

## 6.1.2 Study of Structure 1

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The set of features and contexts known as Structure 1 in Sector 1 represents a large “bag-shaped” building, first encountered in 1994, fully defined by 1996 and excavated in full in the 2001, 2002 and 2003 seasons. The exposé of this structure will proceed as follows:

### 5.3.1 Naming the parts

The foundation trench

The hearth

The flue

The structural postholes:           The porch

  The West end

  The East end

Other features found inside the perimeter of F40

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Summary of the porch

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Summary of the East end

The finds from the postholes of Structure 1

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Porch F113 series (D570)

Porch F130 series (D586)

West end F114 (D298 and D557)

West end F117/F118 (D300)

West end F119 (D304)

West end F132 (D405)

West end F115 and F131 (D598)

West end F133 (D311)

West end F135 (D415)

West end F135 and F136 (D416)

West end F134 (D399)

West end F138 (D601)

West end F139 (D454)

East end F148 (D316)

East end F150 (D319)

East end F426 series (D412)

East end F429 series (D426)

East end F471 series (D467)

East end F47 series (D 191)

East end F409 series (D288)  
East end F52 (D259)  
East end F49 (D626)  
East end F409 (D290)  
East end F455 series (D616)  
East end F51 (D613)  
East end F402 series (D330)  
East end F129 (D309)  
East end F128 (D306)  
Draft plots of finds in postholes of structure 1 (animal bone, slag, metal, ceramic (o), stone and all combined).

### 5.3.1 Naming the parts

Structure 1 consists of the following elements encountered in modules C2, C3, C4, D1, D2 and C6, C7, C8, D5 and D6 (the module in which they occur is given in the details below):

#### **The foundation trench:**

F40, C 1056. This foundation trench was also allocated numbers F112 (C1 163) in module C3 and F125 (C1174) in module C4 in 1995 but these numbers were not used in records. The foundation trench is therefore **F40**.

#### **The hearth:**

The hearth, central to the eastern circular end, is F65 in D5 in which contexts 1082, 1086, 1141, 1142, 1615, 1621 have been identified. Contexts 1083, 1084, 1085 and 1087 were also identified as belonging to this hearth at Horizon 2, but there are no records of excavation except for C1083, later identified as part of posthole F418.

#### **The flue:**

In module D6, F67 (C1093, 1530, 1562, 1563) and F79 (C1106, 1526, 1527, 1528, 1529, 1544 and 1552) represent a flue running at an angle of c. 30° in a NNW direction towards the centre of the eastern circle.

#### **The structural postholes:**

(starting in the North with the porch, then proceeding anti-clockwise to the NW, W, SW, S, SE, E, NE and N, back to the porch). Since the postholes were allocated many feature numbers (e.g. construction cut, post void or post pipe) the postholes will be referred to by the number they were first identified by (in bold here). These postholes are grouped into three categories: those of the **porch**, those of the **west end** and those of the **east end**:

**The porch** consists of 4 postholes, **F126**, **F130** (in C4), **F110** and **F113** (in C3). In detail they are:

**Posthole F126** (South) (C1176) in C4

Posthole F450 (North) (C1709, 1710,1717) and F459 (C1727)

Posthole construction cut F451 (C1711)

Posthole construction cut F454 (South) (C1715)

**Posthole F130** (C1182,1183,1729,1744,1747) in C4, cut by foundation trench F40

Posthole F461 (C1745, 1763,1774)

**Posthole F110** (South) (C1157, 1664, 1668) in C3

Posthole construction cut F431 (C1156)

Posthole construction cut F432 (C1663, 1669, 1670)

Posthole F445 (North) (C1667, 1700)

**Posthole F113** (C1160,1749,1750,1766,1767,1769,1770,1777,1778, 1779, 1780, 1783, 1791, 1793) in C3

**The West end** consists of:

- Posthole F114** (C1162,1637,1641,1748,1752,1755) in *C3/C4* (mirrored by F139/F443)
- Postholes F118** (C1167,1623), **F119** (C1 168,1614)and **F117** (C1166) in *C3/C4* (mirrored by F138)
- Posthole F132** (C1186, 1187, 1188, 1658, 1660) in *C7* (mirrored by F134)
- Posthole F115** (C1674, 1675,1676; bracing F131) in *C3*
- Posthole F435 (C1163; = F116, C1672, 1684; bracing F131) (mirrored by F136)
- Posthole F131** (C1184, 1185) in *C7* (mirrored by F135)
- Posthole F133** (C 1189, 1631) in *C7*, cuts foundation trench F40
- Posthole F135** (C1191, 1192, 1677) in *C7* (mirrored by F131)
- Posthole F438 (C1680)
- Posthole F136** (C1193, 1194, 1683; bracing F35) in *C7* (mirrored by F115/F435)
- Posthole F134** (C1190, 1652, 1653) in *C7* (mirrored by F132)
- Posthole F138** (C1197,1716,1722,1723,1724,1726,1728,1732) in *C7* (mirrored by F118)
- Posthole F139** (C1198) in *C8*
- Posthole F443 (C1696, 1697, 1714) (mirrored by F114)
- Posthole F453 (C1685, 1691)

**The East end** (starting in the SW) consists of 8 sets of double postholes surrounding hearth F65:

- Posthole F148** (C1208, 1620,1632) in *C8*
- Posthole F149 (C1209)
- Posthole F150 (C1210, 1638)
- Posthole F426** (North) (C1655, 1736) in *D5*
- Posthole (South) F427 (C1656)
- Posthole construction cut F460 (C1657, 1735, 1737, 1751, 1760)
- Posthole F464 (North) (C1738, 1739)
- Posthole construction cut F429** (C1661, 1662, 1712) (= F422, C1640) in *D5*
- Posthole F439 (North) (C1686, 1689)
- Posthole F441 (South) (C1692, 1693, 1699)
- Posthole F442 (North) (C1688, 1687, 1707)
- Posthole F448 (South) (C1701, 1706)
- Posthole F467** (C1761, 1768, 1775) in *D5*
- Posthole F470 (C1771,1776)
- Posthole construction cut F471 (C1772, 1773, 1788)
- Posthole F472 (C 1785, 1786, 1789)
- Posthole construction cut F47** (C1063, 1601, 1604) in *D1*
- Posthole F408 (C1600)
- Posthole F49** (South) (C1065, 1613) in *D1*
- Posthole F52 (North) (C1068)
- Posthole construction cut F409 (C1602, 1605, 1606, 1609)
- Posthole F51** (C1067) in *D1*
- Posthole construction cut F455 (C1718, 1733, 1784)
- Posthole F462 (South) (C1741)
- Posthole F463 (North) (C1743)
- Posthole construction cut F466 (C1742, 1757, 1758, 1759)
- Posthole F473 (South) (C1781, 1791, 1792)
- Posthole F128** (North) (C1179) in *C4*
- Posthole F129 (South) (C1180, 1587)
- Posthole construction cut F402 (C1181)

### **Other features found inside the perimeter of F40:**

Those obviously not part of Structure 1 (e.g. the features belonging to Structure 2 such as F137, F140, F144,

F388, F389, F391, F43) have been discounted, as have the features that are recorded as cutting Structure 2 (e.g. F399, F400, F403, F104 and F416, all recorded as cutting F43 of S2); also discounted are the features recorded as cutting Structure 1 (F64, F396, F397, F398 all cutting F47 of S1). This leaves, starting in C7, anti-clockwise:

**Posthole F425** (C 1654) in C7

**Posthole F428** (C1659) in C7

**Posthole F430** (C1200, 11671, 1673) in C8, with vertical postpipe

**Posthole F437** (C1678, 1679) in C8, replaced by F430

**Posthole? F141** (C1201) in C8, *not excavated*

**Posthole F143** (C 1203, 1681, 16825) in C8, with vertical postpipe

**Post slot F142** (C1202) in C8 (but this slot seems to have been cut by hearth F65, therefore likely to be earlier)

**Posthole F146** (C 1206) in C8, *not excavated*

**Posthole F145** (C 1205) in C8, *not excavated*

**Pit F147** (C1207) in C8

**Posthole? F152** (C1212) in C8, *not excavated*

**Posthole? F151** (C121 1) in C8, *not excavated*

**Posthole? F101** (C 1138) in D5, *not excavated* (recorded as a pit, but likely to be part of F426 of S1)

**Posthole F478** (C 1807) in D5

**Posthole F474** (C1790) in D5

**Posthole? F68** (C1094, 1794) in D5 (this may possibly be part of Structure 2)

**Posthole? F69** (C 1095) in D5, *not excavated* (seen at H2 as a rectangular feature seemingly cut by flue F67)

**Posthole F418** (C1083) in D5 (at H2 seemingly cut by hearth F65)

**Posthole F419** (C1628) in D5 (at H2 seemingly cut by hearth F65)

**Posthole F420** (C1629) in D5

Note that postholes F70 (C1096, 1097) and F71 (C1098) are equal to F467 and F470 (S1 East end postholes)

**Posthole F477** (C 1804, 1805, 1806) in D5 (cutting foundation trench F40 but possibly inserted to strengthen structure after insertion of flue F67/79)

**Posthole F483** (C1818, 1819) in D6 cutting (or cut by) foundation trench F40

**Posthole F395** (C1573, 1574) in D6 (cut by flue F79 and possibly westernmost part of East end posthole F472)

**Posthole F77** (C1104) in D6

**Posthole F78** (C1105) in D6, *not excavated*

**Posthole F41** (C1057, 1586, 1593) in D2

**Posthole F42** (C1058) in D2

**Feature F48** (C1064) in D1, *not excavated*

**Posthole? F421** (C 1630) in D1

**Posthole F50** (C1066, 1636) in D1, cutting F423

**Posthole F423** (C 1642) in D1 cut by F50

**Posthole F53** (C1069) in i cutting F456

**Posthole F456** (C1719, 1787) in D1, cut by F53

**Posthole F127** (C1177, 1808) in C4

**Small hearth F482** (C1814) in C4.

Most of these features are unlikely to be part of Structure 1 but have been listed as there is not a stratigraphic reason to discount them. The decision to include them or not in Structure 1 will depend on spatial patterning.

### **Other features found outside the perimeter of F40:**

Only possibly associated with Structure 1. The features listed below are included as they may follow the outline of foundation trench F40. Two groups can be identified: one to the NE of the porch and one to the SE of S1. The first group of postholes includes (the list proceeds clockwise, eastwards from the porch):

**Posthole F123** (C1 172) in *C4*, *not excavated*

**Postholes F124** (C1 173) / F433 (C1665) / F434 (C1666) in *C4*

**Posthole F407** (C1595) in *C4*

**Posthole F122** (C1171) in *C4/D1*

**Feature F58** (C1074) in *D1*, *not excavated* (possibly part of F40)

**Scoop F59** (C 1075) in *D1*

**Feature F56** (C1072) in *D1*, *not excavated* (possibly part of F40)

**Posthole F57** (C1073) in *D1*

**Posthole F37** (C1052) in *D2*, *not excavated*

The second group lies to the SE of S1 but it is difficult to pick out precisely which features as the picture is complicated by the presence of S2. Nevertheless, it may be that some are associated with the perimeter of S1:

**Posthole F82** (C1110) in *D6*, *not excavated*

**Posthole F83** (C1111) in *D6*, *not excavated*

**Postholes F390** (C1113,1564) in *D6*, cut by modern pit? F84

**Posthole F80** (C1108) in *D6*, *not excavated*

**Posthole F81** (C1109) in *D6*, *not excavated*

**Posthole? F90** (C1 121) in *D6*, *not excavated*

**Posthole F91** (C1122) / F380 (C1535) / F382 (C1537) in *D6*

**Posthole F66** (C1091, 1813) in *D5*

**Posthole F72** (C1099) in *D5*, *not excavated* (possibly part of F40)

**Posthole F73** (C1 100) in *D5*, *not excavated*

**Posthole F74** (C1 101) in *D5*, *not excavated*

### 5.3.2 Dimensions, measurements and levels

There follows a summary of the measurements derived from the plans and sections of the components of Structure 1, grouped here for convenience.

#### Size

West-East, defined by foundation trench F40 (outer edges): 14.44m

South-North, defined by foundation trench F40 (outer edges): 9.85m (centre of East end, through hearth F65)

**Interior surface** enclosed by foundation trench F40: c. 110m<sup>2</sup> (compare with sizes of Hebridean blackhouses: see F.WL Thomas “On the primitive dwellings of the Outer Hebrides”, PSAS 7, 1866-7, p.153-95)

#### Sizes of components

East end: West-East length: c. 8.2m

maximum diameter delimited by foundation trench: 9.8m

East end, post settings: inner diameter around hearth F65, circumscribed by double posts: 3.5 m

outer diameter of double post ring: 7m

Hearth: 1.6m maximum in diameter (measured N—S)

Flue: 4m in length, c. 0.8m in width

West end: West-East length: c. 6.2 m

width at West: 6m; width at join with East end: 8.9m

Porch: 0.8m interior width, 1.70m (width measured from outer edges of postholes)

2.90m in length measured between F110 and F115, F126 and F123

projection outside line of building: 1.5m

gap between western and eastern butt ends of foundation trench F40: c.2.8m

Foundation trench F40: width when first defined: generally 0.40 to 0.60m, somewhat thinner (0.30m) at East and West ends where foundation trench is shallower

width when excavated: on average *0.50-0.55m*, variations between 0.40 and 0.75m depth when excavated: varies between 0.15m and *0.45m*, generally

0.25-0.30m deep Levels: see tables and comments on levels in section 5.3.4.

Posthole sizes: see descriptions of individual postholes in section 5.3.6

### 5.3.3 Discovery and definition

Structure 1 was identified right at the beginning of the Tarbat Research project, in the first evaluation season of 1994. In part, this is thanks to Duncan Johnson who had previously cultivated the Sector 1 field and had accurately indicated areas where his plough tended to strike stone foundations. Machining removed a depth of 0.30-0.35m of ploughsoil from the surface of Int7 (increasing to a depth of 0.50m at the northern end of the site, next to the hedge and field boundary where a headland had been created) and the first clusters of sandstone were identified as belonging to a structure, later to become Structure 1 (field notebook entry of 03.09.1994) in modules D1, D2, D5 and D6. At this stage, and after cleaning, this structure was tentatively identified as a roundhouse, with a “spoke” of a wheel house; this was later equated with the flue F67/F79. The general definition trowelling over the entire area was given context 1002 and a further context, C1003, was allocated to the cleaning of the interior of Structure 1 to distinguish its finds from the rest of the definition process. A hearth, F65, was identified in the centre of Structure 1, and, contrary to the non-excavation policy in vigour at Tarbat in the evaluation stage, it was decided to excavate this hearth in order to provide material for dating purposes at this early stage of evaluation. Consequently the hearth was partially excavated by Jill Harden after identification of its component contexts, C1082, 1083 (later identified as part of posthole F418), 1084, 1085, 1086, 1141 and 1142. This hearth would be revisited in 2001.

The “strip and map” procedure was continued in 1995, with the opening of the same area as that of 1994 as well as further modules further East and West. Int7 was renamed Int 11. Amongst the new modules opened, those relevant to the definition of Structure 1 included modules C3, C4, C7 and C8 to the East of the D modules of 1994. Within days of opening, the “roundhouse” acquired a linear continuation to the West, resulting in a horseshoe or “bag-shaped” building, with northern and southern sides tapering inwards to the West. No western end to this building was found along the 1995 edge of excavation, sited along the 864 easting. The contexts relevant to the cleaning and definition of the area of Structure 1 were: C1147, a definition spit removed prior to cleaning at Horizon 2 (which is C1148). The stone foundations of Structure 1 (F40 C1056 of 1994, renamed F112, C1159 and F125 C1174 in 1995) were reported as visible as high as 0.20m beneath the present ground surface (site notebook entry of 15.08.1995), i.e. protruding some 0.10-0.15m above the level of the subsoil. At that stage postholes were thought to exist within the circuit of the foundations (this was later disproved). Definition trowelling revealed quantities of animal bone, particularly cattle bones, over the area of Structure 1. Their position seems to coincide with the location of underlying features; in the interior of Structure 1 these features were first identified as pits. The latter would reveal themselves in later seasons as the large structural postholes of S1. The whole of Structure 1 appears to have cut a greyish sandy podsol with cultivation marks (C1152 of Int 11, being C1043 of Int7 already identified in 1994).

In 1996 the whole of Structure 1 was finally revealed when the western straight side of the “bag” shape appeared in modules C2 and C6, only 0.50m West of the 1995 edge of excavation. The entire extent of Structure 1 was thus known, corresponding to a building 14.40m in length and almost 10m in width. Up to and including 1996, with the exception of the hearth F65, the policy of non-excavation was adhered to, as it was felt important not to dismantle Structure 1 piecemeal but to leave it for full dissection after the whole strip and map definition of Sector 1 had been completed. Consequently, Structure 1 was not revisited until 2001.

The 2001, 2002 and 2003 seasons saw the opening of an area 40 x 24m centred around Structure 1 and the full excavation of all the component parts of Structure 1. In each season the area would be uncovered, selected features excavated and recorded at level D, and at the end of the season the features would be backfilled by hand (some with sandbags), the area wrapped and backfilled by machine. In 2001 about half the features found inside the area delimited by the foundation trench F40 were excavated. They were the large structural postholes F47/F408, F49/F52/F409, F128/F129/F402, F114, F117/F118/F119, F133, F148/F149/F150 as well as the hearth F65 and the flue F67/F79.



Structure 2 (thought to be cutting Structure 1) was also dismantled; of relevance are features F137, F140 and F43 (all belonging to S2) as they cut features belonging to Structure 1.

In 2002 the excavation of features belonging to S1 resumed, with the excavation of the structural postholes F110/F431/F432/F445 (porch), F113 (porch), F115/F116/F131/F435, F126/F450/F451/F454/F459 (porch), F130/F461 (porch), F132, F134, F135/F136/F438, F138, F139/F443/F453, F430/F437, F51/F455/F462/F463/F466/F473, F426/F427/F460/F464, F429/F439/F441/F442/F448 and F467/F470/F471/F472. In addition, a large number of features found in the interior of S1 or in its immediate vicinity were excavated during the 2001 and 2002 seasons. Some may be part of S1, others not. Those that could belong to S1 have been listed in section 5.3.1 under the headings "Other features found inside the perimeter of F 40" and "Other features found outside the perimeter of F 40". By the end of the 2002 season, all the features of S1, bar its foundation trench had been fully excavated and a large amount of photographs of S1 with its postholes excavated were taken. The foundation trench F40 began to be dissected: longitudinal and transversal section lines were laid out along its circuit and the protruding courses of cobbles and sandstone were removed after recording so as to facilitate backfilling. The final excavation of F40 was to take place in 2003.

During July 2003, Structure 1 was uncovered and cleaned for the last time and the entire circuit of its foundation trench F40 was excavated. This was carried out by Cecily Spall. The dismantling of the foundation trench followed the section lines established in 2002, giving a series of 15 profiles (8 longitudinal, 7 transversal) which were drawn in detail at 1:10 (Dr471-485). Following excavation at level D in quadrants and the removal of all stones to a stone dump located next to the sector 1 fence by the footpath, the foundation trench was planned in a series of hachure plans (Dr652, 679-681) and photographed. A few features relevant to Structure 1 were also excavated in 2003: two postholes cutting the foundation trench in its south-east course (F477, F483), a small posthole (F478) next to the structural double posthole F429, a small hearth (F483) and a posthole (F127), both located to the East of the porch inside S1 in module C4, and finally a posthole located just outside the foundation trench circuit, F66 in module D5. Structure 1 was extensively photographed when fully excavated, in a series of oblique overhead shots, either with ranging poles or figures showing the position of the structural posts or leaving the ground to speak for itself.

In all, Structure 1 was defined and dissected over 6 seasons. The drawn and photographic records relevant to Structure 1 are listed in Appendix XXX.

### 5.3.4 The surface contexts

The definition of Structure 1 was done over a number of seasons, first uncovering the eastern end of S1 in 1994 and then re-opening and further defining it in 1995 and 1996, before wrapping it up and backfilling, ready for further excavation in 2001 to 2003. In all, Structure 1 was opened 6 times but suffered very little from these repeated re-openings.

As the definition of Structure 1 was undertaken as part of the wider definition of the whole of Sector 1 in Int7/1 1, a whole series of context numbers was allocated to the whole operation. These contexts are detailed in the table below, giving an indication of the total numbers of finds in each context and listing the main categories of finds: bone (all animal), ceramic (all), subdivided into ceramic (others) and ceramic (pot), metal (all) and slag. Not listed are categories with tiny amounts of finds or environmental samples.

