

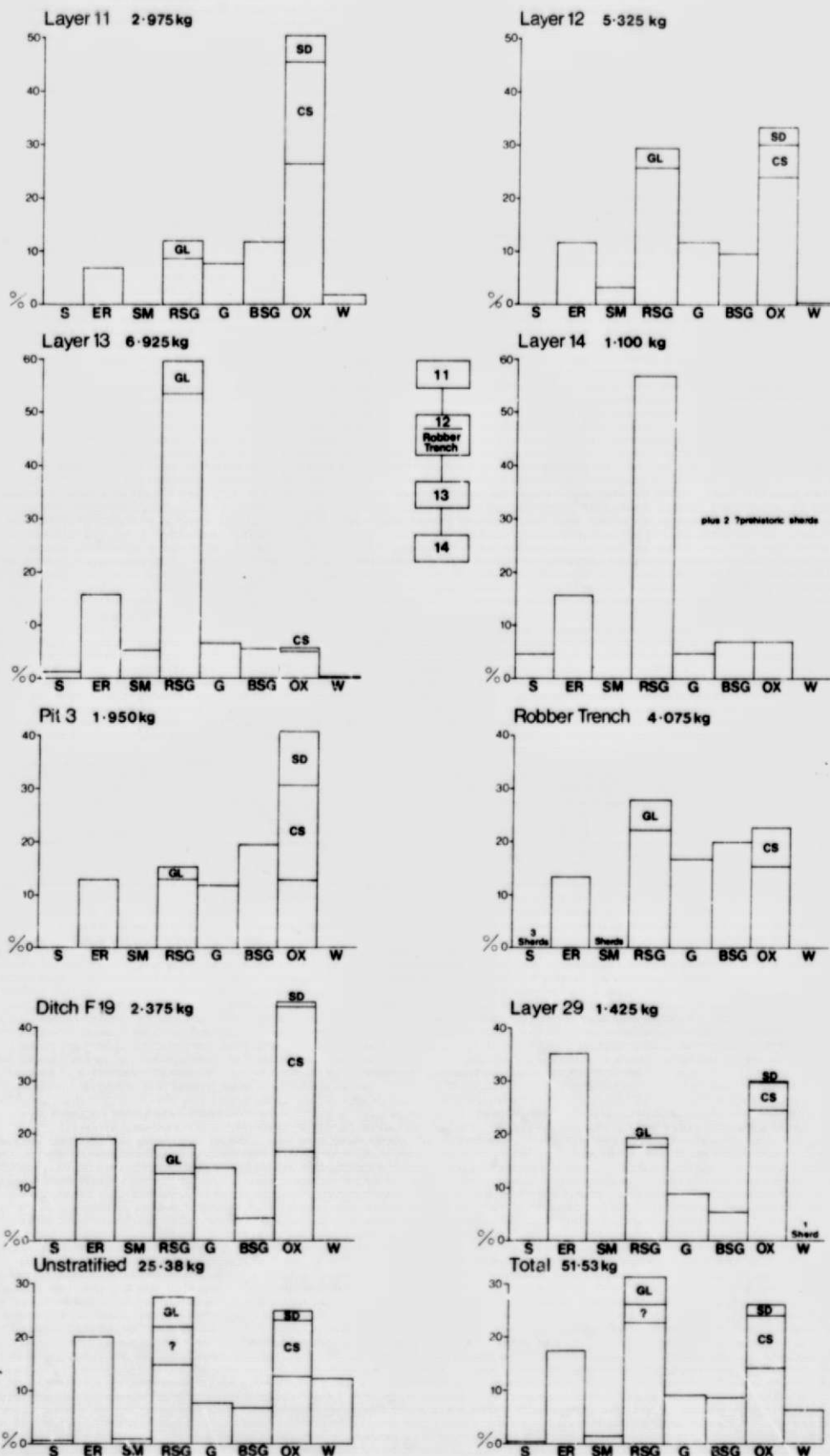
**16 BELL STREET, REIGATE**

**Excavation of a Medieval and Post-Medieval site, 1974-6**

by **DAVID W. WILLIAMS**

Table One. 16 Bell Street. Proportions of medieval pottery types.

Key: S Coarse shell-tempered  
 ER Early reduced  
 SM Scratch-marked  
 RBSG Red/brown surfaced, grey, sandy  
 G Grey  
 BSG Black-surfaced grey  
 OX Oxidised sandy wares  
 W Surrey white  
 GL Glazed  
 CS Cream-slipped jugs  
 SD Slip-decorated jugs



## THE FINDS

Abbreviations

The following abbreviations are used in the pottery report:

IS Inner Surface  
OS Outer Surface  
F Fabric

THE MEDIEVAL POTTERY

All the medieval pottery from the site with the exception of that from pit 1 was weighed and the results are expressed proportionally in table 1.

The only stratified sequence was that from layers 14 to 11 and from the robber trench which is correlated with layer 12. This sequence shows a gradual reduction, probably during the first half of the 13th century of the RBSG sandy and ER wares (which together account for nearly 50% of the medieval pottery from the site) and their replacement by the oxidised, sandy wares and associated slipped jugs characteristic of the later 13th and early 14th century. However, the variability of both the ER and the RBSG wares, both in surface colour and temper, has been noted by Turner (1974a) and the proportions of each ware as shown here must be viewed with caution. Undoubtedly the products of more than one source are present, particularly in the red/brown wares and further work needs to be done to isolate individual fabrics.

Layers 13 and 14 accounted for most of the few coarse shell-tempered sherds found (with the exception of those from pit 1) and it is clear that this fabric was being superseded by the sandy wares at the commencement of occupation on the site.

The grey and black-surfaced grey wares occur throughout in modest quantities and in similar proportions. White wares of all types are, by contrast, virtually absent from all stratified layers but account for just over 12% of the unstratified material. Those few tiny sherds in layers 12 and 13 may be regarded as intrusive.

The illustrated, stratified pottery is listed below. The remainder of the medieval material illustrated here comes from disturbed contexts in layers 23 or 6, or from later features and layers.

<u>Layer 11</u>	91, 99, 101, 114, 150, 152, 161, 175, 222, 224, 231.
<u>Layer 12</u>	49, 51, 78, 80, 83, 125, 189, 192, 214, 216, 225, 228, 230.
<u>Layer 13</u>	56, 58, 62, 63, 68, 75, 82, 85, 87, 88, 89, 98, 103, 104, 105, 115, 117, 120, 131, 132, 137, 191, 192, 212, 214.
<u>Layer 14</u>	69, 79.
<u>Layer 29</u>	61, 81, 106, 165, 166.
<u>Feature 19</u>	100, 118, 121, 135, 139, 143, 153, 154, 167, 181, 182, 183, 229.
<u>Pit 3</u>	113, 140, 141, 146, 156, 174, 176
<u>Flint Kiln Platform</u>	151, 168.

The pottery groups from pit 1 and from the robber trench are dealt with separately below.



Pottery Group from pit 1 (figs 5, 6: 1-27)

1. Jug. Unglazed, red-brown O and IS, grey core. Hard sandy F with large round grits visible on surface. Flaring neck and flat-topped thickened rim with simple pinched lip and sagging base. Height  $\leq$  270mm. The strap handle has five pairs of finger impressions with a central row of four deep slashes applied with a knife. Base of handle inserted through body of jug while still on wheel as internal scar shows turning marks. Four deep finger scoops in outer base of handle before handle was bent over and inserted through neck. Two deep stabs in neck at junction. Decoration consists of sporadic bands of simple 3- or 4- square rouletting carried out before application of handle. Ornament partly obscured by smoothing over of join.

2. Jug. Two base fragments. Similar F to 1.

3. Jug. Complete neck. Handle and lip both missing. RBSG ware. Poorly applied olive/brown glaze in patches on OS and on rim and inside neck. Probable rod handle stabbed from either side of junction, also from inside neck. Decoration of 2 rows of shallow wavy lines made with 3-toothed comb. Single line on rim.

The tall rilled neck and flaring rim are very similar to a vessel from a well in Blossom Inn Yard, London (information from the late G C Dunning).

4. Jug. Two base fragments. Finer F than 1 or 2. Light grey IS, pink/buff OS with fine wavy lines probably applied with a bristle.

5. Cooking pot. 7 joining sherds. Coarse sandy grey reduced F. Brownish I and OS, much burnt and sooted. Patches of shell temper on OS and on upper half of IS. Shell not visible in section.

