

8. LATE BRONZE AGE/EARLY IRON AGE
STRUCTURE (AREA F)

Discovered in this flat area with a sandy and stony subsoil were the remains of a LBA/EIA post-built circular structure, 1F, with a diameter of *c* 10m (Illus 44). It had a post ring and an entrance and porch orientated to the south-east. There were few internal features, one of which was interpreted as a hearth. The house features were cut into the subsoil and sealed by a charcoal-rich deposit. To the east of the house were the foundation post holes for a four-post structure, 2F. Other pits were scattered across the site.

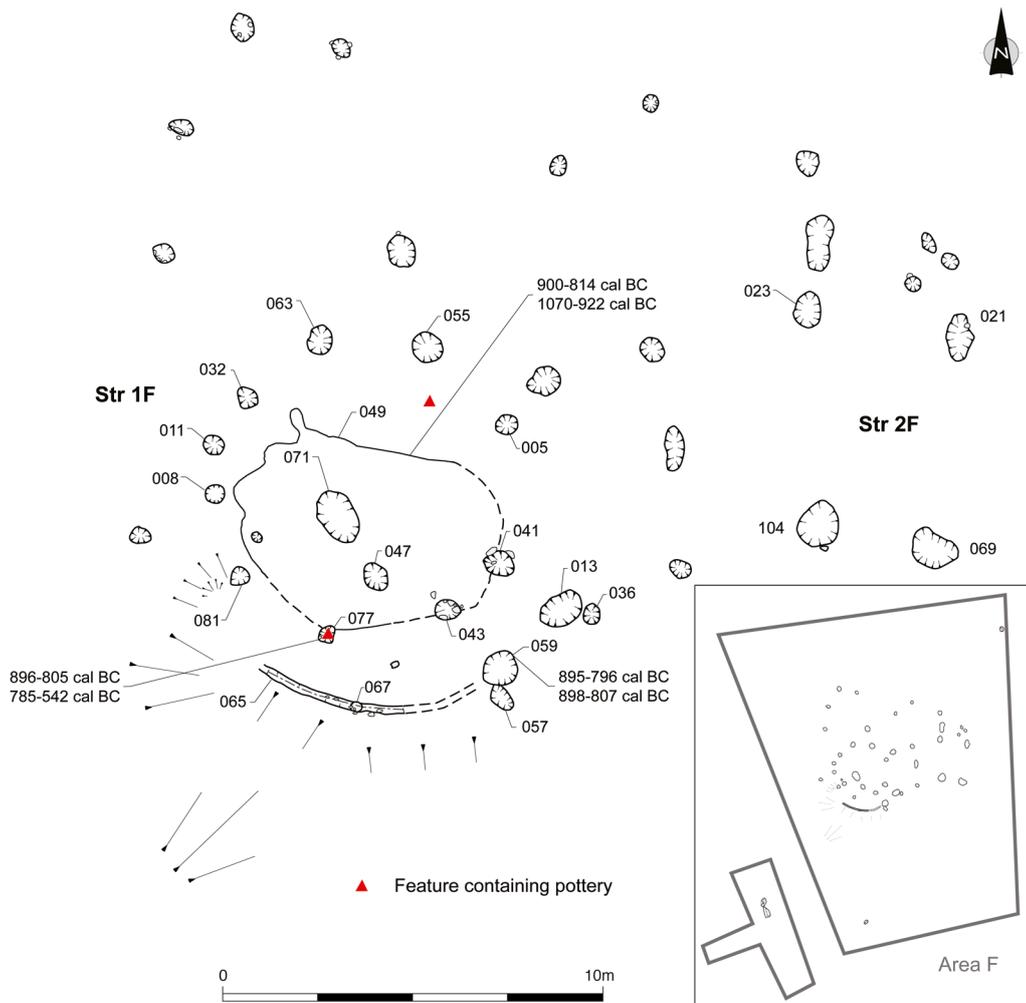
8.1 Structure 1F

A post ring of *c* 8m diameter can be identified in this area. It comprised ten post holes (043, 077, 081,

008, 011, 032, 063, 055, 005 and 041). Post Hole 077 contained sherds of pottery from six vessels (see Section 8.4.1 below).