Not all the contexts listed in the table are relevant to the definition of Structure 1. Those that show a pattern significant for Structure 1 have been highlighted, namely;

C1002 (definition spit to Horizon 2, level C)

C1003 (further definition spit over eastern end of Structure 1 in 1994)

C1147 (definition spit to Horizon 2, level C in 1995, equivalent to C1002)

C1148 (definition spit to Horizon 2, but at level D in 1995, equivalent to C1002)

C1370 (definition spit at level C in 1996)

A plot of the finds from these superficial contexts shows some interesting results: draft figures have been

prepared, showing the density of finds over Int7/1 1. These can be found in the AutoCAD files APROJECTR/Tarbat Discovery Programme/Fieldwork/Drawings/ WORKING/Finds plots/. See for example

11\_bonesurf+background.dwg showing all the animal bones from surface contexts superimposed on the Horizon 2 map.

Patterning can only be read from the plot of animal bones as other finds hardly appear over the area of S1. Only 4 sherds of pottery (from C1002) occur within the area of S1: no 87 in the area of hearth F65, no 244 next to posthole F429, no 429 near feature F53 in the North of S1 and no 404 just outside the foundation trench F40 to the NE of the porch. None are identified.

Only 7 fragments of metal appear within the area of S1: from C1003, an iron nail (no 4, found near F52), a piece of iron sheet (no 434, found near F77) and an iron disc (no 471, found near posthole F426); from C1147 an iron nail (no 803, found near porch posthole F113), an iron pin (no 911, found near porch posthole F126), another iron nail (no 917, found outside porch posthole F126) and finally an unidentified piece of iron from C1367 (no 2518, found near porch posthole F110). Slag is only represented once on the surface of S1 as find no 754 in C1147, found outside porch posthole F110.

This leaves the animal bone, but the latter are strongly patterned.

In C1002, a general spread over the east end of S1 is refined in C1003 with a very strong showing of bones over the features of S1, particularly the central hearth F65 and postholes to the South and North of it. If you add the distribution of bones from C1147, 1148 and 1370, this strong correlation with features is extended to the North-West with a concentration of animal bones over the porch postholes and just outside as well as over the postholes of the NW end. In summary, animal bone locations correlate very well with the position of underlying features of S1; but only some amongst them are

bone rich, particularly hearth F65, postholes F426, F51 and F128, the porch (particularly F113) and the postholes of the North-western part of the West end. One could perhaps suggest that the disuse phase of S1 saw dumping of animal bone in areas left derelict, i.e. a collapsed centre and NW end with porch. But this hypothesis will need to be checked against the patterning of artefacts in the features of S1 themselves.

There follows a summary table of the contexts on the surface of int7/l 1, with those relevant to the definition of S1 highlighted.

**Surface contexts over the whole of Int7/11 (containing 2953 finds in total)**

<u>Context</u>	<u>Context Information</u>	<u>Total No of Finds</u>	<u>Animal Bone</u>	<u>Ceramic</u>			<u>Metal</u>	<u>Slag</u>
1000	ploughsoil, level A	65 finds	-	3 ceram	3 c(o)	-	1 metal	-
1001	ploughsoil, level B	196 finds	132 bo.	26 ceram	-	17 pot	9 metal	9 slag
1002	definition spit to Hor2, level C	133 finds	81 bone	23 ceram	-	23 pot	3 metal	14 sl.
1003	definition spit	175 finds	154 bo.	1 ceram	-	-	3 metal	-
1144	ploughsoil, level A, 1995 (= 1000)	2 finds	-	-	-	-	1 metal	-
1145	ploughsoil, level B, 1995 (= 1001)	133 finds	97 bone	25 ceram	-	23 pot	2 metal	6 slag
1147	definition spit to H2, level C, 1995	377 finds	335 bo.	28 ceram	-	26 pot	7 metal	3 slag
1148	definition spit to H2, level D, 1995	304 finds	274 bo.	13 ceram	1 c(o)	11 pot	7 metal	6 slag
1364	definition spit, level B, 1996	75 finds	44 bone	29 ceram	-	22 pot	-	1 slag
1365	definition spit, level C, 1996	8 finds	3 bone	3 ceram	-	3 pot	2 metal	-
1366	definition spit, level C, 1996	176 finds	106 bo.	61 ceram	-	56 pot	5 metal	1 slag
1367	definition spit, level C, 1996	147 finds	46 bone	63 ceram	-	11 pot	17 met.	4 slag
1368	definition spit, level C, 1996	659 finds	319 bo.	259 cer.	-	48 pot	29 met.	10sl.
1369	definition spit to H2, level D, 1996	2 finds	1 bone	-	-	-	-	-
1370	definition spit, level C, 1996	365 finds	317 bo.	34 ceram	-	27 pot	6 metal	4 slag
1480	definition spit to H2, level C, 1996	61 finds	57 bone	3 ceram	-	2 pot	1 metal	-

1554	definition spit to H3, 2001 (= 1152)	6 finds	6 bone	-	-	-	-	-
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also:

1012	over F6? in D1-3	6 finds	2 bone	3 ceram	3 c(o)	-	-	1 sl.
1127	in D6	1 find		-	-	-	-	-
1575	recovery context in E	11 finds	5 bone	5 ceram	5 c(o)	-	-	-
1823	recovery context over F109 /F121	3 finds	3 bone	-		-	-	-

### 5.3.5 The foundation trench

F40 defines a foundation trench cut into the subsoil and filled with a single deposit of pebbles and cobbles with some sandstone slab fragments, tightly set into a deposit of silty sand (C1056). The discovery, definition, and dimensions of F40 have already been exposed in sections 5.3.1 to 5.3.4. They are summarised here for convenience:

Relevant feature and context numbers: **F40 (C1056)**, also labelled F1 12 (C1 163) in module C3 and F125 (C1 174) (these numbers not used). Fully excavated in 2002 and 2003 under the direction of Cecily Spall.

Dimensions: 14.44m x 9.85m maximum (W-E x S-N). Interior surface: c. 110m<sup>2</sup>.

2 elements: a circular/oval east end, 8.2m long (W-E), 9.8m in diameter (N-S)  
a straight-ended west end with splayed walls, 6.2m long (W-E), 6m wide (N-S at western end) widening to 8.9m (N-S, at join with east end). Interrupted by porch in NNW.

Width (exc.): on average 0.50-0.55m, variations between 0.40 and 0.75m

Depth (exc.): varies between 0.15m and 0.45m, generally 0.25-0.30m deep

Levels: see tables and comments below. The base of foundation trench F40 is mostly level but there are variations. The northern and southern stretches are deeper than the western and eastern stretches, where in places the foundation trench barely bit into the subsoil. The southern stretch survived to a greater depth than the northern.

#### Description of F40 and C 1056

F40 is U-shaped in profile with a concave base but sometimes this concave base is flattened out, suggesting that it represents a shovel's width (feature record card by Cecily Spall). There are no post settings in the trench (see notes on later postholes below) which is entirely filled with a compact make up of cobbles and some sandstone slabs set in a silty sand matrix (see C1056). The stone fill is thought to have supported a turf wall. It has to be admitted that no convincing remains of turf have been found, but this would in any case not be found in the foundation trench.

Stratigraphic observations suggest that F40 was cut and filled as a single operation after the main weight bearing post-built framework of S1 had been erected. Indeed F40 was observed to cut the construction backfill of F130, the interior eastern posthole of the porch. This is not completely borne out by the plan, as the cobbles of the fill of F40 stop short of the porch (see records by Chris Fern in 2002: "the absence of cobbles from the butt end may suggest that the actual wall did not extend to the full length of the foundation trench"). However, this does not invalidate the stratigraphic relationship. Similarly Posthole F133 (the posthole central to the western end in C7) is recorded as cut by foundation trench F40. Finally Cecily Spall observed that the sandstone fragments that are found amongst the fill of the foundation trench (c. 10% of the stones) are most likely to be left over from the posthole packing stones and padstone construction.

A single build is therefore proposed, with no modifications to the course of the foundations. A localised later alteration occurs in the SE, in module D6, where the flue F79/F67 was built. It is proposed that the flue was added after F40, and once built, a posthole (F477) was inserted into the course of the foundation, c. 1m to the SW, to strengthen a point where the structure had been weakened by the insertion of the flue (feature card, Cecily Spall). Further to the NE, another posthole (F483) was also observed in the foundation trench; there, it was more difficult to establish its stratigraphic position but it is most likely to have cut F40 (feature card). The area of the flue is overall quite complex, with many features in its vicinity. It may be that some sort of structure was added to the outside of F40 at that point or that the features clustering in the area are connected to the later Structure 2 (see section 5.3.9). Features that are later than F40 belong in the main to Structure 2, which cuts F40 in places, e.g. F137 in C7 and F43 in D6.

**The fill** of F40, C1056, is a single fill, uniform throughout the whole circuit. It consists of a matrix of soft silty sand (Munsell 10YR 3/2) which makes up 25% of the context. The remaining 75% are

tightly packed stones, consisting of 65% pebbles and cobbles and 10% sandstone slab fragments. The cobbles are tightly set and interlocking, the most common sizes being 20-60mm (20%), 60-200mm (20%) and 200-600mm (15%). The pebbles and cobbles were gathered from the beach and in this operation a large piece of whalebone was also picked up, to find its way amongst the cobbles in the foundation trench (Cecily Spall, context card 1056; find no 4066). The sandstone slab fragments, some quite substantial (photo TRO3 N341/13-14) are similar to those used in the posthole construction and probably left-overs from the packing and pad stones.

There are hardly any **finds** from F40. The finds index lists 22 finds in total, but 16 of these are soil samples taken for a variety of purposes (flotation, soil samples, one C14 sample no 4431); the remaining 6 are a very small animal bone assemblage and the whale bone mentioned above.

### Levels of foundation trench F40

Two tables below detail the levels along the circuit, top and base of F40, the first when first defined at Horizon 2 in 1994-1996, the second when excavated in 2002 and 2003. A few points can be made from this data.

Between the definition of the foundation trench in 1994-1996 and its excavation in 2002-2003, a few centimetres have been lost through repeated cleaning and lowering of the subsoil into which F40 is cut. This lowering is however not dramatic, being generally less than 10cm.

The subsoil slopes slightly downwards to the north, and the bases of the foundation trench reflect this, the base in the southern stretch being around 15.20m AOD, the base in the northern stretch around 15.10m AOD. The southern stretch is deepest at around 45cm, whereas the northern/north-eastern stretch is at around 35 cm deep. The western and eastern ends are shallower, petering out in places. The deeper survival of the southern stretch can be interpreted in two ways: either plough damage was less severe in the south than at the northern end (near the field edge), allowing the southern end to survive to a greater extent, or Structure 1 compensates for the very slight slope by having its southern foundation slightly deeper. In effect, this would mean a small amount of terracing, allowing for the structure to be level, perhaps not a surprise in a structure so carefully constructed.

The foundation trench and cobbles filling it are not proposed as supporting a wall that would bear the load of the roof, since this would be borne by the structural postholes. Nevertheless, the weight of further cobble courses and turf walls (now lost) would be substantial, making for deeper foundations on the long sides and somewhat shallower foundations on the lateral sides.

### Table: levels of foundation trench F40 at Horizon 2

Starting in module C4 next to porch posthole F130, then proceeding clockwise to end in module C3 where it stops next to porch posthole F113; the figures are given in metres AOD.

<u>Module</u>	<u>position</u>	<u>Outline</u>	<u>outline</u>	<u>stones</u>	<u>notes</u>
C4	next to P130	15.31 N	15.33 S	15.36/ 15.44	F40 possibly cuts F130 or C1 175
C4	C4/D1 junct.	15.30 N	15.30 S	15.36/ 15.41	cut by drain P62
D1	D1/C4 junct.	15.36 N	15.37 S	15.48	cut by drain P62
D1	D1/D2 junct.	15.38 N	15.40 S	15.45	
D2	D2/D1 junct.	15.37 N	15.40 S	15.45	
D2	D2/D6 junct.	15.41 W	15.40E	none present	cut by P43 of Structure 2

D6	D6/D2 junct.	15.46W	15.45E	none present	cut by P43 of Structure 2
D6	flue F67/F79	15.45 N(P67)	15.56 S(P79)	15.59quernstone	15.65 large southern flagstone in D6 F483 (later def.) noticeable F477 (later defined) noticeable
D6	D6fD5 junct.	15.57 N	15.57 S	15.56	
DS	D5/D6 junct.	15.55 N	15.55 S	15.56	
DS	hearth in centre	15.42 N	15.48 S	na	for comparison
DS	D5/C8 junct.	15.59 N	15.60 S	15.70	
C8	C81D5 junct.	15.59 N	15.60 S	15.68 / 15.70	
C8	C8/C7 junct.	15.50 N	15.51 S	15.63	cut by drain F62
C7	C7/C8 junct.	15.49 N	15.51 S	15.60	
C7	C7/C6 junct.	15.52 N	15.52 S	15.52	
C6	C6/C7 junct.	15.46 N	15.52 S	15.46	SW corner of S1
C6	C6/C2 junct.	15.36W	15.36 E	15.39	
C2	C2/C6 junct.	15.36W	15.36 E	15.39	
C2	C2/C3 junct.	15.32W	15.33 E	15.33	NW corner of S1
C3	C3/C2 junct.	15.34 N	15.32 S	15.50	
C3	next to P113	15.34 N	15.35 S	15.45	

### Levels of foundation trench F40 when excavated

Again, starting in module C4 next to porch posthole F130, then proceeding clockwise to end in module C3 where it stops next to porch posthole F113.

<u>Module</u>	<u>position</u>	<u>Edge</u>	<u>edge</u>	<u>base</u>	<u>base</u>	<u>notes</u>
C4	next to F130	15.31 N	15.31 S	15.18	15.10	F40 cuts F130
C4	C4/D1 junct.	15.21 N	15.20 S	15.09	15.09	cut by drain F62
D1	D1/C4 junct.	15.24 N	15.22 S	15.13	15.09	cut by drain F62
D1	D1/D2 junct.	15.26 N	15.25 S	15.14	15.16	
D2	D2/D1 junct.	15.29 N	15.27 S	15.21	15.20	
D2	in 877/917	15.31 W	15.30 E	15.25	-	peters out, cut by F43 of S2
D6	in 877/914	15.39 W	15.40 E	15.36	-	starts after cut by F43 of S2
D6	(flue F67/F79)	15.41 N	15.42 S	15.32	15.36	where cut by flue F79
D6	D6/D5 junct.	15.41 N	15.43 S	15.33	15.33	
D5	D5/D6 junct.	15.41 N	15.34 S	15.33	15.32	
D5	D5/C8 junct.	15.49 N	15.49 S	15.21	15.25	
C8	C8/D5 junct.	15.50 N	15.51 S	15.25	15.31	
C8	C8/C7 junct.	(15.41 N)	15.29 S	15.17	15.16	cut by drain F62
C7	C7/C8 junct.	15.37 N	15.29 S	15.15	15.19	cut by drain F62
C7	C7/C6 junct.	15.47 N	15.48 S	15.26	15.31	SW corner of S1
C6	C6/C7 junct.	15.42 W	15.41 E	15.23	15.25	SW corner of S1
C6	in 863/915	15.32 W	15.33 E	15.26	15.27	peters out
C2	C6/C7 junct.	15.28 W	15.24 E	15.19	15.20	peters out at NW corner
C2	C2/C3 junct.	15.28 W	15.24 E	15.19	15.20	peters out at NW corner
C3	in 864/916	15.23 N	15.29 S	15.21	-	NW corner of S1
C3	next to F113	15.29 N	15.28 S	15.13	-	

### Summary of foundation trench

Foundation trench F40 was built in a single operation after the main post structure of S1 had been erected. It was carefully laid out and cut in a U-shape, perhaps a spade's width into the subsoil, making sure that the foundation was as level as possible. Beach cobbles and a piece of whale bone from the beach were rammed into that cut as well as some sandstone slabs left over from the posthole construction. There are no post settings in the trench and the foundation supported perhaps a further course of cobbles and a turf wall which is not load bearing, but is itself of substantial weight. A flue was inserted after the foundation trench was built and this necessitated the insertion of a posthole to strengthen the structure. The foundation trench was later cut by features belonging to Structure 2 and even later suffered some plough damage, possibly more in the North than in the South. Only a few animal bones were recovered from the backfill of the foundation trench.

### 5.3.6 The structural postholes



There follows an expose of the postholes that held up Structure 1, starting with the porch in the NW, followed by the postholes of the West end and finally the postholes of the East end.

### The porch

Four postholes or posthole sets make up the porch, namely **F110** (with F431, F432 and F445) in the NW, **F126** (with F450, F451, F454 and F459) in the NE representing the two outer postholes, and **F113** (to SSE of F110) and **F130** (with F461) to the SSE of F126. The latter two are the inner postholes, inside Structure 1.

#### Posthole F110

Level at Horizon 2: 15.33-15.36m AOD

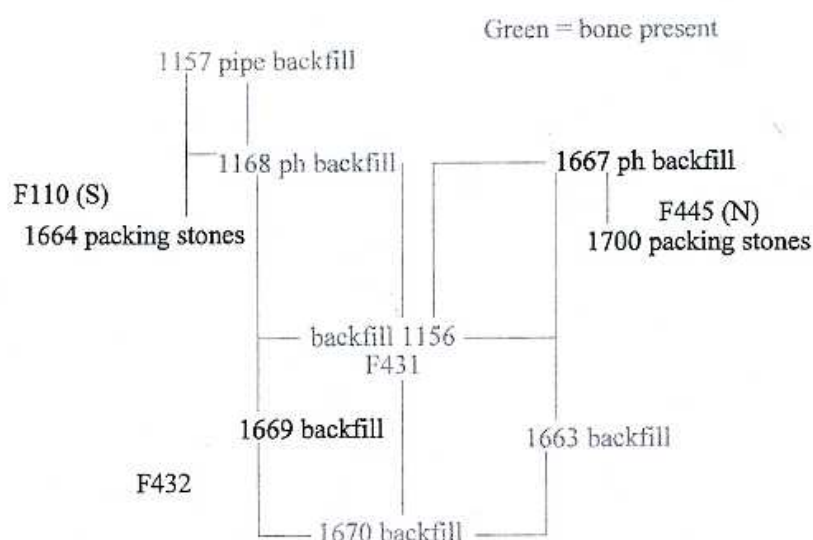
Posthole F445:	c.15.10 at base (25cm deep)	diameter: c.0.49m	circular, angled, with packing stone, no padstone
Posthole F110:	15.03 at base (30cm deep)	diameter: c. 0.47m	circular, vertical, with packing stone, no padstone
Cut F431:	14.84 at base (50cm deep)	length: c.0.70m	rectangular cut, angled towards N
Construction cut F432:	14.84 (S), 14.79 (N) at base	l./w.: 1.40 x 0.65m	rectangular cut, sloping slightly to N, dent in S base

Full length (NNW-SSE): 1.40m

Full width: c.0.65m

Full depth: c. 0.56m

Stratigraphy: F432 is the earliest feature, cut by F431 which is then cut by F445 and F110



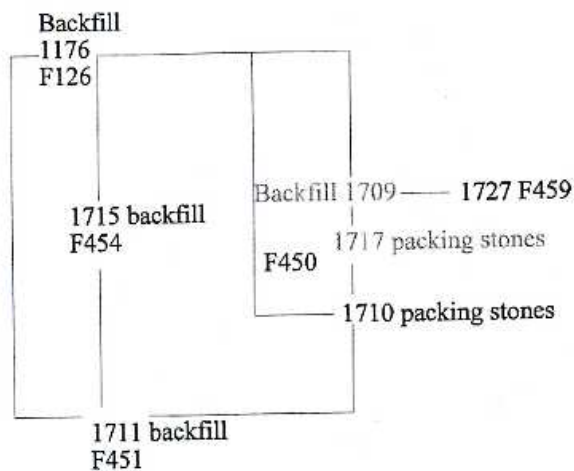
The sequence appears to be:

A construction cut (F432), 1.40m long and 0.65 m wide is made into the subsoil to a depth of 14.79. It may have accommodated a first posthole in the South (where F110 was later to be placed): the only remnant of this is a dip in the southern base of F432 (no separate feature or context number allocated

to this). A cut (F431) is then made in the centre of the feature, sloping at an angle northwards. It may be that this cut was made to remove whatever post or posts remained in F432. Two posts are then inserted at each end of the cut, both around 0.40m in diameter: F110 in the S, F445 in the N. The southern post is vertical and deeper, with vertical packing stone, the northern (outer) one is angled and shallower, with an angled packing stone. These posts were possibly removed.

**Posthole F126**

Level at Horizon 2: 15.33m AOD (stones on top 15.45m AOD)  
 Posthole? /cut F126 (S): 15.15 at base (20cm deep) c.0.45 x 0.40m square? cut, vertical, single large cobble, no padstone  
 Posthole F450/F459 (N): 15.10 at base (25cm deep) l./w. 0.66 x 0.40m rectangular, angled? with packing stones, no padstone  
 Posthole F454 (S): 15.15 at base (20cm deep) l./w.: 0.50 x 0.40m rectangular, vertical, no packing nor pad stones  
 Construction cut F451: 15.05 at base (30cm deep) width: 0.40m rectangular cut, vertical in S, cut away in N  
 Full length (NNW-SSE): 1.20m Full width: c.0.40m Full depth: c. 0.30m  
 Stratigraphy: F451 is the earliest feature, cut by F454 in the South and possibly F450/F459 (the two being the same) in North. F454 and F450 are then cut by F126.