6. Cooking pot. Similar shape to 5, though somewhat thinner. Depth uncertain. Pink/grey I and OS, with surface dusting of shell, sparser than on 5. 38 sherds.
7. Cooking pot. Smooth, orange/buff I and OS. Light grey F with medium sand temper. Everted rim finely moulded. Slight internal bead. 12 sherds.
8. Large cooking pot. F as 7. Finger impressions on rim.
9. Cooking pot. Heavily gritted shelly F. Shell visible in section. F otherwise similar to RBSG.
10. Cooking pot. Orange/buff I and OS. Grey sandy ware. Shallow depressions on rim probably formed with flat blunt-ended instrument.
11. Cooking pot. Rim and shoulder sherds. Pie-crust rim. Diagonal bold scratch-marking ending in abrupt line below the neck. An unusual feature is a change of direction on the shoulder resulting in two different profiles. It has been suggested by G C Dunning that this may represent the upper junction of a handle. A two-handled cooking pot with everted rim is known from Lancing, Sussex (Lewis 1960, fig 6:8). This differs from the 'cauldron' type cooking pot (eg no 47) in that the handle is attached entirely to the body rather than to the rim and body.
12. Small cooking pot. Grey F with grey/buff I and OS. Medium sand temper. Flanged rim with regular finger impressions. 27 sherds.
13. Small cooking pot. Gritty black F. Brownish tinge on surface. The rilled rim is unusual.
14. Small cooking pot. Buff surfaced soft grey F with medium grit and pock-marked surface from which shell has presumably leached out.

15. Small cooking pot or jar. Gritty grey F. Brown I and OS with patches of shell. Heavily burnt.
16. Cooking pot or jar. Heavily fired gritty bright orange F. Facets around rim probably made with knife.
17. Storage jar. Sherds with abraded interior. Thick heavily gritted orange F and grey core. Heavily thumbbed strip and shallow slashes.
- 18 - 19. Rims of storage jars? Shelly sandy F. Buff I and OS.
20. Cooking pot. Shelly grey sandy F with brownish surfaces.
21. Rim with finger impressions. Grey sandy F. Bright orange I and OS.
- 22 - 5. Sandy grey F. Brown surfaces, 23 with shell.
26. Buff surfaced grey F with dark grits. ?Storage jar.
27. Heavily fired F similar to 16. ?Storage jar.

Robber Trench Group (figs 6, 7: 28-47)

28. Jug. Hard grey/brown-surfaced orange F. Thin grey core. Patchy transparent green glaze. F very similar to 47.
29. Jug. Sandy orange F. Grey core. Thick cream slip, dark green glaze. Stabbed handle.
30. Jug. Hard grey sandy F with darker surfaces. Heavily-thumbed with sporadic stabbings. Fabric and decoration are typical of the Wild Hill kiln in Hertfordshire, and both G C Dunning and D F Renn have suggested Hertfordshire as the source of this jug.
31. Jug. Bright green glaze. Cream slip with wavy sgraffito line. Orange surfaced grey F.
32. Jug. Bottom handle junction. Orange /buff-surfaced grey F. Strap handle with shallow finger impressions and stabbing.
33. Jug. Similar fabric and glaze to 31. Looped sgraffito lines. Horizontal band.
34. Jug. Soft orange F. Patchy transparent glaze.
35. Jug. Orange surfaced grey F. Traces of transparent green glaze.
36. Jug. Green glazed cream slip. Slip extends down interior. Orange surfaced, grey F.
37. Jug. Buff-surfaced grey ware. Thick orange glaze. Series of herring-bone impressions possibly made with the end of a small bone.
38. Jug. Stabbed handle. Red F with some large grits. Transparent orange/green glaze.

39. Cooking pot. Finger-impressed strip. Hard sandy light grey F.
40. Cooking pot. Hard sandy light grey F. Rim form is typical of BSG to which it may be related.
41. Cooking pot. F similar to 40.
42. Cooking pot. Heavily-fired. Grey core, bright orange/brown surfaces. Large black grit visible in section. Similar to 15 and 27.
43. ?Lid. BSG.
44. ?Jug base. BSG. Angle uncertain.
45. ?Jug. Orange-surfaced hard grey F. Bands of rouletting. Probably residual.
46. Cooking pot. Crudely applied vertical strip. Hard grey F. Thick red OS and buff IS. Large (11mm) fossil embedded.
47. Cooking pot or cauldron. Large fragments. This form is common in the London area. Shape is intended to imitate a metal cauldron. Sandy orange F with grey/buff I and OS. This could well be an Earlswood product. Glaze within base has probably derived from a superimposed vessel while in the kiln. Scars from such a vessel are visible on the rim. The vertical strips may have been intended to represent mould-marks on the metal original. This pot may have had tripod legs. Similar cauldrons are known from a number of local sites, eg Court Lodge Farm, Horley (information from G P Moss), the manorial site at Alsted, Netherne (Ketteringham 1976, fig 26: 80, 86), an unpublished site at Clifton's Lane, Reigate, as well as at the Bushfield Shaw kiln (Turner 1974b). They are also known from sites in London and Essex.

Early Reduced Wares (figs 7, 8: 48-67)

48. Cooking pot. Hard grey F. Medium temper, smooth light-brown I and OS. Similar F and well moulded rim to nos 7 and 8.
49. Cooking pot. Pie-crust rim. Hard dark grey sandy F with buff I and OS. (Layer 12).
50. Cooking pot. Coarse gritty grey F with buff I and OS, possibly with some light shell tempering.
51. Shallow bowl. Hard grey sandy F with reddish-brown OS. A number of similar rims were found on the site, eg nos 110 and 111. (Layer 12).
52. Small cooking pot. Outer edge of rim rolled over. Similar F to nos 48 and 56.
53. Cooking pot. Hard brown-surfaced grey F. Light dusting of surface shell.
54. Cooking pot. Hard fine grey F with dark brown I and OS.
55. Cooking pot. Roughly-applied thumbing along rim. Hard, poorly moulded, heavily gritted grey F. Orange /buff I and OS.
56. Cooking pot. F very similar to nos 48, 52 etc. (Layer 13).
57. Small cooking pot or bowl. Lightly thumb rim. Hard grey F. Brownish I and OS.
58. Dish. Shallow sagging base and poorly moulded rim. Hard coarse grey F. Dark brown I and OS. (Layer 13).
59. Jug. Crude handle with finger impressions on one edge and semi pie-crusting on the other. Sporadic knife slashes between. Hard fine grey with buff/black surfaces.



60. Cooking pot. Cabled decoration around rolled-over rim. Hard gritty grey F. Reddish-brown I & OS.
61. Cooking pot or bowl. Similar F to 60. Series of impressions around rim made with oval-headed blunt instrument. (Layer 29).
62. ?Pipkin or skillet. Roughly made, heavily-fingered, gritty grey F with red-brown IS and black OS. Flecks of shell. The left-hand sherd has a roughly pulled lip. (Layer 13 and unstratified).
63. Cooking pot. Rolled-over rim of uncertain diameter and angle. Hard brown-surfaced grey F. (Layer 13).
64. Cooking pot. Rounded rim with pronounced inner bead. Red/brown surfaced, gritty grey F with shell flecks.
65. Cooking pot. Pronounced turning marks. Similar F to 48 & 64.
66. ?Jar. Reddish-brown surfaced gritty grey F. Incurving rims of this type are known from the deserted medieval village of Hangleton, Sussex (Holden 1963, fig 23: 187-8).
67. ?Pipkin. Rim and lip. Hard, buff-surfaced, grey F. Reddish grits. Splashes of yellow glaze inside.



Shell tempered ware (fig 8: 68-80)

68. Cooking pot. Coarse heavily-filled grey F. Pinkish-brown surfaces. Slight bead. (Layer 13).

69. Cooking pot. Similar F to 68 but with lighter grey core. (Layer 14).

70. Cooking pot. Similar F to 68-9. These three rim shapes are broadly similar to the Phase A pottery from Eynsford Castle (Rigold 1971, fig 15), for which a date in the first half of the 13th century was proposed.

71. Cooking pot. Hard grey F. Red/brown I and OS. Medium sand temper with light shell on surface.

72. Cooking pot. Similar to 71 but with less shell.

73. Cooking pot. Hard fine sandy-grey F. Dark brown I and OS with light shell.

74. Cooking pot. Hard gritty grey F. Orange/brown I and OS. Moderate shell visible in section and on surfaces.

75. Cooking pot. Hard orange/buff gritty grey F. Sparse shell also visible in section. Widely-spaced finger impressions within rim. (Layer 13).

76. Cooking pot. Finger-pressed rim with rolled-over internal bead. Hard dark brown-surfaced grey F. Sparse surface shell.

