THE PICTISH ARTS SOCIETY
NEWSLETTER 63 SUMMER 2012

# The Conservation of Pictish Stones

Our Speaker at Pictavia's February meeting was Stephen Gordon, Senior conservator at Historic Scotland (HS), who told us something of the work involved in the conservation of Pictish stones. Stephen heads the Applied Conservation Unit at Historic Scotland. The group of five stone and two painting conservators are responsible for objects and buildings included in the HS estate. It is worth noting that not all Pictish stones fall within the team's remit. Himself a trained stonemason, Stephen's enthusiasm for the material under his care was obvious.

A basic aspect of the team's work is the recording and monitoring of all the significant stonework in HS care. Over a seven to eight year period, it is hoped that 3-D scans of all the items in the HS estate will be made. This will provide a benchmark against which any future deterioration can be measured. These scans will supplement records in the form of photographs, drawings and written assessments. Work on the project is well under way.

A number of factors can contribute to the deterioration of carved stones. Weather can contribute in several ways, can open up natural planes in the stone, leading to flaking. Freezing causes expansion which widens cracks and leads to flaking; acid in rain can effectively etch stones at random. Wind driven particles can abrade the surface, removing details of carvings. Animal life can contribute its share of insult. Bird droppings, rich in caustic chemicals can cause serious damage, while farm animals have been known to find Pictish stones ideal as rubbing posts, with disastrous consequences.

Lichens growing on stones can retain water, and some species produce acids – exacerbating the damage caused by weather alone. The removal of lichens in unskilled hands can cause much more damage than simply leaving them in place, as the potential of removing fragments of the stone surface is high. Cleaning of stones really is a matter for well-trained professionals.

In an ideal situation, to halt any further damage to carved stones, they would be placed in a situation where temperature and humidity can be controlled and weathering, lichen growth and physical damage can all be minimised. All this would point to a secure museum environment, preferably as close as possible to the original location of the stones. However, this is rarely an available option. Practically, a solution such as the removal of the Dupplin cross to St Serf's church in Dunning is an attractive option. (A major caveat in proposing this as a regular option is that country churches are increasingly being closed and sold off.) Other attempts to preserve stones in situ, such as the glass boxes at Eassie and Sueno's Stone have caused problems of their own. Not only do these detract from the visual impact of the stones and make photography difficult, there are problems in maintaining a stable microclimate around the stones.

Stephen described his team's work in preparing the St Vigeans stones for redisplay in the modernised museum. This provided a clear contrast between the practices of conservators and museum professionals 50 years ago and the present day, as well as showing how much the stones were in need of tender loving care despite being housed away from the direct ravages of the weather. Many of our members will remember the thrill of seeing the results of this work in a preview of the museum at our 2008 conference at St Vigeans, before it opened to the public in 2009. (Many will also find the current arrangements for access, by appointment via Arbroath Abbey, deeply disappointing.)

Before any physical work was done on the stones, an initial visual survey was carried out. This revealed a large number of problems relating to earlier conservation work and the subsequent display of the stones in the museum. The smaller stones, displayed on shelving around the walls, were suffering from salt deposition, as dampness penetrated through the walls and into the stones. Metal fixings were eroding, affecting many of the 38 stones in the museum. Old shelving and display units would not now be regarded as fit for purpose. The great cross-slabs had also suffered – concrete set around the bases and large metal fixings holding the stones in place were causing damage – the stones were in several cases unsteady and the

fixings were contributing to a greatly increased risk of fracture. Metallic salts from some of the fixings had also caused serious discoloration.

The first problem to be tackled was that of safely moving the stones back to Historic Scotland's workshops in Edinburgh. Careful wrapping and, where necessary, framing was put in place. Some of the larger stones had to wait, in their protective wrapping, while structural obstacles were removed. Stephen's photographs of the process showed clearly how, from the earliest stages of the work, each stone had individual treatment to its specific needs.

Once unwrapped, the stones were photographed, weighed and measured before treatment could begin. In the case of the larger stones, the first stage was the painstaking chipping away of the cement blocks at the base. Materials used in earlier repairs were carefully removed. Traces of pink pigmentation turned out to be modern distemper, presumably used in an attempt to camouflage repairs.

