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EXCAVATIONS AT BIRNIE, MORAY, 2007

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SUMMARY

The 2007 excavations at the later prehistoric site at Birnie examined four areas. Continued excavation of the burnt-down roundhouse (trench D) revealed extensive remains of charred timbers from the roof and possibly an upper floor. Substantial structural posts were also found, some squared; other structural elements included a mortice and tenon joint. Finds included a range of glass beads, a rotary quern stone and a series of stone tools. The bulk of the destruction deposits in the western half have now been excavated, revealing the ring groove of an earlier, smaller house. The south-east quadrant was also examined, with removal of the much less extensive destruction deposits revealing a series of large pits and an oval stone feature, yet to be excavated. In the north-east quadrant, there are hints of an overlying rectangular structure defined by slight cobbled spreads.

Continued excavation of the large ring-ditch house examined in 2000 and 2006 (trench AB) revealed a series of rebuilds, with evidence of at least three structures c.18-19 m in diameter on the same site. Two had eastern entrances, but at one stage there was a north-westerly doorway. There were no surviving floor deposits, but finds suggest a later Iron Age date. The pair of iron-smelting furnaces found in 2006 were shown to post-date the house. They may be connected with other later features, including a paved arc and a series of post-sockets, perhaps of medieval date.

The third trench (AF) examined the area where the coin hoards came from. This confirmed there were no structures connected with the hoards, and revealed two other unusual deposits: a pit with a high-quality barely-used whetstone at its base, and another pit with an intact inverted Iron Age pot. Unusually for the area, it was decorated. These and previous finds support the notion that this area was a focus for votive offerings. The hoards and the two finds from this year are near-equally spaced on a slightly curving line.

The final trench (AG), to the south-west of previously-excavated areas, produced very few features, confirming the limits of the site in this direction.
CONTENTS

0 Summary 1
1 Introduction 5
2 The burnt-down roundhouse (trench D) 8
3 Houses and furnaces (trench AB) 17
4 Understanding the hoards (trench AF) 27
5 Finding the edge (trench AG) 33
6 Survey 34
7 The finds 36
8 Spreading the word 44
9 Discussion and future plans 45
10 Acknowledgements 49
11 References 51
ILLUSTRATIONS (by Alan Braby)

1. Location map
2. Trench locations
3. Trench D roundhouse plan (as at end of 2006 season)
4. Area D segment 3: upper, main destruction deposits; lower, at end of season
5. Area D segment 5, at end of excavation, showing ring groove
6. Area D, south-facing section of segment 6A/B baulk
7. Area AB, roundhouse and associated features
8. Area AB, sections A-E
9. Area AB, section F-G
10. Area AB, section H-I
11. Area AB, sections J-M
12. Area AB, section N-P
13. Area AB, sections Q-T
14. Speculative reconstruction of AB roundhouse
15. Area AB furnaces
16. Area AB, likely medieval features and spreads
17. Area AB, sections of likely medieval spreads
18. Area AF plan
19. Area AF, sections A-H
20. Area AF, section I-J
21. Area AG
22. Artist’s reconstruction of the pot from AF
23. Small finds
24. Stone finds
25. Stone tools
26. Saddle quern fragments
27. Quern fragments
28. Possible rotary quern roughout, area AB
29. Rotary quern, area AB
30. Rotary quern, area D
31. Speculative reconstructions of houses N and O(N)
32. Speculative reconstructions of houses M and O(S)
Fig 1: location of Birnie
1 INTRODUCTION

Excavations since 1998 at the cropmark settlement at Birnie, south of Elgin in the Lossie valley (Moray), have produced a rich picture of an important later prehistoric power centre (figs 1-2; NGR NJ 210 585). The picture has developed gradually, with moments of high drama, such as the discovery of two hoards of Roman coins, interspersed with times of quieter data accumulation. These results provide tremendous insights into the long-term development of such a power centre, the nature of the Roman empire’s dealings with groups beyond the frontier, and the changes of the post-Roman period, such as the emergence of the Picts and the reawakening of Birnie as a religious centre in the medieval period.

Although there are always surprises in store, the broad outlines of the site and its potential seem reasonably clear, allowing work to be targeted to areas which have the most information to yield and are most vulnerable to long-term damage from the plough. For the past three seasons, a key target has been a well-preserved burnt-down roundhouse (area D). The 2007 work tackled a number of issues:

- Continuing work on the area D roundhouse.
- Resolving the story of the large roundhouse near the north-west edge of the site, especially its sequence, its relation to a complex of iron-smelting furnaces, and the nature of the overlying later deposits (area AB).
- Disentangling the area where the coin hoards were found, seeking to answer the thorny problem of why they were buried.
- Clarifying the limits of the site to the south-west (area AG).
- Continuing metal-detecting and topographic survey.

Excavations took place from August 19th – September 15th, thanks to the support of the farmer, William Mustard, with a substantial team of 25-35 diggers, mainly from the Universities of Cardiff, Glasgow, Edinburgh and UHI (Shetland and Moray College), along with a welcome range of local and not-so-local volunteers.
Fig 2: trench locations
Fig 3: trench D roundhouse plan (as at end of 2006 season; see figs 4-6 for 2007 details)
THE BURNT-DOWN ROUNDFHOUSE (Trench D)

One of the most important aspects of Birnie is the burnt-down house, first revealed in 1998-9 and excavated systematically each season since 2005 (fig 3). It is doubly valuable, firstly because it preserves a wide range of information about the house in the charred deposits, and secondly because dating evidence so far indicates it was occupied during the Roman Iron Age. It is the only building so far which has produced Roman finds, and there is a good chance that this was the house occupied by the owners of the coin hoards.