77. Cooking pot. Shape and F similar to 73 but with more shell.

78. Cooking pot. Hard sandy partially oxidised F with bright orange/buff I and OS. Patches of surface shell. (Layer 12).

79. Cooking pot. Simple rolled-over rim. F similar to 78.  
(Layer 14).

80. Cooking pot. Beaded rim. Hard bright orange-brown  
surfaced dark-grey F. Heavily-gritted. Patchy surface shell.  
(Layer 12).

Red/Brown surfaced Sandy Grey ware (RBSG) (figs 6, 7: 32, 37, 45-6, figs 8,9:81-111, figs 11, 12: 172, 177, 182-92)

81. Jug. Finely-tempered red-brown F. Similar F and bubbly olive glaze to 3. Warped rim and applied strip decoration. (Layer 29).

82. Jug. Similar F and olive glaze to 3 & 81. The decoration consists of, originally, at least three face-masks, simple pads pressed to shape. Eyes and nostrils made with knife point. Such masks, previously unknown from Surrey, are common in the Oxford area where they are considered to be influenced by similar faces on imported French jugs. Hinton (1973) suggests a late 13th century date for this decoration. Similar masks are also known on a jug from Pevensey (G C Dunning, pers comm). (Layer 13).

83. Jug. Bright orange sandy F. Grey core. Patches of clear glaze. (Layer 12).

84. Jug. F and flaring neck are both very similar to 1. Incised wavy decoration along rim.

85. Jug. Two sherds, probably from the same vessel. Insufficient remains to reconstruct the profile with accuracy. Thick-walled, sandy F. Brownish core. Bright orange/brown I and OS. Wavy decoration probably made with a 4-toothed comb. (Layer 13 and unstratified).

86. Jug. Handle. Dull, brownish surfaces and grey core. Poorly applied patchy olive glaze. Strap handle thumbbed along edges and stabbed in centre. Junction stabbed twice from inside. Uncertain diameter.

87. Jug. Handle fragment. Bright orange F. Grey core. (Layer 13).

88. Jug. Bottom handle junction. Grey core. Bright orange surfaces with abrupt change between the two. (Layer 13).

89. Jug. Upper body sherd. Orange-surfaced grey F. Bubbly olive-brown glaze. Diagonal 5-toothed comb decoration beneath horizontal groove. (Layer 13).

90. Jug. Upper body sherd. Similar to 89 but greener glaze. Erratic stabbing decoration by a blunt instrument, forming rough diagonal lines.

91. Jug. Upper body sherd. Bubbly orange-green glaze. Zig-zag decoration, probably made with the tip of a comb or small bone on wet clay. (Layer 11).

92. Jug. Upper body sherd. Unglazed soft red-brown F with some large grits. Decoration consists of a band of stabs made with a square-toothed instrument; from an instrument with 3 triangular teeth; a wavy line probably made with a fine bristle.

93. Jug. Unglazed red-brown F similar to 92. Square notch rouletting.

94 - 5. Jug. Two sherds, probably from the same vessel. The fabric of both sherds is a finely-tempered grey, sandy ware with orange surfaces and a pimply olive glaze. The first sherd appears to depict the legs of a human figure represented by simple applied strips with a pellet to the figure's right and possibly part of a combed line to its left. The lower part of the torso is missing. The other sherd shows the tail and clawed rear legs of a feline. A close parallel to these sherds is provided by the decoration on a jug found in the City of London (Dunning 1971). On this jug are three figures as well as a dog and snake. Dunning suggests that one of the figures and the two animals represent members of a troupe of performers, whilst the male and female figures may represent a scene from a brothel. The simple strip figures on the London jug are very similar to those on the Reigate sherds although it is not possible to suggest what scene these may have represented. The description given of the fabric and glaze of the London jug is very similar. Dunning suggests an origin in Surrey and a date around 1250 for the London jug.

96. Cooking pot. Pie-crusted rim. Hard finely-tempered grey F with orange surfaces.
97. Cooking pot. Pie-crusted rim. Hard grey F shading to orange-brown surfaces. Rolled internal bead.
98. Cooking pot. Orange-brown surfaced grey F. The rim form is similar to others from the town (eg Turner 1974a, 89, fig 5: 7 with a more downturned rim). (Layer 13).
99. Cooking pot. Short-necked. Sandy grey F shading to a consistent orange-brown surface. (Layer 11).
100. Cooking pot. Hard orange-brown surfaced grey F with a little shell (Feature 19).
101. Cooking pot. Fine grey ware, but with some large grits. Smooth bright yellow-buff I & OS. (Layer 11).
102. Bowl. The shape is not paralleled amongst other rims from the site, and may be later than the majority of the RBSG wares shown here. Sandy grey F with orange-brown I and OS.
103. Cooking pot. Orange surfaced hard grey F. Splashes of clear glaze inside rim. (Layer 13).
104. Cooking pot. Similar to 103. A cylindrical fossil is embedded within. (Layer 13).
105. Cooking pot. Hard, buff-surfaced grey F. (Layer 13).
106. Cooking pot. Hard pink/buff-surfaced fine grey F. Inner bead. (Layer 29).
107. Small cooking pot. Rolled rim with cabled decoration. Orange-buff I and OS merging into brownish core.
108. Small cooking pot. Rim with finger impressions along edge. Gritty orange-surfaced grey F. Blackened interior.

109. ?Cooking pot. Knife-trimmed facets on rim. Orange-buff surfaced, grey F.

110. Bowl. Applied strip beneath rim. Orange-buff surfaced, gritty grey F,

111. Bowl. This rim is common on the site with varying coloured surfaces. See eg 110, 51.

Nos 172, 177 and 182 - 92 are described below in numerical sequence.



Grey ware (figs 6, 7, 9, 10: 30, 39, 40-1, 112-20)

112. Jug. Gritty F with shiny blue-grey surfaces - probably overfired.

113. ?Jar. Dark grey I and OS. Gritty grey F. Sherd 96 in Prendergast (1974) provides a parallel from Limpsfield. (pit 3).

114. Cooking pot. Hard sandy grey F. (Layer 11).

115. Cooking pot. Similar to 114. (Layer 13).

116. Jug handle. Hard light grey ware. Probably Limpsfield.

117. Cooking pot. Pie-crust ed bifid rim. Hard finely-tempered F. Light grey OS and darker IS. (Layer 13). The bifid rim is normally associated with later white wares and is unusual in this context.

118. Cooking pot. Coarse, dark-surfaced gritty grey F. (Feature 19).

119. Cooking pot. Finely-tempered light grey F.

120. Cooking pot. Medium sand. (Layer 13).



Black-surfaced Grey wares (figs 7,10: 43-4, 121-45)

121 - 3. Jugs. Strap handles of similar form and fabric. All have a finely tempered grey F and darker surfaces. The F of 121 is browner with a distinctly darker grey surface and circular stabbing. (121: feature 19, others unstratified. Other similar fragments found).

124. Jug. Bottom handle junction. Central groove and herring-bone slashes. Hard smooth-surfaced grey ware with darker grey surface.

125. Jug. Rim and handle. Extremely coarse gritty grey F. Abraded black surfaces. Thumbled strap-handle with deep central groove between diagonal slashes. (Layer 12).

126. Jug. Rim and handle. Deep diagonal slashes. Pink/brown F shading to red near black surface.

127. Jug or Cooking pot. Scribed zig-zag line between shoulder grooves.

128 - 30. Jugs. Squared rims. Finely-tempered grey F with dark surfaces. The angular shapes are similar to some of the rims from the Watts Hill 1 site, Limpsfield (eg Prendergast 1974, fig 4: 3).

131. Cooking pot. (Layer 13).

132. Cooking pot. Grey F shading to pink/brown near dark grey surface. (Layer 13).

133. Cooking pot. Club-shaped rim with internal bevel. This shape is common to grey wares. Hard grey F with darker surfaces.

134. Cooking pot. Form similar to 132 but F finer with darker surfaces.

135. Cooking pot. Heavily-fired light grey sandy F. Dark grey I and OS. (Feature 19).

136. Cooking pot. Similar to 134.

137. Cooking pot. Red/brown core with black surfaces. (Layer 13).

138. Cooking pot. Sandy grey core shading to red near brown/grey surfaces.

139. Cooking pot. Grey core with light IS and darker OS. (Feature 19).

140. Cooking pot. Grey core shading to brown near surfaces which are black. Applied strip unusually placed just beneath overhang. (pit 3). To the naked eye, this sherd is similar, both in fabric and form to a sherd in the British Museum from the Manor of the More, Herts (Hurst 1959).