The stones which had suffered most from efflorescence were in general those which had been displayed against the walls, and were generally at the smaller end of the size range. An acid-free paper pulp was used as a poultice on these to remove the offending salts.

Surface staining was removed using laser treatment – a treatment so sensitive that it can remove type from paper without damaging the surface of the page.

The present-day policy of HS is that all repairs and work to the stones should be easily reversible. As far as the current state of knowledge allows, any work done to the stones should not lead to any future damage or deterioration in the condition of these precious objects. Resins used to hold fragments (or fragments and acrylic mortar replacements for missing parts) together can be easily dissolved. This mortar was mixed with sand to give a good match to the stones, and all fillings and replacement areas of stone are slightly recessed from the carved face – clearly new, but unobtrusive in presenting an idea of the original dimensions and shape of the stone. The contrast between the technology available to conservators and the philosophy which guides their work now compared with 50 years ago is striking.

Stephen went on to describe working on a Pictish cross-slab found bedded on a layer of clay on a sandy floor surface under a floor at Appiehouse in Orkney. In this case, the stone was in fragments when it arrived in Edinburgh, some unrelated to the original stone. An encrustation of gypsum had to be removed, and the stones cleaned before the jigsaw was reassembled. Another high-tech gadget entered the fray: a dental 'steam cleaner' was used with cotton wool swabs to aid in the cleaning. The stone turned out to have been carved on two sides, with a seahorse and cross on one, and a stepped cross on the other.

Lavish illustrations throughout dramatically highlighted the advances in technology used to treat the stones and vividly brought to life the immense skill and care which Stephen and his team bring to bear on their work with the stones. The delicacy and rigour of their approach underlines the real fragility of these precious relics. *SH*

## The latest from Pictish Fortingall

Dr Oliver O'Grady finished a sparkling Pictavia season by bringing us 'The Latest from Pictish Fortingall'. The work at Fortingall forms part of the Culdee Archaeology Project, aimed at exploring the archaeology of early mainland monasteries. Excavations have been carried out at a number of early Christian island sites, but Martin Carver's major campaign at Portmahomack has revealed how little we know of mainland sites, Although Celi De (Culdee) originally applied to followers of an eighth-century monastic reform movement, Culdee has come to be applied to general pre-11th-century Scottish Christian sites. Many of these sites continued in use, with major rebuilding taking place in the wake of the great upsurge in monasticism of the 12th century. We know of only a few with no later buildings which are amenable to archaeological examination.

The dearth of historical records for Scotland means that we know virtually nothing about the form and function of early religious sites. It is possible, for example that such sites were used by secular elites as residences and/or court centres, much as Scone was at a later period. There is some evidence from excavations at Tarbat and Whithorn that early Christian centres harboured workmen skilled in metalwork, stone carving, and the processes involved in book production and adornment. There is also evidence of long distance trade at these sites.

It is not clear whether these functions were the preserve of monks, lay servants or independent craftsmen who settled in the vicinity of potential customers. It is not to be supposed that all sites had identical form and function throughout the latter half of the first millennium AD. Evidence from a range of early Christian sites is necessary before any pattern can be distinguished. The Culdee Project has identified a number of possible target sites, including Dunkeld, Inchaffray and St Serf's Isle.

Fortingall is one of these. A number of features point to the existence of an early Christian site here: the area around the kirk has produced the largest collection of simple crosses, probably of the seventh century, away from the west coast. A handbell of that period is preserved in the present church, which occupies the site of an earlier one, and three others are known from the local area. There are also three inscribed cross-slabs with late Pictish interlace and Greek key patterns which suggest that the site was in use some centuries later. The famous Fortingall yew, already millennia old by the time of Christ, may be a relic of a much earlier sacred site.

The derivation of the place name is uncertain. Fortingall appears as 'Forterkil' in a document of the 13th century. Church of the upper land, or of the projecting land, fortress or stronghold have all been suggested as possible meanings.

Aerial photography had revealed the outline of a possible monastic vallum, enclosing an area around the church on the terrace above the River Lyon. In 2007, AOC had held an archaeological watching brief over sewer pipe laying within the area of the possible vallum, and noted evidence for early walls and a possible wall revetment.

In 2010, OJT Heritage, in collaboration with the Breadalbane Heritage Society and supported by the Kirk Session carried out geophysical surveys across the area of the possible monastic enclosure. The field in which the sewer had been laid in 2007 yielded little of interest. Any remains here may have been disturbed by later agricultural activity.

