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Survey and excavation at Tarradale, Highland

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with a contribution by C McGill

ABSTRACT

Between 1991 and 1993 the late G D B Jones undertook trial excavation of a cropmark enclosure located at Tarradale, Highland. Excavation revealed three possible phases of activity. These include: possible Mesolithic activity; a probable unenclosed phase of settlement, dating to the Late Bronze/Early Iron Age; and finally a phase of enclosure which may be associated with the formation of a substantial settlement dating to the middle centuries of the first millennium AD.

INTRODUCTION

In 1986 aerial reconnaissance by the Moray Aerial Survey was extended west from the Moray littoral in order to examine the archaeological potential of the coast between the Beauly and Cromarty Firths (cf Jones *et al* 1993). One significant result was the recognition of an extensive cropmark complex located at Tarradale, close to the head of the Beauly Firth, south of Muir of Ord (now Highland Council area, formerly Ross & Cromarty). These cropmark sites, elements of which had been earlier photographed by CUCAP and RCAHMS, are distributed along an elongated spur of Boyndie Series sands, which is defined on its eastern side by a small stream, while closer to the estuary a former channel of the River Beauly has cut a sharp scarp along its southern edge. To the south of this scarp extensive land reclamation, which post-dates c AD 1866, has also effectively isolated the spur from an earlier coastline, whose form may have offered sheltered anchorage in antiquity (illus 1).

At the north-westerly end of this spur aerial survey initially identified an oval univallate enclosure which, because of the presence of a possible hut circle within its interior, is presumed to be an enclosed settlement, possibly of later prehistoric date. To the south-east of this settlement a sunken road, also visible as a cropmark, may be traced running in a south-easterly direction towards an upstanding ringwork (NGR: NH 5489 4888), and then onwards to the former shoreline. This ringwork, which is classified by RCAHMS as a plantation bank and which now serves as a game covert, partly overlies, on its north-westerly side, a large circular cropmark site (NGR: NH 5484 4891). Immediately to the north-west of this there is another large, sub-rectangular, cropmark enclosure, whose form is characteristic of a square barrow (NGR: NH 5487 4888). Further aerial survey in 1995, however, indicated that these enclosures were not isolated but were set within an extensive barrow cemetery, suggesting that the enclosures were also connected with burial activity. The cemetery is composed of at least 13 round barrows, or

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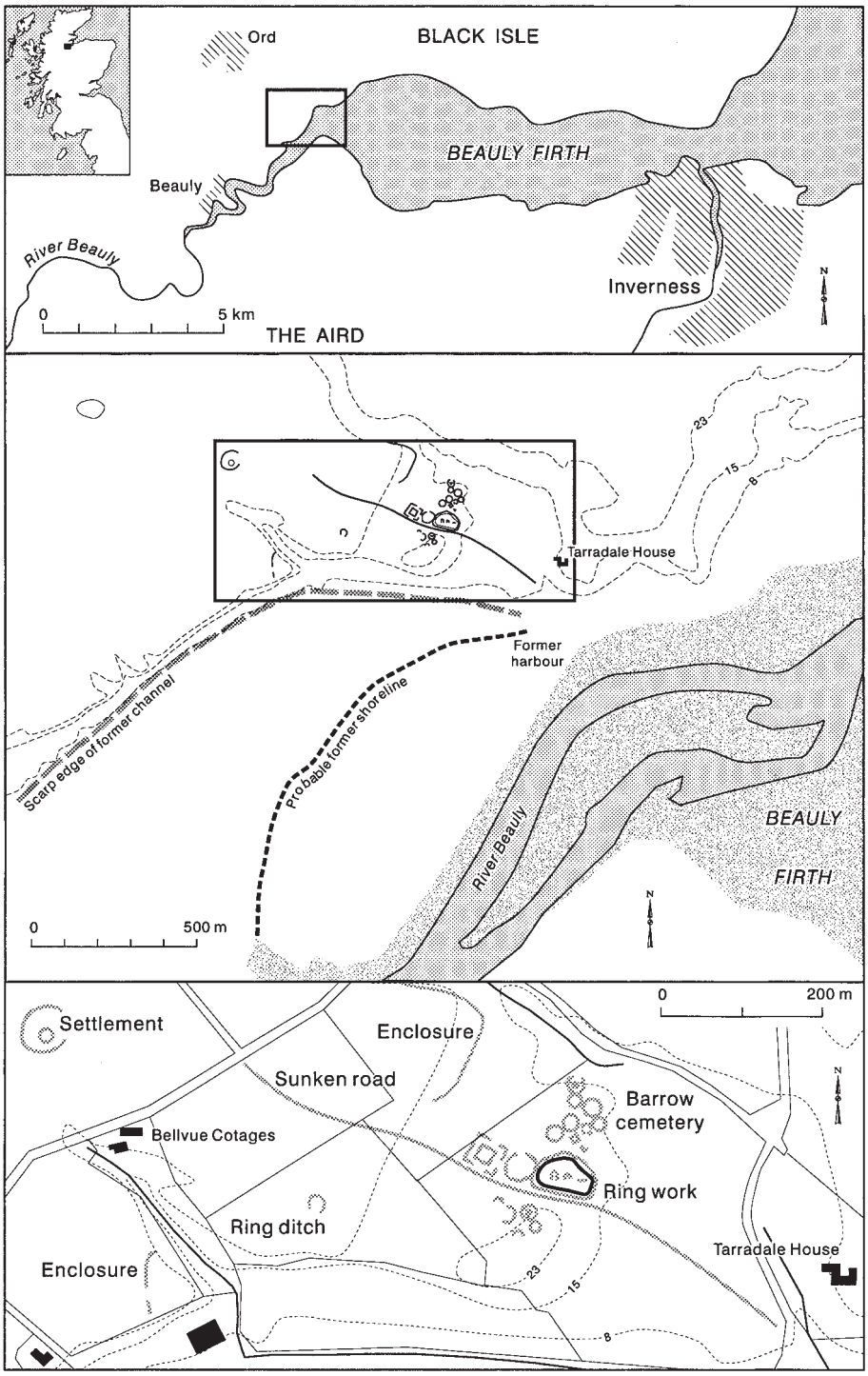


ILLUS 1 Location map. (*Based on the Ordnance Survey map © Crown copyright*)

funerary enclosures, and four square barrows, and extends over c 250 m NE–SW. The identification of a further small, isolated, circular enclosure ('ring ditch') c 250 m to the west of the cemetery (NGR: NH 545 488) may, however, imply that originally this cemetery was more extensive, possibly extending up to 0.5 km E–W.

Some 180m north-west of this agglomeration of archaeological sites, the sand spur rises to form a prominent saddle, which commands extensive vistas over the Firth. It was on this saddle that a further cropmark appeared, on several occasions, during the course of aerial reconnaissance over the Black Isle. This fragmentary mark suggests the presence of a substantial enclosure, the boundary of which was visible as an arc, or corner, following the north-easterly contours of the hill. It therefore appears likely that this boundary may have enclosed a substantial area, possibly up to c 1.3 hectares.

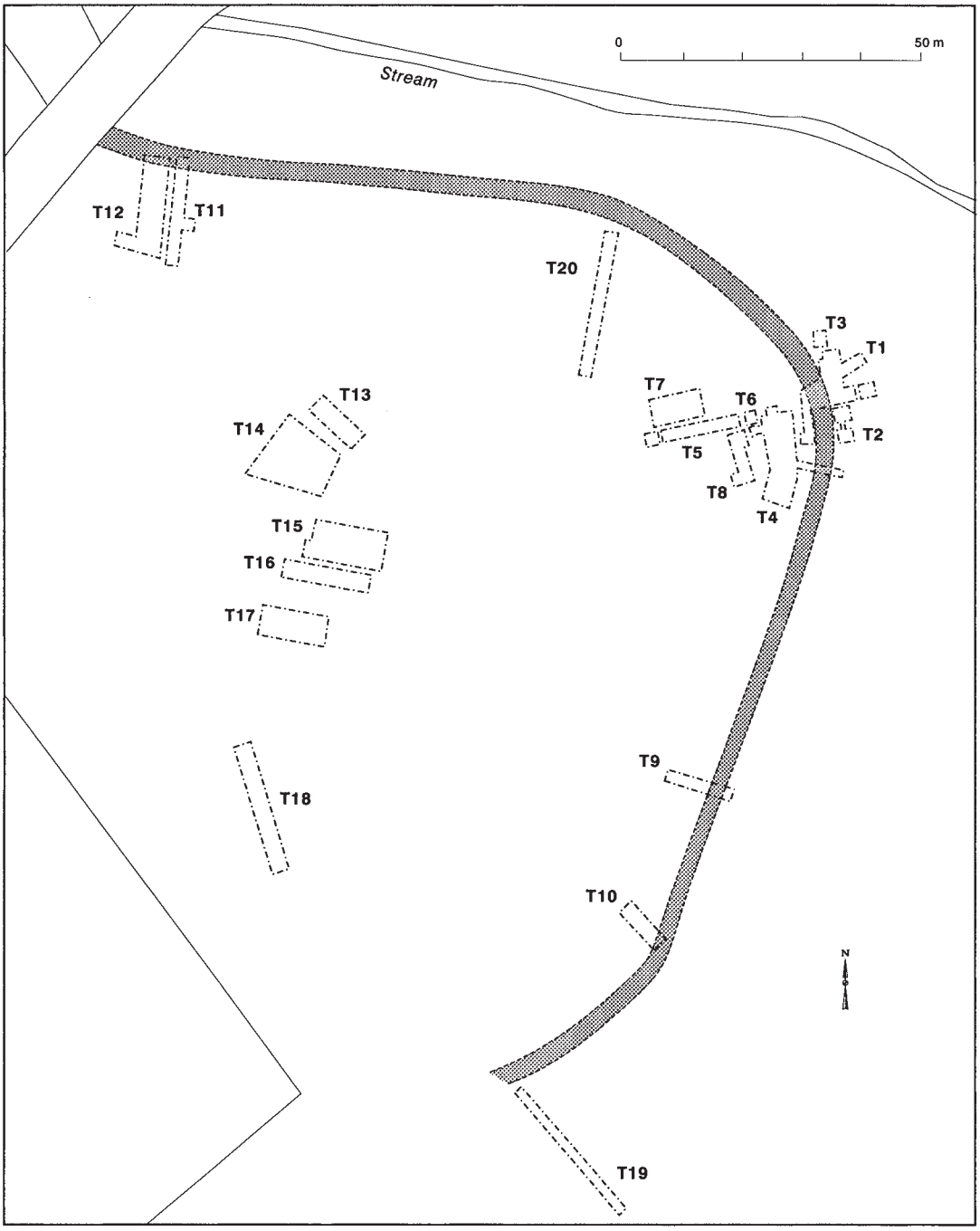
During the early 1990s G D B Jones of the University of Manchester undertook a series of test excavations on this putative enclosure to ascertain its possible date and function. Unfortunately, with Jones' sudden death in 1999 the results of this work remained unpublished. It was also unfortunate that although the site archive remained intact, Jones had only attempted a cursory interpretation of the first season's excavation results (Jones 1991). In 2000 I was invited by Historic Scotland to bring this work to publication. Inevitably, the interpretations that follow are based on my analysis of the site. These interpretations were made possible by examining the available archive and by initiating post-excavation work on the small ceramic assemblage recovered from the enclosure; however, I also had a personal familiarity with the material as I had acted as site supervisor on the excavation.