141. Large cooking pot. (pit 3).

142. Cooking pot. A variation on 133 and 136. Dark grey surfaces.

143. Cooking pot. Thin-walled grey F with dark-grey surfaces. (Feature 19).

144. Cooking pot. Grey F shading to red/brown beneath a thin black skin.

145. ?Cooking pot. Unusual simple out-turned rim. Grey ware with darker surface.

Cream-Slipped and Slip-Decorated Jugs (fig 6: 29, 31, 33, 36  
and figs 10, 11: 146-71, 173-5, 181

146. Green/brown glaze. Slip extends over IS. (pit 3).
147. Hard finely-tempered orange F. Smooth brown glaze with green speckles. Uneven application of slip gives a sgraffito effect beneath the glaze.
148. Unglazed, with overall slip. Red/brown surfaced grey F.
149. Patchy green glaze below rim. Similar F to 148.
150. Soft orange-brown surfaced grey F. Overall slip with smooth yellow/green glazed OS. (Layer 11).
151. Sherd from upper body. Sandy-orange F. Speckled thin green glaze. The slip has been partly removed from the raised surface corrugations resulting in a series of brown bands. A similar, conical jug is known from Banstead (information from S Nelson). (From the flint platform of the kiln).
152. Stabbed rod-handle. Patchy slip overall. Thin transparent green speckled glaze. Uncertain diameter. (Layer 11).
153. Upper body sherd. Vertical raised strip with triangular notch rouletting and wavy sgraffito line. Green glaze over slip. (Feature 19).
154. Concave body sherd. Deep fingernail stabs bordered by converging grooves. Dark green glaze. (Feature 19).
155. Dark green glaze. Straight and wavy sgraffito lines.
156. Fine pink/buff surfaced grey F. Speckled green glaze, fading towards base. Decoration with a six-toothed comb. (pit 3).
157. Grey core, bright pink surface and dark green glaze over slip. Wavy sgraffito lines.

158. Base with wide, lobed feet. The shape is typical of jugs produced at Earlswood. Pink/buff F with green glaze and slip fading out towards base.
159. Wide strap handle. Fine pink surfaced grey F. Patchy green glaze. Herring-bone indentations. Possibly also from Earlswood.
160. From Earlswood. Typical design consists of a wavy line between vertical single and double lines bordered with concentric circles. Dark brown/green glaze.
161. From Earlswood. Patchy green glaze. (Layer 11).
162. From Earlswood. Stamped rosette.
163. Applied, probably circular decoration with incised motif. Green/brown glaze.
164. ?From Earlswood. Stamped motifs.
165. From Earlswood. Two stamped concentric circles. (Layer 29).
166. ?From Earlswood. Stamped flower motif. (Layer 29).
167. There were many sherds of fine green-glazed jugs from the ditch (feature 19) in a uniform pink/brown fabric with a grey core of which a number seem to belong to the same vessel. It has not been possible to incorporate all of them into a single reconstruction. This illustration must be regarded as provisional.

The body of the jug appears to consist of a series of shallow pushed-out bosses bordered by grooves and a continuous band containing short stabs made with a six- or seven-toothed comb. Beneath this border appear a series of loops and a horizontal combed line. Sherds from the shoulder of the jug contain what appears to be the apex of one of the bosses.

The remains of a design made with a wide-toothed comb occur in the remaining boss.

A close parallel to this decoration is provided by an almost complete vessel from the site of the manor house of Hubert de Burgh at Banstead (Nelson 1974), in a context suggesting a date in the second half of the 13th century. The Banstead jug is decorated with similar freely-applied combed and wavy lines and has a large bridge spout. Stylistically an origin for these two jugs in the Earlswood area seems likely - possibly from a kiln pre-dating that known at Bushfield Shaw (Turner 1974b). (Feature 19).

168 - 9. Imitation Rouen jug. Sandy pink F shading to brown beneath slip. Yellow glaze gives an olive background to the pellets. (168 from flint platform of the kiln).

170. Imitation Rouen jug. Glaze gives a yellow/orange effect.

171. Imitation Rouen jug. The rouletted strip and pellets are covered with a very high quality, glassy, yellow glaze. A high quality vessel, closely imitating contemporary French jugs. Fine sandy-orange F.

172. (RBSG ware). Light sandy grey F. Applied pellets and dark green glaze.

173. Pink/buff F. Slipped band beneath rim with wavy sgraffito line. Brown/yellow glaze showing as olive-brown on the unslipped body. Possibly from Earlswood.

174. Similar F to 173. Two bands of slip on neck. A similar jug is known from Alsted (Ketteringham 1976, fig 27: 96). An Earlswood origin is likely. (pit 3).

175. Grey core shading to pink near darker grey surfaces. Bands of slip, the upper has a wavy sgraffito line. Thin, yellow-brown glaze giving a dark glossy surface on the unslipped body - shown here as black. Probably also from Earlswood. (Layer 11).



176. Sandy red F. Patchy transparent glaze. Indications of handle. (pit 3).

177. (RBSG ware). Very fine grey F. Pink OS and light grey IS. Olive green glaze. The pink surface and glaze occur on the break where the upper part of the handle has been detached. The jug is therefore a usable "second".

178. Soft fine orange F. Grey core. Spots of green glaze.

179. Fluted, stabbed handle. Orange F. Patchy clear glaze.

180. Wide, grooved strap handle. Brown-surfaced red F. Grey core. Shiny brown glaze.

181. Strap handle with thumbled edges. Thumbled central strip with deep stabs. Sandy-orange F with traces of cream slip. (Feature 19).

#### RBSG Ware

182. Dull fine sandy grey F. Pink/buff OS and reddish-brown IS. Distinctive olive glaze with numerous dark pits. Ridged strap handle with central ribs, one bordered by herring-bone slashes, the other with stabs. A handle with similar glaze and F was found at Court Lodge Farm, Horley. This had a plaited decoration. (Information from G P Moss). (Feature 19).

183. Sandy-pink F with grey core. Patchy transparent glaze. Similar F and glaze to 83, and shape to 192. (Feature 19).

184. Pink-surfaced grey F with transparent olive glaze. Stabs both on and below rim.

185. Hard, fine, light pinkish-grey, sandy F with darker brown OS. The olive glaze is similar to that on 182. A number of similar sherds were found with raised ribs.

186. Similar F and glaze to 185. Orange surfaces.

187. F and glaze as 185.

188. Similar F and glaze to 182. Raised wavy band.

189. Rod handle. Fine grey F. Orange OS and grey IS. Bubbly olive glaze with traces of underlying slip pattern. (Layer 12).

190. Hard grey F. Pink OS and brown IS with olive brown glaze. The sherd is decorated with raised ribs similar to 185, with oblique stabs and rows of pellets between. A similarly decorated sherd is also known from Church Street, Reigate (Turner 1970, fig 3: 16). The Church Street sherd has larger pellets and stabs than this one, and bears the same uneven treatment of the interior as a number of similar sherds noted below.

191. Hard fine grey F. Red/brown OS and bright pink IS with rough treatment on OS. Fine decoration with 10-toothed comb. A number of similar sherds were found. (Layer 13).

192. Distinctive hard fine grey F with bright orange O and IS. Uneven finger treatment on IS as noted on 190 - 1. There are at least eight fragments with patchy olive glaze. Combed design and comb stabs on rim and neck. Tentative reconstruction. (Sherds mostly from layers 12 and 13).



Surrey White Wares (fig 12: 193-207)

193. Jug. Light pink/grey F with buff surfaces. Similar to 194.
194. Jug. Buff surfaces and grey core. Numerous brown grits. Patch of olive glaze on neck.
195. Jug. Buff-surfaced sandy F. Probably Cheam.
196. Jug. Buff-surfaced fine sandy F. Patch of mottled-green glaze. Probably Cheam.
197. Lid. Buff-surfaced sandy F. Patch of yellow glaze.
198. Jug. Off-white coarse sandy ware. Sparse speckled green glaze.
199. Jug or small cup, or lid knob? Buff sandy F.
200. Jug. Buff surface with dark grey core. Patchy green glaze beneath base. Widely-spaced finger impressions and grooves.
201. Bowl or cooking pot. Fine grey/buff F. Patchy yellow/green glaze.
202. Cooking pot. Buff-surfaced sandy F. OS burnt dark grey, IS glazed yellow with green spots.
203. Bowl or cooking pot. Off-white coarse sandy F. Abraded.
204. Cooking pot. Off-white sandy F. Pink/brown grits.
205. Cooking pot. Buff-surfaced fine sandy F with pink core.
206. Cooking pot. Buff-surfaced coarse sandy F with pink core and flaking green glaze.
207. Bowl. Buff-surfaced medium sandy F.