Burnt-down houses are a marvellous store of information for the archaeologist, but they carry with them tremendous responsibilities – to extract the maximum of information from this unrepeatable experiment, teasing stories out of what can be difficult and frustrating evidence. They are extremely awkward to dig stratigraphically – it is like digging a bonfire, where individual lenses and layers reflect the specific circumstances of the fire as much as wider patterns of the structure. The deposits are conditioned by factors such as wind direction and gusting, damage caused by collapse, or the shielding effect of roofs or walls falling on floors. Yet for all the frustration in trying to disentangle the remains, the effort is essential, as this allows the details of the structure to be understood along with some insights into the manner of its demise.

A long-awaited challenge, and one encountered fully for the first time in 2007, was the evidence of charred timbers. It was anticipated that there would be considerable quantities of burnt wood in the structure, preserving vital clues to the building’s superstructure; hints had been seen of this potential in 2006, but the 2007 work revealed magnificent remains, discussed below. These demand forensic disentangling, as such fragile remains are all too easily damaged, and it is vital to record as much as possible in the field. The tickling of charcoal with plastic spatulæ, gradually revealing the structure, approaches the stereotype of archaeologists armed with toothbrushes, but in this case such care is essential, for it allows the relation of individual fragments (and thus any structural relationship) to be established. The implications of this are still being worked out, but some preliminary indications are given below.
Fig 4: area D segment 3. Upper, main destruction deposits; lower, plan at end of 2007 season, with underlying features starting to emerge

Fig 5: area D segment 5 at end of excavation, showing ring groove (revealed partly by stakeholes and drying stains)

Fig 6: area D, south-facing section of segment 6A/B baulk
An earlier house

Efforts so far have focussed primarily on the burnt-down roundhouse, but the 1999 excavations showed it was a two-phase structure, and clear traces of the earlier building have now been revealed. In the south-west of the trench, under the burnt deposits, a U-sectioned groove was revealed, lying within the area of the later house but curving on a similar line (fig 5). This would have held the wattle-built wall of a rather smaller roundhouse. To the east, where the sand was more eroded, the ring-groove was lost but its line could be seen as an arc of stakeholes and a drying stain in the sand, marking where it had been affected by the former presence of the wall. There are hints of this groove poking through the deposits in the north-west of the house, but it is lost before it reaches the main north-south section, destroyed by the erosion of the broad ring ditch in this area.

The details of this earlier house, its size, structure and date are all unclear at the moment. The succession of two houses on the one site is interesting, especially when one is substantially bigger than the other – what led to this increased size? Were they successors, or was there a considerable gap before a time-venerated site was reused by later generations? These questions must await a further season.

Charcoal clues – the building of the roundhouse

The emerging pattern of charred timbers is starting to reveal hints of the building’s structural skeleton, along with the roof and walls which once clad it and the fixtures and fittings within. It was suggested from the 2005-6 results that the roof and probably the walls were made of turf. With these deposits removed, charcoal is appearing in quantity, notably in the western side of the house. It is remarkable for its preservation, size and quantity – over three hundred fragments were recorded this season, many preserving significant information. A number of key points can be made. The first is that our earlier speculations about the lack of major structural timbers is wrong – for on the last day of the dig, in the north-west segment, came the remains of a squared timber some 150 mm in cross-section and surviving over 300 mm long. This must be a major structural upright. It is surprising to find it was apparently squared, since Iron Age woodwork is generally assumed to be little modified, with the bark removed and some light trimming. The fragments were not lifted this season, so confirmation must await the 2008 work, although other pieces
with evidence of squaring were also recovered. However, squaring off a timber need not require a saw – it can be achieved by splitting with wedges and/or adze-trimming – and our knowledge of Iron Age carpentry in Scotland is far from complete, so this offers the chance of important new insights as specialist work proceeds.

The main uprights were not the only structural elements represented. Some pieces appear to represent planking, perhaps from wall cladding, internal divisions or an upper floor, while two beams overlying a shattered quernstone are likely to represent rafters. There are also smaller fragments preserving traces of carpentry – one, remarkably, with a mortice and tenon joint, its small size suggesting it comes from furniture rather than a structural element.

The charred timbers will of course only preserve part of the picture – in the fire, much of the timber would burn to ash, and it is only where combustion was incomplete, for instance at the ends of timbers or where the collapse of roof or wall smothered the fire, that charring will occur. This makes location and alignment critical, and indeed in some cases separate fragments can be tentatively connected. Relationships are also critical, especially in determining whether fragments are interwoven or simply lying on one another. The former, for instance, might suggest wattling, the latter a supported structure such as a roof. There were also suggestions of other burnt substances, perhaps leather or rawhide, which would have been an obvious material for tying timbers together. The results already show the value of careful uncovering of these remains, and with further excavation and specialist work they should reveal a vivid view of the house and its construction.