The sequence appears to be:

The earliest feature is F451. It is somewhat unclear from the records whether this feature represents the whole construction cut, 1.20m long and 0.40m wide into the subsoil to a depth of 15.05 or whether it refers to a first posthole in the South, vertical, perhaps square (0.40m wide) cut away and later replaced by posthole F454. At any rate, two postholes are then inserted: F454 in the South, vertical and rectangular (0.50 x 0.40m) and F450/F459 in the North, rectangular (0.66 x 0.40m) with one

vertical side and the other possibly angled, with packing stones. These two posts are then removed to make way for the cut F126. Again it is not entirely clear whether this last feature is a posthole, i.e. a replacement posthole for the southern posthole F454, square (c. 0.45 x 0.40m) with vertical sides or whether F126 is just a cut made for the removal of the earlier postholes. The backfill context 1176, with a very large cobble (0.35 m long on section drawing Dr577) tumbled in to it and the notes on the feature card for F126 referring to a “post void backfill” and to “the disuse of a square post setting” would suggest that a post was removed, be it the earlier F454 or a putative later F126. Note that the original records made by Chris Fern carry a slightly different interpretation from the one given here.

### Posthole F113

Posthole F113 lies only 0.25 m to the SSE of the outer margin of F110, its northern companion, and is one of the two porch postholes inside Structure 1 (the other being F130). F113 was recorded in a way differing from most other structural postholes, i.e. no feature numbers were allocated to construction cuts or postholes within. Contexts only were used to record the different elements of the sequence.

Level at Horizon 2: 15.34m AOD (stones on top 15.45 and 15.54 AOD)

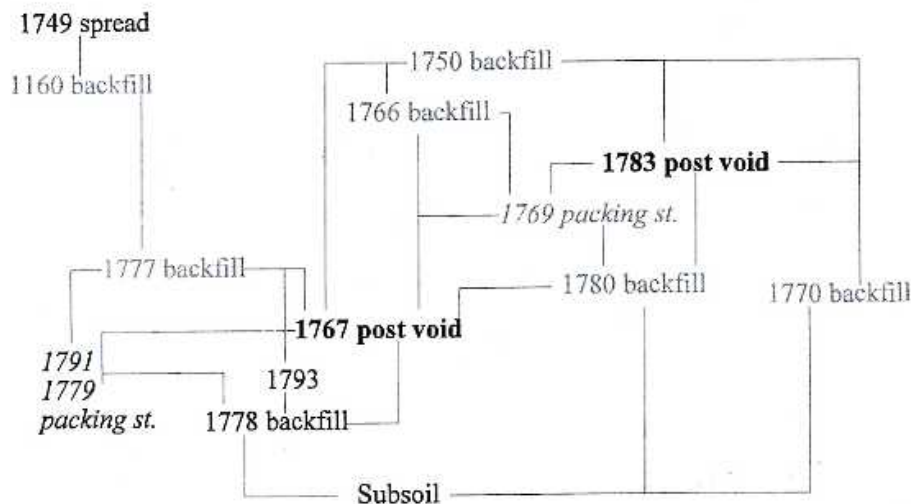
Posthole F113: 14.54m (N) and 14.69m (S) at base

Full length (NNW-SSE): 1.40m Full depth: 0.80m

northern posthole: at N end, circular, c. 0.80m in diameter, vertical sided, c.0.80m deep, with packing stones 1779 and 1791, contains post void 1767

southern posthole: at S end, oval/ rectangular, 0.40-0.55 m wide, shallower, c.0.60m deep, vertical sided, with packing stones 1769, contains post void 1783.

Stratigraphy as far as could be ascertained from then context records



The sequence appears to be:

A construction cut is made into the subsoil, 1.40m long to a depth of 14.54m. Its trample and partial backfill is C1778 and 1793. A first posthole with vertical sides is inserted into the northern end, consisting of vertical packing stones 1779 and disturbed packing stone 1791 and a post, either circular (0.40m in diameter) or rectangular (0.40 x 0.25m). This post becomes post void 1767. A second post replaces the first one to the South. Context 1780 appears to represent the removal of the first post; the post void 1767 of the first post is also overlain by a large packing stone (1769) of the second posthole. The second posthole, oval/rectangular in shape, with vertical sides and a little shallower (some 60cm deep) contained a possibly rectangular post (0.40 x 0.25m) whose post void is 1783. The later contexts (1750 and 1160) are interpreted in the records as sinkage (“after subsidence of the backfill system had occurred”, context card 1750) and a spread (1749) is interpreted as a podsol.

### Posthole F130

Posthole F130 lies just 0.40m to the SSE of the outer margin of F126, its northern companion, and is one of the two porch postholes inside Structure 1 (the other being F113). It consists of two features, an early northern posthole F461 and a later southern posthole, F130.

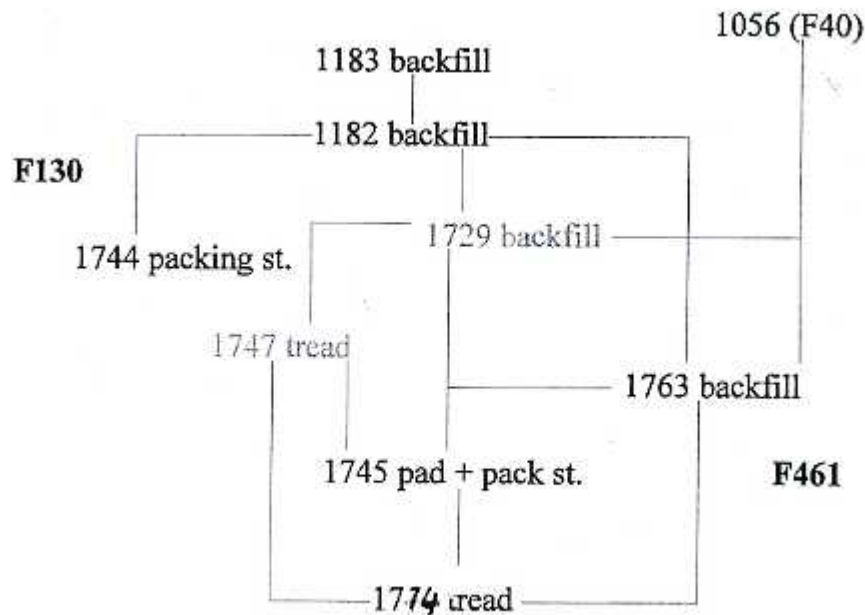
Level at Horizon 2: 15.34 (stones on top 15.55)

Posthole F461:	14.58 at base (75cm deep)	diameter: c.0.90m	circular, vertical with packing stones and padstone
Posthole F130:	14.68 at base (65cm deep)	l./w.:0.90 x 0.50m	rectangular, vertical, with packing stones, no padstone

Full length (NNW-SSE): 1.30m

Full depth: 0.76m

Stratigraphy: F461 is the earlier feature, replaced by F130



The sequence appears to be:

A first posthole (F461) is cut at the North end of a construction cut: it is circular, 0.90m in diameter and c. 0.75cm deep, at a depth of 14.58m AOD; a layer of tread fills this base (C1747). A vertical post, probably circular is set on top of a padstone and held in position by packing stones (C1745); the construction cut is backfilled with C1763. A later rectangular cut (F130) is then made to the South, slightly shallower (0.65m deep at 14.68m AOD) and measuring c. 0.90m (N-S length) x 0.50m (W-E width); it contains a layer of tread (C1744) but no padstones and held a vertical post secured by packing stones 1744. This post may have been circular or rectangular, occupying a space of c. 0.60 x 0.50m. Context 1729 represents the backfill of the construction cut for F130, whereas C1182 and 1183 are interpreted as further backfill and sinkage after disuse of F130, i.e. implying that F130 was dismantled. The suggestion is therefore that F130 replaced F461 to the South and was later removed. A sketch by Chris Fern also notes that F130 was cut by the foundation trench F40 of S1, implying that the foundation was laid out after the structural posts of S I had been erected.

## Summary of the porch

The four postholes that make up the porch show a number of similarities or trends, summarised here:

- \$ the two outer postholes are markedly shallower than the two inner ones; this is to be expected as the inner postholes would hold S1's superstructure, while the outer postholes would only have to hold the porch roof
- \$ more care was taken in securing the inner porch postholes (padstone and packing stones in F461, vertically set packing stones but no padstone in F113), though packing stones are present for all posts of the porch
- \$ though the final shape of the porch postholes results in a length of c. 1.20 - 1.40m and a width of c. 0.40 - 0.60m, the individual posts seem to be mostly circular, averaging c.0.40m in diameter, possibly rectangular in the case of the replacement southern post of the inner porch
- \$ in its first guise the porch consists of 4 upright posts, the two outer ones set at the southern end of their construction cuts, the two inner ones at the northern ends of their construction cuts
- \$ all 4 porch postholes show evidence of modification or replacement
- \$ in the case of the two outer porch postholes, the early southern uprights are replaced by new southern uprights and angled northern posts, perhaps bracing or buttressing posts
- \$ in the case of the two inner porch postholes, the early northern uprights show later uprights set immediately to the South of the former. It may be that these later southern uprights were added while the northern uprights were still in position, thus continuing to support the roof while the replacement posts were inserted
- \$ the porch fell into disuse and backfill contexts accumulated in the voids. It is not entirely clear how these late backfill contexts formed but there are some indications that the posts were dismantled
- \$ the finds from the porch postholes, apart from matrix samples, consist of animal bone only: they are small quantities but widely distributed (a green font on the stratification diagram of the individual postholes denotes the presence of animal bone)
- \$ there are no traces of the porch's roof or side walls; the porch entrance appears rather narrow (0.80m inner gap between postholes F110 and F126) but the gap between the two butt-ends of the foundation trench F40 is 2.80m wide, presupposing that the entrance was wider than the passage between the posts

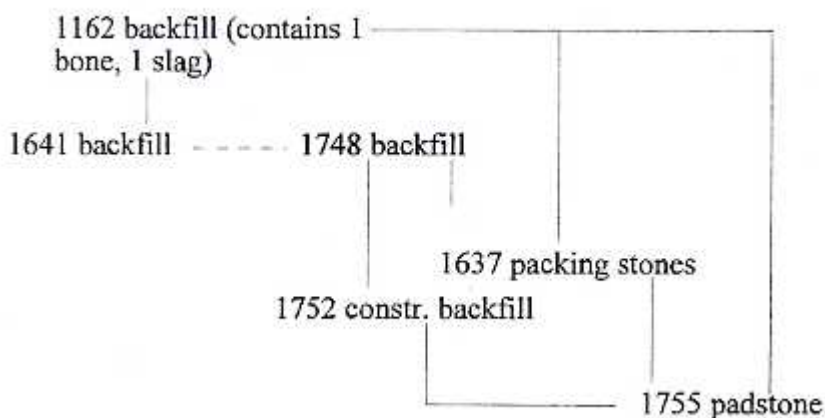
## The West end

Eleven postholes or posthole sets make up the western structure of S1: they consist of five northern postholes mirrored by five southern postholes and a central posthole set in the course of foundation trench F40 (F133).

### Posthole F114 (C3/C4)

Posthole F114:	Level at H2: 15.37m AOD	(15.55m for stones on top)	
	14.87m at base (0.50m deep)	l./w.: 0.80 x 0.55m	oval / rectangular, vertical sided with 4 packing stones and 1 in base

Stratigraphy:



Sequence:

At the bottom of a regular cut, 80cm long (N-S) and 55cm wide (W-E), a padstone is set, measuring 0.83m x 0.31m, made of a cut sandstone 50mm thick. It is angled N-S, either because it was slightly disturbed or because it was intended to hold an angled post, leaning towards F118. The cut is backfilled with C1752, possibly also contexts 1748 and 1641 (containing redeposited subsoil) around a (disappeared) post, held in position by packing stones 1637. These stones appear tumbled in section, filling a void left by a rotted or removed post. The backfill of this post void is context 1162 which contains a piece of slag (unspecified, find no 3739) and an animal bone assemblage.

Note that the partner to this posthole on the South side of the West end is F139. Note also that at Horizon 2 posthole F114 was recorded as cutting porch posthole F113. This is not further noted in the records and it seems most likely that this represents superficial merging of contexts after dismantling.

### Postholes F117, F118, F119 (C3)

Posthole F117:	Level at H2: 15.38m AOD 15.01m at base (0.37m deep)	l./w.: 0.50 x 0.30m	rectangular, cutting F118? backfill: C1166, containing bone
Posthole F118:	Level at H2: 15.35m Base of C1167: 14.82m Base of C1623: 14.65m (0.70m deep)	l./w.: 0.85 x 0.50m	oval, backfilled with C1167 overlying post socket 1623 (c.0.25m in diameter). Cut by F119, possibly by F117
Posthole F119:	Level at H2: 15.36m Base of C1168: 15.20m (top of padstone 1614) Base of C1614: 15.05 (padstone 1614 is 0.15m thick) Total depth: 0.31 m deep	l./w.: 0.70 x 0.50m	oval, backfilled with C1168 containing bone, overlying 1614 in base measuring 0.35 x 0.40m. Cutting F118 to East.

Sequence:

F118 appears to be the earliest posthole, cut much deeper than its possible replacement to the east, F119, which contains a thick, flat sandstone padstone, able to accommodate a post c. 40cm in diameter. F117 is recorded in the feature card as a posthole cutting F118 to the west or a scoop cut "possibly to assist with the removal of post" [F118]. The section drawing (D300) seems to contradict this, showing F117 cut by F118. In this scenario, one could envisage a gradual replacement of posts eastwards (F117 replaced by F118 replaced by F119). Apart from C1623, a possible post socket fill of F118, all the contexts filling F117 (C1166), F118 (C1167) and F119 (C 1168) appear to be secondary backfills (1166 and 1168 containing small amounts of animal bone). Note that F117, F118, F119 is mirrored by F138 on the South side of the West end.

### Posthole F132 (C7)

Posthole F132:	Level at H2: 15.39m AOD 15.24m at base (0.15m deep)	I./w.: 0.60 x 0.50m	oval, sloping sides, contains in base a construction cut fill(C1660) and a padstone (C1658) 0.50 x 0.35 x 0.07m on top of which sit 2 postpipes (C1187 and 1188) set in posthole backfill 1186
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Sequence:

This oval, shallow posthole consists of a cut into which a podsolised soil and some gravel (C 1660) slumped. Over it is set a large padstone made of red sandstone (C1658), rectangular in shape (later fragmented, perhaps by weight). Observed over this padstone were two post sockets represented by contexts 1188 and 1187: they appear as two dark oval/circular stains some 30cm in diameter, set on a N-S axis. Recorded as under these two contexts is posthole backfill 1186 (but strictly speaking this context is stratigraphically later than the posts if we accept that 1186 is backfill around the posts). C 1188 produced some animal bone and an unidentified ferrous fragment (find no 3761). Note that F132 is mirrored by F134 on the South side of the West end.

**Postholes F115 and F435 (= F116, C1165, numbers not used) (C3)**

Posthole F115:	Level at H2: 15.38m AOD 15.12m at base (0.26m deep)	c.0.50m in diameter	(sub)circular, angled, leaning South towards F131 (q.v.), consisting of a posthole backfill (C1676) around a post void (C1674) held in position by packing stones 1675. Cuts F435.
Posthole F435:	Level at H2: 15.37m 14.85m at base (0.50m deep)	I./w.: c.0.70 x 0.40m	oval / rectangular, angled, leaning South towards F131. At base, angled sandstone blocks being packing stones 1672, a construction cut backfill (C1163) and abackfilled post-void (1684), angled southwards

Sequence:

The earliest posthole (F435) consists of a deep rectangular cut into the subsoil (to 14.85m AOD) to accommodate a post, perhaps 40cm in diameter which appears to be angled and held in a southwards leaning position by sandstone blocks 1672: these are substantial (30 x 30 x 5cm and 30 x 30 x 30cm), set against the southern edge of the posthole and providing an angled support for a post that is represented by the angled edge of C1684 (on Drawing D598 in F131 feature pack). This first construction cut is backfilled with laminated deposits C1163. It is proposed that the angled post has been removed, allowing C1684 to accumulate in the post void (“backfilling a void caused by removal of a timber post”: context card description by Nicky Watts). A replacement posthole (F115) is then cut at a shallower depth; it is circular, with a diameter of c. 50cm. It appears to follow the same southwards leaning arrangement as the earlier posthole and consists, again, of a construction cut backfill (C1676), sandstone packing stones (C1675) and a backfilled post void (C1674). It is suggested in the records that the packing stones were partly displaced after the removal of a post occupying F115. Animal bone is recorded as being found in “considerable amounts” in C1674, but were in fact collected as part of context 1163 (the finds index lists 2 entries for animal bone assemblages).

Features 435 and 115 are interpreted as a post and replacement post leaning southwards towards F131, bracing or buttressing it. F131 lies only 20cm from the edge of F115/F435 and this particular arrangement is mirrored by the combination of F136 and F135 on the South side of the West end.

**Posthole F131 (C7)**

Posthole F131:	Level at H2: 15.39m AOD 14.75 at base (0.65m deep)	c.0.60m in diameter	circular, vertical sided, flat base, containing a laminated construction cut backfill © 1184) find a vertical postpipe (C1 185), 0.20-0.3Gm in diameter. No packing nor padstones
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**Sequence:**

A deep, vertical-sided cut into the subsoil to a depth of 14.75m AOD represents the construction cut which accommodates a post, represented by the vertical postpipe C1185, drawn in plan (Dr597) as in the centre of the posthole and measuring 30cm in diameter. The section drawing (Dr598) shows this postpipe not to reach the base of the posthole, the posthole having already been partially filled by laminated construction cut backfill C1184 to a height of 14.90m AOD. The post pipe appears circular and flat based, unsupported by any padstone nor packing stones. The postpipe is interpreted as having been removed rather than having rotted in situ (Nicky Watts notes on feature card) but the vertical edges on the section drawing would contradict this. The resulting post void, at any rate, attracted charcoal and a few finds: Nicky Watts notes that “following disuse, the post void provides a deposit trap for material accumulated on the floor of the structure”. Indeed, animal bone (from C1184 and 1185) and 2 pieces of fired clay (from C1185, find no’s 4410 and 4413) were recovered from this posthole. However, these finds would refer to the period of disuse of Structure 1 rather than its use. F131 is interpreted as a large upright post - whose partner on the South side of the West end is F135 - braced by an angled post (F115/F435) located 20cm to its North. The same arrangement exists for the southern partners.

**Posthole F133 (C7)**

Posthole F133:	Level at H2: 15.39m AOD 14.94m at base (0.45m deep)	c.0.70m in diameter	(sub)circular, vertical sided, flat base, cuts foundation trench F40 on its eastern flank. No packing stones (but F40 would act as such on W side) nor pad stones
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**Sequence:**

Posthole F133 consists of a subcircular cut, c. 70cm in diameter, clipping the eastern edge of F40. The base appears almost flat in section; this section (Dr311) also shows that a vertical post, c. 40cm in diameter could be accommodated within the posthole. This post has no padstone nor are any packing stones recorded, but the cobbles C1056 of foundation trench F40 could have acted as lateral support on the West side. Two contexts were recognised in the fill of F133, C1631 seemingly redeposited subsoil in the construction cut and backfill **11889**, possibly accumulated in the disuse phase of the posthole. The latter context produced some animal bone (slag is also mentioned on the context card but does not figure in the finds index).

This posthole is located exactly in the centre of the West side of S1, cutting its foundation trench F40 at 864/914. It is recorded as stratigraphically later than F40 and may therefore be a fortuitous later posthole. This is however highly unlikely. Either the post was erected at the time of building S1, immediately after the construction of foundation trench F40 - whose depth there reached 15.26m AOD, i.e. being much shallower than the post base at 14.94m AOD - or posthole F133 was added to S1 during its lifetime, perhaps to add strength to a wide roof span. A similar interpretation is offered for another posthole inserted into the course of foundation trench F40, F 477 in the southeastern arc near flue F67/F79.

This concludes the northern half of the West end of S1. Following here are descriptions of the postholes of the southern half of the West end, which mirror those of the northern half, i.e. F135/438 (□ F13 1), F136 (□ F435/F115), F134 (□ F132), F138 (□ F118), F443/453/139 (□ F114).

**Posthole F135 and F438 (C7)**



Posthole F135:	Level at H2: 15.42m AOD 14.85m at base (G.57m deep)	(15.45m for stones on top) diam.: c.0.65m	circular, vertical, flat base, no packing nor pad stones
Posthole F438:	15.32m at base (0.10m deep)	diam.: 0.20m	circular, cut F135, filled with C1680

Sequence:

A deep, vertical sided, roughly circular cut, some 0.65m in diameter, is made into the podsolised soil C1152 and subsoil to a depth of 14.85m AOD, U-shaped with a flat base. This construction cut fills with C1191, consisting of laminated redeposited subsoil sands and grey brown silt under and around a vertical post, circular and c. 0.25m in diameter. This post was probably removed and is then backfilled with C1192, a mottled sand and sandy silt filling the post void. The excavator, Nicky Watts, notes on the feature card: "the disturbance of C1191 and the profile of the feature suggest that the post was removed from the East and that this required some effort, i.e. "a leaning over of the post before it could be pulled from the ground". C1677 represents an irregular later backfill probably filling a hollow left after the removal of the post. C1191 and C1192 produced assemblages of animal bone and a hammerscale fragment is also recorded from C1192.