Other Wares (figs 12, 13: 208-31)

208. Cooking pot or storage jar. Very hard sandy grey F toning to orange near grey surfaces. Finger tip impressions around rim. Form unusual in East Surrey.
209. Cooking pot. Smooth grey F with oxidised surfaces.
210. Cooking pot. Soft pink-surfaced gritty grey F with light brown surfaces.
211. (not used).
212. Jar. Hard dark grey F with light brown surfaces. (Layer 13).
213. Cooking pot or jar. Similar to 212.
214. Cooking pot. Sandy orange F. Probably from Earlswood. (Joining sherds from layers 12 and 13).
215. Cooking pot. Hard finely-tempered dark grey F with dark brown surfaces. Light finger impressions around rim.
216. Cooking pot. Soft orange sandy F. (Layer 12).
217. Cooking pot. Overfired grey F with shiny red surface.
218. Cooking pot or bowl. Soft pink F with patchy green glaze. Possibly post-medieval.
219. Bowl. Fine red F. Probably post-medieval.
220. ?Jar. Similar F to 217. Patchy green glaze inside.
221. Jug. Upper body sherd. Hard orange sandy F with painted white slip decoration under patchy green glaze.

222. Jug. Body sherd of hard fused grey F with no temper visible. The surface, which has painted white slip decoration, is orange with a streaky effect on the interior. A few sherds of similar F were noted from the site. (Layer 11).

223. Pipkin handle. Sandy orange F much burnt. Cream slip and green glaze on IS of pot.

224. Pipkin or skillet handle. Gritty pink-surfaced grey F. (Layer 11).

225. ?part of a handle. Sandy orange F. (Layer 12).

226. Lid. Smooth orange-surfaced buff F. Thick olive/brown glaze over upper surfaces.

227. ?Jug. Smooth orange-pink F with few inclusions. Possibly post-medieval.

228. Cauldron. Sandy orange F. Thumbled strip as 47. (Layer 12).

229 - 30. Cauldrons. Handle fragments. Grey/brown surfaced orange sandy F. (Feature 19 and layer 12).

231. Pink/grey sandy F. Splashes of purple glaze. G C Dunning commented: "This appears to be part of a longer strip with deep thumb marks along the front and keyed at the back to a flat surface, almost straight. The slash-marks on the glazed top evidently continued across the join. I am unable to accept this as from a chimney-pot, nor does it match up with other roof furniture. Could it be a ledge-handle from a large vessel like a pan? - but this is only guessing". (Layer 11).

THE POST MEDIEVAL POTTERY AND GLASS

16th Century group from layer 20 (fig 13 , 232-44).

Coarse Red Wares

232. Rim and handle from, presumably, two-handled deep bowl in even brick-red coarse sandy fabric with sharply-moulded rim. Red glaze mostly flaked off from surfaces. SN.

233. Rim of bowl with cordon round shoulder, in smooth sandy red fabric. SN.

234. Base of bowl in similar fabric and glaze, possibly from the same vessel.

235 - 8. Small sherds from rims of differing vessels but in fabric and glaze as before. SN.

240. Body sherd from jug in hard sandy, dark fabric with dark outer surface patches where covered with thick purple-green glaze. SN.

242. Base of bowl. Even brick-red smooth sandy fabric with red/brown glaze over inner surface. SN.

(Not illustrated) Two sherds from lower part of chafing-dish in even smooth light red fabric with speckled light olive-green glaze over inner surface of bowl portion only. Small fragment of knife-trimmed foot is probably from the same vessel.

Smooth White Ware

241. Two sherds from pipkin in smooth white fabric with a pinky tinge. Glazed yellow on inner surface; an indication of slight ribbing occurs on outer surface. One foot remains. SN.

Imported North French Flask

239. Four joining sherds forming part of side of nearly globular flask in hard fine pinky-buff fabric. One side slightly flattened and knife-trimmed.

Imported German Stoneware

243 - 4. Fragments of straight-necked, globular drinking mugs. Light grey stoneware with glossy bronze-coloured outer glazing, only slightly speckled on 243. SN.

Post-medieval wares from other levels

245. Large jar. Smooth even grey/buff F. Traces of glaze round rim and white painted lines round body. Glaze and F would suggest a late-medieval date, but the form is unusual in Surrey and its origin is perhaps to the south in Sussex. SN.

246, 248 - 9. Sherds of more typical Surrey wares; 246, fragment from shoulder of large jug or cistern - an example of a cistern with single, smeared lines is on display in Guildford Museum (Holling 1964, fig 5: 8); 248, rim from a large vessel; 249, lid. SN.

256 - 7. Two deep bowls or plates in later Surrey white ware, green glazed. The large size, rolled bead rim and dribble of brown glaze on the OS of 257 indicate a 17th century date. See especially pottery from Minley Road, Cove, Hants (Haslam 1975). SN.

The rest of the illustrations (247, 250 - 5) represent various post-medieval red wares. 247, an open bowl with patchy, yellow/green glaze on IS. 250, a chafing dish in brick red F with heavy white slip showing deep yellow under glazed areas. The ware is well-known from London sites, especially Guy's Hospital, and Kingston (Nelson 1981), and similar examples - but not entirely typical - were products of the later red ware kiln excavated at Cheam in 1968 (Orton 1982). This vessel is particularly well-made with its knife-cut, faceted, pedestal base imitating metal forms.



251, plain, red-glazed chafing dish with squared knobs. 252, chafing dish in dark red, sandy F with white slip and glazed on I and OS. A wavy sgraffito line runs round rim and bowl is pierced by holes. 253, dripping pan, knife-trimmed, red/green glaze, the fire-blackened outer edge being the opposite side to the handle. 254, pipkin, purple glaze. 255, simple bowl, plain red glaze; this may date to the 17th century whereas the remainder date in general to the early or mid 16th century. SN.

258. Sherd from knife-trimmed base of large plate in smooth even orange/red F, light brown glaze with remains of slip-trailed decoration (flaked off) showing '16' and edge of curvilinear pattern. The glaze and F would suggest a 17th century date but if the figures are to be interpreted as the end of a date, ?..16, flanking a central design, there is a problem. Dated slipwares in south east England are known from the Harlow and 'Metropolitan' types and Wrotham in Kent. 'Metropolitan' dates range from 1635-65 (Newton & Bibbings 1959) and Wrotham 1612-1739 (Ashdown 1968). It has been suggested that pottery production continues at Harlow into the 18th century as do other slipware centres in England.

Certain characteristics of Dutch slipwares, where dated examples are known from the late 16th century, are exhibited, eg in the form of the figures (Hurst & Neal 1975) but on the whole the sherd would appear to be English. The curving slip pattern may just be the edge of the well known trident motif noted on both 'Metropolitan' and the Potterspury, Northants products (Mayes 1968), and a date - if that is what is in evidence - of 1716 would seem more appropriate. SN.

259. Body sherd from globular tankard. Pale grey F, finely-made with 'Lotus' pattern applied as plaques. Cobalt blue exterior. Westerwald, late 17th/early 18th century. Not exactly paralleled in von Bock 1976. GC.

260. Medallion and neck of bellarmine bottle. Light grey F, mid-brown speckled saltglaze OS, pale grey IS. Rod handle,

mask missing, traces of orange/brown slip inside neck. German, mid 17th century. (Shaft, feature 12 and layer 6A). GC.

261. Bellarmine bottle, string-cut base. Steel grey F, speckled brown glaze. Rod handle, brown slip inside neck. The mask is similar to products of Frechen. c 1600. cf no 328 in von Bock 1976. Separate sherd may be identical to missing lower part of medallion. (Shaft, feature 12 and layer 6A). GC.

262. Upper half of crowned Bellarmine mask. Dark grey F, thickly-covered in iron-rich slip. From a large vessel, a jug rather than a bottle. 16th century. GC.

263. Medallion enclosing head with fragment of Bellarmine mask. This is from a jug with mask and almost certainly bearing a central band inscription as in 264. Very similar medallions occur in the Rhineland in the mid 16th century. See no 316 in von Bock 1976. GC.

264. Part of central band carrying a portion of an inscription which can be read as "DES:H", probably part of "DES HEREN WART BLEIFT IN EWICKEIT" or "DES HEREN WART BLEINKEIT". The former inscription is known from Cologne in the second quarter of the 16th century. The F suggests a Cologne rather than Frechen origin. See nos 284 & 319 in von Bock 1976. GC.