EXCAVATION

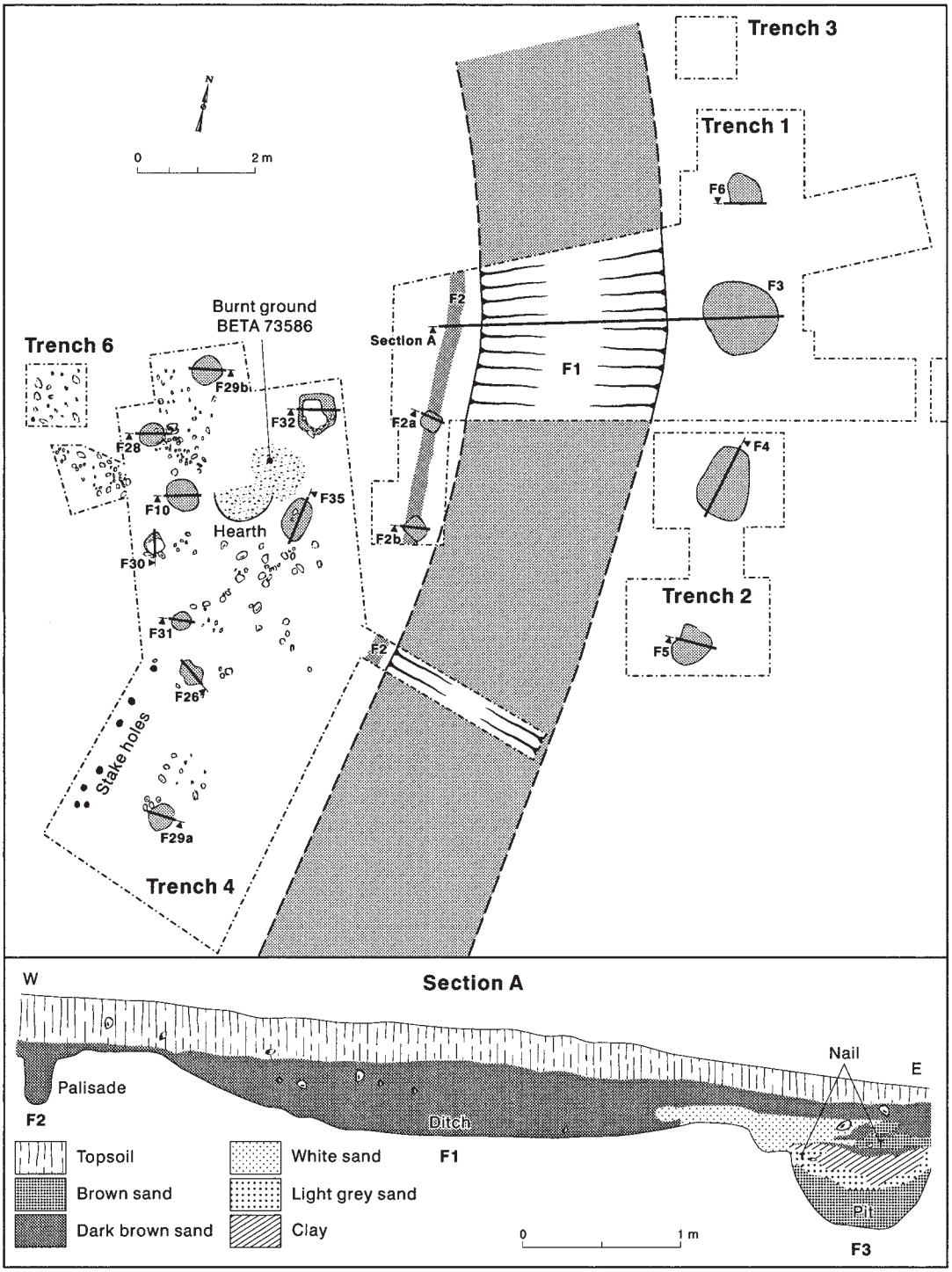
There were three seasons of excavation, before insurmountable changes in the present agricultural regime brought a halt to the research programme (illus 2). In 1991, excavation concentrated on the north-eastern corner of the possible ditched enclosure; four test trenches (1–4) were designed to assess the nature of any surviving archaeological deposits. In 1992 excavation of the north-eastern corner continued and was extended by four further trenches (5–8), to examine any structures which might have survived in the interior of the enclosure. Following the success of the earlier work, the 1993 season was designed to define the course of the enclosure ditch (six trenches: 9–12, 19 & 20), and to determine (by excavating a further six randomly positioned trenches: 13–17), the nature of the archaeological deposits at the presumed centre of the enclosure.

THE ENCLOSURE BOUNDARY AND THE NORTH-EASTERN CORNER

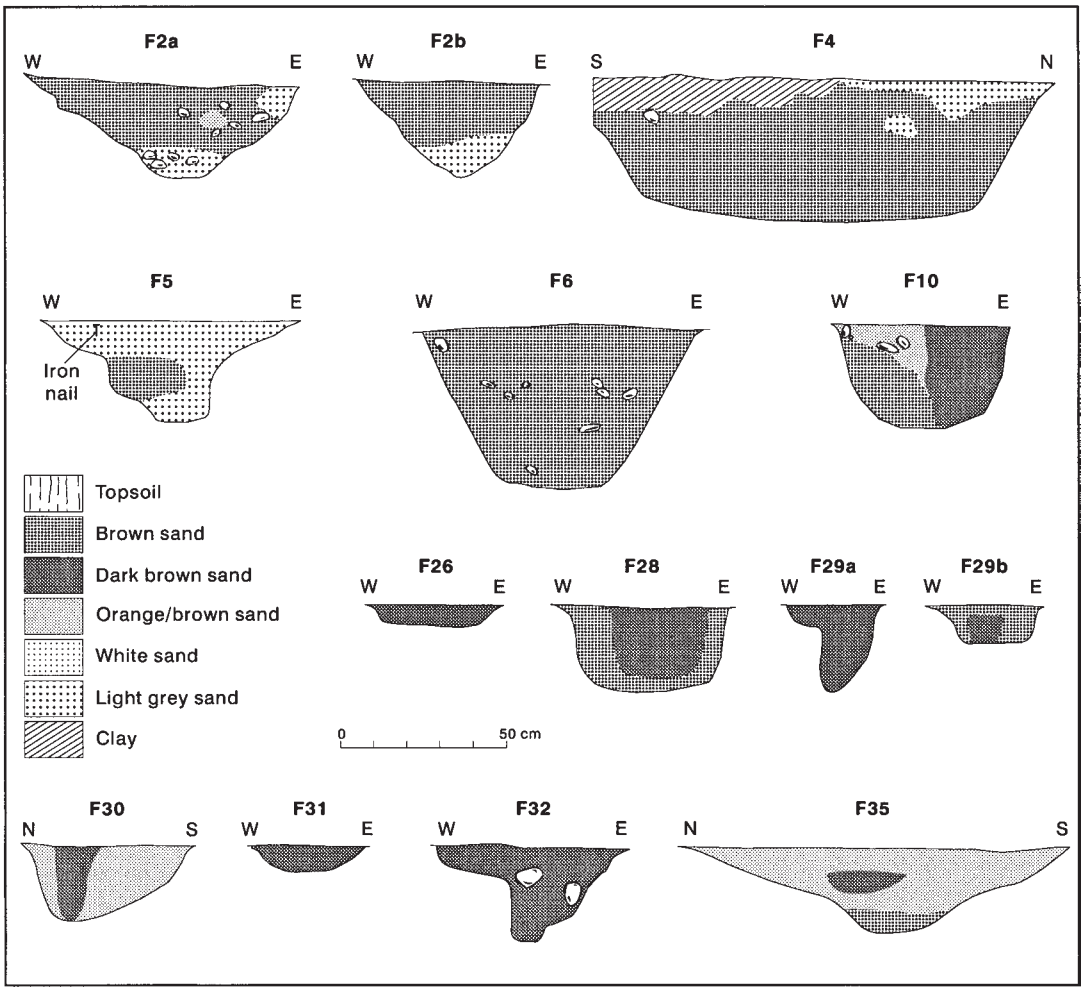
In 1991 and 1992 excavation was largely confined to an area where a fragmentary cropmark hinted that a rounded corner, potentially associated with a large ditched enclosure, was to be found close to the crest of the saddle (illus 3). The presence of a curving ditch was confirmed in this sector with the examination of two excavated sections (illus 3). This feature (F1) was found to be c 4.5 m in width and was generally filled with a homogeneous deposit of dark brown sand, which had been partly truncated at its eastern end by a shallow re-cut containing white sand. With complete excavation it became apparent, however, that the ditch profile (maximum depth 0.5 m) had suffered from severe erosion (illus 3). The erosion of this feature was attributed primarily to aeolian action, in association with modern agricultural techniques, which we believed had removed a considerable depth of the original subsoil. The effects of this type of erosion are not, however, confined to this site, as the comparable degradation of archaeological features has been noted at a number of other cropmark enclosures in Morayshire, which were also constructed on similar Boyndie Series sands (Grattan 1992; Gregory 2001b).