F438 is a later small posthole, which "may represent a replacement; (...) it seems to have been rammed into the surface" (Nicky Watts, feature card for F135). It is smaller and shallower (0.20m in diameter and only 0.10m deep), but, considering that the earlier post void is 0.25m in diameter and 0.20m deep, F438 could conceivably be a replacement post.

Note that F135 is the vertical post in the southern half of the West end supported by the angled post F136. Its northern equivalent is F131.

**Posthole F 136 (C7)**

Posthole F136:	Level at H2: 15.47m AOD 14.95m at base (O.52m deep)	l./w.: 0.75 x 0.45m	oval, steep sided, U-shaped, angled, leaning N towards F135, consisting of packing stones (1683), construction cut backfill (1193) and post void backfill (1194)
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Sequence:

A regular oval cut, 0.75m (N-S) x 0.45m (W-E) is made into the subsoil to a depth of 14.95m. At the base of this cut, 3 stones were found (C1683), one (0.50 x 0.30 x 0.10m) "placed almost vertically against the eastern edge of the cut, towards its northern end, sunk slightly into the subsoil" (Nicky Watts context card; see also drawing D433); the other two are at the base, suggesting that they were placed to support and hold an angled post, angled northwards towards F135. The backfill of the construction cut is C1193, laminated redeposited sand and dark grey silty sand, interpreted as "backfill, originally around a post, disturbed when the post was removed". C1194, a mottled brown silty sand with a v-shaped profile, represents "the backfill of a diagonal post void with layers of lamination showing how material tipped into the posthole once the timber had been removed" (Nicky Watts, context record). The only finds reported from F136 (apart from matrix samples) are an animal bone assemblage from C1193.

F136 is angled towards F135, located only 0.20m to the North of it and it is interpreted as a bracing or buttressing post just as F435/F115 is thought to brace F131 in the northern half of the West end. Both angled postholes have stones set against the base of the inner edge of the posthole to support a (removed) angled post.

**Posthole F134 (C7)**

Posthole F134:	Level at H2: 15.40m AOD 15.19m at base (0.21m deep)	l./w.: 0.65 x 0.40m	oval, steep sided, shallow, flat based, with 1653 set in base, construction cut backfill 1190 and vertical post pipe backfill 1652
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Sequence:

A shallow oval cut is made into the subsoil C1032 to accommodate a large padstone (C1653), 0.40 x 0.28 x 0.10m in size. This stone supports a post represented by the postpipe backfill C1652, vertical sided and circular, some 0.25m in diameter. The posthole construction cut is backfilled with C1190 recorded as mottled dark brown sandy silt with patches of yellow sand and large pebbles as well as fragments of burnt animal bone (the finds index lists an animal bone assemblage from C1190). F134, in the southern half of the West end, is in every respect the exact equivalent of posthole F132 in the northern half.

### **Posthole F138 (C7)**

Posthole F138: Level at H2: 15.45m AOD figure of 8: 1.40 x 0.60m double posthole, consisting of 2 oval postholes: S one vertical with packing stones 1722 and backfills 1724 and 1716; N angled or vertical with post cut at base (1732), backfills 1728, 1723 and 1197. Packing stone 1726 perhaps a disturbed packing stone for the N post

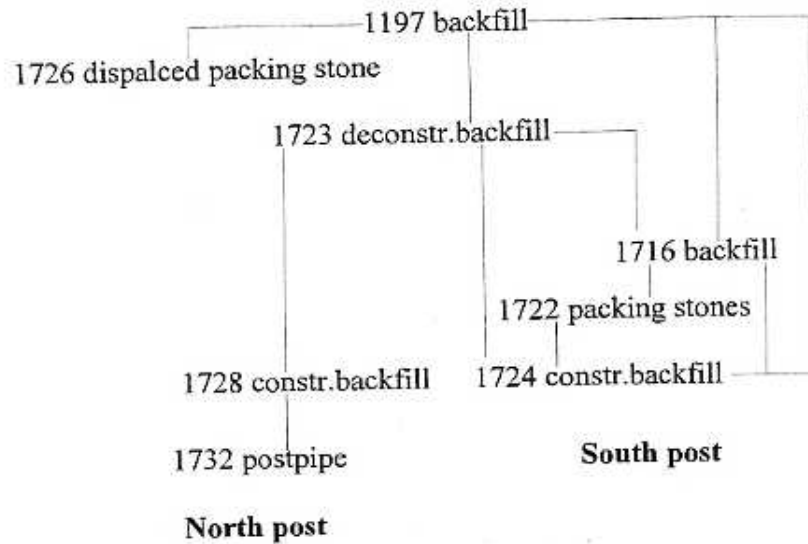
14.73m at base in NW (0.72m deep)

14.88m at base in SE (0.57m deep)

### **Sequence:**

Posthole F138 was recorded as a single feature with contexts representing different episodes of cuts, removal and backfills but there are certainly two distinct postholes represented. The northern one appears to be the earliest, represented by a deep cut (C1732), cut into the subsoil to a depth of 14.73m AOD, surviving as a cut of some 19cm into the subsoil, waterlogged (below water table in summer 2002), circular (c. 0.25m in diameter) and interpreted as a first post pipe. The northern posthole construction cut is then backfilled with C1728, found under C1723 which is interpreted as the backfill of a cut made to remove the original northern post. As this “deconstruction cut backfill” C1723 also overlays C1716 - the latter interpreted as the backfill of the removed southern post - it must be assumed that both northern and southern posts were removed, perhaps to be replaced by a later post. But C1197, which is angled, with deposits tipping towards NW, i.e. representing a possible post leaning SE is said to be “probably a mixture of C1723 and other windblown or collapsed material”. Thus, the replacement post hypothesis is not certain; further RC notes on the feature card: “the first post may have been upright as suggested by C1732, but later reused for an angled post as suggested by C1197. It is possible that the deconstruction gives this impression as the post tipped, however this cannot be certain”.

The southern post is somewhat shallower than the northern one. It is an oval cut into the subsoil, some 0.70m x 0.60m, with vertical sides, reaching a depth of 14.88m AOD. Its first context is construction backfill C1724 made of redeposited subsoil mixed with darker sandy silt into which an upright sandstone packing stone (C1722), 0.52 x 0.35 x 0.11m, is set. This supports an upright post, perhaps 0.40m in diameter (measured on section D601) which appears to have been backfilled with C1716. This latter context is recorded as under the “deconstruction cut backfill” C1723. The stratigraphy given by the context cards is given below.



The sequence for F138 is therefore not completely resolved. Either two posts were set next to each other at the same time, or a southern post replaces an original northern post. In any case, both are removed, but it is not certain whether a later post was inserted or whether the angled C1197 represents further backfill episodes. The finds from F138 consist of animal bone assemblages from contexts 1197, 1723, 1716, and 1732 as well as a hammerscale fragment from C1723.

### Posthole F139, F443, F453 (C8)

Posthole F453:	Level at H2: 15.44m AOD 15.14m at base (0.30m deep)	diameter: c. 0.40m	circular?, steep sided, with packing stone 1691, post void backfill 1685, cuts F443
Posthole F139:	Level at H2: 15.44m 15.34m at base(0.10m deep)	l./w.: c. 0.60 x 0.30m	oval / rectangular, shallow cut with flat base filled with 1198, cuts F443
Posthole F443:	Level at H2: 15.44m 15.01m at base (0.43m deep)	l./w.: 1.00 x 0.40m	oval / rectangular, steep sided, flat based, with 1697 in base, packing stone 1714, backfill 1696

#### Sequence:

F139 is a shallow (10cm deep) cut into the top of F443 and its fill (C1198, containing animal bone, a stone pebble and fuel ash slag) is interpreted as the backfill of a construction cut, presumably to accommodate posthole F453. The later consists of a U-shaped void backfilled with C1685 into which a displaced red sandstone packing stone slab, 28 x 25 x 5cm (C1691) had tipped. F453 is interpreted as a removed post, possibly circular and 20-25cm in diameter, backfilled after dismantling. It replaces an earlier posthole, F443, the larger and deeper cut into the subsoil: this oval posthole had a large pad stone (C1697), 29 x 27 x 6.5cm, placed in the flat base at the central-southern end of the construction cut (where the replacement post F453 is also positioned). This padstone supported an upright post, but little of this remains as the post void was cut by F453 (see section D454). The construction cut was backfilled with C1696 which contained some animal bone; a packing stone

(C1714) “appeared in the middle of C1696; (...) it was disturbed at a later stage”. In summary, F443 is an upright post on a padstone, replaced by upright post F453, set in construction trench F139. The replacement post appears to have been dismantled. F114 is the equivalent of F443 in the N of the West end.

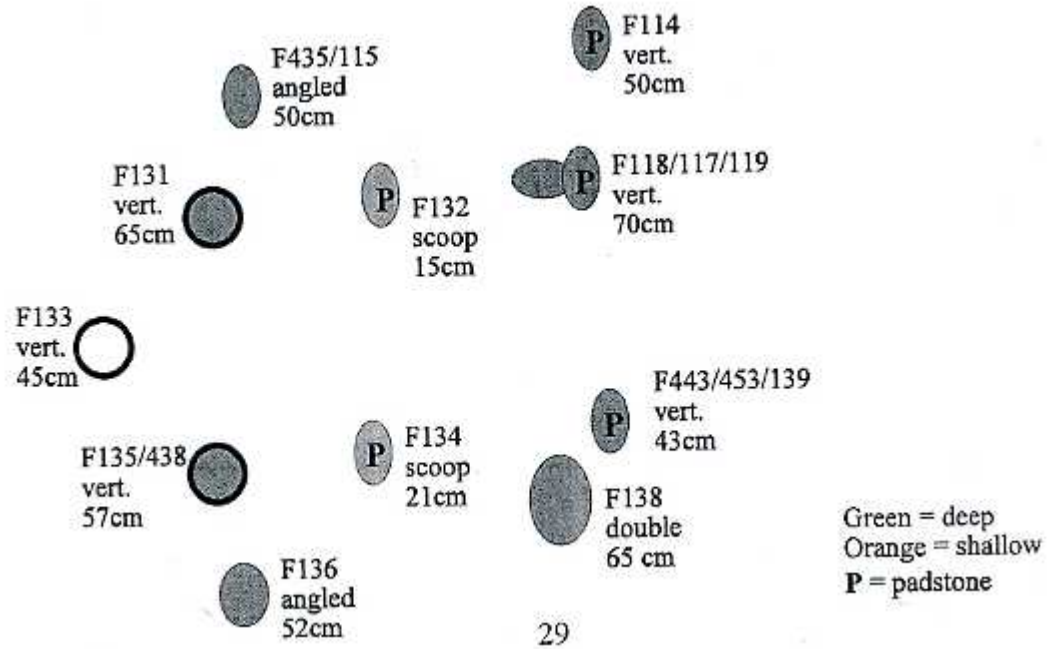
### Summary of the West end

The symmetry displayed by the posts of the West end is remarkable, the five posts or post sets of the North being almost exactly mirrored by the five posts or post sets of the South. The eleventh post is the post found in the centre of the western run of foundation trench F40.

A table can summarise these similarities (the similarities between the northern side and southern side are highlighted):

Northern half						Southern half					
Feature	pack. stone	pad stone	depth (m)	shape	post	Feature	pack. stone	pad stone	depth (m)	shape	post
F114	yes	yes	0.50	ov/rec	vert.	F443	yes	yes	0.43	ov/rec	vert.
						F453	yes	no	0.30	circ?	
						F139	yes	no	0.10	ov/rec	
F117	no	no	0.37	rec.							
F118	no	no	0.70	ov.	vert.	F138	yes	no	0.65	double	vert.
F119	no	yes	0.30	ov.	vert?						
F132	no	yes	0.15	ov.	scoop	F134	no	yes	0.21	ov/rec	scoop
F435	yes	no	0.50	ov/rec	angl.	F136	yes	no	0.52	ov/rec	angl.
F115	yes	no	0.26	circ.	angl.						
F131	no	no	0.65	circ.	vert.	F135	no	no	0.57	circ.	vert.
						F438	no	no	0.10	circ.	

And in diagrammatic form:



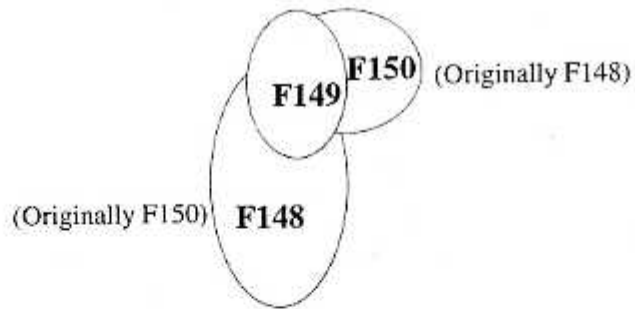
### The East end

Eight postholes or posthole sets make up the eastern structure of S1: they consist of an arc-shaped arrangement of eight double posts around hearth F65, respecting the course of foundation trench F40. We shall start with the description of these posts in the SW with F148/F149/F150 and then proceed anticlockwise until we reach the porch.

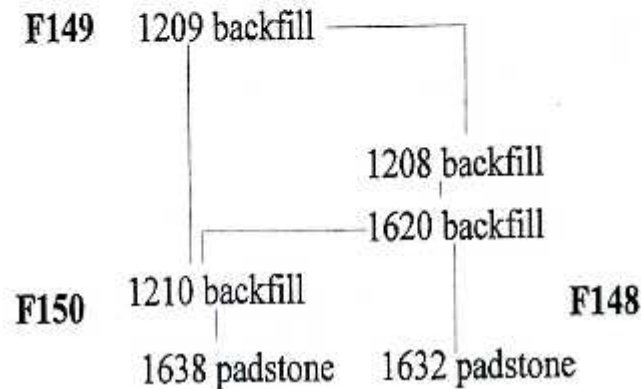
#### Postholes F148, F149 F150 (C8)

Posthole F149:	Level at H2: 15.48m AOD 15.06m at base (0.42m deep)	l./w.: c. 0.70 x 0.50m	oval, filled with C1209, cuts F148 and F150
Posthole F148:	15.00m at base (0.48m deep)	l./w.: 1.30 x 0.65m	oval, filled with C1208 and C 1620, 1632 in base
Posthole F150 :	15.00m at base (0.48m deep)	diam.: c. 0.70m	oval/circular, filled with C1210 and 1638 in base

There is a lot of confusion in the records regarding F148 and F150; the context and feature numbers that appear on plan, sections and photographs are not those on the record cards, the feature numbers that appear on the “hammerhead” hachure plans do not tally with those of the pre-excavation plans. I believe the two features got switched in the excavator’s mind halfway through excavation: the northernmost posthole, F148, changed into F150 and the southernmost posthole, F150 transformed into F148. As most of the records were made after the switch was made, it seems easier to follow the modified scheme. So from now on the postholes will be called:



#### Stratigraphy:



The following sequence appears to emerge:

The latest cut is F149, a sub-oval feature, c.0.70 x 0.50m, cutting postholes F148 and F150 to a depth of 0.40m to 15.08m AOD. It is steep sided, U-shaped with a quite pointed base and backfilled with a single backfill (C1209), consisting of dark brown silty sand with gravel pebbles, charcoal and animal bone.

F148 and F150 are the earlier double posthole. The backfill C1210 of F150 is said to be cut by C1620 of F148, which would therefore make F148 the later of the two postholes. This is indeed how it was excavated (see TR01 N302/04-05 showing F150 showing with its fill C1210 intact over padstone C1638, after removal of F148). However, as the padstone C1638 of F150 is half under the backfill C1210 of F150 and half under the backfill C1620 of F148, and since both padstones (C1638 of F150 and C1632 of F148) are set next to each other, at the same level in the base of the cut for F148 and F150 (see photos TR01 N302/01 and N303/37,) it would seem reasonable to suggest that both postholes were cut at the same time, that padstones set in the base, measuring 48 x 27 x 5 cm (C1632) and 59 x 45 x cm (C1638) respectively. These padstones could each accommodate an upright post, of a maximum diameter of 40cm. It may be that F148 was dismantled after F150. The description of the backfills suggests that there were no post voids in situ; the mixed nature of C1208, 1210 and 1620, the mention of large cobbles in 1208 and 1620 (probably displaced packing stones) and the finds made in 1208 and 1620 (animal bone assemblages) suggest that these backfills accumulated after the posts were removed.

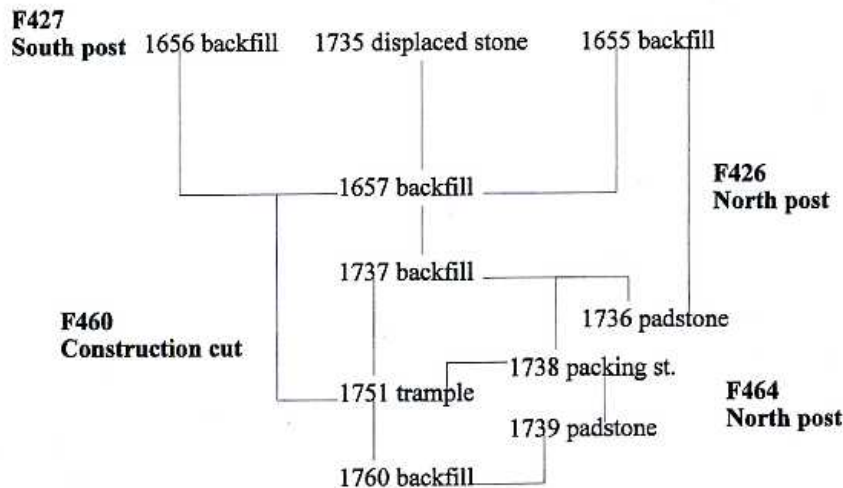
#### Postholes F426, F427, F460 and F464 (D5)

Posthole F427:	Level at H2: 15.49m AOD 15.23m at base (0.26m deep)	diam.: c. 0.50m	circular / oval S post, angled bracing post for F426, backfilled with 1656. No packing or pad stones set in constr. cut F460
Posthole F426:	Level at H2: 15.47m 15.20m for top of stone C1736 15.16m? in base (0.31m deep)	diam.: c. 0.65m	circular / oval N post, upright, backfilled with C1655, displaced packing or pad stone C1736 in base
Posthole F464:	Level when defined: 15.21m 15.00 at base of stone C1739	size:? (0.5m deep)	Circular? N post, upright, not seen, except for displaced packing stones C1738 and pad stone C1739
Con. cut F460:	Level at H2: 15.49m 15.14m in base at S (under F427) 14.89m in base at N (under F464/F426) (0.60m deep)	l./w.: 1.90 x 0.90m	subrectangular, steep sided (N edge is vertical, S edge is steep, stepped in profile towards N (the deepest end), backfilled with C1760, 1751, 1737, 1657 and surface stone C1735

**Sequence:**

A large, deep, bath-shaped construction cut is made into the subsoil. It is sloping northwards towards its deepest end at 14.89m AOD, 60 cm below the surface at Horizon 2. A first backfill consists of a yellowish brown silty sand, containing a few animal bones (C1760) and a further backfill (C1751, also containing animal bone) accumulating in the base of F460. A first post is established at the northern (i.e. inner) end of the construction cut. This post, F464, was not seen during excavation and consists of a set of red sandstone slabs set in the northern end: the lowermost is C1739, a pad stone measuring 41x24x10cm, and the two upper ones are interpreted as displaced packing stones (C1738).

**Stratigraphy:**



It appears from the records that this first post (F464) was removed (causing C1737, referred to as a destruction layer to accommodate F460) and replaced by a later post (F426) set in the same position at the northern end of the posthole construction cut, over a padstone (C1736) measuring 30 x 23 x 6cm. At the southern end, a posthole (F427) is cut; it contains no padstone in its base and is interpreted as the remains of an angled post, set to brace the upright post F426. The diameter of these roughly circular postholes is 0.65m and 0.50m respectively, allowing for timbers perhaps 30-40cm in diameter. It would seem that these postholes (F426 and F427) were backfilled with C1655 and 1656

respectively; the excavator, Roy Jerromes, notes large amounts of animal bone in the top as well as charcoal, burnt animal bone and a flint flake (a strike-a-light?) throughout the backfill, suggesting that these deposits are secondary deposits. The sloping profiles as well as the location of the displaced sandstones - one in the top of C1655, another (C1735) on top of the latest backfill of F460 (C1657) - would suggest that the posts had been dismantled rather than left to decay in situ, though this remains a possibility (notice the near vertical edges of F464 and F426). The finds index records the presence of animal bones in F426, F427 and F460, a stone pebble, a sheet of mica and a flint flake in F426.