Group from Pit Feature 15 (figs 14, 15: 265-77)

265. Red ware with speckled clear glaze.

266. Hard grey/red ware. Unglazed.

267. Hard red ware, unglazed. Horizontal loop handle probably associated.

268. Grey-surfaced red ware with glaze within probable matching base.

269. Chamber-pot. Red ware with purply glaze mostly on IS. Dark surfaces.



270. Glass wine bottle.

271. Flask-shaped glass wine bottle. (Two examples found, front and side views of one figured). Narrow, wanded neck and very thin walls. This is a French bottle imported in a wicker-work cover (Hume 1961, fig 5: 25). The type is quite common in the first half of the 18th century and is to be seen on contemporary prints particularly those of Hogarth, cf 'Midnight Modern Conversation' (1733), 'Charity in the Cellar' (c 1740) SN.

272 - 4. 'Metropolitan' type slipwares.

275. Tea cup. Staffordshire white stoneware.

276. Delftware plate, type 1a. One rim to base (3 joining sherds). Decorated internally with blue circle and heart-shaped motif between four outward splaying lines (?schematic flower) on both flange and base with two blue lines on basal angle. For similar motif dated to 1720-30 see Garner & Archer 1972, pl 67B. GD, BB.

277. Delftware plates, type 2. One complete example and six sherds, three joining, from one or more almost identical plates. Decorated internally with stylized shield with flower sprays and leaves around in red. Red scrolls on basal angle between blue lines. Red diaper pattern between a double and a single blue line on edge of flange. Obviously two or more plates from a set represented. Patterns drawn by hand but almost (though not quite) identical. Probably therefore made to order and not likely to be closely paralleled. Ray (1968, pl 12 - 14) illustrates eight plates with armorial decoration, some with flowers or floral patterns around them. Seven of these are plates type 2 and he dates all these 1747-60, though his other example is dated to 1697. Various motifs used (eg diaper pattern, this form of scroll, half-filled leaves and petals) are particularly common c 1730-50, which must be the sort of date that this set belongs to. At the moment, archaeological dates are about a decade earlier than art historical dates. GD, BB.

The group also contained the following, non-illustrated material: The type numbers are as those set out in Bloice 1971.

#### Delftware

Plates, type 1a. Base and body sherd, internal decoration of spreading blue lines.

Plate, untyped. Flat base sherd. Decorated internally with blue, brown and greenish-yellow. Motif not identifiable.

Dish, type 3? Side sherd. Lead-glazed externally. Internally decorated with two horizontal blue lines and intersecting arcs in brown and blue. Residual?

Dish, type 2? Base sherd with footring. Internally decorated with a blue motif, perhaps a fence with a clump of grass below.

Bowl, type 1. Sharply downturned rim sherd (cf Bloice 1971, no 49).

Bowl, type 2b? Two rim sherds, probably from the same vessel. Decorated externally with two horizontal blue lines immediately below rim. Below, wide vertical band with line beside and vertical leaf motifs with single stars and leaves in the field. Scar on rim. Also body sherd, which may be from the same vessel, with 'graduated' blue bar.

Bowls, untyped. Four body sherds all decorated externally in blue. One with schematic bees and leaves (cf Ray 1968, no 160). One with horizontal broad band with two lines below and one above. One with flower on stalk? One unidentifiable.

Domestic vessel. One body sherd, slight cordon visible on body.

Cauldron type container, type 2a2. One base and three joining body sherds, probably from the same vessel. Simple sharply everted rim and strongly kicked base (almost identical to Dawson 1974, no 21). GD, BB.

Other sherds of red earthenwares including: rim of a jug? with overall thick brown treacly glaze; plain green-glazed base with single perforation after firing; lip of small jug? with trailed-slip decoration beneath clear glaze. Also sherds of Staffordshire white salt-glazed stoneware - including part of rim and lip of jug; three sherds of Chinese imported porcelain; small glass fragments including part of base of a small bottle of pale green glass; clay pipes, three of George Thornton I of Dorking (working 1731-68) and eight with heart marks for which Higgin (1981) suggests a date range of 1760-90 (see report on clay pipes); and other intrusive and residual pipes and small sherds; a gun flint or strike-a-light (fig 17: 30) and animal bones (not retained).

#### Dating

Dawson and Bloice suggest that "the closest parallels for the group of Delftware from this pit are with the terminal deposits at Montague Close which are dated c 1730 and 1750. It seems to be later than the New Hibernia wharf group (Dawson 1974, 50-4)

since it lacks (apart from one small sherd) any Dishes of type 3. A date was suggested of c 1725-30 for that group (ibid, 54) which may be a little late. This would suggest a date of c 1730-50 which is a little earlier than it would be dated on art historical grounds".

The clay pipes (see report) suggest a date shortly after the middle of the century.

OTHER 17TH AND 18TH CENTURY POTTERY AND GLASS (figs 15, 16: 278-93)  
278. Delftware plate type 1a. Five sherds probably from the same plate. Sets of four dots and simple leaf design internally in blue. Probably 1700-1730. GD, BB. Layer 6B.

279. Delftware bowl, type 2a? Blue background with circles? in reserve with brown triads of semicircles. GD, BB.

280. Delftware bowl, untyped. Large part of body with everted or flanged rim (which would make it Bowl 1) but small size and body shape is like Bowl 2a.

Decorated in polychrome with bird on rock which is a common design copied from Chinese porcelain. Somewhat similar to Garner & Archer 1972, pl 55c (Lambeth 1700-10). Layer 6B. GD, BB.

281. Delftware dish, type 3. Four body sherds, all probably from the same vessel. Border pattern of Taoist symbols with unidentified central motifs. Tinglazed externally. Very glossy, perhaps leadglaze over tinglaze and possibly Dutch (this technique, *kwaart*, is regarded as Dutch but was used in England. See Dawson 1974, 55). Layer 6C. GD, BB.

282. Delftware dish, type 3a. Base sherd with footring which slopes up internally (cf Bloice 1971, no 20). Footring diameter 3". Internally divided into diamond shaped areas with double chevrons in blue and light brown. Lead glazed externally. Layer 6C. GD, BB.

283. Delftware dish, type 3a. Lead glazed externally. Internally decorated with two blue horizontal lines on rim with chevrons alternately blue and yellow in triangular areas outlined by blue lines. Rim diameter  $\leq$  13". Layer 6C. 281-3  $\leq$  1660-80. GD, BB.

284. Glass spa water bottle marked with the legend PYRMONT WATER surrounding the arms of Waldeck. The string rim applied with part of the same seal impression. Mid 18th century. For a discussion of these bottles see Hume 1969. Layer 6B.

285. Delftware cauldron type container, type 2b. Complete vessel. Rim diameter  $2\frac{1}{2}$ ". Base diameter  $1\frac{1}{2}$ ". Slightly everted rim. Glazed and kicked base. Layer 6B. GD, BB.

286 - 7. Shallow, single-handled red ware bowls with flecked glassy orange/brown glazes. Layer 6B.

288. Rim sherd of bowl, off-white fabric. "Scratch-blue" cobalt decoration of part of a floral motif. Salt-glazed, Staffordshire, 1740-80 but probably 1780s. Similar to Mountford 1971, fig 159. GC.

289. Bowl handle. Buff F. Metallic brown salt-glaze - although this copies a delftware tradition this is a later product. Probably a Nottingham or Chesterfield product. 18th century. Layer 6B. GC.

290. Tankard. Dark grey F. Thick smooth mid-brown saltglaze. Extruded strap handle, raised bands around base. Trivet kiln furniture scar on base. Probably Chesterfield 1740-80. Layer 6B. GC.

291. Base and part of side of tankard, pinky-buff F. Dark brown metallic glaze. Band of rouletted decoration around base. Nottingham 1730-40. Layer 6B. GC.

292. Rim and handle of tankard. Light grey F. Upper half dipped in iron rich slip, salt-glazed with lightly impressed and illegible excise stamp. This excise stamp must post-date the Act of 1700, but may continue in use until the repeal of the Act in 1876. (For a fuller discussion of the point see Bimson 1970). English c 1720-30. Layer 6B. GC.

293. Fragments of milk jug, pale buff F. Rich metallic brown saltglaze with bands of rouletted decoration. Probably Nottingham c 1760. Layer 6B. GC.



### THE ANIMAL BONES

by Geraldene Done

The bones submitted for examination, with the exception of the horse skeleton and where elsewhere noted, as far as could be judged, derived from medieval contexts.

The small collection of well-preserved, mainly fragmentary bone contains some noteworthy features. Virtually complete skeletons of an ox and a horse were found along with more fragmentary remains of these and the other domestic species: pig, sheep/goat, dog and domestic chicken. In addition ferret/polecat, fallow deer, goose, raven and a finch-size carpo-metacarpus were identified. A sieved sample from pit 1 produced fragments of amphibian bone, an eel vertebra and a second, unidentified, fish vertebra.