*The house's fate*

2007 saw the first substantial work in the eastern half of the house, with the excavation of most of the destruction deposits in the south-east part of the structure. This showed marked differences between different areas, with the western deposits deeper and more charcoal-rich. This is not simply a matter of differential preservation, since the charcoal-rich deposits typically lie at the protected base of the sequence. We thus have an emerging pattern where different parts of the house show differing burn patterns. What can be said from this?
Archaeology is a parasitic discipline, drawing on the expertise of others in its attempts to explain its own evidence. In the current case, advice was sought from Kevin Lackie of Grampian Fire Brigade and Graham Strong, Scenes of Crime Officer for Grampian CID. There are of course many imponderables, and the details of the ‘crime’ will forever remain elusive, but modern analogy threw up a number of fascinating details. The first was how limited the effect of heat can be, with tremendously varied burn damage over a matter of a few centimetres in modern fires, and little downward penetration of heat and flames; this explains the lack of visible fire damage on easily-melted artefacts of glass and gold, which had caused some concern. We were also fortunate to get valuable insights into the ways that charcoal forms, as discussed in passing above. However, perhaps most useful was the considered opinion of both experts that the fire was unlikely to be accidental. The obvious source of ignition in the house would be the cooking pit, perhaps exacerbated by cooking fats or alcohol; yet the focus of burnt deposits is round the western edge of the house, an unlikely pattern if the fire started in the centre. A concentration of charcoal generally indicates either the fire source or a major point of conflagration, with more fuel-loading at this point. This suggests the fire was deliberately set at the base of the inside wall.

The variation in fire damage has caused much speculation and discussion. A key problem is that we have no understanding of how much flammable material the house comprised and contained. For instance, turf walls would have provided a sheltered environment for the fire to burn within the house unless and until they collapsed; but they would also have acted as insulation against the fire, assuming they were not peat-rich turfs. There are also many other imponderables: for instance, as soon as part of the roof fell in, this would create an exhaust port which would markedly accelerate the rate of burning. Sadly there is insufficient evidence to indicate wind direction, a key factor in fanning the flames, or the weather, a key factor in putting them out!

Even with these caveats, the relative lack of charcoal in the south-east does suggest a different story in this area. It was initially speculated that burning was more rapid and complete here, but this seems unlikely as it would still have generated quantities of charcoal. More plausibly it was rapidly put out (or burned out), with limited charring; or the building was already incomplete, with little or nothing to burn in this area.
The discussion is necessarily tentative at present – the details will undoubtedly remain opaque, and the evidence seems capable of several interpretations. But this use of modern analogy opens our minds to the possibilities, and to something of the practicalities of fire-damage, allowing us to rule some options out. Perhaps most crucially for current purposes, it suggests that the fire was deliberately started, a story which the limited range of finds would tend to support – there is no sign of an accidental fire, with finds left in the house.

**Fixtures and fittings**

The evidence of the house’s appearance and use is gradually being disentangled. The story from the finds is discussed below, but a number of other strands of evidence help here – the pattern of pits and postholes dug during the building’s daily use is slowly appearing, while patterns of erosion in the sandy surface highlight areas of more and less through-traffic. There is no evidence of any floor surfaces, and the orange deposits near the centre of the house, first interpreted as ash rake-out from a hearth, now appear to be destruction deposits. It seems the house was either cleared out, or had an organic floor (perhaps matting, straw or brushwood) which has entirely burnt away. If the latter, charred material from the samples might give clues.

There is growing evidence for an upper floor, as has often been speculated for these large roundhouses. Most telling, if circumstantial, is evidence from the north-west quadrant. Here a rotary quern was found, smashed into fragments. Geological inspection by Sinclair Ross suggests the fracture is due not to heat but to impact, falling from a height (although the heat may have weakened it). Over the quern lay the charred remains of rafters, indicating it had sat on an upper floor rather than (for instance) being reused as a thatch weight for the roof (in which case the quern would be expected to overlie the rafters).

Other aspects of the house’s use can also be discussed. The first is the question of heat and light. A scatter of near-central stones on the north-south baulk was a good candidate for a hearth, but investigation revealed they were actually sitting in destruction deposits. However, underlying them was the edge of a pit or a similar feature. This awaits full investigation, but it is likely to be a cooking pit. The pattern of erosion in this area suggests there was considerable wear behind the feature and
much more limited wear in front of it, suggesting a zone of transit between the
doorway and this feature, and an area of more intense activity to the rear – plausibly a
focus around the fire, where the occupants would meet, eat and converse.

The other slowly-emerging feature of interest is the stone-built structure in the south-
east of the house (fig 4). This underlies the destruction deposits, and must be linked to
the building’s use, but at the moment its role is unclear. Some stones have been
dislodged from its edges by ploughing, but the surviving remains suggest a compact
foundation of some sort – excavations in 2008 may finally provide clarification.

The finds
As in previous seasons, finds were not plentiful, but they were choice. They are
discussed in more detail in section 7, but in essence this was the year of the bead.
Further examples of the simple yellow bead discovered in previous seasons were now
joined by rather more dramatic specimens (fig 23 P & Q): an unusual biconical blue
bead, and a lovely example of a triangular bead with inlaid yellow spiral decoration
(Guido 1978, class 13). Among other finds, an intriguing iron fragment awaits X-
radiography, but initial examination suggests it may be a further fragment of the
sword found in 1999; the handle lay near the ‘hearth’, while this fragment came from
near the edge of the house, supporting the idea of deliberate breakage of the weapon
and deposition of the fragments to mark the end of the house’s life.

As noted, finds are relatively few, suggesting this was not the accidental burning of a
well-populated house. Of course, the fire could have come at the end of the building’s
life, no longer a bustling house but an abandoned shell; or it could have been emptied
deliberately before the fire. Excavation of the features underlying the deposits may
provide some clues. Initial indications from the south-east quadrant are that some
features were still open when the fire took place, suggesting they were still in use.
Against this is the evidence that the building was old, with the post-pits consolidated
and the posts rotted at the base – the post-holes examined so far show no sign of any
burnt deposits, implying they were already compacted when the fire struck. The finds
suggest some accumulation of rubbish, as many can be explained as casual losses –
stray beads, the occasional small pot fragment, and even the tiny offcut of gold ribbon
torc found in 2006. Yet there is no surviving sign of floor deposits, which might
suggest that the rubbish had accumulated at first floor level (the Iron Age ‘spare room’?), and collapsed downwards. These speculations must await further excavation to confirm or deny them. Was the fire an act of wanton destruction – or the clearing of an old ramshackle building – or the deliberate destruction of a valued home at the end of its life? This too must await further evidence for serious discussion.