In summary, the evidence is not wholly satisfactory. It would seem reasonable to suggest that a first northern, inner upright post (F464) was replaced by a second double post arrangement of northern, inner, vertical post (F426) and southern, outer, angled post (F427). The latter two may have been dismantled, allowing debris to accumulate in the resulting voids.

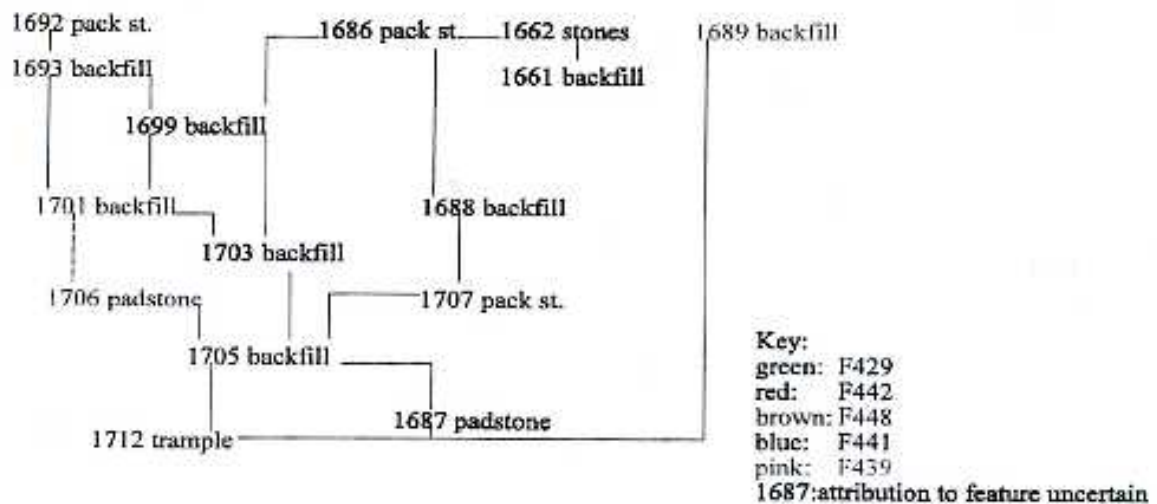
### Postholes F429, F439, F441, F442 and F448 (D5)

There are difficulties in presenting this posthole series, as records are incomplete or inconsistent in places. The following account is an attempt at "best fit".

Posthole P439:	Level at H2: 15.50m AOD 15.16m at base (0.24m deep)	diam.: 0.40-0.50m	subcircular, North late hole, backfilled with C1689, cuts F429 to North
Posthole F441:	Level at H2: 15.50m 15.25m at base (0.25m deep)	diam.: 0.55m	subcircular South posthole, angled?, backfilled with C1693, displaced packing stone C1692 (20 x 20 x 3cm), cuts F448
Posthole F448:	Level at H2: 15.50m 15.22m at base of stone C1706 (0.28m deep)	c. 0.90 x 0.50m	oval South posthole, angled?, backfilled with C1701, 1706 (20 x 17cm) in base, cut by F441
Posthole F442:	Level at H2: 15.50m 15.20m at base (0.30m deep)	diam.: 0.55m	circular N posthole, vertical, superficial stone C1686 (32 x 30 x 23cm), backfilled with C1688; packing or padstone C1707 (36 x 25cm) in base, possibly C1687 (55 x 35cm), but see comments
Con. cut F429:	Level at H2: 15.50m (15.02m at base (0.48m deep)	2.20m) or 1.80 x 0.80m	subrectangular, backfilled with C1661 (no strat.), superficial stones C1662 (largest: 38 x 20 x 10cm), backfill C1705, trample C1712 at base. C1687 in base supports an early post?

Stratigraphy:





#### Sequence:

The most likely sequence appears to be as follows: a construction cut is made into the subsoil, to a depth of 15.02m AOD. A thin layer of trample accumulates in the base (C1712). A large, flat, red sandstone padstone, 55 x 35 cm is set in the base of this construction cut at its northern end. There is no remnant of this early post, as the backfill C1705 of construction cut F429 clearly seals the padstone (see photographs N 335/07, 11-12). After C1705 has backfilled the base of construction cut F429, two posts are set: the northern one is F442, the southern one is F448. F448 rests on a padstone (C1706), F442 has in its base a displaced packing stone or a padstone (C1707). The posts that would sit on these stones are upright in the case of F442, angled (to brace F442) in the case of F448, possibly circular, with a diameter of 30-40cm. The post voids are backfilled with C1668 (F442) and C1701 (F448). These two early posts are then replaced by two later posts. In the South, F441 replaces F448, in the North F439 probably replaces F442 (but see below). The post voids of these two later posts are backfilled with C1693 (F441) and C1689 (F439).

The finds index notes the presence of animal bones in F429, F442 and F441, of burnt clay, mica, slag (including hammerscale) from F429, and of flint in F442.

There are however some problems with this sequence, arising from a scrutiny of the written records, the section (Drawing D426) and the photographs. These problems are:

- \$ the padstone C1687 implies that there is an early posthole, not F442 as recorded (because the backfill C1705 of F429 appears clearly between C1687 and the base of posthole F442)
- \$ C1706 is said to be a padstone of F448, but there seems to be a backfill layer of the construction cut F429 (C1705) both above and below the padstone C1706
- \$ there are problems with the interpretation of C1703 (said to belong to F442, the early northern post) and C1699 (said to belong to F441, the later southern post). If they are construction cut backfills, as suggested in the records, then they are packed against a post that becomes a post ghost. But the section drawing seems to show that these backfills are cut by F442, F448 and F441. In this case, the features F441, F448 and F442 are not post ghosts but the shape of cuts to remove posts, later backfilled with C1688 (F442), C1701 (F448), C1693 (F441)
- \$ F439 may or may not be a late northern replacement of the early northern post F442: the photographs N335/07 and 11-12 would suggest that this is a later hole, cut to the North of the

double posthole. This would make the original double posthole some 1.80-1.90m long, more in keeping with the size of the other double postholes of S1. The inner edge of the double posthole would then be vertical, in keeping with the inner edges of other double postholes of S1.

\$ C1686 is said to be a packing stone for posthole F439 (the putative late northern replacement of F442). This extremely large block, 32 x 30 x 23 cm in size sits directly on top of the backfill C1688 of F442, away from the edge of F439, and is therefore more likely to be a displaced packing stone that slipped into the backfill of a decayed or dismantled F442.

\$ there are a number of other large stones seen on the northern surface of the double posthole (C1662), probably further displaced packing stones. They are recorded as overlying a context, C1661, said to be the backfill of the construction cut F429: unfortunately the latter is not recorded stratigraphically, does not appear on section D426. It is assumed that C1661 is a context number allocated to the backfill of F429 when first identified on the surface of Horizon 2, but not identified in section.

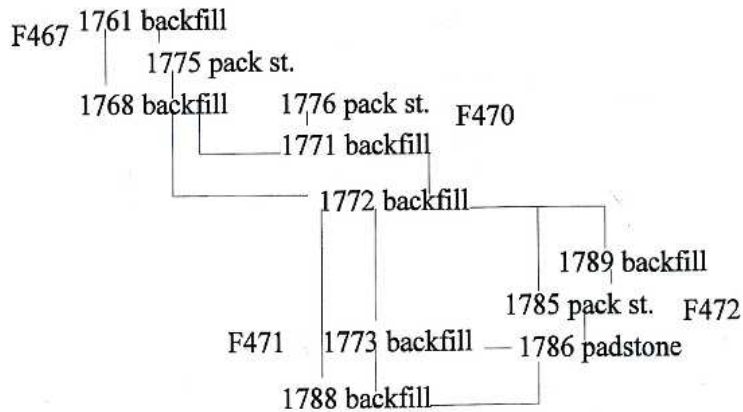
\$ record cards for C1687, C1705, C1706, C1707 were not created at the time of excavation.

In summary, records for the F429 series are not wholly satisfactory but it seems reasonable to propose that an early upright post, represented only by padstone C1687, was replaced by a double posthole in which two posts, one inner upright (F442) and one outer angled (F448) were set. These are replaced by two later equivalents (F439 being the inner upright, F441 being the outer angled one). The shape of F442 in section suggests that this feature is a post ghost, with later backfill C1688 and stone C1686 having slipped into the resulting void. The shapes of the other features (F448, F441, F439) are less convincing in section, perhaps representing cuts for removing posts.

#### **Postholes F467, F470, F471 and F472 (D5)**

Posthole F467:	Level at H2: 15.46m (15.59m for stone on top) 15.35m at base (0.11m deep)	diam.: 0.30m	circular, backfilled with C1761, C1768 and packing stone C1775, cuts F470 and F471
Posthole F470:	Level at H2: 15.45m (15.48m for stone on top) 15.28m at base (0.17m deep)	diam.: 0.30m	circular, backfilled with C1771 & packing stone C1776, cut by F467, cuts F471
Posthole F472:	Level at H2: 15.42m (15.50m for stones on top) 15.06m at base (0.36m deep)	diam.: 0.60m?	oval?, angled? posthole at E end of cut F471, backfilled with C1789, packing stones C1785 (largest 30 x 20 x 5 cm) and C1786 (70 x 30 x 10 cm) in base. Cut by F79
Con. cut F471:	Level at H2: 15.42m AOD 15.06m at base (0.36m deep)	l./w.: 1.80 x 0.90m	subrectangular cut, backfilled with C1772, 1773 and 1788. Posthole F472 set in

Stratigraphy:



#### Sequence:

A construction cut is made into the subsoil. This construction cut seems to fill with a first redeposited sand backfill (C1788), possibly also a second backfill (C1773) in which, according to section D467, a post (F472) is set. This post is erected at the eastern (outer) end of the construction cut: a large padstone (C1786 of F472, measuring 70 x 30 x 10cm) is set at a slight angle: either it has shifted within C1773 (as the section shows C1773 both under the stone and abutting it and was placed to support an upright post or it is placed to support an angled post leaning westwards towards the interior (see photo N325/29-30 and N333/28-30). Overlying this large stone is a number of stones (C1785 of F472) taken to be displaced packing stones for this post. The records for F472 also mention a backfill context, C1789: this black sandy silt appears in a curious position on section D476 and is said to be “caused by the adjacent packing stones being further disturbed”, from which we may surmise that post F472 was at least disturbed, if not dismantled. Unlike other “bath shaped” double postholes of the east end of S1, F429 does not possess an upright inner posthole. All there is, is a later backfill context of the construction cut F471 (C1772), interpreted as a “destruction backfill” containing many stones, particularly on its western (inner) surface (see plan D466 and photos N323/06-07 and N325125 and 29-30). This part of the feature is also heavily disturbed by burrows and it is also the area that was later cut by two small circular postholes F470 and F467. It is highly likely that F467 and F470 are two later postholes unrelated to the sequence and belonging to a set of late features cutting S1. They have been included here because they cut the latest backfill of F471 (C1772). Finally, it must be noted that the flue F79 of S1 clips the eastern end of the double posthole F471; there is yet a further feature, a posthole (F395) to the east of the flue, which, by its shape and position may in fact belong to the double posthole F471.

The finds index notes the presence of animal bone in F471, F472, F470 and F467.

In summary, F471 does not have the full complement of characteristics one would expect from a double posthole. There are two likely interpretations: either it only contained an outer, eastern post, upright or angled or it contained an angled outer, eastern post (F472) bracing a possible upright western post that was not identified, having been completely removed by the cut that then filled with C1772. It is likely that these posts were removed in a destruction episode, possibly associated with the cutting of postholes unrelated and later than Structure 1 (F470 and F467). Of the two interpretations, the first is somewhat more plausible: as we shall see from the description of the next set (F47), also located in the eastern run of the East end, there is also no convincing double post, no inner partner.

### Postholes F47 and F408 (D1)

Posthole F408:	Level at H2: 15.32mAOD 15.00m at base (0.32m deep)	c. 0.50 x 0.40m	oval/circular, steep sided to vertical, on E edge set against packing stones C1601 (F47), backfilled with C1600, cuts F47
Con. cut F47:	Level at H2: 15.32m 15.00m at base	l./w.: 1.80 x 0.90m	subrectangular, backfilled with C1063 & 1604, packing stones and C1601. In base, cut by F79

#### Sequence:

F47 represents a construction cut with a deeper eastern end and a tapering shallower western (inner) end, cut to a depth of 15.00m AOD. Set in the base of this construction cut at its eastern end is a large sandstone slab, 50 x 40 x 10cm (C1601) on which rest a further two sandstone slabs. The excavator, Nicky Watts, notes: "originally thought to be large packing stones for posthole F408, these stones do not seem to be in the right position, and so seem to be a post pad for another post".

The section drawn on D191 and a scrutiny of the photographs can be interpreted in different ways.

Either F47 contains just one post at its eastern end, set on top of the large padstone C1601. The construction cut is then backfilled with C1063 and a vertical post (F408) is inserted later. C1604 which seals F408 would represent an even later episode. *Or* a construction cut is made (F47) and an upright post (F408) is set in this cut, surviving as the vertical post ghost visible in section D191. The construction cut is then backfilled with C1063 against this post. At a later stage a new post is erected in the construction cut F47, resting on padstone C1601 and held by further packing stones (also C1601). This replacement post is then removed allowing C1604 to accumulate in the hollow. Note finally that F47, just like F471 is just clipped at its eastern end by the flue F79 of S1.

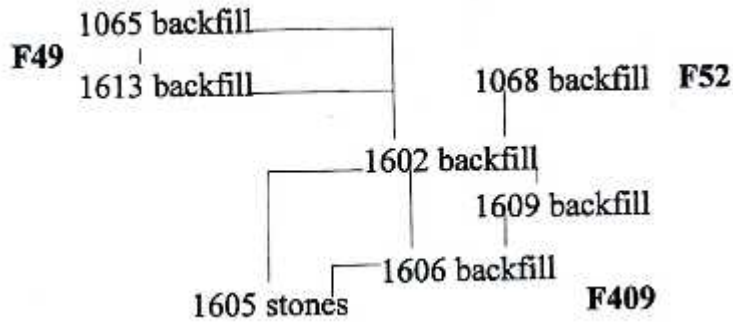
The finds index notes the presence of animal bone in F47 and F408, of slag (including hammerscale) in F408.

Either scenario show that F47, just like F471, does not possess the full complement of attributes of double postholes. It may be that these two sets of postholes, seemingly only containing one post at their eastern outer ends, are different from the "aisle posts" of the East end, because they do not have such a load-bearing capacity. It may also be that the easternmost area of Structure 1 suffered most from later attrition; it is at its shallowest (the surface of horizon 2 being only around 15.30m AOD), allowing only the bottom 30cm of postholes to survive. It is also the area that suffered most from later cuts (Structure 2 and large numbers of later postholes concentrate here).

### Postholes F49, F52 and F409 (D1)

Posthole F49:	Level at H2: 15.32m AOD 15.00m at base (0.32m deep)	l./w.: 0.60 x 0.55m	irregular S posthole, backfill is C1065 and 1613, cuts F409
Posthole F52:	Level at H2: 15.45m (stones) 15.10m at base (c. 0.20m deep)	l./w.: 0.75 x 0.45m	oval N posthole, backfill with packing stones C1068, cuts F409
Con. cut F409:	Level at H2: c.15.28m AOD 14.77m at base (0.51m deep)	l./w.: c.1.80 x 0.80m	subrectangular cut, backfill is 1602, 1606, 1609, packing and pad stones 1605 in base

#### Stratigraphy:



Sequence:

A steep-sided cut is made into the subsoil, to a depth of 14.77m AOD (see photo N299/32). Placed into the base of this cut at the southern, inner end is a large sandstone slab (the lowest of the stones C1605, seen at a level of 14.91m to 14.84m AOD) measuring c. 0.30 x 0.25m, acting as a pad stone for a first southern post with vertical sides, perhaps circular with a diameter of c. 0.40m (see section drawing D290). Stacked on top of this first stone (see photo N3 15/29) are 3 further sandstone blocks (one measuring 0.46 x 0.30 x 0.16m) and slabs acting as packing stones (see photo N3 15/27-28). The construction cut is first backfilled with a grey silty sand, C1606, overlain by a lighter silty sand with redeposited subsoil (C1602). To the West of this backfill is yet a further backfill, C1609, stratigraphically earlier than C1602. There appears to be no early partner posthole at the northern end of the construction cut F409 (see section drawing D288).

Two later cuts are made into the backfilled F409. The northern, outer one, F52, appears as a more convincing posthole than the southern one. F52 is an oval cut, some 0.60m in diameter, cut into the top 20cm of F409 (to a depth of c. 15.10m AOD), backfilled with C1068 containing large cobbles, possibly packing stones (see photo N297/11-12, N314/27, N315/27-28). The shape of the feature and angle of the packing stones would allow for an interpretation as an outer bracing post, but stratigraphically F52 is later than the early southern upright post in F409, as F52 is recorded as cutting the latest backfill C1602 of F409. If F52 is bracing something, then it may be F49, a possible posthole cut into F409 at its southern end. This “posthole” is irregular in shape, tacked on to the southern end of F409, contains mixed deposits C1613 and 1065 disturbed by burrows and cuts into the topmost backfill of F409 (C1602) to a depth of c. 30cm, at 15.00m AOD. F49 seems to sprout “lobes” (see plan D292), suggesting that this southern posthole was disturbed or dismantled. Note also that the digitised hachure plan of F49 shows it to be in an incorrect position, slipped by half a metre to the West. It may be that both F52 and F49 are later cuts, perhaps belonging to a destruction phase of F409.

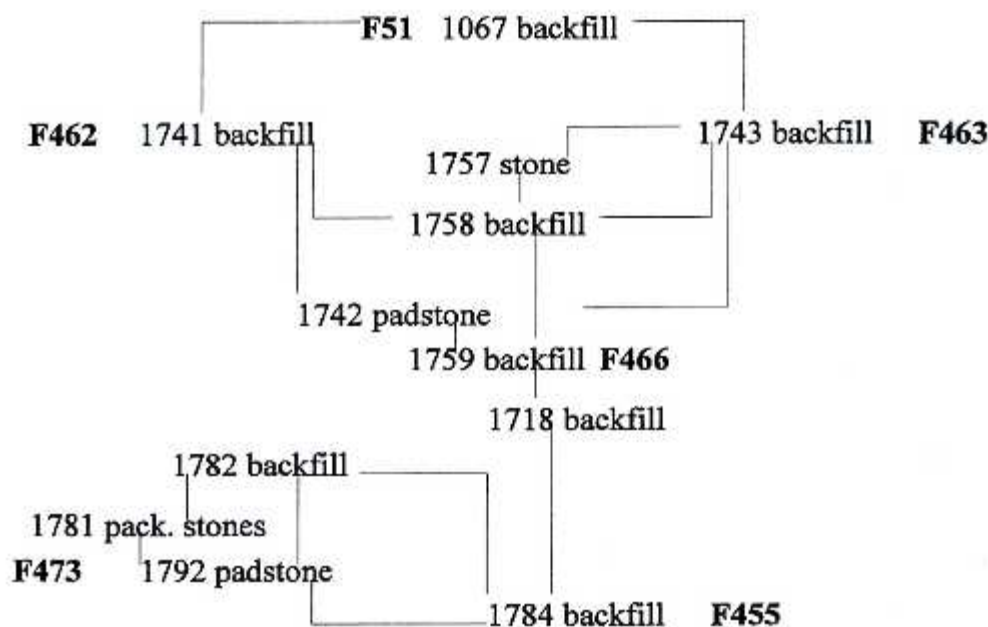
The finds index note the presence of animal bone in F409, F52 and F49, of slag (including hammerscale) in F49.