The distribution of fragments is summarised in table 4. The following minimum numbers were deduced:-

Horse 2; ox 5; sheep 7; pig 5; dog 2; goose 2; raven 1; ferret/polecat 2. Such measurements as were obtainable are set out in table 5 and give some indication of the type of animal present. The application of Keisewalter's (1888) factor to the horse metatarsal from pit 1 indicates a pony of about 13 hands 2 inches, ie similar in size to a New Forest pony. Calculation based on a horse femur also from pit 1 gives a size of 12 hands. However, the length of femur seems less reliable than other bones for assessing stature (Done 1977) and this second height is considered insufficient ground for postulating a second horse.

The cattle bones are very small by any standards. Withers heights of 104 cm were calculated from two metacarpals. The present-day Dexter is the nearest modern parallel in size, though it is not suggested that these animals were early examples of the breed. Pictorial evidence from the period confirms the size but shows cattle of varying conformation, colour, and horn characteristics. Considered as a draught animal or meat producer, the effectiveness of these beasts must



have been small. There is little evidence of age; two immature bones of less than 2-3 years, a jaw of about 3 years and a very old molar.

Meat-bearing long bones of cattle were conspicuously absent; most fragments belonged to head or distal sections of limbs. One metatarsal was heavily chopped.

### Sheep

The small amount of material consists, as with the cattle bones, mainly of parts of head and extremities.

The sheep bones are also small, being similar in size and type to those of the Soay. Sheep meat production could only have been a fringe benefit, attendant on other functions, the most important of which was probably to manure and fertilise land, milk and wool production being also of value. Evidence of age is again scarce and shows one newborn lamb and six sheep from about six months to about two years. An unusual order of eruption of molars was observed in 3 jaws. A maxilla and a mandible showed early replacement of the fourth premolar. In both cases the wear on this tooth was much greater than that shown by the third molar though normally PM4 does not arrive until M3 is erupted and in wear. In another mandible, M2 and M3 were replaced by permanent teeth while PM2 was to be seen lurking in the depths of its socket - a reversal of the standard procedure. Because the molars of the sheep are of little interest in fields outside zooarchaeology, hard data on some aspects of their development are lacking. It may be that anomalies of eruption are not uncommon.

The horn core noted in table 5 is possibly that of a ram. There is no specific evidence of goat.

### Pig

The pig, always a useful and important part of the meat supply, is represented here by young adults. The robber trench produced a mandibular fragment in which M1 and M2 show some

irregularity of wear. The opposing molars were not bearing accurately, possibly reflecting some shortening of the upper jaw either as a variation in conformation of the face or as a result of disease.

The number of pig bones recovered from this site is too small to be significant but makes the unexpectedly large deposit overlying feature 19 more noteworthy. Unfortunately this could not be dated with any accuracy. The deposit includes paired and articulating scapulae, humeri, radii and ulnae which, with mandible, rib and vertebral fragments suggest the disposal of a single pig (the remainder was left in the section). Two hind limb bones were also present. The pig in question is well grown - probably about one year old.

The remaining bones are more like carcase trimmings than culinary waste; the meaty parts of the carcasses appear to have been removed to be cooked and eaten, and their wastes disposed of elsewhere. There is accordingly little butchering evidence.

Signs of butchering on the bones of the food animals were few; vertebrae of both ox and sheep cut sagittally as when a carcase is split, heavy chops on the posterior surface of an ox radius, 2 chops on an ox metacarpal (not a 'meaty' bone therefore possibly something to do with skinning), cuts on rib fragments, and a sheep innominate bone with wing of ilium cut off perhaps in the process of detaching a hind quarter or leg of mutton.

Pit 1 yielded the skull of a large dog, complete except for some missing teeth, the right mandible and also an ulna probably from the same dog. From this a shoulder height of 54.6 cm was estimated (table 4). The pit contained remnants of a variety of food animals in addition to the horse and dog. The latter are not usually considered as meat sources and though no doubt they were eaten in times of need, there is nothing to indicate that in this case the horse or dog bones had been butchered.

### The Ferrets (pls 7-9)

Of particular interest were two mustelid mandibles, one adult and one about 7 weeks old, from layer 12. They are identified as either ferret or polecat, though it is not possible to determine which on mandibles alone. The presence of the young animal might indicate breeding in captivity, which would suggest the domestic ferret, and in the urban context polecat is less likely. Owen (1969) states that, although there is much documentary evidence for the use of the ferret for rabbiting and ratting, bones have been conspicuous by their absence from the archaeological record. These well-stratified jaws therefore make a useful contribution to the meagre evidence at present existing.

It is ironic that there is no trace of rat or rabbit among the animal remains from this site.

(Hooper 1945, 35, quotes a reference to ferrets at Reigate Castle in the reeves' accounts for 1300, DWW).

### Disease

One dental abnormality was noted - the last molar in a bovine maxilla with extreme overgrowth of its posterior cusp, indicating loss of the corresponding lower molar, or malapposition of the teeth. An ox metatarsal was considered to be somewhat deficient in cortical bone. This was confirmed by radiography and is probably to be ascribed to a low plane of nutrition. There were no other indications of disease though it is possible that the complete skeletons represent victims of illness leaving no trace in the bone. Both ox and horse died or were killed before reaching what would be considered their prime.

### The Horse burial (Feature 10)

The grave contained a dismembered horse skeleton, complete except for the entire right forelimb and all third phalanges.

Measurements are given below. The animal was about 7 years old, probably male (or gelded late) and about 13 hands in height, somewhat similar in size to the larger type of New Forest pony. There was no indication of the cause of death.

The absence of all four coffin bones may be of significance; as two sesamoids and a navicular were recovered it is unlikely the third phalanges would have been missed if they had been present. Possibly hoof was considered useful enough to be worth salvaging.

The dismemberment may be nothing more than a practical method of getting an awkward carcase into a restricted space. The missing forelimb is a matter for conjecture. It is easy to imagine a passing dog making off with it while the burial party was pre-occupied with its labours!

The horse bones were accompanied by six ox bones, a dog metatarsal and a chicken femur.

Table 2 - Horse Burial. Measurements in mm.

(Note on tables: Proximal and distal widths are greatest dimensions across articular surface at right angles to sagittal plane. Figures following them in brackets are greatest width across epiphysis including adjacent eminences. Glenoid cavity is measured in cranio-caudal and medio-lateral directions).

	Overall Length	Prox Width	Dist Width	Mid-shaft Width	Other
Scapula					Glenoid 53 x 43
Humerus	274	(87)	70		
Radius	297	72(79)	59 (70)	34	
Ulna	264				
Metacarpal	204	46	46	31	
1st Phalanx	79	51	≤ 39		
Innominate	390				

Femur	372		82(condyles) 50(trochlea)	Head Diam c 50
Tibia	330	91	52(70)	36
Os Calcis	100			
Astragalus	54			41
Metatarsal	250	49	45	28
1st Phalanx	76	52	40	

#### Ox Burial (Feature 14)

This is the virtually complete skeleton of a young ox, about 18 months old, with M3 erupted but unworn. Though the skull was badly damaged, (it was complete when found but disintegrated during washing) the rest of the skeleton was well-preserved; detailed measurements are given in table 3.

They are those of a small beast (possibly hornless as no fragment of horn core was found) similar in size to others from this site. There is no indication of the cause of death and no sign of butchering except on the right tibia which was broken by chopping. Both halves of the bone are present as is the rest of the right hind limb, so butchering was probably not the objective. While it is possible that the leg could have been damaged in the living animal, it is more likely to have been broken post-mortem to fit an unwieldy, stiffened carcass into its shallow grave.

The late-fusing epiphyses were all present though detached. The measurements given in table 3 are of the 're-assembled' bones.



Table 3 - Ox Burial. Measurements in mm.