On the south side of Structure 1F were the partial remains of a ring groove (065), with a post hole (067) cut into its base. Extrapolating this around the post ring suggests a diameter of *c* 11.5m for the structure. Although heavily truncated, the ring groove could be seen to link with Post Hole 059. The point of entry was defined by two pairs of opposing post holes, 013/036 and 059/057, which may represent the remains of a framed doorway. Post Holes 059 and 013 were also opposed to two post holes in the post ring, Post Holes 043 and 041 respectively.

There were two internal features not assigned to the post ring: Pit 071, 1.6m by 0.8m by 0.35m deep (Illus 45) was probably a firepit due to the



Illus 44 Plan of Area F

nature of its charcoal-rich deposits and burnt soils. The soil micromorphology analysis also supports this, demonstrating that the upper fill, 072, was consistent with a fire of dung-based fuels (see Section 8.5.4). The function of the smaller pit, 047, with a diameter of 0.6m and 0.12m deep with its single fill of mid-brown to orange sandy silt, could not be determined.

Sealing the features of Structure 1F and continuing slightly beyond the outer ring groove was a deposit of firmly compacted black silt (049) containing charcoal fragments and a number of artefacts (see Sections 8.4–8.5). The soil micromorphology analysis suggests that this material also derived from a dung-based fire.

8.1.1 Interpretation and phasing

The most likely reconstruction of this group of features would appear to be based on the 8m-diameter post ring and an external ring groove which was largely truncated, representing a single-phase structure.

8.2 Structure 2F

A rectangular structure, 2F, was defined by four post holes and had overall dimensions of *c* 7m by 4.4m. The interpretation that these post holes were related was based on their similar size, form and spatial arrangement: 104, 0.55m by 1.07m by 0.25m deep; 069, 0.85m by 1.27m by 0.22m deep; 021, 0.6m by 1.26m by 0.16m deep; 023, 0.6m by 0.85m by 0.21m deep. The features contained single fills of sandy silts of dark brown or grey to black in colour, and there was no dating evidence.

8.3 Other features

There were 20 isolated features across the excavation area, ranging in size from 0.3m by 0.27m by 0.15m deep to 1.37m by 0.65m by 0.27m deep and filled with brown sandy silts, reflecting the characteristics of the subsoil and the probable ancient topsoil. There was no spatial patterning within these features indicative of structural remains, nor physical relationships to discern diachronic phasing, although most of the features were clustered around the structures and probably related to the occupation of Structure 1F. However, their function remains unknown.

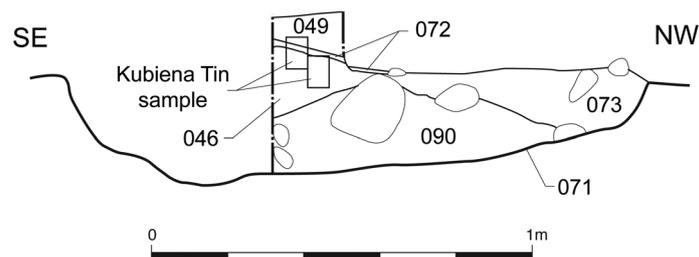
8.4 Artefacts

8.4.1 Pottery

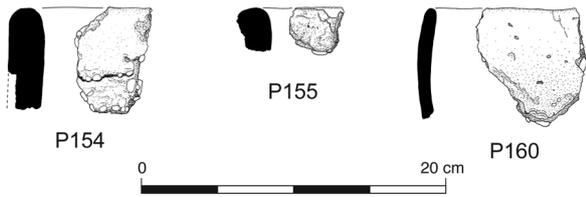
Melanie Johnson

A small assemblage of 19 sherds of MBA/LBA pottery was recovered from this area. More than half of the assemblage was recovered from Post Hole 077, forming part of the post ring within Structure 1F. However, eight sherds were all plain body sherds with no diagnostic traits and represent five different vessels. Three sherds were from a rim with a rounded top (P160 Illus 46). The fabrics were generally fairly heavily gritted. It is tempting to interpret this deposition as a deliberate one, similar to those in Area G (Section 6), as it is hard to understand how such a group of pottery could have come together in one post hole unless placed deliberately.