**Posthole F51, F455, F462, F463, F466 and F473 (D1)**

Posthole F51:	Level at H2: 15.33mAOD 15.17m at base (0.16m deep)	l./w.: 0.85 x 0.70m	suboval cut into top of F455, backfilled with C1067
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Posthole F462:	Level at H2: 15.34m 15.14m at base (0.20m deep)	diam.: c. 0.40m	circular S posthole, near vertical side to S, sloping side to N, cut into top of F455, over F466. Backfilled with C1741; cut by F51
Posthole F463:	Level at H2: 15.34m 15.13m at base (0.21m deep)	l./w.: c. 0.60 x 0.50m	oval? N posthole, angled?, sloping sides, cut into top of F455, backfilled with C1743, possible packing stone C1757?
Con. cut F466:	Level at H2: 15.34m 15.13-15.09m for top of stone C1742 14.98m at base (0.36m deep)	l.; ? / w.: c. 0.65m	F466 refers to a construction cut that cuts the entire F455 with large C1742 in S base, backfilled with C1759, C1758 and superficial packing or C1757?
Posthole F473:	Level defined: 15.02m 15.00-14.92 for top of stones C1781 14.96-14.86m for top of stone C1792 14.78m at base (surviving depth 0.25m)	diam.; c. 0.70m	circular S posthole, vertical sides, in base of F455, with large C1792 (47 x 35 x 12cm) in base, packing stones C1781 and backfill C1782. Cut by F466
Con. cut F455:	Level at H2: 15.34m 14.78m at base (0.56m deep)	l./w.: (1.80) x 0.75m	subrectangular cut, vertical side in S, sloping side in N, backfilled with C1718 over C1784, and recovery context 1733. Contains earliest posthole F473 in base at S, then F466, F462 and F463. Cut by F51

Stratigraphy:



#### Sequence:

A construction cut, F455, is made into the subsoil to a depth of 14.78m AOD. Note that this construction cut only exists at the southern, inner end of the posthole set, having been overcut during excavation (see drawing D616). A first post is represented by feature F473, a posthole set against the southern, inner edge of the construction cut. It consists of a large sandstone slab (C1792), 47 x 35 x 12 cm, set almost horizontally in the base of the construction cut (see photo N333/33), able to support an upright post, perhaps 0.40m in diameter. Over this pad stone are set 4 thin red sandstone slabs, some horizontal, some set at an angle, representing packing stones that have collapsed into a post void backfilled with a brown sand (C1782). It then appears from the section drawing (D616) that a backfill layer (C1784) accumulates in F455, consisting of mixed dark grey silty sand and yellow sand, perhaps tread or trample, and a new backfill (C1718) sealing F473. The context description of the latter interprets this deposit as a construction backfill “representing the redeposition of subsoil following the post construction”. It may be that these contexts are not construction backfill for an early southern post, but belong to a later episode related to the cutting of F466 and the erection of posts F462 and F463. In any case, there does not appear to be an early northern (outer) posthole at the northern end of the posthole construction cut F455, stratigraphically equivalent to F473.

Animal bone and a fragment of mica sheet are reported from F455 in the finds index.

Superceding posthole F473, a new cut - F466 - is made, seemingly through the whole of the earlier construction cut F455, implying that the early post F473 was replaced. Set in a position similar to the earlier post, i.e. against the vertical southern edge of the original construction cut, a large sandstone pad stone (C1742), measuring 50 x 48 cm and up to 16cm thick, occupies the base of the cut F466 (see photo N322/33 and N323/30-32). It probably supported an upright post, perhaps 40cm in diameter. This pad stone seems set in a context (C1759) that is interpreted as “the earliest deposit following the construction of F466, identified as a probable “trample” preparation phase whereby C1759 is introduced to form a level bed of sand on which C1742 could sit” (context description by Richard Jackson). A later backfill (C1758) then appears in section: R Jackson identifies it with “the backfilling associated with the construction and stabilisation of the post pad stone and angled post F463”.

The finds index records animal bone from F466.

At this stage, two features appear (see photos N336/1-10 and 35-37): a southern, inner feature, F462,

placed in the same position as the padstone C1742 of F466 and the earlier posthole F473, and a northern, outer feature, F463. These two features, c. 0.40m in diameter (northern circular posthole F462) and c. 0.60m in length (southern oval posthole F463) are backfilled with C1741 (F462) and C1743 (F463). They are either the post ghosts of an inner upright post set on pad stone C1742 and of an outer angled post held in position by a (displaced?) stone C1757, or they are the hollows left after decay or even dismantling of the two posts: animal bone, some burnt, and a whetstone are reported from C1741 of F462, animal bone, some also burnt, is listed from C1743 of F463 in the finds index. Finally, a superficial circular feature, F51, cuts the backfilled latest features (see N332/17-18, 27-28, N322/4-5); its backfill C1067 contained animal bone. It may be that this feature is unrelated to the double posthole sequence, belonging to a later episode, perhaps linked to posthole F53 further North.

The F455 sequence can be summarised thus: a construction cut (F455) receives a first inner southern upright post (F473) set on a padstone; at this stage there is no equivalent early outer angled post. A new construction cut (F466) is made and a new southern inner upright post is set on a new padstone, in the same position as the earlier one. But this time this inner upright post (F462) is accompanied by an angled outer northern post (F463), probably bracing the inner upright. Both posts decay or are removed, receiving debris in the post voids or removal hollows, to be cut later by a last feature (F5 1), possibly unrelated to the sequence.

#### **Posthole F128, F129 and F402 (C4)**

Posthole F129:	Level at H2: 15.39m AOD 14.95m at base (0.44m deep)	diam.: c. 0.70m	circular S posthole, steep sided, vertical in lower part (0.30m in diameter), backfilled with C1180 and packing stones C1587. Cuts F402
Posthole F128:	Level at H2: 15.38m AOD 15.27m at base (0.11m deep)	diam.: c. 0.50m	circular N angled? posthole, scooped, backfilled with C1179. Cuts F402
Con. cut F402:	Level at H2: 15.36m AOD 14.71m at base (0.65m deep)	l./w.: 1.65 x 0.90m	subrectangular cut, vertical sides in S, sloping and stepped sides in N, backfilled with C1181, cut by F128 and F129

#### **Sequence:**

A deep cut is made into the subsoil, reaching a depth of 14.71m at what will later be the southern end of construction cut F402. As recorded, this construction cut received a single backfill, C1181. But a scrutiny of the section drawing (D330) and of the photographs (see N318/13 and 19) suggests that a slightly more complex sequence is represented: a very dark grey fill fills the bottom 20cm of the deepest southern, almost vertical cut. Its base is level, but, unlike F455, F409, F47, F429 and F150, there appears to be no pad stone in this space, capable of receiving an upright post some 0.40m in diameter. Nevertheless, it is possible that an early southern upright was placed in this position. Next, it would appear that the full extent of construction cut F402 is cut, to a depth of c. 14.95m AOD. It is at this height that the level base of a southern upright post, circular and some 0.30m in diameter, is encountered. This post (F129) survives well as a vertical post ghost in its bottom 0.25m, but is not set on a pad stone. There are 3 packing stones (C1587: 2 cobbles and a sandstone slab, see photo N297/7 and N3 14/26) lining the edges of the posthole which is then further backfilled with C1180 containing quantities of animal bone (see N298/19). An iron nail is also recorded as coming from F129. Unfortunately no distinction was made between the post void fill of F129 and its later backfill; both are recorded as C1180.

At the northern, outer end of F402, a shallow posthole - F128 - is recorded as cutting the backfill C1181

of F402. The section and photographs (N318/13 and 19) suggest that this is an angled post bracing F129

and that the scoop recorded as F128 represents the latest disuse phase, when its backfill C1179



received

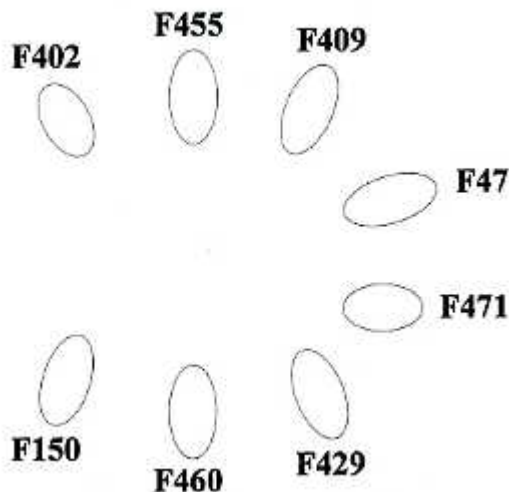
large quantities of animal bone (see photo N308/31 and N305/26).

In summary, F402 may have accommodated an early upright southern post, removed and replaced with a double post construction cut (still F402) accommodating an inner upright post (F129) and outer angled post (F128). The disuse phase of these posts contained large quantities of animal bone.

Having reached the end of the description of individual posthole sets, a summary of the East end will be found overleaf.

## Summary of the East end

The structural postholes of the East end of Structure 1 were not all recorded to the same standard, with a marked improvement in recording in the 2002 season, compared to that of the 2001 season. As a result, there are discrepancies between postholes, not necessarily due to the inherent characteristics of the postholes. Nevertheless, the records, in particular the high quality photographic records, allow us to extract a number of similarities between the East end postholes. For convenience's sake, we shall continue proceeding anticlockwise, starting in the south-western part of the East end and finishing in the north near the porch, when comparing postholes. For convenience's sake too, as many postholes consist of a whole series of feature and context numbers, the postholes will be referred to by the number of their construction cut, or, if this does not exist, by their earliest occurrence. Thus, the eight postholes of the East end are:



1. First, there is a great deal of concordance between the shapes, lengths and widths of the **construction cuts**, most being around 1.80m (or 6 feet) long, and around 0.90 (or 3 feet) wide. They are generally “bath shaped” or teardrop shaped, with the rounder end of the “tear” on the inner, deeper end, that is to say, facing the hearth. They were clearly designed to accommodate a double post. However, the erection of double posts may not be the first event in the building of Structure 1. Though the large construction cuts were almost always recorded as the earliest stratigraphic occurrence, it is possible to propose that they all belong to a second phase, with double posts set in large construction cuts replacing earlier single uprights set in smaller construction cuts (see below).
2. The **depths** of the earliest postholes cut into the subsoil converge around 15.00m AOD for the southern and eastern run of postholes (F150, F464, F429 pad stone C1687, F471 and F47) and between 14.71 and 14.78m AOD for the northern run (F409, F473 and F402), i.e. the northern run is cut some 0.20 - 0.30m lower into the subsoil than the southern run. But, if we take into account the depth of digging into the subsoil, the pattern is slightly different: most postholes survive to a depth of c. 0.50m, apart from the two eastern postholes F471 and F47, shallower at 0.36 and 0.32m, and the north-westernmost posthole - F402 - which is deepest at 0.65m. The latter is closest to the inner porch postholes which are even deeper, at 0.75 and 0.85m respectively. In effect, the excavated depths of postholes of the East end follow the gradient of the subsoil which is sloping slightly from South to North, with a recorded subsoil surface at c.15.50m AOD in the South sloping to 15.30m AOD in the North. For details, see table below.
3. The terracing effect observed in the foundation trench is therefore not documented by a

corresponding compensation in the depths of postholes. Instead, the postholes are cut to a roughly **uniform depth** from the surface of the subsoil. This depth, allowing for the loss of an original ground surface or floor surface through ploughing, may have been originally around 0.60m or 2 feet for the six southern and northern postholes.

4. The deepest postholes are located at what will become the **inner end** of possibly later construction cuts, i.e. nearest the hearth, where a single upright post was erected. For the southern three postholes this means the northern end (F150, F464, F429), at a depth of 15.00m AOD: for the northern three postholes this means the southern end (F409, F473, F402) at a depth in the region of 14.71 - 14.78m AOD. Details are given in the table below.
5. The two **eastern postholes**, F471 and F47, are different. We have already seen that they are shallower and it is at their eastern or outer end that the deepest postholes are situated, at a depth of 15.00m AOD (same depth as the three southern postholes). It is possible that these two postholes are different from the “aisle posts” of the East end because they do not have such a load-bearing capacity. It is however inconceivable that F471 and F47 do not belong to S1, considering their stratigraphy, location, size and construction.
6. The early inner upright postholes almost invariably have at their base a red sandstone slab acting as a **pad stone**. Dimensions vary somewhat, but thicknesses are around 0.10m and surfaces allow for an upright post 0.30 to 0.40m in diameter (also corroborated by the size of post ghosts). Details are given in the table below:

Posthole	Level at base (deepest)	Excavated depth (deepest)	Top of lowest pad stone	Lowest pad stone size	Lowest pad stone thickness
F150	15.00	0.48m	15.10 (C1638)	0.59 x 0.45m	0.10m
F460	15.00 (F464) 14.89 (F460)	0.50m (F464) 0.61m (F460)	15.11 (F464 C1739)	0.40 x 0.24m	0.10m
F429	15.02	0.48m	15.09-15.16 (C1687)	0.55 x 0.35m	
F471	15.06 (F472)	0.36m	15.18 (F472 C1786)	0.70 x 0.30m	0.10m
F47	15.00	0.32m	15.19 (C1601)	0.50 x 0.40m	0.10m
F409	14.77	0.51m	14.84-14.90 (C1605)	0.30 x 0.25m	
F455	14.78 (F473)	0.56m	14.90-14.94 (F473 C1792)	0.47 x 0.35m	0.12m
F402	14.71	0.65m	none		

7. Not surprisingly, the top of the lowest pad stones follow the same trend as the deepest postholes, i.e. they are higher in the higher southern run (around 15.00m AOD), lower in the lower northern run (around 14.90m AOD). The two eastern pad stones are higher, at around 15.20m AOD.
8. The sequences exhibited by each posthole set show remarkable similarities. But it must be admitted that these sequences can be read in different ways and it may be that sometimes too much has been read into these sequences: for example, if an angled post is interpreted as either earlier or later than an upright post, this may be stratigraphically true but separated in real time by perhaps just hours. Difficulties were also encountered when interpreting sections, particularly when interpreting backfills. Records can be ambivalent or contradictory: for example a backfill of a construction cut would abut (therefore be later than) a post; this post may survive as a post ghost but it may be that the rotting of this post results in a post void which then fills with a later backfill. In this case the construction cut backfill

would be earlier than the backfill of the post void. Sections can also be difficult to interpret, particularly when trying to decide whether a “post” is a “post pipe” or “post ghost” (a post rotted in situ, surviving in shape and fill), a “post void” (a post rotted in situ, surviving in shape but receiving later backfill) or a “removed post” (where a cut may be observed in place of the original post, backfilled either immediately or left open as a hollow in which debris accumulates over time). Finally, there are discrepancies in the allocation of feature and context numbers: sometimes possible features are represented by contexts only, sometimes contexts are (mis)allocated to another feature. A certain amount of interpretation is evident, and probably inevitable in the records. As a result, such labels as “construction cut” or “post void” must be treated with caution.

The similarities in sequence exposed below are therefore not the only way of interpreting the postholes of the East end of Structure 1 but what seems to be corroborated most often.

9. The sequence - leaving out the two eastern postholes F471 and F47 - almost always starts off with an **early inner upright post** set on a pad stone. These early inner uprights are not accompanied by an equivalent early outer post and are therefore not technically “inner” but “single”. It would follow that the 1.80m long construction cuts were not the original posthole construction cuts. Otherwise, why make such a large cut when only the inner and deepest third of the cut is used? A scrutiny of the stratigraphy, the sections and photographs allows different interpretations:

- A. A large cut is needed to manoeuvre the lowermost padstone and early upright post into position, but once this is done the cut is not needed further and backfilled. This would account for the slope of the “double” posthole construction cuts (in this case they are not “double” but large single early uprights) and for the absence of outer angled posts in the base of the construction cuts.
- B. A double posthole is intended from the beginning, but an early outer angled post, intended to brace the early inner upright, is no longer visible. Not needing to be set as deeply as the upright nor requiring a pad stone, this outer brace is set higher in the original construction cut backfill and all traces are removed later when the original upright post is replaced (see below).
- C. The large construction cut is not the original cut for the erection of an early upright, but a **later construction cut**, when the full complement of inner upright and outer bracing posts is installed.

There are some difficulties with this interpretation - not least because the recording during excavation assumed that the large cut was the earliest occurrence and stratigraphic observations were made with this in mind - but it is possible to re-interpret the sections, photographs and stratigraphy in this way. Notice for example that the sections of F148 (D319), F460 (D412), F409 (D290), F455 (D616) and F402 (D330) are stepped and that it is possible to propose the existence of secondary construction cuts which removed all but the base of early posthole construction cuts. Note also that some of the excavators were beginning to suspect that the double posthole construction cuts were re-cuts: in the 455 series, it was felt necessary to introduce a new construction cut (F466) to account for the construction of the double posthole F462 and F463. The F150 series is unsatisfactory in the best of cases; but it would make more sense if F148 was seen as a recut of F150, with a replacement inner upright post set on padstone C1632 and an angled outer post represented by C1208 (see D316). In the case of F460 and F429, there are difficulties because there are fills of the same cut pre- and post-dating an early inner upright; this difficulty would be removed if a secondary construction cut (in fact visible in section) was postulated. Similar difficulties are encountered with F429 (the pad stone C1687 of an early inner upright is sealed by backfill C1705 attributed to the original cut F429; if this backfill was re-allocated to a new construction cut, the problem would go away. Finally the sections of F409 and F402 could also be submitted to renewed scrutiny.

(If I were to choose between these interpretations, I would choose the third option. I am not convinced by initial double postholes. But as the records were made on that assumption, the description of the postholes in the section above followed the original

records. To change the descriptions and stratigraphy would introduce another layer of interpretation).

10. The early inner upright is invariably replaced by a double posthole arrangement consisting of a replacement inner upright and an angled outer bracing post. The replacement inner upright is located in the same position as the early upright, generally set on a new pad stone but higher than the early post. The outer angled post, often held in position by angled packing stones, is usually not set on a pad stone and occurs stratigraphically at the same time as the replacement inner post.
11. The **double postholes** are constructed in a similar way, summarised in the table below:

Posthole (generic)	Level at base of inner upright	Top of padstone for inner upright	Inner dist. between inner & outer post	Level at base of outer angled post	Pad stone? Packing stones?
F150	15.00m? (F148)	15.06m? (C1632 F148)	?	15.30m? (C1208 F148)	pack. stone in C1208 F148?
F460	15.16m (F426)	15.20m (C1736 F426)	c.0.80m	15.23m (F427)	none (F427)
F429 1st double	15.20m (F442)	15.20m (C1707 F442)	c.0.80m	15.22m (F448)	padstone 1706 in F448
2nd double	15.16m (F439)	no padstone (F439)		15.25m (F441)	pack. stones 1692 in F441
F471	n/a	n/a	n/a	n/a	n/a
F47	n/a	n/a	n/a	n/a	n/a
F409	15.00m (F49)	no padstone (F49)	c.0.80m	15.00m (F52)	pack. or pad st. C1068 in F52
F455	14.98m (F466) 15.14m (F462)	15.13-15.09m (C1742 F466) [F466 is under F462]	(0.50m)	15.13m (F463)	pack. stone C1757?
F402	14.95m (F129)	no padstone (F129)	(0.50m)	15.27m (F128)	none (F128)

This table shows, rather predictably, that the uprights are set deeper than the angled posts and that they required pad stones, just like the earlier uprights. The fact that some are missing may be due to later removal. The distance between inner and outer posts is around 0.80m in three cases, shorter in another two. This distance could be significant in calculating the lean of the angled post, but there are rather too many unknown factors to consider: the angle of the angled post is very difficult to establish when looking at the scooped sections or the angle of packing stones, often displaced. Further, was the outer angled post bracing the upright at its apex or part of the way up? And if at the apex, where would this be, at the roof or at a floor level? (I am not certain whether this is reconstructable, as the outer angled posts, being near the surface do not show a great depth of angle; further, it is these angled posts as well as the late uprights that seem to have suffered from later attrition, perhaps even dismantling).

12. As the erection of these double posts is a **single operation**, one should ask why. Again, there are different possibilities:

A. It is possible that a bracing post is needed to act as a buttress: indeed the fact that the inner early uprights needed replacing, perhaps under the strain of an enormously heavy turf roof, suggests that a more solid arrangement was required to prevent lateral thrust or buckling under the weight.

B. The angled posts may not be permanent fixtures. If one imagines that posts are replaced while

Structure 1 is standing with its roof covering it, then a temporary arrangement could be envisaged: the angled post, set away from the “business end”, is placed into position to hold up the roof while the weakened early upright post is removed and replaced by a new inner upright. Once this operation is complete, the outer post could be removed or left to act, secondarily, as a bracing post.

C. It is possible that Structure 1 possessed more than one floor, either initially or additionally, when the replacement of the early uprights was carried out. In this scenario, the deep inner upright - both original and replacement - would act as the master post supporting the roof and the outer post could act as supporting a floor.

13. In most cases the sequence includes only one episode of **replacement by a double posthole**. But in at least one instance (F429) this operation was carried out twice, with double posts F439 [inner] and F441 [outer] replacing double posts F442 [inner] and F448 [outer].

14. The later fate of the double postholes is not always certain. There are indications that posts did not just rot in situ but that they were removed or dismantled, given the scooped nature of the late postholes and the amount of debris (mainly animal bone) accumulating in the top of features. For a discussion of the finds in Structure 1 see below.

