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**Regional Character in West Country Medieval Pottery,
illustrated from Gloucester, Brockworth and Bourton-on-
the-Water, with Notes on the use of Spectrographic Analyses
of Medieval Glazes**

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REGIONAL CHARACTER IN WEST COUNTRY
MIEVEAL POTTERY, illustrated from GLOUCESTER,
BROCKWORTH AND BOURTON ON THE WATER,
with Notes
on the Use of Spectrographic Analyses of Medieval Glazes
by E. M. JOPE, F.S.A.

RECENT studies are showing with increasing insistence the marked regional character which is to be observed in the forms and decoration of English medieval pottery. In South Britain, at any rate, a group of pottery from town or countryside will usually contain examples of some recognisable regional type, or a local variant, and such is the case with those from Gloucester and Brockworth¹ and Bourton on the Water² studied here.

One particular regional type studied by Mr Dunning (*Trans. B.G.A.S.*, LXVIII (1949), 30-44) is represented at Brockworth, and has additional interest because an unusual peculiarity of technique, the use of a thin wash of lead glaze containing much tin, is now shown here to be apparently restricted to precisely the Cotswold-North Wiltshire area of this west country vessel type, on which it is much used (as well as on jugs and ridge-tiles). It is clearly of the greatest importance that the stylistic demonstration of regional character in medieval pottery should be reinforced by such observations on the technical processes used by the potters. It is not often, however, that such clear examples as this tin-containing glaze can be found, for medieval glazes normally vary little in composition, and

¹ Brought in to the Gloucester Museum by Mr D. J. Beard. I am greatly indebted to the Curator, Mr J. N. Taylor, and to Miss Rennie, for the opportunity of studying this pottery.

² I am most grateful to Mrs B. H. St. J. O'Neil for lending me this pottery.

types of fabric are distributed usually over wider areas, depending often as much upon geological considerations as on the individuality of potters or preferences of their markets.

The Cotswold-North Wiltshire region of this 13th century vessel type (map, FIG. 2) is adjacent to the South Wiltshire-Somerset region over which certain decorative features on 13th century jugs may be found (map in *Proc. Somerset Archaeol. Soc.*, xcvi (1952), 141, fig. 5), both types being found together on the borders of the two regions, at Bristol, Bath (Lansdown) and Avebury. Thus two regions are defined, in terms of pottery, in the 13th century. The interpretation of such regions in human terms is, however, very uncertain. It appears that the radius of distribution from a pottery factory working on a large scale in the 14th century was about 20 miles (*Oxoniensia*, x (1945), 96) and the somewhat wider areas covered by these 13th century pottery types (60 by 35 miles) and the earlier 12th century type (*Oxoniensia*, xiii (1948), 71) suggest the possibility of distribution from more than one centre: the South Wiltshire-Somerset group with pads of clay applied under the rim might, however, be the products of one factory (44 by 32 miles).¹ It is important to be able to assess these matters, for on them depends the interpretation of such distribution maps as representing either the marketing areas of individual factories or as reflecting some more deep-seated characteristics in the underlying regionalism of English medieval life. This emphasizes the importance of expanding the study of the material, and its distribution, from every known medieval kiln site. We must, however, guard against a circular argument, for the distribution areas of kilns are deduced from the areas over which their pottery types are found. The pottery must therefore be studied critically in the utmost detail, and it is valuable to recognise and map characteristic types of pottery before knowing the kiln sites producing them, for then assessment of regional style will have been made independently of the material from the kiln itself.

¹ But see this Journal, p. 66.

THE POTTERY

(FIG. 1)

Nos. 1-4. These deep vessels are varieties of a regional type peculiar to the Cotswold area (for map, see *Oxoniensia*, XIII (1948), 71), with clubbed rim, almost vertical sides, and sharp base angle of almost 90°. No. 4 shows the normal type, from Bourton on the Water. The Gloucester example (No. 2) with an almost horizontal flange sitting at the top of the rim may be compared with several from the late 11th and early 12th century floors at Deddington Castle, Oxfordshire, as seen in No. 3 (*Oxoniensia*, XI-XII (1946-7), 167-8). The type seems to have had its origin in late Saxon times, and can be shown to be going out of fashion towards the middle of the 12th century, so that it may sometimes be useful as an indication of date.