After the fire – signs of reuse
There was no attempt to rebuild the house after the fire, once the embers had cooled and the ash blown away. But there are signs of later activity. The spread of stones round the northern and eastern part of the structure post-dates the house – these are the remains of later structures, originally more extensive, but preserved from the plough only where they subsided into the softer remains of the building. They are probably cobbled surfaces, perhaps areas of hard standing for animals, and their date is uncertain – but there is just a hint of something more exciting. In raking light, it was noted that the stones in the northern part of the building form a linear scatter, with a near-perpendicular spread at the eastern end (fig 3). Could these be the vestigial remains of a building? They carry echoes of the tremendously fragile traces excavated by Philip Barker at Wroxeter or Graeme Guilbert at Moel y Gaer (Barker 1982, 113-5, fig 18, 70-71) – a parallel of technique rather than of date, but one which warns us that extreme care will need to be exercised in this area to test this possibility. This too must await a further season.

Discussion
The area D building continues to offer remarkable insights into a long-dead building. From the remains of the charred timbers we can try to disentangle the structure; from their pattern, something of its fate; from the finds, something of its uses. There are also now increasing signs of its predecessor and, perhaps, hints of a much later use of the spot, a reminder of the long time-depth to the Birnie site. As we work our way through the remaining deposits, there will undoubtedly be more insights to come.
Fig 7: area AB, roundhouse and associated features
3 HOUSES AND FURNACES (Trench AB)

In 2006 we returned to an earlier excavation trench to the north-west of the site (2000 area J) in search of medieval remains, and revealed a massive roundhouse. The sequence could not be totally understood in a single season, and the three key elements of the trench – roundhouse, a pair of furnaces, and later (?medieval) remains – were not fully explored. In 2007 we returned to this area to resolve the problems.

A confusion of houses

Work focussed on a series of major sections, placed to run through the bulk of the deposits in the north and east of the roundhouse (fig 7). These soon revealed why the 2006 results had been so hard to interpret – lurking in this trench was not one, but three roundhouses. The clue came from the east-west section (fig 11, J-K), where a sequence of three large postholes was revealed in one spot; none cut one another, suggesting the replacement posts respected those already there or recently removed. This model was then applied with increasing success to the other remains and, although the details are still to be teased out, it seems there were three buildings successively on the one site.

With such longevity, it is difficult to associate features with particular phases. However, there are some clues to changes through time. There was no sign of a hearth, and the best candidate for a central cooking pit proved on excavation to be a posthole (fig 13, S-T); its position and depth suggests that one phase of the house made use of a central post, probably to support an upper floor. This seems a sensible precaution, given the size of the building – estimated at some 18-19 m in diameter, close to the limit for timber architecture in this period, and a size which would impose considerable structural strains. The speculative reconstruction (fig 14) gives some idea of the massive scale of such a building – which is even more daunting when we try to reconstruct its volume rather than viewing it, as archaeologists often do, solely as a plan.

There are also signs of change in the entrance location. A pair of posts mark an east-facing entrance with two phases, but there is evidence of a markedly different alternative. On the north-west side of the building is a causeway across the ring ditch.
Fig 8: area AB, sections A-E
It was speculated last season that this might be a rear entrance to the building, linked to the furnaces in this area, but (as noted below) these are clearly later. Yet there does seem to be a causeway, with a clear straight edge to the ring ditch on the eastern side and suggestions of a similar edge on the western side. This is best interpreted as a formal entrance, albeit lacking entrance posts, but the straight edges of the causeway could have supported a frame structure.

Such a quantity of rebuilding is remarkable for Birnie, where most houses show one or at most two phases. It may be a feature of the sheer size, requiring rather more modification and repair than smaller structures; but it is tempting to suggest there was something special about this location, near the edge of the site. This substantial structure would have been a highly visible feature, and it was perhaps a desirable location, used repeatedly. Dating evidence so far (a yellow glass bead and a rotary quern) points to a later Iron Age date.

*The furnaces* (fig 15-16)

A key question remaining from the 2006 season was the date of the pair of iron-smelting furnaces. Were they connected with the ring-ditch house, or with later activity? The 2007 excavations provided the answer. A large pit cut through a number of the post-ring postholes (fig 11, J-K); its fill included a deposit of sea shells. This in turn was cut at its southern edge by the earlier of the two furnaces, showing conclusively that the furnaces post-date the abandonment of the house and removal of the post-ring (fig 11, L-M). It is plausible that they relate to the evidence of later activity in this area, discussed below; this should be confirmed or denied by samples taken by specialists from Bradford University for archaeomagnetic dating. The cleaning of the furnace remains for this sampling, and their subsequent dismantling, gave a much clearer picture of the structure of the furnaces. The earlier, eastern one survived as a simple clay ‘doughnut’ surrounding a shallow pit; there was no evidence of any flue, and the pit was clogged with slag. The later furnace was more complex. Its base was partly paved with a single large slab supporting a clay-built wall, the inner edge vertical, the outer one angled at 70°. The space between the wall and the edge of the cut was packed with clay fragments, probably debris from earlier incarnations of the superstructure or its earlier neighbour. The 2006 excavations found evidence of a flue to the north-east.
Fig 15: area AB furnaces. Upper, as excavated in 2006; lower, after further work in 2007 (with 2006 section ABC marked)
Later activity (figs 16-17)

