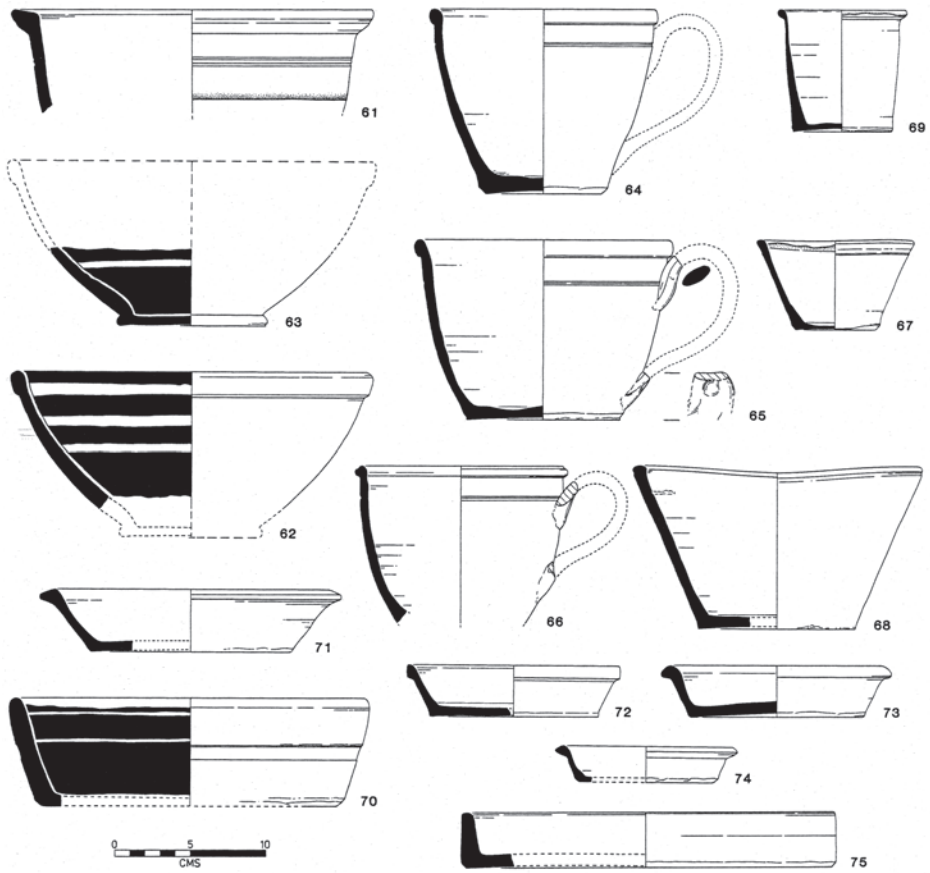

Fig. 12 Bowls, porringers and cups (61–9) and pans (70–5)

76. Large bowl, oxidised red-orange fabric with internal green-to-brown lead glaze, iron flecked.
77. Pancheon, oxidised red-orange fabric with internal brown iron-flecked lead glaze.
78. Pancheon, oxidised orange-red fabric with internal yellow-green lead glaze with iron flecks. This vessel was a waster with parts of the fabric reduced and vitrified on exposure to greater heat during firing.

Miscellaneous forms (Fig. 13)

79. Small vessel with open end at bottom, oxidised red-orange fabric with internal brown lead glaze.
80. Stand? oxidised orange-red fabric with overall brown lead glaze.
81. Top of chicken feeder? oxidised buff-orange fabric, unglazed (STC no. 350).
82. Stand? oxidised red-orange fabric with smoothed (burnished?) upper surface, unglazed.
83. Statuary pedestal. Oxidised dark red-brown fabric, smoothed surfaces, unglazed.
84. Knop? oxidised red-orange fabric with concentric scored lines and hole through the centre, unglazed.
85. Ladle or skillet handle, oxidised red-orange fabric, unglazed.
86. Chimney or horticultural pot, oxidised buff-orange fabric with external rouletted decoration, unglazed.

Unillustrated forms**.** In addition to the vessels described above further forms were recovered which included bricks, floor and roof tiles.