No. 1, from Vicarage Lane, Brockworth: hard shell-filled ware with grey core and light-brown surfaces; made on a slow wheel and hand-worked after turning.

No. 2, from the Quay Wall, Gloucester, 1936: softer flaking ware filled with finely-crushed shell, with dark-grey core and brown surfaces.

No. 3, from the late 11th-early 12th century floors at Deddington Castle: in hard dark ware filled with finely-crushed shell.

No. 4, from Bourton on the Water, Gloucestershire: fairly soft brown shelly ware, turned on a slow wheel and much hand-worked after turning. (Shown to me by Mrs B. H. St. J. O'Neil).

No. 5, from Vicarage Lane, Brockworth: rim of cooking pot in friable ware with blackish core flecked with some crushed shell, and brown surfaces. 12th century.

No. 6, from Vicarage Lane, Brockworth: rim of cooking pot in hard ware with grey core and slightly rough surfaces, brown interior and black exterior. 12th century.

No. 7, from Vicarage Lane, Brockworth: top part of jug with strap-handle slashed diagonally up the back, in hard shell-filled ware with light-grey core and pale-buff surfaces. 13th century.

No. 8, from Vicarage Lane, Brockworth: one leg and part of base of tripod vessel, in hard slightly shelly ware with grey core and light-brown surfaces. This tall type of leg differs from the stumpy feet of the usual 12th-early 13th century tripod jugs of this region (*Antiq. J.*, xx (1940), 103). It may be paralleled from Bath, Avebury, and Hunt's Mill, Wootton Bassett. It is not certain that these taller legs are from jugs; they are reminiscent of metal types and may be from pottery cauldrons (as from Leicester, *Soc. Antiq. Res. Rep.*, xv (1948), 235, fig. 67; and from London, *London Mus. Med. Cat.* (1940), 225, fig. 74; and from Wallingford, unpublished).