As discussed in last season’s report, one of the features which led us back to this trench was the evidence of possible medieval structures. This had been severely damaged since 2000 by ploughing, and their interpretation is enigmatic. When first exposed, the shape of the deposits suggested a rectangular building but, if it was, there was no surviving structural evidence to go with it. These spreads overlay a series of structural elements: a slightly curving area of stones, possibly foundations rather than cobbled, with a large slab towards one end suggestive of a threshold, and a couple of insubstantial post-sockets. Two other stone-packed postholes may also be connected, as few of the Iron Age postholes show extensive stone packing, while there are traces of one other stone setting, noted in 2000 but subsequently lost to ploughing.

Associated with these spreads, and with a couple of other features, is a thin scatter of medieval green-glazed pot, suggesting this activity is of medieval date – the relevant features appear in fig 16. Its character is uncertain, but it is tempting to link it to the furnaces, as part of ancillary structures and surfaces connected with the smelting. There is also evidence of a cobbled surface, surviving the plough only where it has slumped into the fills of the underlying, earlier features.

Discussion

The sequence in trench AB is now much clearer, with the largest roundhouse yet recovered on the site, rebuilt at least twice, and ultimately succeeded (probably centuries later) by an iron-smelting area. The size of the roundhouse is remarkable, and the repeated rebuilding raises interesting questions about why this was a favoured location – it may be that its visibility was key. The furnaces and later spreads are another important feature, and specialist examination of the remains will provide valuable information on both date and technology. Their scarp-edge position might be intended to take advantage of updraughts to boost the furnace. While the post-Iron Age remains are more vestigial than the roundhouses, the clues being teased from them are critical to understanding these later phases of the site’s use.
Fig 16: area AB, likely medieval features and overlying spreads
Fig 17: area AB, sections of medieval spreads
2007 saw a return to the area where the two hoards of late second century Roman silver coins were found in 2000 and 2001. This area had been explored previously, but a number of questions remained. The key one was whether there were any further clues as to why they were buried. We also needed to confirm that there were no associated structures – roundhouses were located nearby, but this seemed to be an open area. There were also points of detail to clarify from previous seasons, with intriguing features not yet fully investigated. In 2007 a large trench was opened, centred on the hoards but including parts of the adjacent roundhouses (fig 18). A strip was also excavated along the northern edge which had not previously been explored.

Strange things in pits ... the setting of the hoards
As soon as site stripping began, a surprise appeared – another intact pot (fig 22). This was a much larger example of style known from the hoard pots, with a globular body and everted rim, although unusually it was decorated with an applied cord round its neck. It had been buried upside down in a pit, its base lost to recent plough damage (probably linked to the establishment of the set-aside boundary at this point, which had led to deeper ploughing to one side). This took place in an area of concentrated activity, with an earlier pit and posthole, an irregular small enclosure and a large rectangular pit. There were no finds from these to offer evidence of function, but the burial of the pot was the last event in the sequence.

Pots do not end up in pits by accident. What is normally left for archaeologists are the worn sherds of broken vessels. An intact pot rings alarm bells – something out of the ordinary has happened. This new example was lifted intact in a block and excavated in the laboratory. There were no surviving contents, but samples were taken for analysis, as it is possible it originally held organic items (food or drink) which were poured into the pit. Burying a pot and its contents was a deliberate, purposeful act, and in the Iron Age was often associated with special (or ‘structured’) deposits – offerings made at important times and events. In this case, it may have been intended to mark the end of activity in this particular spot, with its muleple intercutting features. This evidence of purposeful, structured deposits has a major impact on our interpretation of the coin hoards – as does another find. Most of the features on the
site are dug in half-section, with removal of only half the fill to reveal a picture of the feature's use, but leave a sample for any future work. However, around the hoard area, features were generally excavated in totality, to ensure there were no interesting finds in the unexcavated halves. The value of this was seen in the 2007 work – for in the base of a pit half-excavated in 2002 was a high-quality whetstone (fig 23 C).

This whetstone is an unusual beast. Most such sharpening stones are convenient fine-grained cobbles, picked up because they were the right size and shape, and used expeditiously. This one was carefully shaped to a cuboid; someone had lavished time and care in its manufacture. Yet it showed minimal signs of wear, apart from traces of iron-rich deposits on its surface which suggested it had been used and then immediately discarded. As with the intact pot, this smacks of a deliberate act – a 'structured deposit', with a valuable item placed in the pit.

These latest finds add to a picture of deliberate deposits in this area, an impression strengthened by their location – for, with the two hoards, these pits are near-equally spaced along a curving north-south line. It is worth noting another pit in this area contained an intact, inverted saddle quern; while one immediately beside the 2001 hoard held a large quantity of broken potsherds and burnt organic remains, marked by a small stake driven into the pit. The tuyère (bellows-shield) found in 2002 in a nearby gully might also be a deliberate deposit, as the transformations involved in metal-working, from rock to metal, were apparently often seen as a symbolically-charged alchemy which required divine intervention and gave the process (and its associated debris) enhanced significance (Budd & Taylor 1995). All this suggests this was a special area of the site, a focus of deliberate deposits, and plausibly an area where religious offerings were made. The concentration in this area is remarkable, and the spatial association with the coin hoards highly suggestive. It now seems the coins were buried not for safety but as deliberate votive offerings.