ILLUS 2 The enclosure and the location of the excavation trenches



ILLUS 3 The north-eastern corner

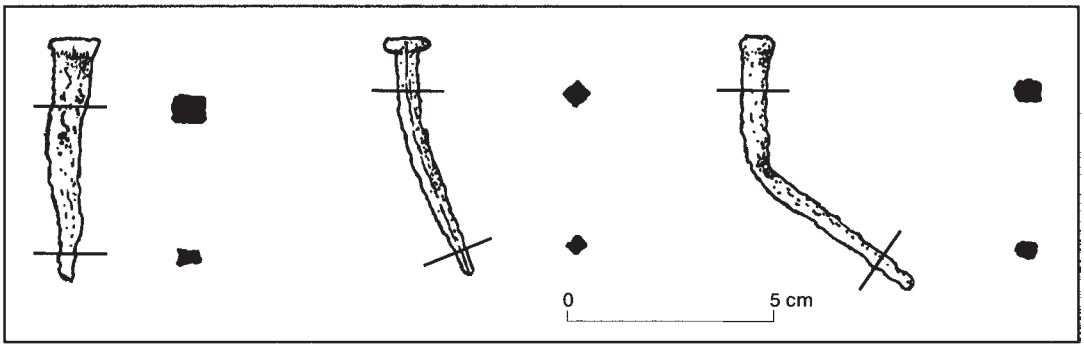


ILLUS 4 Sections from the north-eastern corner

With the existence of an enclosure ditch confirmed, further trenches were positioned (9–12, 19 & 20) to try to determine the course and extent of the enclosure ditch. The severely eroded ditch was identified in trenches 9–12 allowing its probable line to be established for c 250 m (illus 2).

Further features were also encountered at the north-eastern corner of the enclosure. To the east of the enclosure ditch these took the form of four large pits (F3–6) which, significantly, respected the line of the eroded enclosure ditch (illus 3 & 4). Of these, the larger pair (F3 & F4) were c 1.2 m in diameter by c 0.8 m deep, while the smaller (F5 & F6) were c 0.7 m in diameter, with a depth of c 0.6 m. All four pits were filled with a light brown sand interspersed in places with a brown clay, while pit F3 was partly truncated by a shallow re-cut which was also found to truncate the enclosure ditch (illus 3). Jones (1991) also suggested that impressions of timber uprights were visible in pits F3 and F4.

In interpreting these features Jones (1991; 1992) argued that, because of the difficulties of maintaining a ditch profile in the sand subsoil of the area, these pits may have originally held a series of timber posts, supporting a wattle fence, erected to strengthen the enclosure defences at this point. It was then argued on the basis of the recovery of three bent, hand-forged, iron nails (illus 5) from the putative post-pits F3 and



ILLUS 5 Iron nails from F3 and F5

F5 that, at some point in time, this structure had been deliberately dismantled and the post-pits back-filled (Jones 1991; 1992).

To the rear of the ditch another spread of features was also identified, which again appeared to respect the line of the degraded enclosure ditch. Immediately behind the ditch an eroded palisade trench (F2) was located (illus 3). This was c 0.25 m wide and c 0.4 m deep, and was filled with a dark brown sand, not unlike the fill of the enclosure ditch. In the southern sector of trench 4 four small post-holes (F26, F29A, F30 & F31), with an average diameter of c 0.3 m, were also identified. These features were generally truncated, with a maximum depth of only c 0.4 m; it was argued that these formed, in plan, the rearward bracing of a possible box rampart, c 3.5 m wide, which was secured at its front by the palisade trench (Jones 1992). Architecturally, this style of earthfast rampart is not otherwise found in the region, particularly when compared with the ramparts examined at the nearby sites of Portknockie (Ralston 1987), Burghead (Young 1891; Small 1969; Edwards & Ralston 1978) and Cullykhan (Greig 1970; 1971). At these sites horizontal timbers were used to secure the timber uprights. Although novel, presumably the arrangement at Tarradale was designed in order to contain, and stabilize, rampart material derived from the pure sand subsoil of the area.

In the northerly sector of trench 4 further post-pits located immediately to the rear of the palisade line (F10, F28, F29B, F32 & F35) were also identified (illus 3 & 4). These were larger in plan than the other possible post features in this trench, with an average diameter of c 0.6 m, and were arranged in a square measuring c 1.6 m across. On closer examination of the frontal palisade line two other eroded post-holes (F2A & F2B) were also found to be directly associated with this feature. Significantly, these posts were also spaced c 1.6 m apart, both from each other, and from the post-pits to their rear. One sherd of medieval pottery was located in the upper fill of F10, at the boundary between the ploughsoil and subsoil, but it is assumed that this was deposited after the feature had fallen out of use.

It is possible that all of these features in the northern sector of trench 4 merely formed a further structural element of the presumed timber rampart, in some way comparable to the timber-laced ramparts identified at the nearby sites of Burghead (Young 1891; 1893; Edwards & Ralston 1978) and Greencastle (Ralston 1987). It is equally possible, however, based on their equidistant spacing and spatial configuration, that they may have originally formed, as Jones (1992) was inclined to argue, the supports for a timber tower positioned at the corner of the enclosure. Although difficult to identify archaeologically, it is generally assumed that architectural features of this type sometimes formed elements of the defences of European later prehistoric and Early Historic fortifications (cf Ralston 1995). In a Scottish context, however, such structures have yet to be identified and the example at Tarradale is therefore, at present, unique. Indeed, as Jones (1991) was inclined to argue, the closest parallels for this type of tower arrangement with associated box rampart, are to be found more generally with Roman military architecture.

Two other deposits of interest were also discovered in this sector (illus 3). Located between post-pits F32 and F35, a burnt layer with orange mottling was identified; it was partly cut by post-pit F35. Based on this stratigraphic relationship, it was assumed that this layer might represent an initial phase of clearance,

undertaken immediately before the construction of the fortifications. A sample was therefore taken and sent for radiocarbon dating. It was clear, however, from the subsequent radiocarbon assay of 6070 ± 90 BP (Beta-73586: 5275–4730 cal BC, at 2 sigma) that this layer was, in fact, associated with a much earlier phase of clearance than was originally anticipated.

The second feature identified in this area was found between post-pits F10 and F35. Here a semi-circular arc of dark soil, composed in part of highly comminuted charcoal, was recognized; it was interpreted as a shallow hearth (F3). Significantly, with the sieving of the fill, a small assemblage of pottery dating to the middle centuries of the first millennium AD was found to be directly associated with this feature. It is unclear, however, because of the ambiguities of horizontal stratigraphy in this area, whether this feature preceded, was contemporary with, or post-dated, the construction of the enclosure rampart. It seems likely, however, because of the discovery of this feature within the confines of the possible tower that it was possibly contemporary with the construction and/or use of the enclosure fortifications.

INTERNAL STRUCTURES

Within the interior of the enclosure a series of exploratory trenches successfully identified a number of post-holes and pits which appear to represent the degraded remains of probable timber buildings. These structures can be divided into those exhibiting a rectilinear plan (Buildings A, B & C), and a collection of features that may represent the remains of a circular post-defined structure, located close to the centre of the enclosure (Building D).

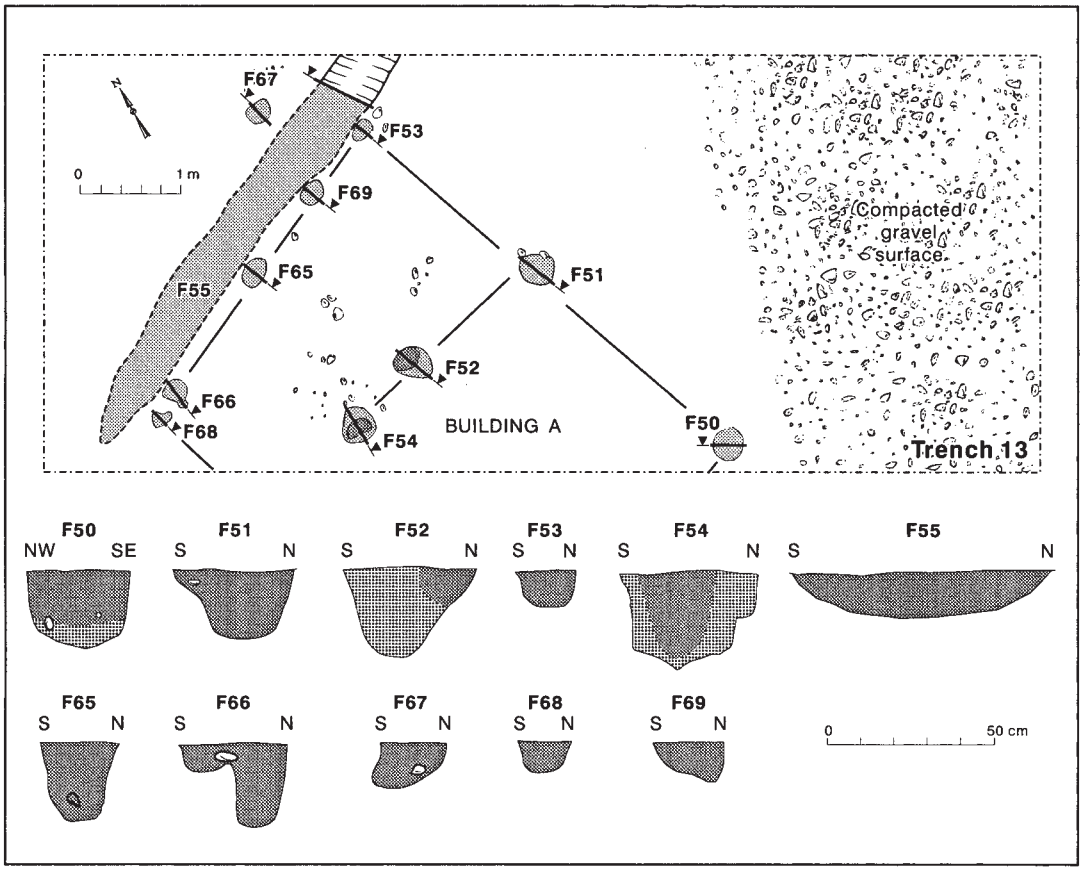
Rectilinear structures

Three discrete clusters of post-holes were identified in the enclosure interior, which, based on their spatial configuration, may originally have formed the structural supports for three rectangular buildings. Building A was partly exposed by trench 13, and comprised, in part, two clear lines of post-holes orientated N/S and E/W (illus 6). These features were generally c 0.3 m in diameter, and, with an average depth of c 0.25 m, had clearly been truncated; they perhaps defined the outer wall of a building. Based on these surviving features this structure would appear to have a minimum dimension of c 3.5 m by c 5 m. Within this possible building two further post-holes were also located (F54 & F52), which, when half-sectioned, revealed the clear impression of the original timber post. The location of these features, in relation to the outer wall posts, suggests that they may have formed an internal partition, oriented E/W. Directly to the north of this building the remains of a shallow gully were recognized (F55). The function of this feature is not particularly clear, but its close proximity to the post-defined structure suggests that it was probably not contemporary with the post-defined building.