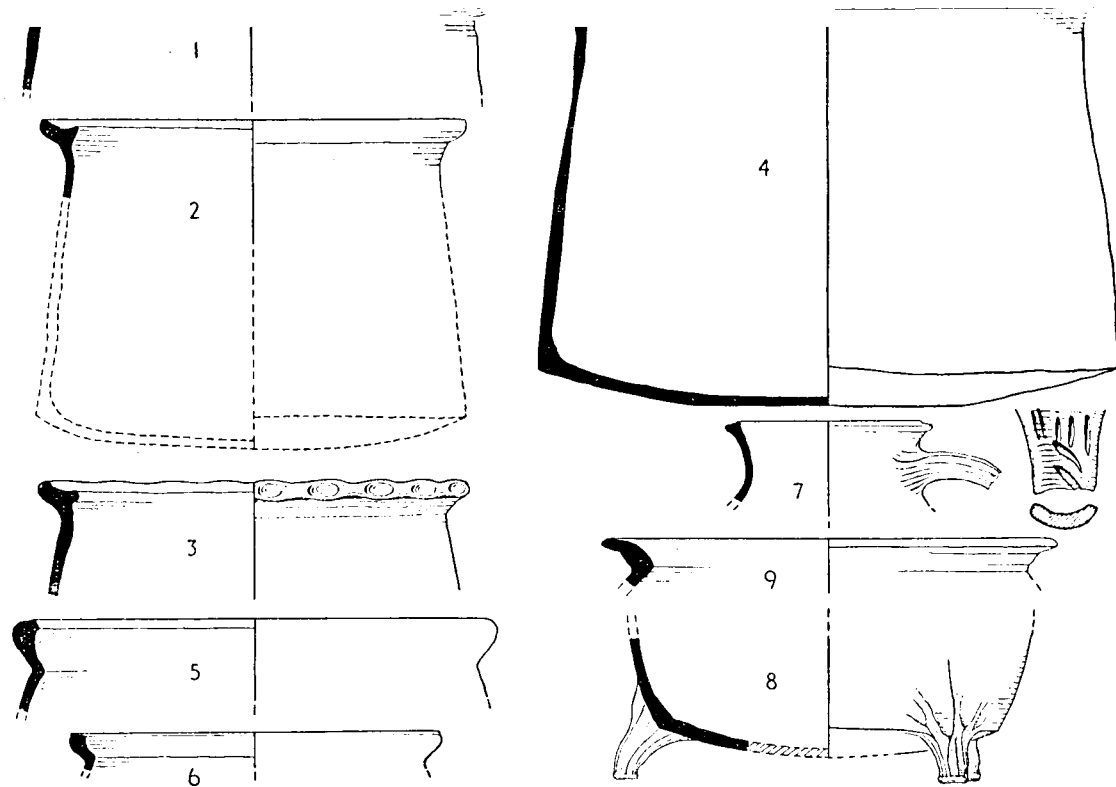


Fig. 1. Medieval pottery from Gloucester (No. 2), Brockworth (Nos. 1, 5-9), Bourton on the Water (No. 4) and Deddington, Oxon (No. 3). Scale $\times \frac{1}{4}$.

No. 9, rim of cooking pot in hard fine shell-filled ware with grey core and light-brown surfaces. The interior of the rim flange carries a thin patchy wash of dirty yellow-brown glaze. Mr Dunning has discussed this 13th century type and illustrated its west-country distribution (*Trans. B.G.A.S.*, LXVIII (1949), 30-44). The map here, FIG. 2, is based on Mr Dunning's, using the same site numbering, with the following additions:—

23. Brockworth, 3 miles east of Gloucester (this paper, FIG. 1, 9).
24. Parts of several such vessels from Brynard's Hill, $\frac{1}{2}$ mile south-east of Wootton Bassett (Devizes Museum).
25. Cumnor, Berkshire; from site of Cumnor Place, a grange of the Abbots of Abingdon.
26. From Lower Widhill Farm, 2 miles south of Cricklade. (Kindly shown to me by Dr T. R. Thompson).
27. From the grounds of a house on the western outskirts of Lechlade. (Kindly shown to me by Mr Baxter).
28. From a site below Barbury Camp, 2 miles south of Wroughton, near Swindon; medieval pottery collected by Mr J. S. P. Bradford, 1952.

The following examples of this type came to light too late to be included on the map:

29. Gloucester, Bull Lane (Gloucester Museum).
30. Painswick, Glos., Holcombe Farm (Gloucester Museum).
31. Coln St. Aldwyn, Glos.; from site of new memorial cottages (1950) in road leading to the church (sent to me by Mrs B. H. St. J. O'Neil.)

It is not clear where this type of pottery was made in this region. As Mr Dunning says, there were probably several centres of manufacture. The evidence for a pottery kiln at Hunt's Mill, Wootton Bassett, is very doubtful, as there are no wasters among the pottery preserved from the site (Devizes Museum): it is more likely to have been an oven.

Spectrographic Analysis of Medieval Glazes: a West Country group containing abnormal amounts of tin. Medieval glazes seem to be universally lead silicates, formed by dusting the surface of the pot with powdered Galena (Lead Sulphide ore), or some other compound, such as lead oxide, before firing. The glazing may have been a separate firing process after the main firing of the pot, as with the Roman lead glazed wares at Holt,