Other aspects of the hoards' setting are becoming clear. We confirmed there is no evidence of structures over them; this was an open area. The function of the other surrounding features is generally unclear, with no clues from fills, form or finds, but there is an intriguing linear cluster of intercutting pits immediately west of the 2000 hoard (fig 19 E-H). Total excavation of these produced no finds; but it is tempting to
speculate about the possibility of long-vanished organic items placed in pits as offerings. Such flights of fancy should of course be avoided …

Fig 18: area AF plan
Fig 19: area AF, sections A-H

Fig 20: area AF, section I-J
A neighbouring house?

One feature awaiting clarification was the likely roundhouse located in 2001 to the west of the hoards (trench L). Trial work had suggested this was a ring-ditch house with remains of a ring-groove for the wall surviving on one side, but only a small amount of work had been done. Clearly, with its proximity to the hoards, it was vital to explore this further. In 2007 the north-east quadrant of the structure was excavated, revealing a shallow curving wear gully and a series of charcoal-rich spreads, perhaps destruction deposits. However, insufficient evidence was uncovered to be sure about the interpretation; a possible posthole was uncovered, but it was far from a classic of the type, and this will require further excavation in 2008. Finds from the spread included a yellow glass bead and fragments of crucible (fig 23 J, T).

Chasing problem features

The 2000-2002 excavations had left a residue of problem features which were sufficiently intriguing to merit more attention. One was a T-shaped feature within (but not necessarily associated with) the northern ring-groove house in trench O. This remains enigmatic. The main element was a long slot, recut twice, with three stones at its base which seemed too uneven to act as foundations. The arm of the T proved to be a series of small pits and postholes, their linear arrangement hinting at a connection to the slot but providing few clues as to what this was. It remains an unexplained feature, and need have no connection with the house (fig 19 A-D).

In the south-east corner of the trench lay a large blob. This had been cut by a shallow gully, found in 2002 to contain a metal-working tuyère (bellows-shield). It raised the tantalising possibility of metal-working activity in this area. Unfortunately the upper deposits had suffered from the plough, but the scoop proper proved to be a series of shallow intercutting single-fill pits, none with any finds to indicate function (fig 20). Adjacent to this was another smaller series of intercutting pits, apparently cut into the top of one of the postholes for the southern trench O house. The find-free nature of these pits, especially in contrast with workshop areas dug previously, makes it unlikely that they are connected with metal-working, and this interpretation must reluctantly be abandoned – though the tuyère, the crucible found in 2007 and another found in 2002 all hint at such activity in the vicinity. Here, the curving line of a C-shaped enclosure may be of relevance, as similar features located in trench AA were
interpreted as shelters for metal-workers. Sadly this too had suffered badly since it was first located, with most of it lost to ploughing; a series of sections located remains of a shallow groove in only one area, and its date and function must remain opaque.

The excavations revealed a couple of other features worth particular note in the northern part of the trench. Parts of this had been seen previously, with a spread of cultural material; this too had been lost to the plough, revealing a series of negative features. One proved to contain fragments of early Neolithic carinated bowl (fig 23 K-L); another was filled with clay-rich sand, and is likely to have been a store of material for potting.

Discussion
The key feature of the 2007 work in trench AF has been the vital clues it provided to the fate of the coin hoards. It is now clear that in this open area within the settlement a series of unusual things were being put into pits – and these are best interpreted as votive offerings, linked perhaps to key moments in the life of the settlement. The coins were the most spectacular, but they were not the only items consigned to the Birmie earth as part of the beliefs of the inhabitants.
5 FINDING THE EDGE (Trench AG)

Test-trenches over the various seasons of excavation have successfully defined the broad limits of the site, with a marked falling-off of features. In 2007 we tested the south-western margins of activity. Although the excavation of trenches Q and W had given a good idea of the limits, the discovery of the Medieval corn-kiln in the quarry edge to the west (trench X), and the growing evidence that the post-Iron Age settlement hugged closer to the western scarp edge suggested that this activity might have spread further down this part of the field. This was also where a Medieval pilgrim’s badge had been found. Accordingly, a 10 x 9 m trench was excavated in this area, and enthusiastically cleaned by the Inverness Young Archaeologists’ Club (fig 21). This confirmed that we had moved beyond the edge of the settlement activity, with only a thin scatter of features (some probably burrows) and a single medieval sherd. There may well be more Medieval remains lurking in the scrubland along the edge of the site, but this is not a priority for excavation at the moment.

Fig 21: area G
As in previous years, Hamish Stuart conducted an intensive programme of metal-detecting during topsoil stripping and in the remainder of the field; he also scanned the excavation trenches at regular intervals. This was much less productive than in previous seasons, probably because the field has been in set-aside for three years and, as a result, the finds in the detecting zone have almost all been discovered. Even the stripping of the hoards area did not produce any further denarii from the scattered hoard.

The other survey work was a programme of topographic modelling, conducted under the supervision of James Hepher of RCAHMS. The aim is to tie the trenches in to the surrounding landscape, and to build up a contour model which will highlight the careful positioning of the settlement according to subtle variations in local microtopography. This labour-intensive work is used as a training exercise for the students, allowing them the opportunity to learn state-of-the-art survey techniques. It is planned to continue the work in 2008.
Fig 22: field sketch of pot from area AF (original still undergoing conservation). Diameter c.300 mm.
THE FINDS

Pride of place among this year’s finds must go to the intact pot (fig 22). At the time of writing this is still undergoing conservation, and the image is a sketch by Alan Braby based on observations and photographs at the time of excavation. The implications of this exciting discovery have been discussed above, but the pot itself is of considerable interest, as our knowledge of Iron Age pottery in this area is poor. The everted rim is typical of the Roman Iron Age, but the decorated cordon is an unusual feature, as most pottery was plain, and it marks this vessel out as special.