A second cluster of features was identified in trenches 5 and 8 (Building B). Here, four truncated post-holes may have formed the possible corner of a rectilinear building (illus 7), although some caution is required in this interpretation because of the small area excavated. The exact dimensions of this possible building are not clear, but the absence of a post-hole at its north-easterly end in an adjacent trench (trench 7) implies that it must have been under 6 m in length. The date of this structure is also not clear. One of the post-holes (F19) did, however, contain the remains of a carbonized post which was sampled during the excavation. Unfortunately, this sample could not be located in the University of Manchester archive and consequently could not be submitted for radiocarbon dating (Gregory 2000).

A final cluster of post-holes was identified in trenches 11 and 12 (Building C). Four of these were arranged in a NE/SW line which, based on the other evidence from this site, may be tentatively interpreted as the remains of a wall, perhaps again associated with a rectilinear timber building (illus 8). It is also possible that a double post-hole (F61) represents the corner of this building, with post F60 acting as an internal building support.

Unfortunately, the date of these three structures is not known, as no artefacts were recovered during their excavation and no radiocarbon assays obtained. Likewise, their relationship to the enclosure boundary, and, indeed, to each other is also not particularly clear. Although speculative, the similar orientations of



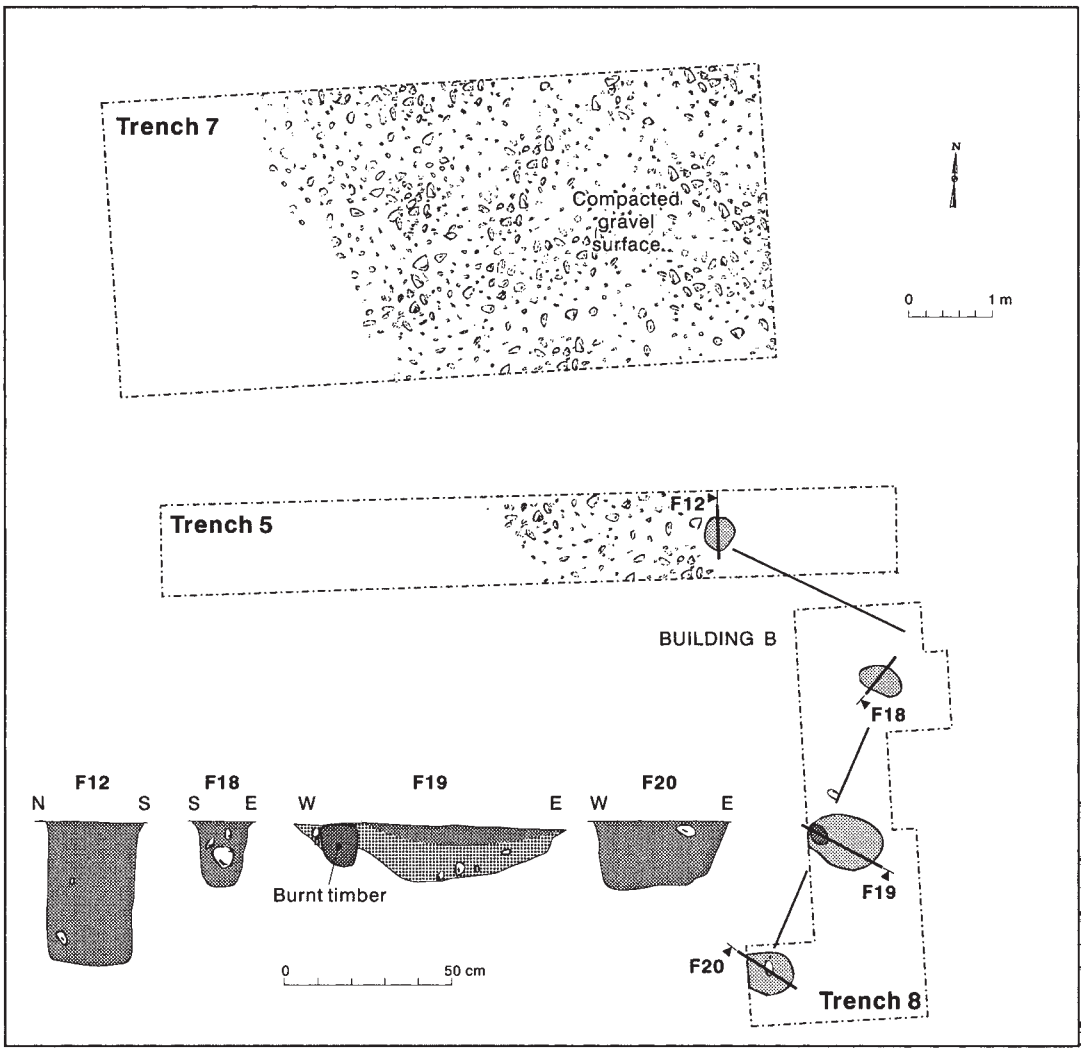
ILLUS 6 Building A

buildings A and B may, however, suggest contemporaneous construction, and it is possible that these buildings were also contemporary with the enclosure boundary, although this remains unproven. The spacing of the exploratory trenches in which the three buildings were found may further imply that buildings of this type were distributed over a substantial northerly portion of the enclosure interior.

The circular post-defined structure

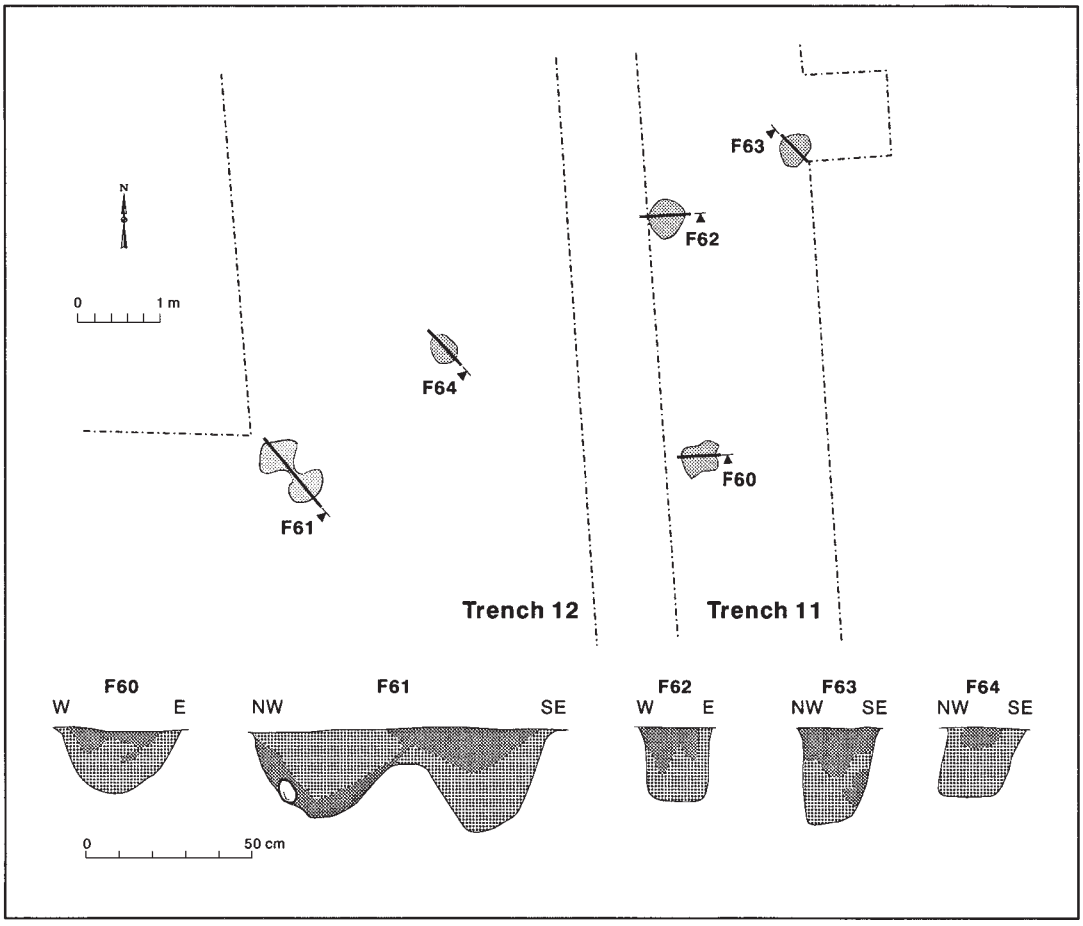
A bewildering array of pits was identified in trench 15, adjacent to a compacted gravel surface (Building D) (illus 9). These features varied in both shape and size. For example, some large ovoid pits were identified whose form may suggest the provision of a post ramp. The majority of pits, however, were circular in plan with an average diameter of c 0.4 m (illus 9). Although, the relatively shallow depth of these features indicates that they have all suffered from later truncation, it was presumed that they had once housed a series of timber uprights. This was confirmed by the recognition of post-pipes in a number of the excavated examples. Moreover, a carbonized post was identified within post-pit F80, which was later sampled (illus 10). This, in turn, was submitted for radiocarbon dating and provided an assay of 2610 $\pm$ 80 BP (Beta-74242). The calibrated date range (910–520 cal BC, at 2 sigma) suggests that, if contemporary, these features were associated with a Late Bronze /Early Iron Age structure of some description.