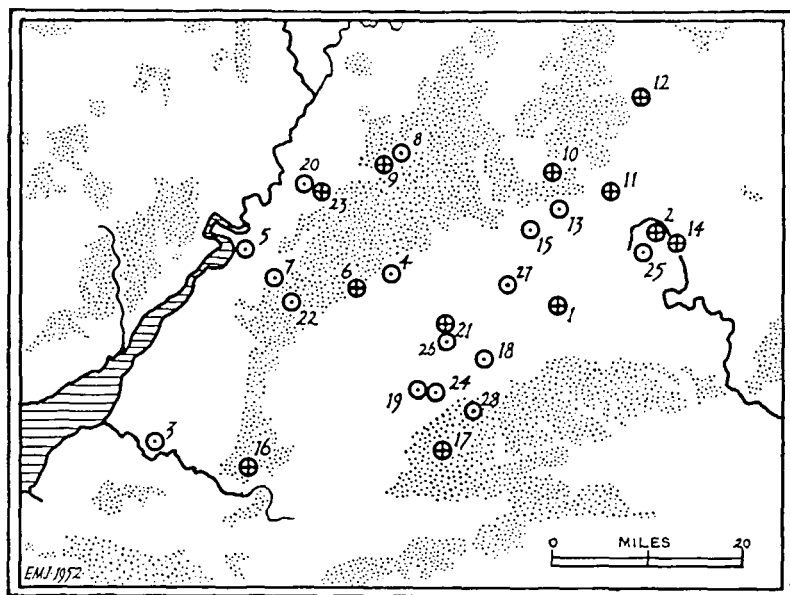


Fig. 2. Map showing the distribution of a 13th century west-country type of cooking pot ⊙ (based on G. C. Dunning in *Trans. B.G.A.S.*, LXVIII (1949), 30-44, with additions), and of 12th-13th century lead glazes containing a high proportion of tin ⊕. Land over 500 feet is stippled: only rivers navigable in the Middle Ages are shown.

Denbighshire (Grimes, W. F., *Holt, Denbighshire (Y Cymmrodor*, XLI, (1930), frontispiece, and 182), but sometimes at least it may have been done in the main firing, the galena being dusted on the dried biscuit. Bright green colours were produced by copper, often put on as a dusting of copper or bronze filings, hence the frequent speckling of medieval pots with bright green. Thus medieval glazes cannot be expected to show many significant variations in composition, though trace elements are always worth detailing from any spectrograms recorded. The group studied here, however, shows that results of considerable value may sometimes be obtained by recording even the major constituents of medieval glazes.

One of the characteristic features of the 13th century vessel type discussed by Mr Dunning (see FIG. 1, no. 9, and map, FIG. 2), is a thin patchy wash of yellowish glaze round the inner surface of the rim flange. This glaze is often opaque, and looks as though it had been poorly fired, leaving some lead oxide (litharge) free, and not combined as silicate. I have now shown that these glazes from twelve of the sites producing this type of pottery contain unusually large amounts of tin, of the order 5% or more, comparable with the data from the spectrograms obtained from the opaque 'tin glazes' of, for instance, Flemish painted tiles, the appearance of which is due to a suspension of tin oxide in a lead silicate matrix. Most medieval glazes contain only traces of tin, or none at all, and this is true even of most of the normal transparent green or yellow glazes of this Cotswold area such as tripod pitchers from Oxford and Ascot D'Oilly (yellow), and Bath (green).

This group of glazes containing tin is of particular importance in that it provides a classification of the pottery entirely independent of its form and appearance, and thus greatly emphasizes the unity of this Cotswold region between Oxford and Bristol (so far as pottery is concerned) in the 13th century. This is illustrated by the map (FIG. 1) and those of some other types (e.g. *Oxoniensia*, XIII (1948), 71). I have not found such amounts of tin in some forty analyses of glazes from other areas. The source of this tin is not clear, but it is probably due

to the use of pewter or solder as a source of the lead for making the glaze in these cases.

This thin, patchy, often opaque glaze is found also on other types of vessel, and I have shown that some of these again contain similarly large amounts of tin. Especially notable are the jugs of shelly ware with thin opaque greenish glaze of the middle decades of the 12th century from Ascot D'Oilly castle, and the early 13th century jug of friable sandy ware with a thin greenish glaze from Lincoln Hall, Turl St., Oxford. On the other hand, many glazes of this period in the region do not contain tin, even sometimes ones which from their appearance might perhaps be expected to belong to this class, such as that of a tripod jug from Bath. Another example of the inclusion of tin in the glazes, which brings together the clay tile and pottery industries, is given by the earliest ridge tiles in the area, which appear at Deddington and Oxford to be of the early 13th century (*Oxoniensia*, XVI (1951), 86-8). These tiles are made of hard shelly fabric and carry the same thin wash of yellowish or greenish glaze; similar tiles are known from Cirencester and Hullasey.