A charcoal-rich deposit (049), interpreted as material derived from a dung-based fire, sealed the cut features of Structure 1F and contained the rest of the assemblage, comprising small abraded body sherds and two rim sherds (P154–155 Illus 46).



Illus 45 Section of Pit 071, Area F



Illus 46 Pottery from Area F

Each of these rims is very thick (14–17mm) and has a rounded or sub-rounded top. These rims are unusually thick when compared to the rest of the assemblage.

8.4.2 Vitrified material

Dawn McLaren

Four small fragments of very dark brown, highly-vesicular, slightly glassy, non-magnetic vitrified material (1.6g) derived from a spread within Structure 1F (C049). The fill of Post Hole 032 produced multiple small amorphous nodules of lightly vitrified, bubbly, porous material comprising fused lumps of earth, stone, silica, ash and organics (51.8g), likely to be fuel ash slag or cramp. This material can form during any high-temperature pyrotechnic process, such as within a hearth, and is not necessarily the result of a deliberate industrial activity.

8.5 Environmental evidence

8.5.1 Calcined bone

Sue Anderson

Thirteen contexts in Structure 1F together contained 14.2g of bone. The largest quantities were collected from C049 (7.95g), Pit 071 (2.1g) and Post Hole 032 (2.3g). A fragment of large mammal tibia from 049 was submitted for radiocarbon dating (see Section 8.6 below).

8.5.2 Charcoal

Michael Cressey

Two species of wood are represented, with hazel (31 identifications, 19.2g) at 69% of the assemblage and oak (64 identifications, 8.3g) attaining 30%. The largest concentration was from C049 (15.4g hazel). Of the features, the two entrance post holes, 059

and 013, produced the greatest quantities, both containing oak and hazel. Other post holes within Structure 1F (005, 008 and 077) contained small quantities, and 25 blocky fragments (3g) of oak were identified in Post Hole 069 of Structure 2F, but it was not possible to determine whether this was part of the original post.

8.5.3 Plant remains

Mhairi Hastie

Only a small assemblage of very poorly preserved barley grains, a nutlet of persicaria and one or two rhizome fragments were recovered from this area. The quantity of plant remains present is very small and does not allow detailed discussion. Barley grains from Post Holes 059 and 077 in Structure 1F were submitted for radiocarbon dating (see Section 8.6 below).

8.5.4 Soil micromorphology

Clare Ellis

Two Kubiena samples (<1038> 1–2) were taken through the upper fills of Pit 071 (Illus 45). The lower sampled fill, 046, comprises a poorly to moderately sorted coarse sandy silt loam with few rock fragments. It has a high amorphous organic content with a few coarse and very few silt-sized charcoal fragments occurring throughout the organo-mineral matrix. There are very few fragmentary biogenic silica and very few rounded fragments of bone. The upper fills, 072 and 049, were not distinguishable in thin-section; these comprise a poorly sorted coarse sand dominated by silt-sized and coarse cellular charcoal. All three contexts have been extensively reworked by soil fauna, resulting in crumb and granular microstructures.

Bioturbation has largely destroyed the original fabrics; however, the boundary between 046 and 072/049 survives as an undulating, sharp and distinct boundary despite considerable reworking of the matrices by soil fauna. This boundary is indicative of a hiatus in accumulation, ie a break in dumping, as well as a marked change in the nature of the material being dumped. The amorphous organic content of 046 has been largely replaced by iron oxides; this probably occurred during heating and burning resulting in the segregation of iron

oxides (Simpson et al 2003), or it could be due to the presence of high amounts of acid organic matter in which the iron is finely integrated with organic molecules forming organo-mineral complexes (Courty et al 1989). However, the abundance of convoluted charcoal of organic matter (not wood) at the top of 072/049 is indicative of an organic, perhaps dung-based fuel residue and a fire in which combustion was not complete, possibly due to the use of damp fuel or the deliberate dampening of the fire to create an environment suitable for the smoking of meats or fish. The presence of small rounded fragments of bone fits with a domestic hearth ash source of the deposits.