The form of this structure appears somewhat confused, which may be partly because of the fairly limited area which was exposed during excavation. One identifiable element, however, is located in the



ILLUS 7 Building B

eastern sector of the trench where four post-holes (F90, F92, F93 & F94) are arranged as pairs, spaced approximately 2 m apart (illus 11). Within this space the degraded remains of a laid stone surface (F91) were also identified. This is reminiscent of a style of threshold or entrance arrangement found at many excavated Late Bronze/Early Iron Age roundhouses across the British Isles, where thresholds were embellished with the provision of a substantial porch. These porches may be defined by a pair of double post-holes, located on either side of the threshold, and in many examples the entrance is aligned E/W (cf Guilbert 1981; 1982; Parker-Pearson 1996; Oswald 1997). If it is accepted that the four posts identified in trench 15 originally formed the entrance into a roundhouse, the features located behind it could then be interpreted as the timber supports for the roof of this possible roundhouse. Unfortunately, the arrangement of these posts is somewhat irregular, but a possible internal post-ring, c 5 m in diameter, can be identified composed of at least 10 post-holes, (F97, F83, F81, F82, F84, F85, F72, F71, F75, & F78). Although no evidence for an outer wall line was located within the excavated area it is possible, based on the distance



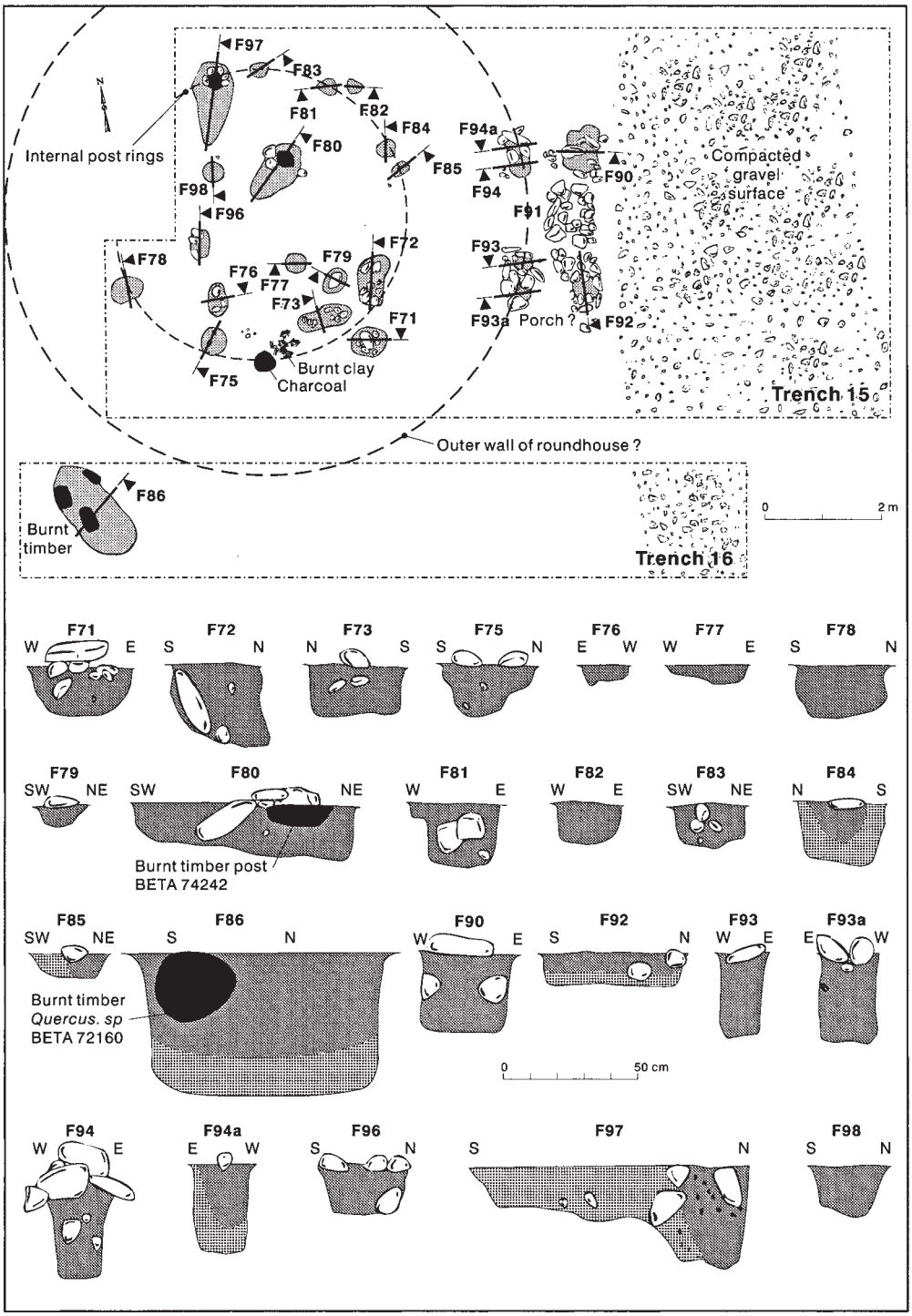
ILLUS 8 Building C

between the centre of the presumed internal post-ring and the porch, to estimate the diameter of the hut at c 9.5 m.

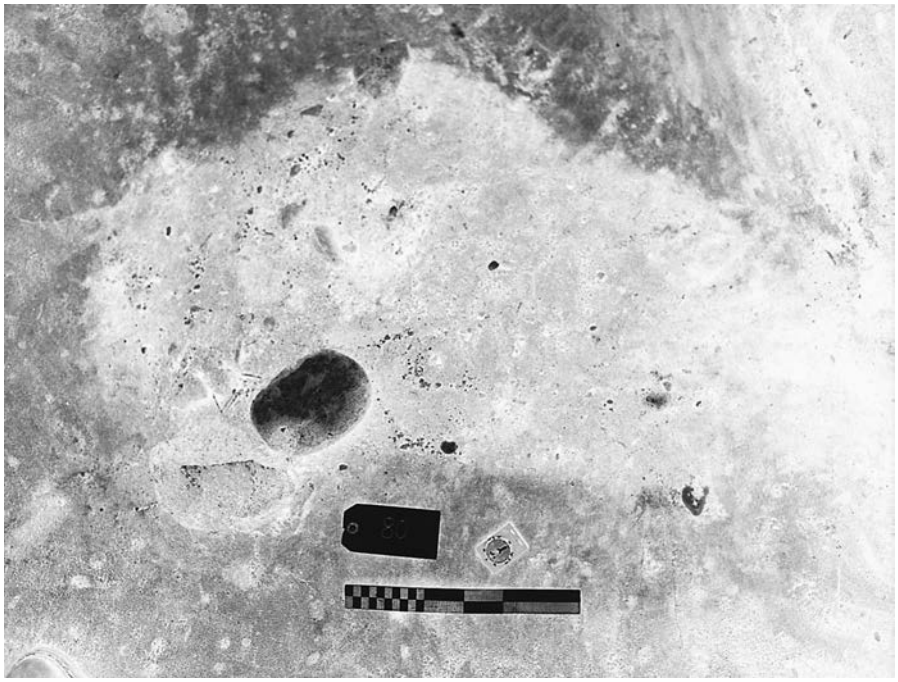
The remaining features, including the dated post (F80), are confined to the interior of the presumed internal post-ring. These features do not appear to be necessary for the structural support of this presumed roundhouse. They may therefore merely have acted as some form of internal partitioning. Intriguingly, four of these posts (F98, F80, F76 & F77) appear to be arranged in a square, surrounding the presumed centre of the roundhouse. Again, if these features are contemporary with the other post-pits recorded in this area, it seems unlikely that they aided the support of the roundhouse roof, as such arrangements have not yet been recorded at other excavated roundhouses in the Scotland. However, they may have defined an area occupied by a centrally placed heath and, in turn, may have functioned as some form of cooking gantry; an example has been recorded within an excavated hut circle at Hayknowes Farm, in south-west Scotland (Gregory 2001a).

Other internal features

The remaining exploratory trenches within the interior of the enclosure also located a number of further pits and post-holes. In trench 16, positioned immediately south of the possible roundhouse, a large oval pit, 2 m



ILLUS 9 Building D

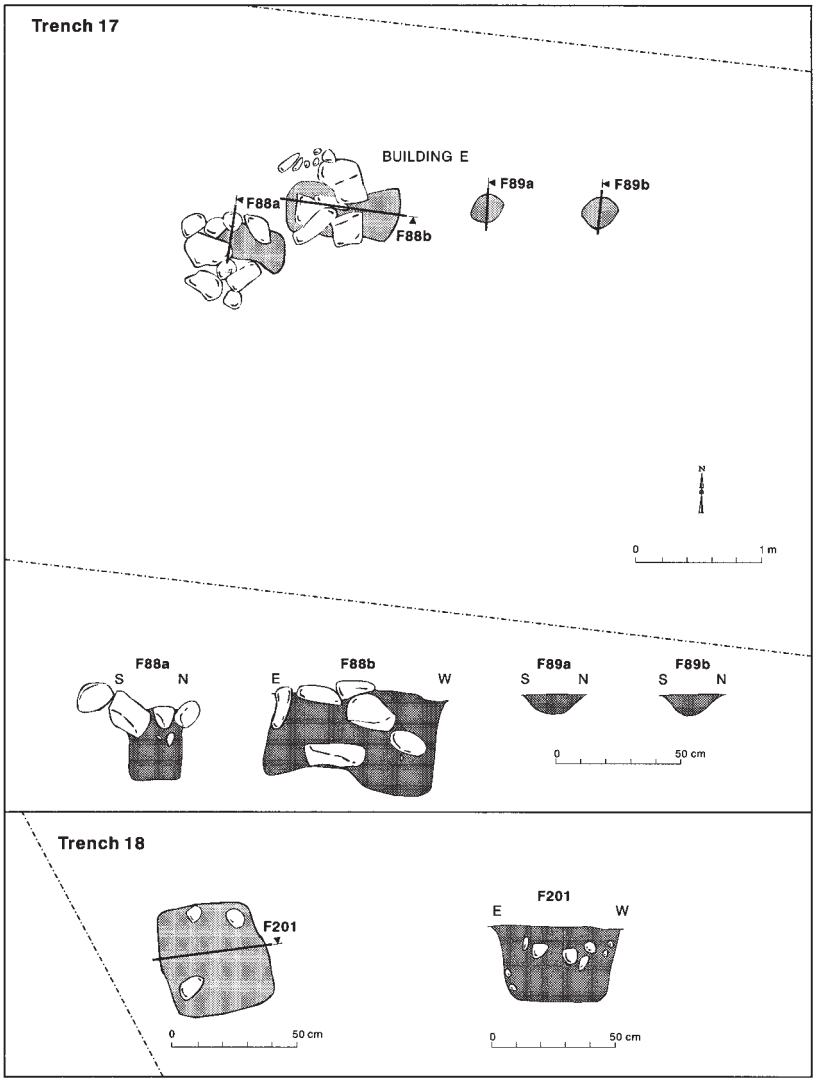


ILLUS 10 Posthole F80 before excavation. (*Photograph courtesy of the G D B Jones Estate*)

ILLUS 11 Building D after excavation. (*Photograph courtesy of the G D B Jones Estate*)

by 1 m in plan and 0.05 m deep, was found to contain three sizeable burnt timbers (illus 9). These were subsequently identified as *Quercus* sp, and one timber sample was submitted for radiocarbon dating (Shimwell, pers comm). This provided a surprisingly early date of 6220 ± 70 BP (Beta-72160: 5320–4960 cal BC, at 2 sigma)]. It seems possible, therefore, that this activity may be related to the burnt layer identified at the north-eastern corner of the enclosure which falls within a comparable calibrated date range.