Other ceramic finds included sherds of early Neolithic carinated bowl pottery, dating to c.4000-3600 BC (fig 23 K-L). This was part of the toolkit of the first farmers coming into Moray, and is a valuable addition to our knowledge of this style of pot and its distribution. However, it was an isolated feature, and as such fits the picture of a background scatter of earlier prehistoric activity rather than any sustained activity on the site.

There was also a crucible fragment from area AF, of typical Iron Age form (fig 23 J). This adds to the evidence of metal-working previously recovered in the area, and although the focus of this activity has not yet been located it supports the picture of a prestige site – the casting of copper alloys was a rare activity in the Iron Age, restricted to only a few sites.

Perhaps the most striking aspect of the year’s finds was the quantity of beads. Examples of the opaque yellow annular beads came from every major trench (fig 23 R-T), adding to examples from previous years. It is likely that these were made on the Culbin Sands (Guido 1978, class 8), although there may have been several production centres. More securely a north-east product is the fine triangular bead with inlaid yellow glass spirals, an example of Guido’s class 13 and typical for the area (fig 23 P). There was also an unusual biconical translucent blue bead, securely stratified in the trench D roundhouse but a very unusual form for the Iron Age; efforts are ongoing to find out more about the type (fig 23 Q).
Metal finds were rare, but AB was notably productive in this area, mostly from the later (medieval?) spreads. This included a near-intact knife and a range of copper alloy finds (fig 23 A, E-H). As noted above, trench D produced what seems to be another fragment of the sword uncovered in 1999.

Other finds included a range of stone items. This included some good examples of cobble tools – handy stones picked up from the river or beach and used as pounders, grinders or polishers (fig 24-25). There were also two stones with pecked hollows, probably from use as mortars (fig 24 U, 25 BB). More unusual finds included the fine whetstone from area AF, argued above to be a votive deposit (fig 23 C), and identified by Sinclair Ross as a fine-grained micaceous sandstone which could be obtained locally. There was also a small, well-finished disc, probably a gaming counter, from the trench AB roundhouse (fig 23 D) – an uncommon but not unparalleled find in an Iron Age context (cf. Hall 2007).

The site’s harvest of querns saw substantial additions, with a number of saddle querns, both intact and fragmentary (fig 25 AA, 26-27). More unusually, there were also fragments of four rotary querns – one from the AB roundhouse (fig 29) and three from the trench D roundhouse (e.g. fig 27 GG), one of which appeared to have fallen from an upper floor. All are made of schist, and Sinclair Ross identifies the AB one as a very high-quality andalusite schist, perhaps from the Craigellachie area. Fig 28 is a possible broken roughout for a rotary quern.

Given the traditional sparsity of finds from Iron Age sites, the quantity from Birnie is remarkable. The picture is developing gradually but, along with other recent extensive excavations such as that at Culduthel (Inverness), it provides the raw material for a major reappraisal of the material culture of the north-east Iron Age.
Fig 24: stone finds. U, mortar? (AB). V & X, pounders (AB, AF). W, polishing stone (D)
Fig 25: stone tools. Y, grinder (AB). Z, hammer stone (AF). AA, saddle quern fragment (AB). BB, mortar?
Fig 26: saddle quern fragments
Fig 27: FF, saddle quern (AB). GG, rotary quern fragment (D)

Fig 28: possible broken rotary quern roughout, trench AB
Fig 29: rotary quern, trench AB

Fig 30: rotary quern, trench D
In our efforts at Birmie we try to ensure that locals are kept well-informed of our work on their past, with chances also for active participation. Thanks to our strong links with Elgin Museum, the Birmie display was updated with key finds from the 2006 season. The successful outreach programme for schools was run again, with support from the NMS Access & Outreach team (in particular Jane Miller). During a two week period, over 400 children from eleven schools across Moray learnt about the site and about archaeological techniques, including hands-on experience of sieving and sorting finds.

A successful open day on September 9th was attended by around 250 people; children had the chance to participate in (and get messy from) living history activities such as pot-making, jewellery-making and face-painting. There were also visits from the Inverness Young Archaeologists' Club (who helped out on site) and from the Society of Antiquaries of Scotland (NE Section), the Moray Society and Groam House Museum, while a lecture was given to a packed library at Lossie. Media coverage in the Press and Journal spread the word to the wider community.

Training of both local volunteers and students from a range of institutions is fundamental to the project's aims. Teams of students from Cardiff and the UHI participated as part of the fieldwork requirements for their degree; individual students from Edinburgh and Glasgow also came along. The training was intended to expose them to a variety of field techniques, including a programme of wet-sieving and flotation led by Hannah Russ of Bradford University. Not only was this highly successful in processing an impressive quantity of samples, with a wide range of environmental and other material being recovered, but it also gave the students a good grounding in this key aspect of archaeological practice. With support from RCAHMS, notably James Hepher, it was also possible to introduce them to advanced survey techniques, both EDM and GPS. Some diggers were able to gain experience of educational work, giving site tours and helping the school groups with sieving.
DISCUSSION AND FUTURE PLANS

The 2007 season has allowed us to take major steps forward in three key areas. The first is the setting of the hoards, one of the fundamental questions about the site. There is now evidence of a range of unusual ‘structured deposits’ in this area, and this is strong evidence that the hoards are part of a wider phenomenon of votive deposition in this part of the site. Unlike other moments of deposition noted in previous years, such as cattle skulls in foundations and the smashing and burial of querns, these are not directly linked to individual houses. Instead, it suggests this was a focus for offerings by the community (whether connected solely with the settlement, or from further afield) rather than an individual household. The curving alignment of pits with deposits is interesting, and perhaps suggests some form of boundary, but it will take more detailed knowledge of the site’s expansion and contraction to see if this is valid; it is hard at present to identify it as marking any meaningful boundary when there are houses on both sides of the ‘divide’. Such subtleties are for later examination – the key point is the strong argument for votive deposition of this ‘charged’, powerful material. This has been suggested elsewhere for such hoards (Aitchison 1988; Hunter 2007), but this is the first chance to investigate the context in detail.