8.6 Radiocarbon dates

Four dates were obtained from internal features within Structure 1F and two from a context sealing the structure (Table 15; Illus 47). Chronologically the dates fall within the LBA to EIA periods.

A hazelnut shell from the possible destruction C049 returned the earliest date, but it is possible that it was residual and subsequently became deposited within this context.

The two radiocarbon dates returned from post hole Fill 060 (UBA-13346 and UBA-13345) passed the chi-squared test and therefore can be legitimately

combined, giving an average age range of 896–801 cal BC. Paired dates from 049 and 078 did not pass the chi-squared test, and one date, from Post Hole 077, is later than the rest (Illus 47). Overall, however, four of the dates were not significantly different and suggest a 9th-century BC date for the structure.

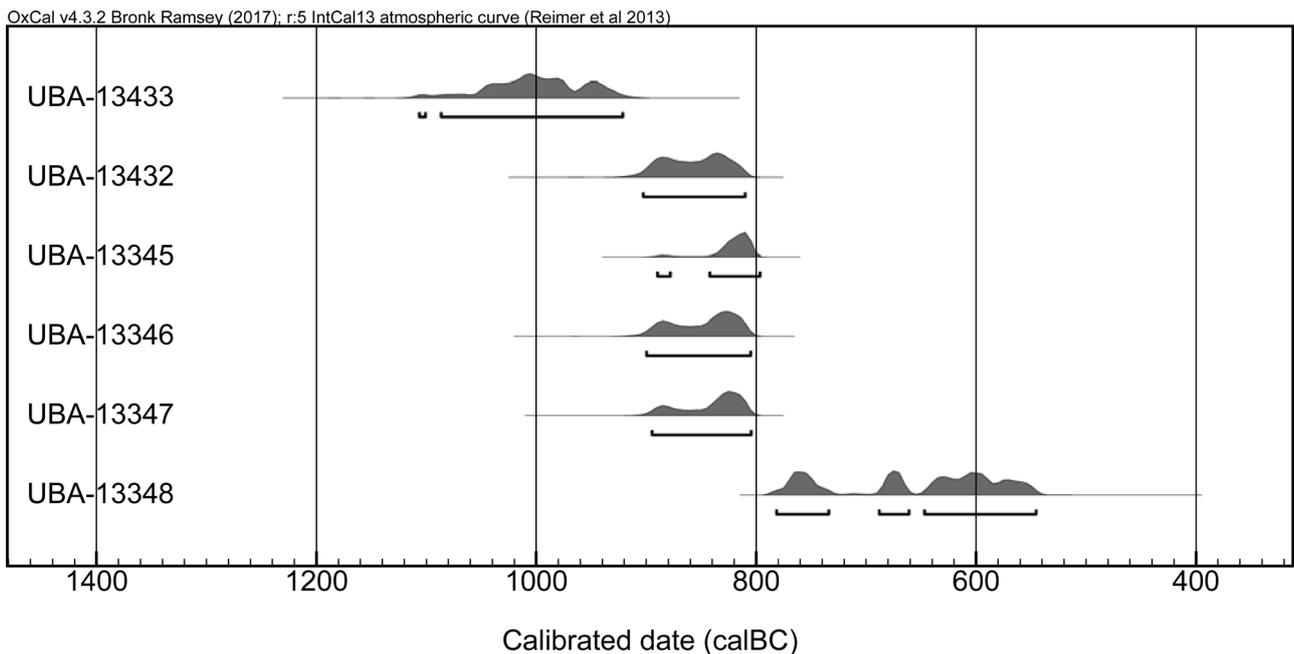
8.7 Discussion

8.7.1 Phasing

The site appears to represent a single phase of activity, since there were no intercutting features or stratigraphic relationships apart from all the features being cut into the natural subsoil.