A number of well defined post-holes were also identified in trenches 17 and 18 (illus 12). In trench 17 two heavily chocked post-holes (F88a & F88b) c 0.9 m in length and c 0.4 m deep, were found in close proximity to two ephemeral features (F89a & F89b), while in trench 18 a single square pit or post-hole, c 0.9 m across and c 0.3 m deep, was identified. Without further excavation the function of these features remains unclear, but it is possible that these form an element of further timber buildings within the site.



ILLUS 12 Trenches 17 and 18

POTTERY

C McGill

INTRODUCTION AND METHODOLOGY

The pottery assemblage from the cropmark complex at Tarradale consisted of 44 sherds weighing 225 g. The sherds were recovered predominantly from a single context (F3), which may represent the remains of a hearth. Although the assemblage's mean sherd size was only 36 mm most sherds were not heavily worn, implying that the small size represents original breakage patterns rather than significant post-depositional disturbance and abrasion. No joining sherds were recovered from different contexts. In general, the fabrics and forms indicate a Pictish date for the assemblage, perhaps dating to the middle centuries of the first millennium AD.

The assemblage was analysed using the pottery recording system recommended by the Prehistoric Ceramics Research Group (PCRG 1997). After macroscopic examination, the sherds were assigned fabric types, and were weighed to the nearest whole gram. Each sherd was then assigned a form type, and further sherd characteristics were recorded where appropriate. Measurements of wear, as employed by Lelong (1993) and Swift (1996), were also made. In this analysis, wear is measured on a scale of 1 (not worn) to 5 (very worn); this can significantly aid in the isolation of residual elements in an assemblage. Apposite parallels could then be identified for the forms represented. These were drawn both from published material, as referenced in the text, and from an on-going doctoral study of eastern Scottish prehistoric pottery currently being undertaken by the author. Unreferenced parallels relate to this piece of work.

DESCRIPTION

Fabrics

Seven fabric types were identified:

Fabric 1: Fine sandy clay, brick orange throughout, moderately hard with a fairly fine fracture. Very few stalk-like organic inclusions, c 1 mm thick and 5 mm long. Occurs in trench 4 at the interface between the subsoil and topsoil (SF 49).

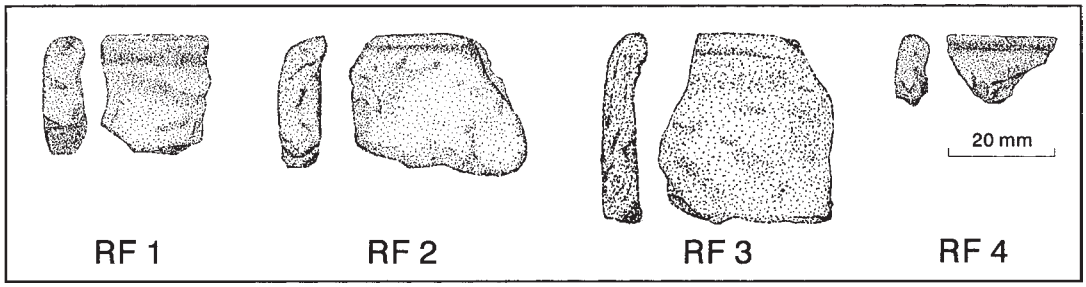
Fabric 2: Fine, sandy and micaceous clay, pale orange throughout, moderately hard with a fine fracture. Contains a moderate frequency of angular quartzite and sand-derived grits, very well sorted and less than 0.5 mm in maximum extent. Occurs in post- pit F10 (SF 21).

Fabric 3: A moderately fine sandy clay, mid grey (unoxidized) throughout. Very hard with a slightly uneven fracture. Contains a moderate frequency of angular quartzite and sand-derived grits, ranging in size from 1 to 6 mm. From F3 (SF22, 23, 31, 28, 42, 48), and post-pit F10 (SF12). Includes rim form 1.

Fabric 4: A fairly coarse sandy clay, orange brown to buff throughout (unoxidized). Hard with an uneven fracture. Contains few sub-angular sand-derived grits, varying in size from 1 to 5 mm. From hearth F3 (SF13). Includes rim form 2.

Fabric 5: A coarse, micaceous sandy clay, dark grey throughout (unoxidized). Hard, with a laminated fracture. Contains very few sub-angular quartzite and mica schist inclusions, varying in size from 4 to 7 mm. From F3 (SF27).

Fabric 6: A moderately fine, micaceous sandy clay, very dark grey throughout (unoxidized). Hard with a laminated fracture. Contains very few angular sand-derived grits, less than 1 mm in maximum extent. From F3 (SF5, 7, 47).



ILLUS 13 Pottery rim forms

Fabric 7: Fine, sandy and micaceous clay, unevenly fired, being pale buff to brown throughout, moderately hard with a fine fracture. Contains very few angular quartzite and sand-derived grits, very well sorted and less than 1 mm in maximum extent. From an area located directly to south of F10 (SF26). Includes rim form 3.

Fabric 8: Similar to 6 but with slightly larger inclusions. A moderately fine, micaceous sandy clay, very dark grey throughout (unoxidized). Hard with a laminated fracture. Contains very few angular sand-derived grits, less than 2 mm in maximum extent. From F3 (SF44). Includes rim form 4.

Form

Four rim forms (RF) were identified in the assemblage; each form was probably represented by only one vessel. These are described below. No bases survived and too few rim sherds survived to allow the secure identification of any relationships between rim form, fabric, finish, or presence of a residue.

RF1 (illus 13. SF12). Fabric 3. From F3. Plain, straight-sided form with a flattened rim, rounded external edges and angular internal edge. Around 6 mm wide up full extent of profile. Not enough survives to determine accurately the exact angle of the profile. Estimated diameter around 300 mm.

RF2 (illus 13. SF13). Fabric 4. From F3. Vessel narrows towards rim, with the rim itself everting slightly, creating a bevelled band approximately 10 mm in height. Not enough survives to allow the exact profile angle to be ascertained. The diameter was between 150–300 mm.

RF3 (illus 13. SF26). Fabric 7. From an area located directly to south of F10. Plain, straight-sided form, narrows slightly from 6–7 mm to 5 mm, 15 mm below rim. The rim varies slightly between the three rim sherds, being slightly beaded with an external lip on two sherds, and being plain and rounded on the third. As there is variation in the precise form on each individual sherd there is no reason to suppose more than one vessel is represented by these and the SF25/SF26 body sherds. The profile variation and the small size of each sherd means the precise profile angle cannot be identified. The diameter was between 200–300 mm.

RF4 (illus 13. SF44). Fabric 8. From F3. Only a tiny section of rim survives, showing the body expanding from immediately beneath a slightly flattened, beaded rim. The vessel was burnished on both interior and exterior. The diameter was approximately 200 mm.

Construction, surface treatment and decoration

All sherds except SF21 were hand-made, although it was not possible to identify the specific methods of construction of any individual vessels. SF21 appears to have been from a wheel-thrown vessel.

Four types of surface treatment were present in the assemblage, the most common of which was wet-smoothing. Thirty sherds had been wet-smoothed prior to firing. Twenty-eight were wet-smoothed on both the interior and exterior, one only on the exterior, and one on the interior. The application of wet-smoothing is not uncommon in pre-medieval Scotland, but it has not been proved to be chronologically sensitive. Treatment of this kind is probably partly functional, as smoothing seals many small holes and gaps around larger inclusions, presumably rendering vessels more watertight when applied to the interior of the vessel.

Seven sherds appear to have been rubbed in the leather-hard stage with a damp cloth, or something similar, to bring the smaller clay particles to the surface, creating a fine finish on the exterior (cf Halliday 1988). Of these seven, six had additional surface treatment on the interior. This superficially appears like burnishing, but no burnish marks are apparent. This treatment, therefore, was perhaps created through the polishing of a deliberately produced layer of sooting, an effect known as *pâte lissée fumigée* (Barral & Luginbühl 1995). Burnishing was identified, however, on three sherds. Of these, two were merely burnished on the exterior, while one was found to be burnished on both sides. The application of these treatments is, to an extent, chronologically sensitive, as discussed below. No obvious relationships between finish or decoration, and fabric or context, could be identified.

Residues and vessel function

Small, thin patches of encrusted residue or sooting occurred on four of the 44 sherds. None of these residues constituted enough material to permit either residue analysis or radiocarbon dating. The presence of burnt residues on such a small proportion of this assemblage suggests that the recovered sherds were not employed as cooking vessels, but perhaps functioned as table or storage ware.

Wear

Measurements of wear were taken for each sherd, with due attention being paid to the relative softness of different fabrics and the presence of any applied finishes, such as slips or burnishes. In general, the assemblage was fairly unabraded, with most sherds having a wear value of 2 to 3. This implies that the sherds were deposited soon after breakage. The exception to this was SF49, which had a wear value of 4. As this sherd was not retrieved from a feature fill, but rather from the subsoil surface in trench 4, this level of wear is not unexpected.

PARALLELS, DATING AND DISCUSSION

With the exception of SF5 and SF49 (from the subsoil/ploughsoil interface) SF21 (from F10), and SF26 (immediately to the south of F10), the majority of sherds was derived from the possible hearth, F3. This may indicate that the pottery was associated with some form of domestic activity. No pot sherds are burnt, to support the contemporaneity of the pot and the hearth; and the unworn nature of the assemblage and the contextual association of sherds, almost certainly deriving from the same pot (as with SF27, and SF22, 23, 28, 31 & 48), argues against the later addition of the pot into the record, such as through the spreading of midden material. It is likely then that any dates relating to the assemblage can also be tentatively applied to the associated structures.

A broad chronological horizon for most of the assemblage can initially be defined on the basis of the fabric and surface treatment methods represented on the site. Most of the fabrics from Tarradale are very sandy and have relatively small, sand-derived inclusions. This makes it unlikely that they are pre-Roman, as pre-Roman native wares in the north-east almost invariably contain little or no sand and few large, usually igneous or metamorphic, inclusions. The sandier fabrics, which are usually, as in this case, associated with thin-walled vessels (less than 8 mm), do

not appear with any regularity on native sites, even those on sand subsoils, until the first few centuries AD. The Angus souterrain sites are an example of the type of context where these fabrics first occur, such as Hurly Hawkin (vessels HHA191 & 205: Taylor 1983), Hawkhill Area 1 (SF 1 & 2: Mitchell & Strachan 1999) and Ardestie (Wainwright 1963). The forms appearing on these sites, however, are not like those from Tarradale, being shouldered and everted, showing more southern influence.