Thus it appears that this technical practice resulting in the inclusion of a high proportion of tin in the lead glaze was current in this Cotswold-North Wiltshire region on certain classes of pottery products, usually, though not always, used on hard shelly fabrics, from at least the mid-12th century and lasting through much of the 13th century. It is even possible that this unusual glaze composition originated back in late Saxon times, for the transparent pale yellow glaze on the pitcher of fine cream fabric in the late Saxon tradition from the Nuffield College site, Oxford (*Oxoniensia*, XIII (1948), 72, fig. 16, no. 1), contains a fair proportion of tin (of the order 2%), though not quite so much as is usual in the main group studied here. On the other hand, glazes on pottery of this type in the late Saxon tradition from Deddington, Thetford (Norfolk, *Archaeol. J.*, CVI (1949), 73), and Leicester, do not contain more than traces of tin. Continuity of craftsmen's techniques from late Saxon times through the Middle Ages has

been illustrated in other recent technological studies; for instance, I have shown (*Antiq. J.*, in the press) that late Saxon iron spurs (though hardly ever stirrups) were very commonly tinned (not silvered; in one case flashed over with solder), and this was a standard practice right through the middle ages and into the 16th century.

Vessels with glazes containing a high proportion of tin. (The numbers refer to the sites on the map, FIG. 2).

1. *Faringdon Clump, Berks.* Two cooking pots with thin wash of glaze on rim: (a) *Berks. Archaeol. J.*, L (1947), 59, fig. 5, no. 7, (b) one with rim form as same fig., no. 6.

2. *Seacourt, Berks.* Two vessels: (a) handled vessel with thin wash of greenish glaze on rim and inside base; *Berks. Archaeol. J.*, L (1947), 59, fig. 5, no. 6, (b) large pan with thin wash of glaze on interior; *ibid.*, fig. 6, no. 1, opp. p. 60.

6. *Hullasey, Glos.* Rim of cooking pot with thin wash of glaze; for shape, compare *Oxoniensia*, XIII (1948), 68, fig. 14, no. 17. (Cirencester Museum).

9. *Whittington, Glos.* Rim sherd of cooking pot of west-country type, with thin wash of dirty yellowish glaze. (Sent by Mrs B. H. St. J. O'Neil).

10. *Ascot-under-Wychwood (Ascot D'Oilly), Oxon.* Two vessels: (a) cooking pot with thin wash of glaze on rim, from debris of a house occupied in the 13th century, at eastern end of village (Nat. Grid Ref. 42/305187); for shape, compare *Oxoniensia*, XIII (1948), 68, fig. 14, no. 17, (b) tripod jug of grey shelly fabric with thin opaque green glaze, from tower of castle (mid-12th century), (c) also from site of (a), ridge tiles in hard shelly ware with thin wash of glaze, but of a later type than the early hand-modelled ones from Oxford and Deddington, with tool-cut coxcomb along the ridge; probably well on in the 13th century.

11. *Combe, Oxon.* Cooking pot of this same class with thin wash of green glaze on rim; from site of present village.

12. *Deddington Castle, Oxon.* Two vessels and ridge tile; (a) cooking pot with wash of orange glaze on rim, from a later 13th century level; for shape, compare *Oxoniensia*, XIII (1948), 68, fig. 14, no. 15, (b) pan with horizontal out-turned rim flange with frilled outer edge, carrying a thin wash of patchy green glaze; from later 13th century level, (c) ridge tile of typical Deddington form, of hard shelly ware with a thin patchy glaze, as used on the Hall, probably early 13th century (see *Oxoniensia*, XI-XII (1946-7), 168; XVI (1951), 86-8.

14. *Oxford*. Two vessels and ridge tile, (a) cooking pot with thin wash of green glaze on rim, *Oxoniensia*, XIII (1948), 68, fig. 14, no. 17, (b) jug of grey friable sandy ware and thin wash of green glaze, from Lincoln Hall, Turl St.; *Oxoniensia*, xv (1950), 51, fig. 17, no. 4, (c) ridge tile of Deddington type from the débris of a 13th century house on the site of Hall's Brewery; *Oxoniensia*, xvi (1951), 86-8.
16. *Lansdown, Bath*. Cooking pot rim with thin wash of green glaze, of shape as in *Trans. B.G.A.S.*, LXVIII (1949), 37, fig. 4, no. 16.
17. *Avebury, Wilts*. Cooking pot with thin wash of greenish glaze on rim; for shape, compare *Trans. B.G.A.S.*, LXVIII (1949), 35, no. 10.
21. One rim sherd of three of this type of cooking pot from Group-Captain G. M. Knocker's excavations at Cricklade, 1952.
23. *Brockworth, Glos*. This paper, FIG. 1, no. 9.

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