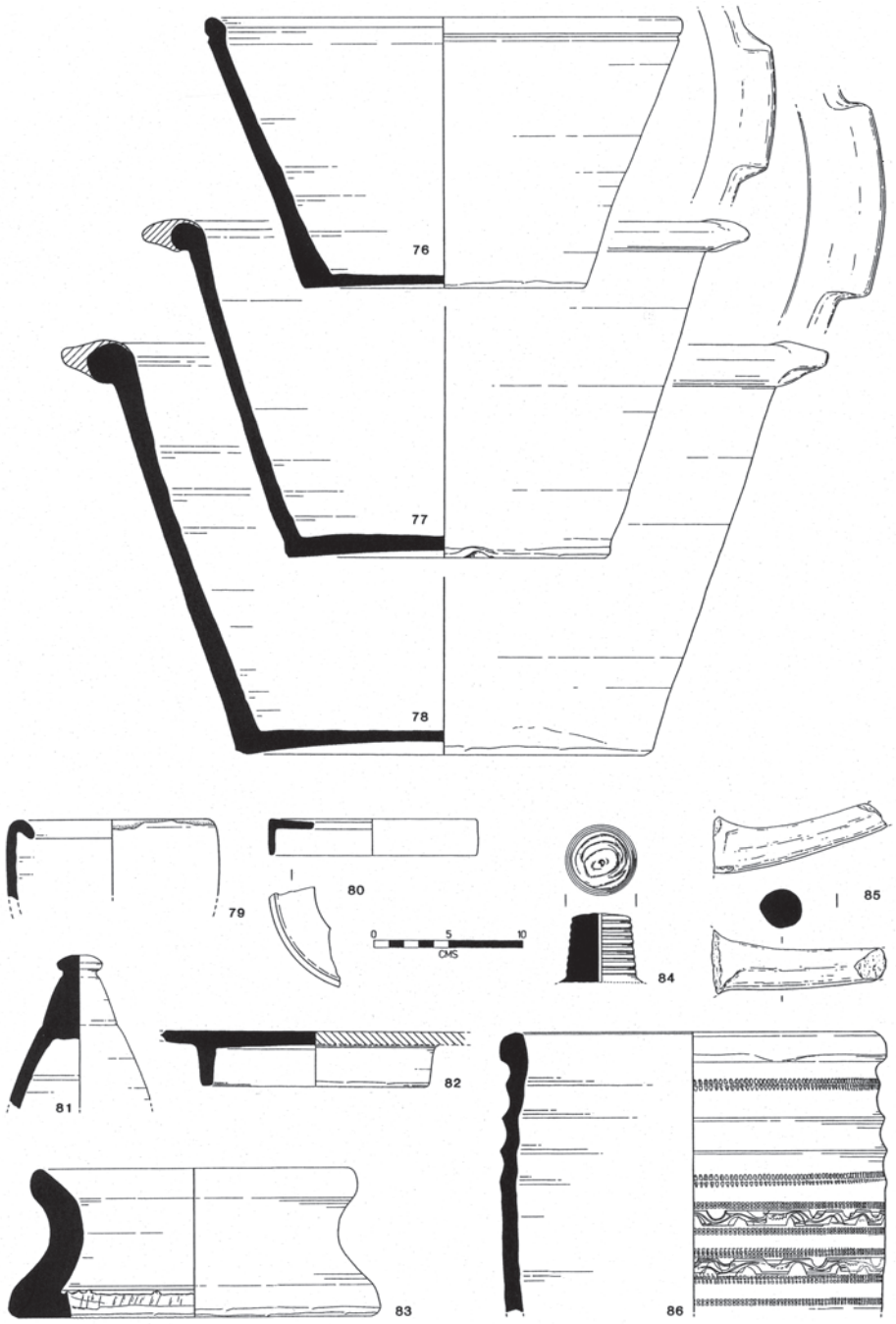

Fig. 13 Large bowls and pancheons (76–8) and miscellaneous forms (79–86)

DISCUSSION

According to the documentary evidence pottery has been made in Bridgwater since the medieval period (Le Patourel 1968, 125). Excavation by the Bridgwater and District Archaeological Society in 1972–73 at Castle Moat, King Square, produced medieval pottery dating from the 12th century, some of which may have been made locally (Langdon and Richardson 1981, 36–44). Amongst the post-medieval pottery were examples of red earthenware of Chandos glass cone type. Other groups of post-medieval pottery from Bridgwater and Taunton suggest that they were adequately supplied from industries elsewhere in the county such as Donyatt and by pottery brought in through the port (Burrow 1983; Pearson 1984). The development of fairly large-scale pottery production during the 19th century, as indicated by the wasters from the Chandos glass cone, occurred at the time when other large red-earthenware producers in the county were in decline. It is important to the understanding of the industry that the relationship between these potteries is now examined.