The two methods of surface treatment represented on the site which are chronologically defined support the dates suggested by the fabrics. The *pâte lissée fumigée* effect does not appear in Scotland before Roman times and, although burnishing does have a broader chronological occurrence, it does not appear in the period between the Early Bronze Age and the Roman period. The presence of both of these finish types in the same context (F3) indicates a Roman/post-Roman date, a conclusion which is strengthened by the association with the fabric types described above. The date can be narrowed down a little further by the forms present on the site. RF2 is almost certainly chronologically insensitive, with parallels identified from sites ranging in date and type from the promontory fort at nearby Portknockie (SF122), and the upper of the two layers at Covesea (NMS reg no HM198), to Minor Cairn no 4 at Loanhead of Daviot (NMS reg no EP110–233: Kilbride-Jones 1936) and the possibly LBA/EIA assemblage at Ormiston Farm, Fife (Vessel 2: Halliday 1988). The remaining three forms, however, are not closely paralleled at any of the early first millennium AD sites in the north-east, such as the souterrain sites, suggesting a *terminus post quem* for the manufacture of this pottery of around AD 300.

One site which provides fairly close matches for RF1, 3 and 4, in terms of both profiles and fabrics, is Portknockie (the parallels are: RF1–SF97A, RF3–SF183, RF4–SF1930, from unpublished work by the author). Activity on this site, which has not been fully published, and the comparable sites at Burghead (Edwards & Ralston 1978) and Cullykhan (Greig 1971) has been identified from the Late Bronze Age to the medieval period. It is most likely that the vessels in question date from the Pictish phase (Ralston & Inglis 1984), known to have been important at all three of these sites.

A *terminus ante quem* for the Tarradale material is hard to determine. Few Pictish sites in the north-east of Scotland have been excavated, and those that are part of long, only intermittently dated, and very complicated sequences of occupation, as at the coastal promontory sites. A fairly safe terminal date for the assemblage would be the later radiocarbon date relating to the destruction of the Pictish timber-laced defence at Portknockie, at approximately AD 800 (Ralston 1980). A comparison of the Tarradale forms with those recovered from the on-going excavations at nearby Tarbat would be invaluable in tightening this dating (cf Carver 1995; 1996; 1997; 1998; 1999). In advance of this, more accurate dating of these pot forms is not possible.

Only one sherd does not fit into this chronological range. This is the possibly wheel-thrown body sherd SF21, which is the only sherd recovered from the upper fill of F10, one of the five post-pits to the rear of the palisade line. Although nothing can be said about the form of the vessel this sherd derived from, it is considered most likely that it is medieval in date. This is not problematic in terms of the overall site history as the artefact was probably deposited after the feature went out of use.

In summary, the combination of fabric, surface treatment and forms present in the Tarradale assemblage suggests a middle to late first millennium AD date (perhaps between AD 300–800) for both the assemblage and the area of trench 4 from which it was recovered. As the pottery is not closely datable, it is unfortunately not possible to identify the length of time represented by the pottery, nor to relate different elements of the assemblage to the different phases of activity reflected in the features.

DISCUSSION

The excavated remains at Tarradale suggest that a number of discrete periods of activity occurred on this prominent saddle, which extend from the Mesolithic period through to, at least, the medieval period.

TABLE 1

Radiocarbon determinations

Lab code	Raw determination	Calibrated range (2σ)	Context
Beta-72160	6220 ± 70 BP	5320–4960 cal BC	*Quercus*; burnt timbers in shallow pit in trench 16.
Beta-73586	6070 ± 90 BP	5275–4730 cal BC	Charcoal from burnt layer between F32 and F35
Beta-74242	2610 ± 80 BP	910–520 cal BC	Carbonized post (F80)

The earliest evidence from the site is derived from an area of burnt ground, close to the north-eastern corner of the later enclosure, and from a burnt *Quercus* sp timber retrieved from a pit, located some 70 m to the west. The dates of these features of 6070 ± 90 BP (Beta-73586) and 6220 ± 70 BP (Beta-72160), which calibrate at two sigma to 5275–4730 BC and 5320–4960 BC respectively, have comparable calibrated ranges and may, therefore, relate to a similar event occurring during the Mesolithic period. Although no artefacts of this period were retrieved it seems likely, because of the recovery of burnt timbers from a straight sided — probably intentionally excavated — pit, that this phase of activity was anthropogenic in origin, perhaps, relating to early land clearance in this area. The presence of Mesolithic communities in this area is not particularly surprising considering the retrieval of Mesolithic type tools, albeit stratigraphically unprovenanced, from nearby sites such as the Culbin Sands (Lacaille 1944; 1954) and Romancamp Gate (Saville 1993), alongside possible Mesolithic modification of the natural vegetation, as recorded at the Kingsteps Quarry, Nairn (Knox 1954). Although there are possible problems relating to this site (cf Edwards & Ralston 1984), it is possible that an increase in non-arboreal pollen, together with the appearance of *Plantago*, *Armeria*, *Chenopodium*, Caryophyllaceae, Compositae and *Pteridium*, were connected to Mesolithic clearance, as lithics were retrieved throughout the peat profile (Knox 1954). The significance of the evidence from Tarradale, however, is that direct evidence, as opposed to artefactual and palynological inference, exists here for the modification of the primeval woodland in this area of the Black Isle.

The next identifiable phase of activity appears to be represented by the series of post-holes possibly associated with a roundhouse, dated, on the evidence of a single radiocarbon date, to between 910–520 cal BC (2 sigma). The evidence consists of a probable E/W orientated threshold, defined by two opposing sets of double post-holes, leading into a structure, which may have been composed, in part, of an internal post-ring. These post-holes, although severely truncated, possibly represent a single phase of construction as no re-cuts or replacement post-impressions were observed in the excavated sections. The size of this structure is not entirely clear as an outer wall line associate with the porch was not identified in the excavated area, but a diameter of c 9.5 m can be suggested.

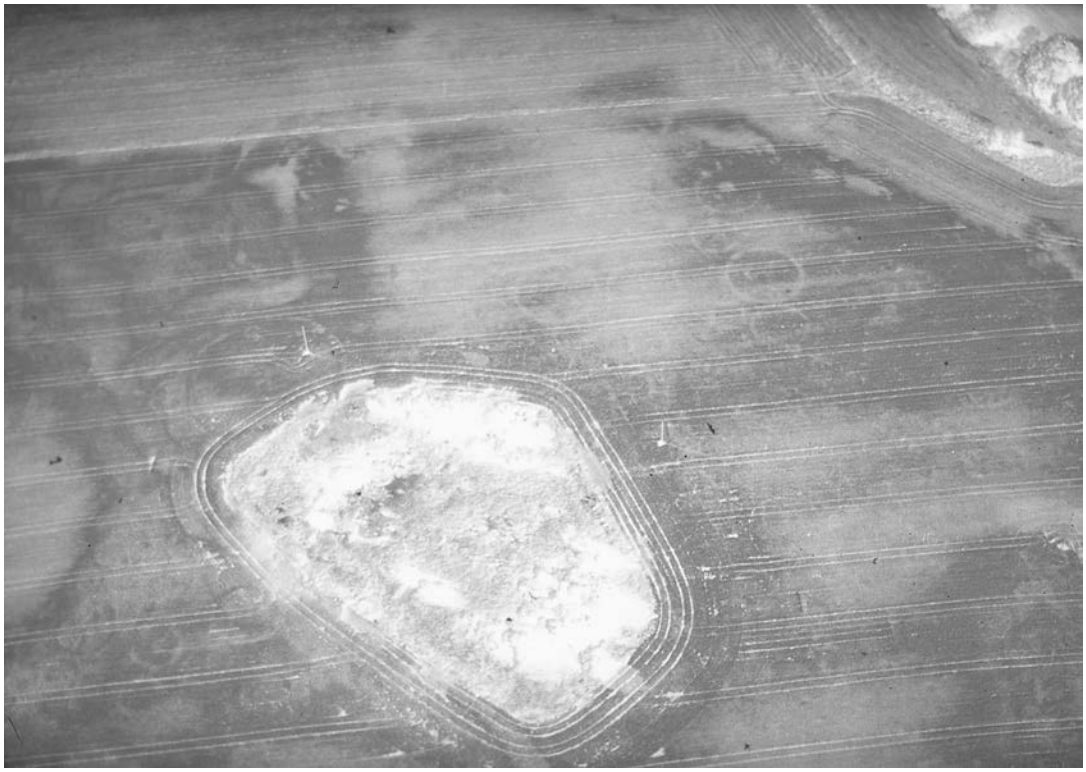
Excavated structures of the Late Bronze/Early Pre-Roman Iron Age are rare within north-eastern Scotland, but comparable post-defined roundhouses have been identified at Romancamp Gate, Moray (Barclay 1993), Wardend of Durris, Aberdeenshire (Russell-White 1995), and Upper Suisgill, Sutherland (Barclay 1985), which appear superficially similar to those excavated further south at Newmill, Perthshire (Watkins 1980). At Wardend of Durris a series of post-rings was recognized within a settlement, which was enclosed on more than one occasion. The roundhouses were of comparable size to the example found at Tarradale, but were dated to between the late first millennium BC and the early first millennium AD (Russell-White 1995). At

Romancamp Gate at least four circular houses defined by internal post-rings were also identified, which were similarly dated to the end of the first millennium BC. These, however, were larger in size, with roundhouse diameters estimated as falling between 12 and 16.5 m; the settlement appeared to be unenclosed (Barclay 1993). In discussing the wider implications of this evidence Barclay (1993) notes, based on an earlier study by Tolan (1988), that a concentration of potentially comparable unenclosed settlements is found around Inverness, which is confirmed by the Moray Aerial Survey (cf Jones *et al* 1993). The excavated evidence from Tarradale suggests that the recorded roundhouse was also probably associated with an unenclosed settlement, as on artefactual grounds the enclosure of the plateau probably dates to the middle centuries of the first millennium AD. This may imply, on the basis of a single radiocarbon date, that in this region unenclosed settlement was a feature of the Late Bronze/Early Iron Age. This appears to contrast with areas further north, notably Lairg, where an abandonment of unenclosed settlement has been suggested between 1000 cal BC and the later half of the first millennium BC (cf McCullagh & Tipping 1998).