	Overall Length	Prox Width	Dist Width	Mid-Shaft Width	Other
Scapula	<u>c</u> 285				Glenoid 51 x 41
Humerus	238		65		
Radius	242	65(72)	62	31	
Metacarpal	175	51	55	26	
Innominate	<u>c</u> 290				
Femur	303		83(condyles) 40(trochlea)	28	Head Diam <u>c</u> 41
Patella	53				
Tibia	295	83	50(55)		
Os Calcis	120				
Astragalus	63	38	39		
Metatarsal	205	44	51	22	
1st Phalanx(4)	53	27	26		
(4)	57	25	25		

Table 4 - Distribution of Fragments

Context	Horse	Ox <sup>①</sup>	Sheep/Goat	Pig <sup>④</sup>	Dog	Deer	Bird	Other Species
Pit 1	6	7	27	3	3	?1	4	(see below ③)
Layer 11	-	-	-	1	-	-	-	-
Layer 12								
& robber trench	-	10	25	11	-	1	2	2 ferret/ polecat
Layer 13	1	21	25	18	1	1	2	-
Layer 14	1	1	2	1	-	1	-	-
Layer 19	-	3	1	3	?1	-	-	-
Feature 19	-	4	6	-	-	-	-	-
Layer 29	-	5	3	2	-	-	1	-
Layer 23	1	28	26	6	-	?1	3	-
Horse Burial <sup>②</sup>		9	1	-	1	-	1	-



① & ② see above also.

③ The sieved sample from pit 1 contained the following:

Sheep	1 incisor
Pig	1 deciduous molar
Chicken-size	vertebra and claw bone
Finch-size	carpometacarpus

Also fragments of amphibian bones and fish bone including vertebrae - eel being the only species positively identified.

④ Also pig burial overlying F19.

Table 5 - Bone measurements in mm.

	Horse	Ox	Sheep/Goat	Pig	Dog
<hr/>					
<u>Horn core</u>					
(basal circumference)		148	125		
<u>Scapula</u>					
glenoid		① 48x38			
<u>Humerus</u>					
distal width		58	23, 25, 25, 26, 26		
<u>Radius</u>					
proximal width	68	60		24, 33	
distal width			25		
<u>Ulna</u>					
overall length					c 21
<u>Metacarpal</u>					
proximal width		45, 53, 49, -			
distal width		47, -, 55, 44			
overall length		170, -, 170, -			
<u>Femur</u>					
overall length	342				
<u>Tibia</u>					
distal width			22, 20	29	
<u>Metatarsal</u>					
proximal width	45	36, -			
distal width	46	-, 64			
overall length	254	-, -			
<u>First phalanx</u>					
proximal width	50	c 25, 22, 21			
distal width	40	22, 20, 20			
overall length	75	50, 47, 44	31, 31, 32, 33	36	

Second phalanx

proximal width	30
distal width	22
overall length	41

① antero-posterior, medio-lateral dimensions.

All widths are medio-lateral measurements of articular surfaces.

Table 6 - Measurements of dog skull from pit 1, after Harcourt (1974), in mm.

I	21
II	118
III	99
IV	110
X	53
XI	71
XII	41
XV	77
M <sub>1</sub>	23

Cephalic Index %	52
Snout Index %	47
Snout width Index %	41

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THE CLAY TOBACCO PIPES

by D Higgins

Pipes were recovered for all periods from c 1615-1880, the majority of the pipes dating from the 18th century, many of them marked.

The earliest marks are those of Lawrence Geale of Guildford who worked from 1689-1731. Three of his four types of stem stamp are represented as well as five examples of his moulded marks. This range would be consistent with a regular, and fairly substantial, supply of pipes throughout his working life to Reigate.

Only one example made by his apprentice Philip Street (working 1721-49) was found since the market seems to have been taken over by George Thornton I of Dorking (working 1731-68). He produced various plain bowls marked with his initials, sometimes crowned. Dorking continued as a supply centre since his son George Thornton II worked on until c 1823 producing the distinctive fluted designs so common in this area.

During the later 18th century however there is another maker who becomes even more important for Reigate. From c 1760-90 fine bowls with relief heart marks, sometimes accompanied by dots, are found. 29 examples were found on this site - more than twice the total number of Thornton pipes - and their general distribution suggests that Reigate may well have been their production centre.

The only other early 18th century mark is a WC? mark. It has been suggested that this is an incorrectly cut Wattleton mould, but such marks occur occasionally throughout the 18th century and it may well belong to another maker. Later 18th century marks include one WG? and three WB marks. The latter type is found scattered across Surrey, but this is the largest group to date.

From the 19th century an ID and two TJ marks remain unmatched, but an RC mark belongs to one of the Robert Corneys of Croydon who supplied almost all the mid 19th century pipes to Reigate.

Other 19th century pipes are rather fragmentary, but include pieces of fluted and other decorated pipes, including one with a vine motif which has been matched at Ewell.

Most of the pipes came from disturbed layers, but a few groups existed:-

3B This was a rubble layer, and contained material of early 19th century date. This included a late spur pipe (possibly part of a TG armorial) as well as fluted bowls one of which was made by Thornton of Dorking. A TJ mark indicates the 19th century date since before this an I was used instead of a J. Except for residual material these pipes fall within the range c 1790-1830.

6B Rubbish deposit representing a steady accumulation from c 1690-1820. The presence of two LG's, a plain GT, three hearts and two fluted GT's shows that all the major 18th century producers are represented, and between them form the steady progression of pipe supply outlined above.

6C Apart from an early 17th century bowl this is quite a closely dated group. It contains eight late spur types produced c 1660-1710, and a type 2 Geale stamp which is c 1700-15. Other late 17th century and early 18th century pipes combine to give the deposit an overall date of c 1660-1710.

Trench 3 Feature 15 This pit although containing some residual 17th century material and a probably 19th century ID mark is basically later 18th century in date. It contains eight heart marks, and three crowned GT marks. The association of these two suggests that regardless of whether the crowned marks are late George Thornton I, or early George Thornton II, they must be around 1760 in date - the earliest date of the heart marks.

Trench 3 Feature 25 This feature, possibly a soakaway, contained only three marked pieces - two fluted Thornton pipes of c 1780-1823, and a Philip Street pipe which must therefore be residual.

As a whole this demonstrates the importance of understanding the local industry when interpreting pipe groups. Although there are



always odd marks representing travel in the surrounding area there will usually be major supply sources at any one time. In the 18th century a few makers from Guildford, Dorking and probably Reigate supply most of the marked pipes. The interaction or omission of their marks can give important dating evidence for groups, and their origins show that strong east-west trading must have been taking place. This contrasts with the 19th century supply which came from Croydon, and then Kingston, perhaps due in part to the introduction of rail transport.

16 Bell Street, Clay Pipes

<u>Type</u>	<u>Number</u>	<u>Marks</u>
Layer 6b		
Type 19 (1690-1710)	1	
Type 25 (1700-1770)	1	GT
Type 25 (1700-31)	2	LG
Type 25 (1760-90)	3	Hearts
(1780-23)	2	GT Fluted
Layer 3		
Type 15 (1660-80)	1	(?1)
(1696-1715)	1	LGEAL
(c 1780-90)	1	T?O? Decorated
(1780-1823)	2	GT I Fluted
post 1780	1	TJ
post 1840	4	2 Fluted
Layer 6c		
Type 5 (1610-40)	1	
Type 15 (1660-80)	5	
Type 19 (1690-1710)	8	
(1700-15)	1	Type 2 LGEALE stamp
Type 25 (1700-70)	2	
Late 17th century fragments	4	
Pit Feature 15		
Type 25 (1760-90)	8	Hearts
Type 25 (1731-68)	3	GT Crowned
post 1780	1	ID
17th century fragments	2	
Soakaway Feature 25		
Type 25 (c 1721-49)	1	P?S
(c 1780-1823)	2	GT Fluted

<u>Type</u>	<u>Number</u>	<u>Marks</u>
Layer 6		
Type 15 (1660-1680)	5	
Type 19 (1690-1710)	3	
(1700-1713)	6	3 initialled, 2 stamped LG, 1 initialled and stamped.
(1700-1770)	1	WC?
post 1700	1	WG?
Type 25 ( <u>c</u> 1738-68)	2	GT crowned
Type 26 (1740-1800)	3	WB
" " "	1	WG
Type 25 (1760-1790)	16	Hearts
Type 27 (1780-1820)	2	GT
" " "	1	RC
" " "	1	IJ
post 1840	14	

plus 14, type unrecognisable.

Illustrations of the clay tobacco pipes from 16 Bell Street can be found in Higgins 1981 and for this reason are not repeated here.

In that paper's numbering, the pipes from 16 Bell Street will be found as follows:-

Pit Feature 15      figs 24:1, 5, 8, 26:2

Layer 6C            figs 21:8, 10; 22:2; 23:10

Layer 6A            figs 22:3; 24:3, 6

Layer 6B            figs 22:6; 23:17; 24:9, 11

Unstratified

pipes            figs 21:3, 9, 13; 22:4, 7; 23:7, 11, 12, 13, 16,  
24:2, 10; 25:1, 3; 26:3, 7, 8, 15