Several large red-earthenware industries are known in Somerset during the 17th century, notably those at Donyatt, Wanstrow, Nether Stowey and Wrangway (Coleman-Smith and Pearson 1970; 1988). There was considerable competition between these industries during this period and by the late 17th to early 18th century neither the Nether Stowey nor the Wrangway potteries and the smaller kilns at Langford Budville and Wiveliscombe were still producing pottery (Terry Pearson, pers. obvs.). The potteries at both Donyatt and Wanstrow were producing large quantities of pottery which was distributed throughout the South-west. The earthenware pottery kilns of Somerset traded extensively with Bristol during the 16th and 17th centuries (Good 1988). It was the Somerset pottery industries which largely filled the apparent gap in pottery production in Bristol at this time.

By the middle of the 18th century Donyatt and probably the Wanstrow industries were in decline. This was probably caused by the increase of trade in ceramics produced outside the county at such centres as Bristol and Staffordshire, which were of much better quality than the local wares (Pearson 1979). As a result of this competition, less decorated pottery was produced locally and production was concentrated on heavier domestic wares and ceramics for agricultural and horticultural use. The Donyatt industries were reduced to two factories by the 19th century.

The pottery found at Bridgwater shows that a wide range of forms were manufactured in the 19th century. These forms reflect not only traditional earthenware elements, but also those which were being produced in Bristol stoneware. This latter influence cannot be seen in the material from the Donyatt industries which by and large evolved from earlier forms. The development of the industries at both Bridgwater and Weston-super-Mare was probably stimulated by the coastal trading tradition, which facilitated the bulk transport of heavy goods, while the inland production centres were restricted to road, river and, later, railway transport. The location of Bridgwater on the river Parrett opened up trade between the seaward-bound traffic of the rivers Severn and Avon and inland Somerset and the South-west.

The port at Bridgwater has been an integral and important aspect of the town's economy and prosperity since the charter of 1200 gave Bridgwater the status of a town and the right to collect duty on trading vessels (Aston and Leech 1977, 13–15). The charter also established a regular market and fair, both important activities which greatly facilitated and influenced trade and commerce and contributed towards the development of the town. They played a large part in the distribution of goods both agricultural and manufactured, including pottery. The hawkers of pottery with fully loaded wagons would visit fairs and markets as well as farms and estates, sometimes covering considerable distances (Algar *et al*. 1979, 24).

The coal trade between South Wales and Somerset was an important aspect of the development of Bridgwater dock. Earthenware from Somerset, particularly from the Donyatt kilns and later Bridgwater may have gone out on the outward journey or have been loaded by the Welsh colliers on their return voyage. Such an arrangement occurred in the north Devon pottery industry during the 17th century (Grant 1983, 88–9).

The port of Bridgwater was a major factor in the development of the brick and tile industry. Of particular importance in the 19th century was the 'Bath' or scouring brick industry at Bridgwater. This versatile product made from 'a black, tacky mud or slime' from the river Parrett was manufactured in vast quantities and widely exported (Murless 1976, 22). Significantly John Browne, who subsequently acquired the Chandos glass cone for use in his brick and tile industry, appears to have taken out the first patent, along with William Champion, for Bath bricks in 1823 (Murless 1976, 22). Domestic pottery

was produced in Bridgwater at a time when both thriving trade routes and markets were well established for the manufacturers of brick and tile for the construction trade, combined with domestic articles like Bath bricks. The manufacture of pottery alongside brick and tile is also recorded at Taunton (Murless 1981, 34–5).

Bridgwater pottery has now been identified on several sites in Bristol which itself possessed a flourishing pottery industry at this time, including earthenware potteries (Jackson *et al*. 1982; Good and Russett 1987, 41; Price 2005, 59). It is also recorded at Thornbury in North Avon (pers. comm., Rob Iles) and at the deserted farmstead at Hurscombe in the Brendon Hills of West Somerset (Pearson 1982, 55). At Hurscombe a variety of Bridgwater decorated and domestic kitchen wares were found. Examples so far recovered in Bristol all seem to be of the latter group. This is probably due to the ready supply of more decorative finer wares from local potteries. The occurrence of the decorated wares in rural contexts like Hurscombe and West Somerset in general may suggest that the urban finer wares were expensive and perhaps less easy to obtain in the rural areas. The examples of Bridgwater earthenware in Bristol and Minehead in Somerset, where both had their own earthenware potteries indicates the mobility and perhaps the quality of the pottery (Pearson 1982, 55). Further study of other 19th-century potteries could provide valuable information particularly in regard to trade and distribution.