At some stage following the establishment and possible abandonment of this unenclosed settlement the plateau was enclosed by a number of features. The best evidence for these was obtained from the north-eastern corner of the enclosure, where later erosion appears less severe than in other examined sectors of the enclosure boundary. Here, a series of pits was found to respect the line of a degraded ditch. Behind this ditch a palisade trench was identified, which may have been associated with a series of posts, which Jones (1991; 1992) argued formed the remains of a box rampart and possible corner tower. The contemporaneity of these features, however, because of the problems of horizontal stratigraphy, is not proven. It is possible, for example, that many of these discrete groupings of features formed separate phases of enclosure, which, in itself, would be wholly consistent with the excavated evidence recorded at other fortifications from north-eastern Scotland, such as Greencastle (Ralston 1980; 1987) and Cullykhan (Greig 1970; 1971). It seems more probable, however, because of the spatial integrity of the observed features, that they in fact represent a single period of activity. If this is the case, the presence of an enclosure ditch with an associated timber-secured box rampart, and a possible tower, appear to be fairly novel defensive features for a Scottish later prehistoric/Early Historic period enclosure (cf Alcock 1984; 1988; 1995; Ralston 1995). It is also equally possible that the ditch was never specifically designed as a defensive feature because of the problems of maintaining a ditch profile in the sand subsoils of the area. Indeed, it may only have been excavated by the builders of the enclosure as a source of material for the construction of the rampart. Although this possible rampart was only located in the north-eastern portion of the site, it is probable that it originally followed the entire course of the enclosure ditch. Unfortunately, in the other sectors examined erosion has made identification of this feature impossible.

The provision of a line of pits in front of the ditch, which appear to have been confined to the north-eastern corner of the enclosure, also has no obvious parallels. It was Jones' belief that these pits once housed timber uprights, which were designed to strengthen the defences at this corner of the enclosure (1991; 1992). He further suggested that the use of this style of defensive arrangement was somewhat reminiscent of the Roman military *lilia* recorded along the line of the Antonine Wall (Robertson 1990), or more pertinently from the north-east corner of the Roman fort at Glenlochar (cf Frere & St Joseph 1983, pl 76). Whatever the precise inspiration for these features, they appear in the present context, to represent yet another unusual approach to the defence of a large enclosure of this type.

Unfortunately, the date of the enclosure is ambiguous. It could, for example, be argued that the enclosure remains essentially undated, as its association with the recovered pottery assemblage



ILLUS 14 The barrow cemetery and 'ring-work'. (*Photograph courtesy of the G D B Jones Estate*)

is equivocal. However, if it is assumed that the pottery assemblage obtained from hearth F3 is contemporary with the construction or use of the enclosure on spatial grounds, a broad date of occupation somewhere between AD 300 and 800 may be applicable. The site would therefore fit comfortably with Alcock's suggestion (1987) that many fortifications in Scotland were constructed after AD 300, or have a number of phases dating to this period, and it is probable that this site was contemporary with occupation at the nearby sites of Tarbat (Carver 1995; 1996), Burghead (Young 1891; Small 1969; Edwards & Ralston 1978), Craig Phadrig (Small & Cottam 1972) and Doune of Relugas (Ralston & Inglis 1984). The precise function of the enclosure is also unclear, but the site may represent a defended settlement of some description. It is therefore possible that the undated rectilinear buildings identified within the enclosure interior represent the actual remains of the dwellings associated with this settlement, although this at present remains unproven. Unfortunately, domestic architecture of this period is notoriously sparse, but the putative buildings from Tarradale may be comparable to the rectilinear buildings defined by foundation trenches at Green Castle, Portknockie and Tarbat, Tarbat Ness (Ralston 1987; Carver 1995). Indeed, this may indicate that rectilinear buildings were a relatively common feature of Early Historic domestic architecture in this region.

The presence of an extensive cemetery directly to the east also begins to makes more sense, because of its proximity to a large settlement (illus 14). Here, the cropmarks reveal evidence for square barrows with both continuous and broken corner ditches, which may suggest, based on the loose chronological parameters provide by the excavated cropmark sites at Boysack Mills

(Murray & Ralston 1997) and Redcastle (Alexander 1999), both in Angus, that certain elements of this cemetery were contemporary with the settlement nuclei.

The site may therefore be very significant, as it fulfils many of the criteria anticipated for the discovery of fledgling 'power centres', which appear integral to the development of large territorial units, or 'kingdoms', in this part of Scotland (cf Watkins 1984; Alcock 1987; Carver 1995; Foster 1992; 1996; 1998). Potentially, the size of the site is large, as it encloses a minimum area of 1.3 hectares. It is probable, however, that the site was much larger, possibly comparable in scale to Burghead (c 2 hectares), as its western boundary has yet to be defined. It also has an associated cemetery of some complexity which may, based on the size of the funerary enclosures, be hierarchical in arrangement. The site was also constructed in an area which contains some of the most productive agricultural land found in the Moray region. Known Pictish sites and find spots in this productive area are, unfortunately, rare but do include two Class I Pictish symbol stones at Wester Balblair (NGR: NH 5101 4528) and Balblair (NGR: NH 5518 4357). The location of the enclosure close to an area of former harbourage does suggest, however, that the site would be suitably receptive to maritime trade, which appears an essential prerequisite for the development of 'power centres' dating to the mid-centuries of the first millennium AD (Carver 1995).

CONCLUSION

The excavation and survey at Tarradale demonstrate that this location acted as a significant focus for human activity over an extended period of time. The locale may initially have been used during the Mesolithic period, with a putative phase of woodland clearance, but was by the later stages of prehistory settled in a more readily identifiable form, with the construction of at least one probable roundhouse, dating to the Late Bronze/Early Iron Age. By the middle centuries of the first millennium AD the site appears, however, to have been enhanced in size and, perhaps, status with the construction of a large defended settlement and associated cemetery. Indeed, it is possible that a settlement of this size, and construction, was in some way comparable to Bridei's *munitio*, as documented in Adomnán's *Life of Columba* (Anderson & Anderson 1991), and in turn, perhaps, functioned as the principal seat of political power in this sector of the Moray Firth during the mid first millennium AD.

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APPENDIX: POTTERY CATALOGUE (BY SF NO)

SF5 From topsoil, above F3. Fabric 6. 1 body sherd. Weight 8 g, max extent 35 mm, 8 mm thick. Fine particles brought to surface on exterior. Hand-made. MNI 1 (with SF7), wear 2 to 3.

SF7 From F3. Fabric 6. 1 body sherd. Weight 1 g, max extent 17 mm, 6 mm thick. Hand-made. Surface very smooth. Slight organic residue on 1 side (unclear if interior or exterior). MNI 1 (with SF5), wear 3.

SF12 From F3. Fabric 3. 1 rim sherd. Weight 5 g, max extent 30 mm. Dark grey *fumigée* effect on one side. Hand-made. MNI 1, wear 2 to 3. Few small patches of soot on exterior. Rim form 1, diameter c 30cm.

SF13 From F3. Fabric 4. 1 rim sherd. Weight 10 g, max extent 40 mm, exterior wet-smoothed. Hand-made. MNI 1, wear 3. Slight patches of soot on exterior. Rim form 2, diameter not estimable.

SF21 From F10. Fabric 2. 1 angled body sherd. Weight 2 g, max extent 30 mm, 5 mm thick, wet-smoothed on interior. Probably wheel-thrown. MNI 1, wear 2.

SF22 From F3. Fabric 3. 1 body sherd. Weight 7 g, max extent 31 mm, 7 mm thick. Dark grey *fumigée* effect on interior, and fine particles brought to surface on both sides. Hand-made. MNI 1 (with SF23, 28, 31, 48), wear 2.

SF23 From F3. Fabric 3. 2 body sherds. Weight 9 g, max. extent 33 mm, 7 mm thick. Dark grey *fumigée* effect on interior, and fine particles brought to surface on both sides. Hand-made. MNI 1 (with SF22, 28, 31, 48), wear 2.

SF26 From an area located directly to the south of F10. Fabric 7. 3 rim sherds, 25 body sherds. Weight 130 g, max extent 41 mm, 6–7 mm thick. Walls very even thickness, smooth surfaces. Wet-smoothed on interior and exterior. Slight external organic residue on 1 rim sherd. MNI 1, although there is variation between the exact profiles of the rim sherds. Wear 2 to 3. Rim form 3, diameter between 10 and 20 cm.

SF27 From F3. Fabric 5. 1 body? sherd, possibly a fragment of base. Weight 15 g, max extent 45 mm, mean thickness 9 mm, with uneven surfaces. Wet smoothed roughly on both sides. Exterior shows signs of burnishing. MNI 1, wear 3.

SF28 From F3. Fabric 3. 1 body sherd. Weight 5 g, max extent 25 mm, 7 mm thick. Dark grey *fumigée* effect on interior, and fine particles brought to surface on both sides. Hand-made. MNI 1 (with SF22, 23, 31, 48), wear 2. Slight patches of soot on exterior.

SF31 From F3. Fabric 3. 1 body sherd. Weight 6 g, max extent 27 mm, 7 mm thick. Dark grey *fumigée* effect on interior, and fine particles brought to surface on both sides. Hand-made. MNI 1 (with SF22, 23, 28, 48), wear 2.

SF42 From F3. Fabric 3. 1 body sherd. Weight 6 g, max extent 36 mm, 8 mm thick. *Fumigée* layer does not survive. MNI 1, wear 3.

SF44 From F3. Fabric 8. 1 rim sherd. Weight 2 g, max extent 22 mm, less than 6 mm thick. Probably hand-made. Burnished on both sides and rim. MNI 1, wear 3. Rim form 4, estimated diameter c 20 cm.

SF47 From F3. Fabric 6. 1 body sherd. Weight 2 g, max extent 31 mm, less than 6m thick. Hand-made. MNI 1, wear 3.

SF48 From F3 sieving. Fabric 3. 1 body sherd. Weight 15 g, max extent 25 mm. Dark grey *fumigée* effect on interior, and fine particles brought to surface on both sides. Hand-made. MNI 1 (with SF22, 23, 28, 31), wear 3.

SF49 From T4, at interface between sand and topsoil. Fabric 1. 1 body sherd. Weight 2 g, max extent 18 mm, less than 10 mm thick. Hand-made. MNI 1, wear 4.

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