15. In summary, it is proposed that the East end of Structure 1 was built in two phases, the first comprising single large upright posts c. 30cm in diameter set on pad stones - the second consisting of large construction cuts in which uprights placed on new pad stones in identical locations and angled bracing posts replaced the posts of the first phase. In both phases the construction seems to have been a single operation carried out with precision. Cecily Spall observes that the pad stones of the double posts match each other, i.e. that they were cut from the same slab of red sandstone, according to the grain and spacing of the veins in the sandstone. This has not been verified here, but it would be interesting to see if the pad stones of the first phase (C1638 of F150, C1739 of F464, C1687 of F442, C1786 of F472?, C1601 of F47?, C1605 of F409, C1792 of F473) match and whether there is a difference between these and those of a second phase (C1632 of F148, C1736 of F426, C1707 of F442, C1742 of F466) and finally where matches can be found with the pad stones found elsewhere in Structure 1 (in the West end in F114, F119, F132, F134, F443, in the porch in F461). Of course, if matches are found between different phases, then the two-phase hypothesis will have to be revisited. If the two-phase hypothesis holds true, it is proposed that the East end of Structure 1 was not so much reconstructed as refurbished wholesale. Possibly this refurbishment was carried out while Structure 1 was in existence, with its roof on. There is no evidence of destruction between the two phases. As for the end of the life of Structure 1, it may be that it was dismantled when it fell into disuse, but there is no evidence of a dramatic demise such as a fire. The debris that accumulates in the uppermost fills of the later postholes (illustrated for example in the animal bone of postholes F128 [see photo N298/19] and F129 [see photo N308/31 and N305/26]) would be consistent with an accumulation of refuse in hollows left after the posts had either rotted, or been removed. A discussion of the finds from the postholes of Structure 1 will be found below.

## The finds from the postholes of Structure 1

These can be summarised in the table below, starting at the porch and proceeding anti-clockwise:

Porch 1	F432	bone 1670	bone 1663			
	F431	bone 1156				
	F445	no finds				
	F110	bone 1157	bone 1168			
Porch 2	F451	no finds				
	F450	bone 1709	bone 1717			
	F454	no finds				
	F126	bone 1708				
Porch3	F113	bone 1777	bone 1780			
	F113	bone 1770	bone 1766	bone 1750	bone 1160	
Porch 4	F461	no finds				
	F130	bone 1729	bone 1734	bone 1747		
W end	F114	bone 1162	slag 1162			
W end	F117	bone 1166				
	F118	no finds				
	F119	bone 1168				
W end	F132	bone 1188	metal(fe) 1188			
W end	F435	bone 1163				
	F115	(bone 1674)				
W end	F131	bone 1184	bone 1185	cer(o) 1185		
W end	F133	bone 1189				
W end	F135	bone 1191	bone 1192	slag(h) 1192		
	F438	no finds				
W end	F136	bone 1193				
W end	F134	bone 1190				
W end	F138	bone 1732				
	F138	bone 1716	bone 1723	bone 1197		
W end	F443	bone 1696				
	F453	no finds				
	F139	bone 1198	stone (o) 1198	slag 1198		
* E end	F150	no finds	* <i>E end: check</i>	<i>context numbers</i>	<i>on Paradox</i>	<i>when possible</i>
	F148	bone 1208	bone 1620			
	F149	bone 1209				

E end	F460	bone 1760	bone 1751			
	F464	no finds				
	F426	bone	stone (o)	flint flake		
	F427	bone				
E end	F429	bone	cer (o)	stone (o)	slag (h)	
	F442	bone	flint			
	F448	no finds				
	F441	bone				
	F439	no finds				
E end	F471	bone				
	F472	bone				
	F470	bone				
	F467	bone				
E end	F47	bone				
	F408	bone	slag (h)			
E end	F409	bone				
	F52	bone				
	F49	bone	slag (h)			
E end	F455	bone	stone (o)			
	F473	no finds				
	F466	bone				
	F463	bone 1743				
	F462	bone 1741	whetstone 1741			
	F51	bone 1067				
E end	F402	bone				
	F129	bone 1180	metal (fe)			
	F128	bone 1179				

The first striking aspect from this table is the large number of contexts containing animal bone assemblages. All the postholes of Structure 1 contain animal bone, albeit in small quantities in most contexts. A draft figure (see Appendix xxx) shows, next to each posthole, the number of individual finds



- which refer to individual assemblages rather than individual bones - made in each set of postholes. It will be noted that most contain 6 or fewer animal bone assemblages, except for the F455 series in the North of the East end, containing 11 assemblages. It will also be noted that the central-northern part of Structure 1, including the porch, contains rather more animal bone than the rest of Structure 1. This trend exists in a stronger form in the plot of the bone finds from the surface of Structure 1 (see section 5.3.4 and draft plot on AutoCAD ../working/finds/plots/11\_bonesurf+background) where animal bones are concentrated near the hearth and over features to the North of it, including the porch. It has been suggested that the disuse phase of Structure 1 saw the spreading of animal bones in areas left derelict. Perhaps this spread was carried out in a sweep to the North-West, filling hollows left by former posts or removed posts.

The individual contexts in which animal bones are found are obviously of importance: animal bone can occur in the backfill of construction cuts, or fill post voids, or appear in backfills of hollows left after disuse of a post. We have already encountered difficulties when interpreting the sequence of individual posts and these difficulties continue in the interpretation of the assemblages: in theory an assemblage of animal bones in a construction cut backfill should contain bones pre-dating that event, whereas those from a post void would post-date it. But, given some uncertainties of whether a construction cut backfill is always that of the original construction cut or of a recut, or whether a post survives as a post void or is removed, it is doubtful whether the animal bone assemblages from Structure 1 are of any use if, for example C14 dating was to be attempted.

Amongst the porch postholes three of the four early postholes have no animal bone in their corresponding contexts, but animal bone occurs in F432 of the F110 series, in C1663, recorded as the "earliest construction cut backfill" and in C1670, recorded as a "post pipe backfill". The remaining contexts of the porch belong to construction cut backfills of secondary cuts (C1156 of F431, C1668 of F110, C1777 and 1770 of F113, C1747 and C1729 of F130) or contexts identified on the surface only (C1160 and 1750 of F113).

Amongst the West end postholes, only F435 (C1163), F134 (C1190) and F443 (C1696) have animal bone from their original construction cut backfills. The other contexts are either "post pipe backfills" (C1188 of F132, C1674 of F115, C1185 of F131, C1192 of F135, C1732 of F138), backfills interpreted as resulting from the removal of posts (C1184 of F131, C1191 of F135, C1193 of F136, C1716 and 1723 of F138) or backfills interpreted as secondary backfills (C1162 of F114, C1166 of F117, C1168 of F119, C1189 of F133, C1197 of F138, C1198 of F139).

Amongst the East end postholes, note that the early postholes F150, F464 of the F460 series and F473 of the F455 series contain no animal bones. Bone is otherwise recorded from almost every other feature of the East end (exceptions being the replacement postholes F448 and F439 of the F429 series). *But until the Finds index on Paradox kept on the D drive of Geo becomes available again, this section remains incomplete as contexts need to be checked.*

Finds other than those of animal bones are much fewer from Structure 1. They consist of 10 examples of **slag** found in 7 features (fragments of hammerscale from F135, F138, F429, F408, F49, unidentified pieces of slag from F114, F429, F408, F49 and one piece of fuel ash from F135). Their contexts are secondary contexts in the case of F114 (C1162), F135 (C1192), F138 (C1723), F139 (C1198) *the contexts for F 429, F408 and F49 requiring checking when the Finds index becomes available on Paradox on Geo Drive D.*

**Metal** is only represented by an unidentified ferrous fragment from F132 (C1188, a secondary backfill) and an iron nail from F129 (C1180, secondary backfill).

There are a couple of instances of **ceramic material**, not pottery: an unidentified fragment of burnt clay from F429, a further unidentified piece of burnt clay from F131 which also produced a piece of daub (both from C1185, recorded as a "post pipe backfill").

Finally a small harvest of **stone** artefacts or refuse completes the inventory. Stone pebbles are reported from F139 (C1198, a secondary backfill) and F426. Fragments of mica are recorded in F426, F429 and F455. A flint flake (a strike-a-light?) comes from F426 and a further flint is reported from F442. Finally a whetstone is reported from C1741 of F462 (secondary backfill).

In summary, in spite of the many occurrences of animal bones, there are few finds from the postholes of Structure 1, which is a welcome result for a structure. What there is in the way of finds (animal bone, some burnt, some fragments of slag including hammerscale, some burnt clay and an assortment of stone fragments) seems to be commensurate with the hypothesis put forward for Structure 1; the assemblage represents debris, mostly animal bone and some artisan debris, that found its way into the secondary backfills of the structural postholes.

### **Summary of the structural postholes**

Twenty-three postholes hold up Structure 1: four porch postholes, eleven West end postholes and eight East end postholes.

The porch (see summary on p.21) exhibits two phases of building. In its first state it consisted of four uprights, some 30-40 cm in diameter, the inner two postholes set deeper than the postholes projecting outwards. In a second phase, the two outer uprights are replaced by an arrangement of vertical posts and angled bracing posts, the two inner uprights by new uprights set immediately to the South of the former posts, perhaps as the porch was refurbished while Structure 1 was continuing in existence.

The postholes of the West end (see summary on p.29) show a remarkable symmetry in their arrangement: the five postholes of the northern half are mirrored exactly by the five postholes of the southern half. The eleventh post is set centrally in the middle of the West end foundation trench F40. It is not just the spatial arrangement that is symmetrical, but also the shapes (circular posts on the North side are matched by circular posts on the South side, e.g. F135 and F138; angled posts are matched by angled posts, e.g. F115/F435 in the North and F136 in the South), the depths (note that deep postholes are matched by deep postholes on either side, while shallow postholes, e.g. F132 and F134 face each other) and even the presence or absence of pad stones is mirrored on each side. This symmetry, the pairing of posts, the presence of bracing posts at the western extremity (F115/F435 bracing F131 and F136 bracing F135/F438), the position of two shallow posts on pad stones in the central part of the West end (F132 and F134) could be used to suggest that the postholes of the West end not only supported a roof, but also an upper floor. It is also possible that the double posthole arrangement of the East end fulfilled a similar purpose. The postholes of the West end do not all show evidence of systematic replacement or refurbishment, as the postholes of the porch and East end do, but in 5 instances there is sufficient evidence to substantiate claims for a refurbishment.

The postholes of the East end have been extensively summarised on p.42-46. It is proposed that the building of the East end of Structure 1 was carried out in two phases, a first phase comprising single large uprights set on pad stones, a second phase consisting of double postholes with angled outer posts bracing replacement uprights set on new pad stones. The details of the postholes all point to an operation carried out wholesale in both phases, and with singular precision. It is suggested that the refurbishment of Structure 1 was needed because of the strain placed on the posts by an enormously heavy turf roof, but perhaps also because the posts were intended, either initially or additionally, to support an upper floor as well as acting as the master posts for the superstructure. The demise of Structure 1 appears peaceful, with no evidence of a dramatic end such as a fire, but there is a fairly strong suggestion that the later posts were not just left to rot in situ but were removed, leaving hollows which filled with debris, mostly animal bone and some artisan refuse.

### **5.3.7 The hearth**

#### **Description of F65 and its contexts**

Hearth F65 was encountered in September 1994 during the first evaluation season and partially excavated up to the (then) edge of excavation along the 872 easting. It was first identified at a height

of. c.15.48m AOD with some stones of C1082 protruding to 15.52m AOD. The part excavation entailed the removal by Jill Harden of contexts C1082, 1086 and 1142 and the partial removal of C1141 to a height of 15.34m AOD, i.e. an excavation to a depth of some 0.15m. Excavation was resumed and completed in 2001 when Nicky Watts quadranted what was left of the feature and excavated its fills C1141, 1615 and 1621 down to the base of the scoop at 15.18m AOD. The total depth of the scoop is therefore some 0.30m below Horizon 2.

When F65 was first identified, a number of contexts were seen. These were described as follows:  
**C1082** a black sandy silt with charcoal flecks, superficial stones, much shell and bone over C1141 and

1142

C1083 a grey black sandy silt later to become posthole F418, to NE of C1082

C1084 a black sandy silt patch to E of C1082, disappeared

C1085 an orange brown sandy silt with charcoal flecks to E of C1082

**C1086** a grey black silty sand, some charcoal flecks, under C1082, over C1141

C1087 a grey black sandy silt to S of C1082, disappeared

**C1141** a reddish brown silty clay with charcoal, burnt bone, one large angular stone, under C1086 and 1142

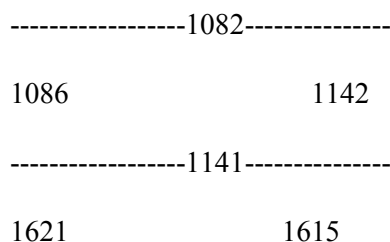
**C1142** a grey black silt with much charcoal, some small stones, under C1082, over C1141.

Further excavation in 2001 allowed to refine the description of C1141: a very mottled dark grey (10YR3/1) sandy silt with lenses of yellowish-brown clay silt, large amounts of charcoal throughout but concentrating towards the centre, many animal bones most of which appear to have been burnt a few shell fragments. Over C1615.

**C1615** is the basal context of F65, excavated in 2001, and described as a black (2.5Y2.5/1) charcoal rich deposit, c. 3-4cm thick and covering the bottom of the feature, with large quantities of charcoal, occasional fragments of burnt animal bone and a little gravel. Interpreted as primary evidence for burning “although the sandy subsoil into which it was cut shows no evidence of scorching” (Nicky Watts, context card).

**C1621** was allocated to a dark grey (10YR3/1) deposit of sandy silt, some 0.30m across, identified at the southern edge of F65, under C1141. It is c. 2cm thick and contains some charcoal, gravel and lenses of clay silt.

The stratigraphy of deposits within F65 is straight forward:  
 (Definition context 1003 over F65)



The features that appear to have been cut by F65 are F142 (a slot to West) and F418 (a posthole to East).

The shape of feature F65 is a little unsatisfactory. Having been excavated in two seasons separated by seven years, and being first excavated against a N-S baulk, the feature exhibits a D-shape, with a straight western edge and a shallower, scooped and curved eastern edge. This could be artificial and caused by the presence of a the 1994 baulk protecting the western edge of the hearth, giving a sharper profile; the eastern end could have been scooped out by repeated cleaning. However it is also possible that the excavated shape of F65 is the true shape, with the curve of the hearth being the “open” part central to the eastern half of Structure 1. In this case the straight western edge could represent the “back” of the hearth. The size of the excavated subcircular feature is 1.06m (W-E) and 1.25m (N-S), with a maximum depth of 0.30m (15.48m to 15.18m) from the top of the subsoil at Horizon 2. When first identified at Horizon 2 it appears as slightly larger with a N-S length of 1.60m. Looking closely at the plan of the excavated Structure 1, it emerges that the hearth is not quite central, but slightly offset to North of centre, i.e the hearth is a little closer to the structural postholes in the North than to those of the South. There is not very much room between the hearth and the excavated postholes (1m in the North, 1.7m in the South), but one must bear in mind that this is the edge of the excavated construction cuts. The area around the hearth would be greater if measured from the hearth’s edge to the upright posts of S1 (just under 2m in the North, just under 3m in the South).

The interpretation of F65 as a hearth is given by its components, contexts and finds. It is essentially a scoop containing much burnt material. Though the original floor surface of Structure 1 is not present at Horizon 2, it is unlikely that this was more than 10cm higher (given that the flags covering the flue F79 further to the SE are recorded at a height of 15.59m AOD) and probably less. Therefore a scoop, some 1.5m in diameter and no more than 0.40m deep is envisaged as the original feature. One could argue that the scoop is just a pit with hearth debris, but its perfect central location, basal fill seemingly burnt in situ (C1615) and presence of sandstone settings (see photo TR94 N815, 6,30, and TR94 N21/20, 21,22,23) argues against it.

### **The finds from the hearth**

There remains to discuss the function of such a hearth. The finds from F65 shed an interesting light on this question. F65 produced 195 finds in all, distributed in the following manner (from latest to earliest):

C1082: 45 finds being 33 bone (animal), 7 matrix samples, 1 metal (ae) (no. 3391), 1 slag (no. 3389), 1 charcoal (no. 3385), 1 grain (no. 3390), 1 shell (winide) (no. 3388)

C1085: 1 find (bone)

C1086: 7 finds being 2 bone (animal), 3 matrix samples, 1 charcoal (no. 368), 1 fibre (no. 418)

C1142: 43 finds being 29 bone (animal), 4 matrix samples, 1 metal (fe) rod (no. 575), 8 charcoal (no. 181, 525, 532, 534, 547, 554, 562 and 3379), 1 shell (mixed residue, no. 3380)

C1141: 93 finds being 68 bone (animal), 17 matrix samples incl. 3 C<sup>14</sup> samples (no. 4012, no. 4182, no. 4188), 2 slag (1 unidentified, 1 hammerscale no. 4014), 2 charcoal (no. 236, no. 618), 2 organic (nut and hazelnut no. 4015), 1 shell (winkle, no. 218), 1 flint scraper (no. 592)

C1621: 2 finds (matrix samples)

C1615: 4 finds (matrix samples)

Thus, the contexts rich in finds are contexts **1082**, **1142** and **1141**. No finds were made in the basal primary fill C1615, except that the context record mentions, apart from much charcoal, a few fragments of burnt bone. This leaves the three fill contexts 1141, 1142 and 1082 as bearing the full assemblage from the hearth. Is this primary or secondary? Note that Nicky Watts observes: “lenses of varying material suggest a gradual build-up during the period of use” (context card 1141).

Two scenarios are possible: either F65 is a scoop that received hearth debris in its disuse phase (unlikely) or the assemblage-rich contexts are relevant to the use of the hearth. If this is the case, then the assemblage ought to shed light on the purpose of the hearth. The frequent mention of burnt

animal bone as well as the presence of burnt organic matter such as charcoal, nuts, grain and fibre would suggest that a variety of material, including animal bone, was used as fuel. Fuel for what? The presence of slag (including a piece of hammerscale), a piece of bronze residue, a fragment of iron rod and of a flint scraper would indicate that this hearth was used for artisan or industrial rather than domestic purposes. It may be that this hearth fulfilled a number of purposes, perhaps on a seasonal basis, including smithing. The flint scraper could suggest that leather or skin preparation was carried out in the vicinity. This leaves to account for the presence of winkles (not many kept but recorded as very frequent in C1082, rarer in 1141) in the upper contexts: a late dump of shells being prepared nearby, perhaps again on a seasonal basis, or a dump to level the hearth or to add to fuel? The animal bone assemblage has not been analysed to date. If the bone is used, in part at least as fuel, then it could originate from a variety of sources, not necessarily indicative of consumption. A superficial glance at the finds index shows that cattle bones are most frequent. Other species represented are sheep, pig?, possibly horse and deer, small carnivore (cat mentioned in finds index) and fish.

### **Summary of hearth**

Hearth F65 was c. 1.5m in diameter and survives as a scoop 0.3m deep, having originally been perhaps 0.40m deep. It is located in a position central to the East end and may have been open at the East, with its back to the West. It is proposed that the deposits found inside the hearth, including a large amount of animal bone, are part of the use phase of the hearth and represent repeated deposits of fuel as well as residue from artisan activity including smithing. Domestic use cannot be excluded but there is no positive evidence. It is possible that different activities took place around the hearth, perhaps on a seasonal basis. A date for the hearth awaits results from C<sup>14</sup> determination (sample no. 4013 of animal bone sent to XXXXXXXX in January 2004).

### **5.3.8 The flue**

The linear features in module D6 labelled F67 (C1093, 1530, 1562, 1563) and F79 (C1106, 1526, 1527, 1528, 1529, 1544 and 1552) were first defined during the evaluation season of 1994 and excavated in full during the 2001 season. F79 was first identified as a linear channel lined with and covered with large sandstone slabs running at an angle of c. 30° from foundation trench F40 towards the NNW interior of S1 over a length of 2.10m. F67 represents the northern continuation of F79, running NNW for a further 1.80m, making the full extent of this channel just under 4m. F67 mostly lacked the sandstone capping of F79.

*The following description is still in note form and will need writing up correctly*

#### **Notes on F79 feature card and context cards**

depth variable. depth on hachure plan 15.27, 15.30 (F79), 15.28, 15.19 (F67) S-N  
Top sandstones identified at: first S capping stone 15.65. Middle capping stone 15.59.  
S end of F79 15.46. End southern stone of F67 is at 15.52.  
Therefore depth is c. 30 cm, possibly slight slope to S max width 75cm  
horizontal slabs 1106 roughly shaped, various dimensions, 2 biggest in South: 58x32x 13, 61x38x11.  
Further N more fragmented. Some show burning. Gap of 70cm between stones implies either missing stones or spacing. some stones displaced from original position  
backfilled with 1526, 1527  
1526 dark brown silty sand (10YR3/2) with plaic clay + charcoal incl (little). Partially covered by 1106. Lense of windblown sand at base of deposit. Had damaged thin sandstone plates towards bottom. Abutts 1527. Over 1544 and 1552.