The brick and tile industry at Bridgwater continued to flourish into the mid 20th century (Appendix I) together with production of utilitarian red earthenwares. The puzzle jug attributed to John Browne & Co. of Bridgwater, perhaps in association with the decorated dishes and bowls, may suggest an attempt at capturing the non-utilitarian or 'art' pottery market (Brears 1974, 54, 182).

APPENDICES

Appendix I

Barham Brothers, Bridgwater

Barham Brothers were leading brick and tile makers in Bridgwater. They were situated at East Quay on the east side of the river Parrett to the north of the Chandos glass cone. The firm was established in 1857 and closed at the end of 1964 due, in part, to the deterioration of the quality of the available local clay supplies. One of their kilns, an updraught kiln partially converted for downdraught-firing, is preserved as part of the Somerset Brick and Tile Museum. In addition to brick and tiles, Barham Brothers also manufactured roof furniture, finials, chimney pots, Bath bricks, lime, plaster, cement, putty, kerbs, crazy paving and pottery. The pottery included 'terra cotta' vases and pedestals presumably for garden decoration, rhubarb and seakale pots and flower pots from 2¾in to 18in (Barham Bros Ltd, Revised Price List 1934, see below). Examples of products of the Bridgwater brick and tile industry are preserved at the Somerset Brick and Tile Museum and at Bristol City Museum and Art Gallery.

Appendix II

Catalogues of Red Earthenware Manufacturers in Bridgwater and Wellington

The following catalogues of red earthenware production in Somerset are preserved in the collections of Somerset County Museum Service, Taunton, Somerset (pers. comm., Philippa Toogood, Documentation Assistant, Somerset Rural Life Museum).

1. Barham Bros. Ltd., Manufacturers, Bridgwater
   Revised Price List of roofing tiles, ridges and general brickyard goods
   Pottery – vases, pedestals, rhubarb and seakale pots and flower pots *c.* 1934 (not illustrated)

2. Colthurst, Symons & Co. Limited, Bridgwater
   Revised Price List of Bricks, Tiles and Pottery Goods
   Rhubarb and seakale pots, vases, flower pots, red pottery including seed pans, rustic pot and saucer, fancy pot and stand, vase for painting (not illustrated) *c.* 1938

3. H. J. & C. Major Limited
   The Patent Tile Works, Bridgwater, Somersetshire
   Prices and illustrations
   Chimney pots, garden pots, seakale and rhubarb pots and garden vases. Post-1909

4. The Somerset Trading Company Ltd., Bridgwater
   Price List of Garden Vases, Pedestals, Rustic Pots, Flower Pots etc. Price List *c.* 1938
   Illustrated catalogue *c.* 1911

Price list of Red Ware Pottery, Glazed Ware, Garden Pots, Ornamental Vases, Bulb Bowls etc. Domestic ware including bulb bowls, salting pans, steens or jars, handle pans, cream jars, cheese pans, butter pots, bread pans, bottles, baking dishes, bedpans, spittoons, jugs, vases for painting (14 pages of illustrations).

5. William Thomas & Company Limited
Patent Brick, Tile, Pottery, and Terra Cotta Works, Wellington Somerset
Plates 49–62 include statuettes, vases, rustic and ornamental flower pots, rhubarb and seakale pots and glazed earthenware. *c.* 1891

Note

This paper is presented broadly in the form that it was intended to be published by Bristol City Museum and Art Gallery in 1980 in volume 4 of their archaeological monograph series. David Dawson and Mike Ponsford have collaborated with Eric Boore and Brian Murless to ensure its submission to the *Proceedings*. Unfortunately Terry Pearson cannot be traced and Frank Hawtin has since died. It is to be hoped that they would have approved.

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List of abbreviations

BRO	Bristol Record Office
BRSMG	Bristol City Museum and Art Gallery
SRO	Somerset Record Office
STC	Somerset Trading Company

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