The second key area has been the teasing apart of the trench AB sequence, with two important strands emerging: the size and complexity of this massive ring ditch house; and the nature of the later (?Medieval) activity connected with the iron-smelting. There is more to do with the roundhouse in trying to obtain floor plans for each phase, but it emphasises again the truly massive, monumental nature of these buildings, as fig 14 indicates. The post-Iron Age activity is less dramatic, but no less fascinating, although it will take careful gathering of the assorted fragments of information, and a series of radiocarbon dates, to understand their significance.

The final key area has been the continuing work on the trench D roundhouse. Each year it has produced tremendous insights into the structure of the house, and this year was no exception. The discovery of substantial pieces of charred timber is already offering a greatly-improved picture of the building’s structure, and as both excavation and specialist examination continue this will become more and more detailed. The insights offered by fire investigation specialists will also be crucial in developing our
understanding of how the building burned down, and the state it was in when this happened.

Although the trench D house provides our most detailed image, it is clear that there was considerable diversity among houses on the site. By courtesy of Alan Braby, figs 30-31 present speculative reconstructions of several houses, to the same scale, based on the excavated groundplans and finds. They show vividly the differences between the houses, and the sheer scale of the larger ones.

This report should end on some very welcome news. The results of this phase have been of such importance that the key funding bodies, NMS and Historic Scotland, have agreed to a final three-year phase of work to complete the excavation of the trench D roundhouse and rescue whatever else we can from the most vulnerable deposits. The key targets of this will be as follows:

- Completion of the trench D roundhouse
- Extensive excavation of the trench L roundhouse
- Extensive excavation of the charcoal spread to the east of trench N
- Characterisation of the as-yet untouched roundhouse located between trenches E and L
- Complete excavation of the Pictish / Medieval structure sampled in trench V.

This assumes that nothing untoward crops up – perhaps an unwise assumption on this site ...
Fig 31: reconstruction of houses M and O (north)
Fig 32: reconstruction of houses O (south) and M
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As ever, the support of the farmer, William Mustard, and his family has been fundamental to the success of the work, as has the support of the various funders: National Museums Scotland, Historic Scotland, Ian Keillar, and the Moray Field Club. Hamish Stuart once more provided valuable assistance with metal-detecting, while RCAHMS offered training in GPS techniques for the students, Moira Greig of Aberdeenshire Council took aerial photos, and RAF Lossiemouth provided the loan of a mess tent for wet-weather shelter through the good offices of Kevin Stocks. Hamish Clark’s JCB work lightened our load considerably, despite his disappointment that we found more querns than him, for the first time ...

The work would be impossible without the efforts of the large force of supervisors and assistants (Dave Anderson, Emma Bird, Alan Braby, Caroline Denton, Lauren Jenkins, Tanja Romankiewicz, Hannah Russ and Daniel ‘Vienetta’ Sahlén), and the small army of volunteers and students (from the Universities of Cardiff, Edinburgh, Glasgow and UHI, the latter led by Simon Clarke) who provided the vital and vibrant workforce.

Archaeology is never a solitary pursuit, and the expertise of others is vital to progress. In this season, I was particularly grateful for advice on the effects of fire on buildings from Kevin Lackie, Fire Investigation Officer with Grampian Fire Brigade, and Graham Strong, Scenes of Crime Officer with Grampian Police. Dr Cathy Batt of Bradford University arranged for archaeomagnetic dating, willingly conducted by Dave Greenwood. Various others have assisted in various ways, notably Sinclair Ross with his comments on the geology of the stone finds, and Ian Keillar with his assorted thought-provoking ideas and steadfast support.

Post-excavation analysis is the less glamorous side of the operation, and I am indebted to Lisa Brown for whipping the archive into reasonable shape, and to Yolanda Garcia, Lynne Gardiner-Jones, Lachlan McKeggie, Katie Miller and Theresa Rapior for willing work on tedious tasks. Theo Skinner provided valuable advice on the lifting of the pot, ably conducted by Emma Bird and subsequently conserved by Jane Clark and Gaelle Giralt. For the drawings, which are so vital to clarify the report, explaining obscure interpretations and disguising weak thinking, I am indebted to Alan Braby.
The educational visits which are such a satisfying feature of the excavation were organised by Jane Miller and directed on site by Jennie Marshall, with Annie Burt and Lachlan McKeeggie proving to be inspirational leaders of young tearaways.

We have, as ever, been fortunate in the hospitality extended to us by the residents of Moray, who have tolerated our scratchings with a remarkable degree of good humour and enthusiasm, providing support and the all-important cake-tax so critical to site morale. Particular thanks go to René Harris, Ian and Kerstin Keillar, and Janet Trythall for tea and sympathy at key points — and, above all, to Mrs Mustard, whose daily afternoon cake-runs to the site were for many the high point of the excavation ...
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