8.7.2 Architectural features of the structures

Structure 1F probably had an 8m-diameter post ring separated from an outer ring groove by a *c* 1.4–1.8m gap. A similar, but more complete, example of this form of structure was identified in Area D (Section 9). The entrance was orientated to the south-east and was framed by a small external ‘porch’ (really an extended door frame) which used Post Holes 013 and 059, with short extensions comprising 057 and 036. Pit 071 contained deposits which indicated burning and the use of animal dung as a fuel. This, together with the presence of small rounded fragments of burnt bone within the upper deposit



Illus 47 Radiocarbon dates, Area F

Table 15 Radiocarbon dates, Structure 1F. Calibration was conducted using OxCal v4.1.7, using the IntCal09 calibration curve

Lab no.	Material	Context	Date BP	95% probability	$\delta^{13}\text{C}$ ‰
UBA-13433	Hazel charcoal	Layer 049	2844 ± 25	1070–922	–29.5
UBA-13432	Bone	Layer 049	2708 ± 25	900–814	–23.1
UBA-13345	Naked barley	Fill of Post Hole 059	2665 ± 20	895–796	–27.0
UBA-13346	Naked barley	Fill of Post Hole 059	2695 ± 26	898–807	–23.1
UBA-13347	Barley indet.	Fill of Post Hole 077	2688 ± 23	896–805	–25.6
UBA-13348	Barley indet.	Fill of Post Hole 077	2512 ± 19	785–542	–28.5

and the position of the pit within the house, suggests that this pit was a hearth.

Structure 2F was a simple rectangular structure based on four large posts.

8.7.3 Structure use

Structure 1F is assumed to have been a roofed building based on the fact that it was defined by a post ring. These structural posts are thought to be used to support the ring-beam, which aids in the distribution of the weight of the roof. The structure had a well-defined entrance on the south-east side, and the presence of a partially surviving ring groove on the south side of the structure demonstrates that the structure had an outer wall.

Pit 071 was interpreted as a hearth due to the burnt deposits. The presence of a hearth is a further indication that this structure was inhabited and is therefore likely to have been a house.

The four post holes that were thought to define Structure 2F were of similar size and form, and were coherent in plan, forming a rectangle. Comparable structures have been recorded, for example, at Little Woodbury (Ellison & Drewett 1971: 85) and at Dryburn Bridge (Dunwell 2007), as well as elsewhere in Britain. Early interpretation by Bersu (1940) suggested they were raised granary stores. None of the four post holes contained charred grain and only one post hole, 069, contained a small amount of charcoal.

8.7.4 Finds distribution and taphonomy

The finds assemblage was concentrated in two contexts, pottery from Post Hole 077 and pottery and burnt material from C049. The fact that pottery

was only recovered from a single feature is intriguing and probably represents the deliberate deposition of the material within the post hole, but whether this had ritualistic meaning or whether the pot was used as packing material cannot be determined.

There are a number of taphonomic factors that may result in the low levels of pottery from features within Structure 1F. It may be the result of a house that was kept very clean, with refuse being dumped outside and away from the structure. Alternatively, it may be that the occupants owned or used very little pottery. Perhaps the house was occupied for a very short time, before detritus could accumulate. The lack of intercutting features suggestive of post replacements or other repairs is supporting evidence for a brief occupancy of the house, although exactly how long this lasted cannot be determined, as the radiocarbon dates span approximately a century.

8.7.5 Economy

There was very little evidence from which to reconstruct economic activities. Although small amounts of barley grains were recovered they could either have come from domesticated or wild species. Calcined bone was also recovered, some of which was from a large mammal, but again whether it represents a domesticated or a wild species could not be ascertained. If the four-post structure is interpreted as a grain silo, then the implication is that the occupants would have had access to enough grain to warrant such a structure.

The vitrified material recovered from C049 can form during any high-temperature pyrotechnic process and may therefore have resulted from the putative house fire rather than from metalworking.