1527 mixed deposit of dark brown silty sand (10YR3/2) under 1526, contained charcoal, clay and thin pink sandstone fragments. 15 cm deep. Over 1544. Abutted by 1093 of F67.

edged with rounded cobbles to N 1528

1528 is edging stones rounded in shape, varying. Slight burning evidence. Circa 7 stones max 20cm. Unclear if part of F79 or S1. *This sounds like part of foundation trench F40, location at extreme S fits.*

vertically set stones 1529: 16 vertically set stones, mostly sandstone, a few others. Four sandstones at S end showing signs of burning. Max. dimensions 40x80x14 cm. structurally supporting C1106 (under 1106). Abutted by 1526, 1552, 1544. many stones that showed burning were sandstone. cut made to accommodate individual stones

C1552 irregular deposit of dark greyish brown silty clay (10YR3/2) with inclusions of clay + charcoal, thinly split sandstone fragments. Over 1544 Abutts 1529. Under 1526.

under 2nd big S slab stones C1544 with burning in situ

C1544 dark brown deposit of silty clay and stone (7.5YR3/2), mixed in colour pale ash + clay material in pockets and charcoal present throughout. One red sandstone badly heat damaged. Pink and thinly split sandstone fragments. Abutts 1529. Under 1552

#### Notes on F67 feature and context cards

C 1093 dark brown silty sand (10YR2/2) with charcoal and clay inclusions, clay of various colours and

concentrations. Disturbed by burrow at North. Under 1530, 1562.

C1530 pebbles and cobbles, various slight burning. Possibly fallen over cover stones. Northernmost stone is 36x29x8cm pink sandstone unburnt. Most show burning. Over 1093

C 1562 horizontally laid stones only 2 in situ c.30x20x5cm. Discoloured. Over 1563, 1093

C 1563 6 vertically set stones sandstone, pink discoloured, one has evidence of burning. Other stones no

longer in situ. Under 1562, abutted by 1093

#### Strat and construction of flue

linear u-shaped concave cut made into subsoil to depth of 15. 27 (N), 15.19(5)

Width originally 0.75m (thinner at S end in F67 because lower and disturbed). Depth from capping stone to base of flue 30cm.

vertical sandstone slabs inserted lining sides: 16 of these survive in F79 (C1529) and 6 in F67 (1562) horizontal sandstone slabs cover the lined channel: this is C1106 in F79, well preserved, and C1562 in F67 (only 2 survive in situ). The collapsed version of these covering stones is C1530.

The fills consist of a series of contexts in F79(C1544, 1552, 1527 and 1526 from earliest to latest) whereas in F67 a single fill (C1093) was identified (=1526). The flue was added after F40 was built (C1528, recorded originally as lining stones of F79 are in fact the cobbles of F40 into which the flue F79 was inserted).

A localised modification to the foundation trench was then probably made. When the flue was added to F40 a posthole (F477) was inserted into the course of the foundation, c. 1m to the SW of the junction between flue and foundation trench to strengthen a point where the structure had been weakened. Further to the NE, another posthole (F483) was also observed in the foundation trench but the stratigraphic position of that posthole is less secure.

#### The finds:

Only 15 finds from F79: 2 from 1106 (the stones 627 and 628); 6 from 1526 (4 matrix, 1 bone, 1 fe nail), 3 from 1527 (2 matrix, 1 bone), 2 from 1544 (matrix) and 2 from 1552 (matrix)

Only one find from F67: 1 matrix

Rotary quern no 627 from 1106, another stone unidentified find no 628 from 1106

[End of MRH text]



## APPENDIX 1

### LIST OF DRAWINGS RELEVANT TO STRUCTURE I

#### Definition of structure 1:

Module C2	Horizon 2 drawing Dr108; note foundation trench called here F112 (C1159), digitised
Module C3	Horizon 2 drawing Dr36; note foundation trench called here F112 (C1159), digitised
Module C4	Horizon 2 drawing Dr37; note foundation trench called here F125 (C1174), digitised
Module C6	Horizon 2 drawing Dr105, digitised
Module C7	Horizon 2 drawing Dr34, digitised
Module C8	Horizon 2 drawing Dr35, digitised
Module D1	Horizon 2 drawing Dr7; detail plan Dr27, digitised
Module D2	Horizon 2 drawing Dr8; detail plan Dr27, digitised
Module D5	Horizon 2 drawing Dr9; detail plan Dr28, digitised
Module D6	Horizon 2 drawing Dr12; detail plan Dr28, digitised

#### Excavation of foundation trench F40:

Module C4	Dr595 section where F40 cuts F461 (part of F130 posthole complex), A4
Module C4	Dr596 hachure plan where F40 cuts F461 (part of F130 posthole complex), A4, digitised
	-Dr471 profile of F40 C1056 structure 1 profile B, N-S, digitised
	-Dr472 profile of F40 C1056 structure 1 profile B, E-W, digitised
	-Dr473 profile of F40 C1056 structure 1 profile D, W-E, digitised
	-Dr474 profile of F40 C1056 structure 1 profile D, N-S, digitised
	-Dr475 profile of F40 C1056 structure 1 profile G, E-W, digitised
	-Dr476 profile of F40 C1056 structure 1 profile 3, N-S, digitised
	-Dr477 profile of F40 C1056 structure 1 profile 4, N-S, digitised
	-Dr478 profile of F40 C 1056 structure 1 profile A, E-W, digitised
	-Dr479 profile of F40 C 1056 structure 1 profile A, N-S, digitised
	-Dr480 profile of F40 C1056 structure 1 profile C, W-E, digitised
	-Dr481 profile of F40 C1056 structure 1 profile 1, S-N, digitised
	-Dr482 profile of F40 C1056 structure 1 profile 2, S-N, digitised
	-Dr483 profile of F40 C1056 structure 1 profile E, S-N, digitised
	-Dr484 profile of F40 C1056 structure 1 profile F, S-N, digitised
	-Dr485 profile of F40 C1056 structure 1 profile H, E-W, digitised
	-Dr652 F40 hachure plan, A1, digitised
	-Dr679 F40 hachure plan, A1, digitised
	-Dr680 F40 hachure plan, A1, digitised
	-Dr681 F40 hachure plan, A1, digitised

The digitised versions of these drawings are lodged in the following files:

horizon maps: a whole series of drawings lodged in H MAPS\Sector1 and in WORKING\Sector1\Int11



hachure plans: features\Int11\11\_f40h  
                  features\Int11\11\_f40h2003  
profiles:      sections\Int11\11\_f40d471 to 11\_f40d485

### **Drawings relevant to hearth F65**

Dr20 pre-exc. plan (colour coded) of C1082, 1083, 1084, 1085, 1086, 1087, 1141, 1142, A4  
Dr21 pre-exc. plan of C1141, 1142, after removal of C1082, A4  
Dr22 pre-exc. plan of C1142 after removal of C1082, A4  
Dr23 hachure plan after partial removal of C1141, end of 1994 season, A4  
Dr236 S-N section through F65, C1141, 1615, 1621; 2001 season, A4  
Dr 237 W-E section through F65, C1141, 1615; 2001 season, A4  
The hachure plan of F65 was drawn digitally in the field and appears as ...features\Int11\11\_f65h  
The plot of finds from the surface of Int7/11I in ...working\finds plots\ll-bonesurf+background  
shows the concentration of bones over hearth F65 in C1003.

### **Drawings relevant to flue F67/F79**

Dr27 and 28, detail plan at Horizon 2, A1 ,digitised  
Dr263 F67 C1093 C1530 section, A4  
Dr264 pre-exc. plan of F79 C1527, 1529 1544, A4  
Dr381 F67 C1530 F79 C1528 C1529 pre-exc, A1  
Dr382 F67 C1563 pre-exc, A1  
Dr383 F67 F79 pre-exc, A1  
Dr384 F79 C1106 section, A1  
Dr385 F79 C1106 section, A1  
Dr386 F67 C1093 C1530 F79 C1526 C1527 C1529 pre-exc, A1  
Dr387 F67 C1530 pre-exc, A1

digitised hachure plan is in ...features\Int11\11\_f67f79h

### **Drawings relevant to the postholes of Structure 1**

Sections:

Porch F110 series (D448)  
Porch F126 series (D577)  
Porch F113 series (D570)  
Porch F130 series (D586)  
West end F114 (D298 and D557)  
West end F117/F118 (D300)  
West end F119 (D304)  
West end F132 (D405)  
West end F115 and F131 (D598)  
West end F133 (D311)  
West end F135 (D415)  
West end F135 and F136 (D416)  
West end F134 (D399)  
West end F138 (D601)  
West end F139 (D454)  
East end F148 (D316)  
East end F150 (D319)  
East end F426 series (D412)  
East end F429 series (D426)  
East end F471 series (D467)  
East end F47 series (D191)

East end F409 series (D288)  
East end F52 (D259)  
East end F49 (D626)  
East end F409 (D290)  
East end F455 series (D616)  
East end F51 (D613)  
East end F402 series (D330)  
East end F129 (D309)  
East end F128 (D306)  
None of these sections have been digitised.

All the hachure plans of the excavated postholes have been digitised. They exist in the files ...fieldwork\drawings\features\int11 under their individual feature numbers. There is also a number of composite drawings of the excavated Structure I in the file named ...fieldwork\drawings\WORKING\Sector 1\int11\ 11\_suffix postex

### **LIST OF PHOTOS RELEVANT TO STRUCTURE 1**

Overall S1:(*only 2003 season listed here at present; to complete*)

TRO3 N344/6,7,8,9,10,11,12,13,16,17,18,19,20

TRO3 N352/1,2,3,4,5,6,7,8,9

TRO3 N350/21,22,23,24,25,26,29 (cleaning in 2003)

**Foundation trench F40:**(*only 2003 season listed here at present; to complete*)

TRO3 N341/1, 2,3,4,5,6,13,14,15,16,21,37

TRO3 N343/1,15,16,17,18,21,22,23,24

TRO3 N344/2,3,4,5,

TRO3 N346/6,7,8,9,25,28,29,30,31,32,33,34,35

TRO3 N348/1,2,3,4,5,6,10,11,16,17,18,19,28,29,30,31,32,33,34,35,36

TRO3 N350/31,32,33,34,35,36

### **Porch posthole photos**

### **West end posthole photos**

### **East end posthole photos**

*The following lists were compiled and saved on Geo D Drive. This drive is at present not available, so a printout only is appended here.*

## **Porch posthole photos**

### **F110:**

TR01 N319/02	F110 1156 1157 pre-exc.
TR02 N327102-03	porch pre-exc. at Horizon 3
TR02 N327/ 33-34	F110 1156 F431 1663 sect.
TR02 N332/03	F110/F431/F445 1700 sect.
TR02 N332/04	F110 1664 1668
TR02 N332/05-06	F110 1664 1668 F445 1700 sect.
TR02 N332/09	F110 1664
TR02 N332/10-1 I	F110/F445
TR02 N332/12	F110
TR02 N332121-22	F110 1156 pre-exc.
TR02 N332123-24	F110 1156 F450 1709 sect.
TR02 N332/29-30	F110

### **F445:**

TR02 N332/00	F445 1700
TR02 N332/03	F110/F431/F445 1700 sect.
TR02 N33 2/05-06	F110 1664 1668 F445 1700 sect.
TR02 N332/10-1 I	F110/F445
TR02 N332/13	F445

### **F431:**

TR02 N332/03	F110/F431/F445 1700 sect.
TR02 N332/14	F431

### **F432:**

TR02 N333/21-22	F432
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### **F126:**

TR02 N322135-37	F126 F450 F451 F454 F459 post-exc.
TR02 N324/18-19	F126 1176 pre-exc.

### **F450:**

TR02 N322/06-09	F450 1710 1717
TR02 N322/10-12	F450 detail
TR02N322/20-2 1	F450 post-exc.
TR02 N322/35-37	F126 F450 F451 F454 F459 post-exc.
TR02 N332/23-24	F110 1156 F450 1709 sect.

### **F451:**

TR02 N322/27-28	F451 post-exc.
TR02 N322/35-37	F126 F450 F451 F454 F459 post-exc.

### **F454/F459:**

TR02 N322/01	F454
TR02 N322/35-37	F126 F450 F451 F454 F459 post-exc.

TR02 N332/36-37 F454 post-exc.

**F113**

TR02 N319/03 F113 1160 pre-exc.  
TR02 N323/10 F113 1160 1750  
TR02 N325/20-21 F113 sect.  
TR02 N325134-35 F113 1770 post-exc.  
TR02 N325/36-37 F113 1766 1767 post-exc.  
TR02 N333/03-04 F113 1766, 1767  
TR02 N333/10-1 1 F113 S post  
TR02 N333/25 F113 1779  
TR02 N333131 F113 1791  
TR02 N333/35-37 F113  
TR02 N334/00-01 F113  
TR02 N336/1 1-12 F113 pre-exc.

**F130:**

TR02 N323/04-05 F130 1182 post-exc.  
TR02 N323/36-37 F130 1747 post-exc.  
TR02 N325/00 F130 1747 pre-exc.  
TR02 N325/07-08 F130 1747 pre-exc.  
TR02 N325/22-24 F1 30/F46 1 post-exc.  
TR02 N329/13-15 F130 1182 1183 1729  
TR02 N336/13-19 F130/F461 sect 1182,1183,1729,1744-46  
TR02 N336/26-27 F130 1183

**F461:**

TR02 N323119-20 F461 1729 post-exc.  
TR02 N325/09-1 I F461 1729 post-exc. 1745 1774 pre-exc.  
TR02 N325/22-24 F1 30/F46 1 post-exc.  
TR02 N336/13-19 F130/F461 sect 1182, 1183, 1729, 1744-46

## West end posthole photos

### F114:

TR01 N302/15	F114 1162 sect.
TR01 N302123	F114 1637
TR01 N302/33-34	F114
TR01 N319/04	F114 1162 pre-exc.
TR02 N323/01	F114 1755
TR02 N323102	F114 post-exc.
TR02 N336/24-25	F114 1752

### F117, F118, F119:

TR01 N302/02-03	F118 post-exc.
TR01 N303/15-18	F117/F118/F119 1623
TR01 N303/27-28	F118 1623
TR01 N319/05	F117 F118 F119 pre-exc.
TR01 N319/31	F117 1166 F118 1167 sect.
TR01 N319/09	F119 1168
TR01 N319/16	F119 1614
TR01 N319/17	F119 post-exc.

### F132:

TR02 N327/00-01	F132 1186 1187 1188 1658
TR02 N327/11-12	F132 1658
TR02 N328117-20	F132 1187 pre-exc.
TR02 N328/37	F132 1186 1187 1188 1658

### F115, F435 (F116):

TR02 N324/07-08	F115 1163 sect.
TR02 N324/10-12	F115 1163 F131 1184 sect.
TR02 N324/13-15	F115 1163 1672 sect.
TR02 N324/17	F115 F131 Nicky cleaning
TR02 N327/23-24	F115 1163 F131 1184 pre-exc.
TR02 N330/25-26	F115
TR02 N330/33	F435 1163 1672
TR02 N330/35-36	F435 1672

### F131:

TR0 N324/00-01	F131 11841185
TR02 N324/10-12	F115 1163 F131 1184 sect.
TR02 N324/16	F131 1184 1185 sect.
TR02 N324/17	F115 F131 Nicky cleaning

TR02 N327/23-24 F115 1163 F131 1184 pre-exc.

**F133:**

TR01 N299/22 F133 1189  
TR01 N302/13-14 F133 1631  
TR01 N302/37 F133 post-exc.  
TR01 N313/09 F133 1189 pre-exc.  
TR01 N317/02-03 F133 post-exc.

**F135, F438:**

TR02 N324/21 F135 11911192 F436 1677 pre-exc. (should this be F438?)  
TR02 N324/22-23 F135 1191 F136 1193 F436 1677 pre-exc. (should this be F438?)  
TR02 N324/26 F135 1680 sect  
TR02 N324/27 F438  
TR02 N330/01-09 F135 1191 1192 sect.  
TR02 N330/15-17 F135 F136 sect.  
TR02 N330/18-23 F135 1193 1194 sect.  
TR02 N335/04 F135 1191  
TR02 N335/06 F135

**F136:**

TR02 N324/20 F136 1193 1194 pre-exc.  
TR02 N324/22-23 F135 1191 F136 1193 F436 1677 pre-exc. (should this be F438?)  
TR02 N330/12-14 F136 1192 1194 sect.  
TR02 N330/15-17 F135 F136 sect.  
TR02 N335/23-26 F1 36

**F134:**

TRO2 N328/15-16 F134 1190 pre-exc.  
TR02 N328/ 23-24 F134 1190 1652 1653  
TRO2 N328/ 30F134 1653  
TR02 N328/ 32 F1 34

**F138:**

TR02 N322/13-14 F138 1197  
TR02 N322/33-34 F138 1197 post-exc.  
TR02 N329/04-05 F138 1716 1722  
TR02 N329/08-09 F138 1728 1722  
TR02 N329/28-29 F138 1732  
TR02 N329/31 F138 1732 sect.  
TR02 N329/32 F138 1732 post-exc.

TR02 N329/36	F138
TR02 N332/16	F138 1197 pre-exc.
TR02 N332/33-34	F138 1197 1716

**F139, F443, F453:**

TRO2 N332/26	F443 1697
TR02 N332/35	F139/F443/F453
TRO2 N335/08-09	F139 1198 sect.

## East end posthole photos

### F148, F149, F150:

TR01 N300/17	F149 1209
TR01 N300/31	F149 post-exc.
TR01 N300/32	F148 1208
TR01 N300/33	F150 1210
TR01 N302/01	F148 1632
TR01 N302/04	F 148
TR01 N302/05	F150 1210
TR01 N302/22	F150 1210
TR01 N302/29	F150 1638
TR01 N303/05	F148 1617 1208
TR01 N303/37	F148 1632
TR01 N316/10-II	F149 1209 pre-exc.
TR01 N317/05-06	F150 post-exc.

### F426, F427, F460, F464:

TR02 N323/03	F460 1760 F464 1739
TR02 N323/16-17	F460
TR02 N324/02	F426F427 1655 16561657
TR02 N327/27-28	F426F427 1655 1656 1657 sect.
TR02 N328/29	F426F427 1656 1655 1657 pre-exc.
TR02 N329/07	F426 1655 F427 F460 1657 sect.
TR02 N329/33	F426 1736
TR02 N336/23	F464 1738
TR02 N336/34	F460F464 1751, 1738

### F422, F429, F439, F441, F442, F448:

TR01 N317/04	F422 1640 pre-exc. (= F429)
TR02 N322/02-03	F429 post-exc.
TR02 N327/22	F429 1681 1682 pre-exc.
TR02 N330/34	F429 1681 1682 sect.
TR02 N332/20	F429 F439 F441 F442 F448
TR02 N332/32	F429 1712 F442 1687
TR02 N335/07	F429 sect.
TR02 N335/11-12	F429 F439 section
TR02 N335/20	F429 F439 F441 section
TR02 N335/28	F429 F439 F441 F442 section

### F467, F470, F471, F472:

TR02 N323/06-07	F467 1761 pre-exc.
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TR02 N323/34-35	F467 1761 1769
TR02 N325/25-26	F471 F472 sect.
TR02 N325/29-31	F471 F472 sect.
TR02 N333/05	F467
TR02 N333/28-30	F472 1786
TR02 N333/34	F471

**F47, F408:**

TR01 N301/10-11	F43 and F47 pre-exc.
TR01 N301/15-16	F47 pre-exc.
TR01 N301/17-18	F47 1576 1577 1578 pre-exc.
TR01 N309/11-14	F47 1063 F408 1600 sect.
TR01 <i>N309I</i> 15-16	F47 1063 1601 F408 1600
TR01 N310/08-10	F47 1601
TR01 N310/36-37	F47 post-exc.
TR01 N312/21-22	F47 1063 pre-exc.
TR01 N313/02-03	F47 post-exc.
TR01 N315/05-06	F408

**F49, F52, F409**

TR01 N297/11-12	F52 1068 sect.
TR01 N299/01-02	(F409) 1609
TR01 N299/32	F409 post-exc.
TR01 N301/33-34	F49 1065 F52 1068 pre-exc.
TR01 N309/17	F409 1602
TR01 N313/27-28	(F409) 1609 sect.
TR01 N314/27	F52
TR01 N314/34-35	F49 1965
TR01 N315/27-28	F409 1602 1605 sect.
TR01 N315/29	F409 1605
TR01 N318/36	F49
TR01 N319/06	(F49) 1613 pre-exc
TR01 N319/10	(F49) 1613 sect.
TR01 N319/11-12	F49 post-exc.

**F51, F455, F462, F463, F466, F473:**

TR02 N322/04-05	F51 post-exc.
TR02 N323/30-33	F462 1759 F466 1742
TR02 N325/12-14	F473 1781 1782

TR02 N329/10-12	F455 1718 pre-exc.
TR02 N332/17-18	F51 1067 pre-exc.
TR02 N332/27-28	F51 1067 sect.
TR02 N333/33	F473 1792
TR02 N334/03-07	F473
TR02 N336/01-10	F462 1741, 1742 sect.
TR02 N336/35-37	F455 sect.

**F128, F129, F402:**

TR01 N297/07	F 129
TR01 N297/10	F128
TR01 N298/19	F129 1180 sect.
TR01 N305/26	F128 1179
TR01 N308/31	F128 1179 F129 1180
TR01 N314/26	(F402) 1181 pre-exc.
TR01 N315/30	F402 post-exc.
TR01 N315/33-34	F402 post-exc.
TR01 N318/13	F402 1587 sect.
TR01 N318/19	F402 1181 sect.

[End of Drawing list]