Further west, more intense activity was picked up. In this area, traces of an enclosing ditch and bank were picked up. There were suggestions of an entrance to the enclosure, lying between the kirk and Carn na Marbh, a cairn lying just outside of the enclosure. Oliver suggested that this may be a possible legal mound – again a useful exemplar is at Scone. There were signs of a possible second entrance, internal divisions and evidence of palaeochannels, a reminder that the course of the river has changed over the centuries. To the east of the kirk, in the glebe field, there was further evidence of the enclosing ditch and of internal divisions.

Permission was granted in 2011 to open a couple of small trenches, one in the glebe field and one in the area of the putative entrance. The glebe field trench revealed a ditch three metres across cut into a natural sand and gravel soil. A drain had been inserted into the base of the ditch. Much of the signal picked up in 2010 appeared to have arisen from the spread bank, where there was evidence of a possible stone revetment and small stone settings that may have contained timber posts. The area was rich in vitrified material. The ditch had been re-drained at some point, with a sequence of cutting, filling and recutting. The division within the enclosure was of a later date. From this area, several interesting artefacts were recovered: a flint scraper from the bottom of the ditch was probably a secondary inclusion. A possible pin or stylus head in copper may date to the early historic period, while two fragments of green glazed pottery of the 13th century were found in the upper fill.

The other trench was opened in the area of the possible entrance between the kirk and Carn na Marbh. Here, the remains of a metalled road were flanked by a bank, with at least three courses of stone revetment still in place. Burnt material was found, possibly dumped over the river terrace. It is possible that the road followed the contours in the direction of an old ford across the Lyon.

Just to the side of the road, embedded in the surface, a fragment of a rare glass bead was found. This was opaque yellow, with trails of light green and three parallel bands of red. Similar beads are known from Anglo-Saxon England, where they are usually dated to around the late-fifth to early-sixth century AD. A silver penny of King John of England was recovered from the spoil from this area.

Fortingall and Iona both have large curved boundaries. However, there are few resemblances to any of the other west coast sites which have been examined, highlighting the need for more evidence in the face of variation between potential early Christian sites.

We look forward to hearing more of the Culdee Project in future. *SH*

## Cross-incised stones at Fortingall Parish Church, Perth and Kinross

The significance of the site of the parish church of Fortingall as a Christian centre in the early medieval period is well established (Robertson 1997). Since the first notification of the presence of a hand-bell in the manse in 1881 (Anderson 1881, 180–1), followed by the discovery of fragments of four cross-slabs about 1900 (Fortingall 1–4; Allen and Anderson 1903, iii, 508–10), new evidence has continued to come to light, not only including stones carved with incised crosses (Fortingall 5–8; see Robertson 1997), but also the cropmarks of a large rectilinear enclosure around the site of the church. While the presence of so many stones has allowed speculation that this is the site of an early monastery, the enclosure, albeit undated, appears to manifest it, being a likely candidate for the remains of a monastic *vallum*.

More recently, in September 2004, in the course of a visit by the Commissioners of the Royal Commission on the Ancient and Historical Monuments of Scotland to inspect the internal furnishings of the church, a broken slab bearing three equal-armed crosses (Fortingall 9) was discovered on the churchyard wall by John Borland. Subsequent visits by Niall Robertson and John Borland have identified three more slabs bearing incised crosses. All four have been recorded graphically by John Borland, and three of them (Fortingall 9–11) have been reported by Borland, Hall and Robertson in *Discovery and Excavation in Scotland* (*DES 2004*, 104–5). These have been numbered in sequence with the earlier discoveries:

**Fortingall 9**

This roughly rectangular slab of blue-grey schist now lies beside the church to the east of the porch. It is broken into at least three pieces, but has measured 1775mm in length by a maximum of 355mm in breadth and 30mm in thickness. Its upper surface, which is roughly smoothed and apparently dressed, bears three sunken equal-armed crosses, each between 160mm and 90mm across, and boldly cut with a U-section some 12mm deep. The crosses are disposed along the axis of the slab, with one roughly in the centre and the others at either end. The cross at what is now its west end has a tenon or tang aligned on the axis towards the centre.

**Fortingall 10**

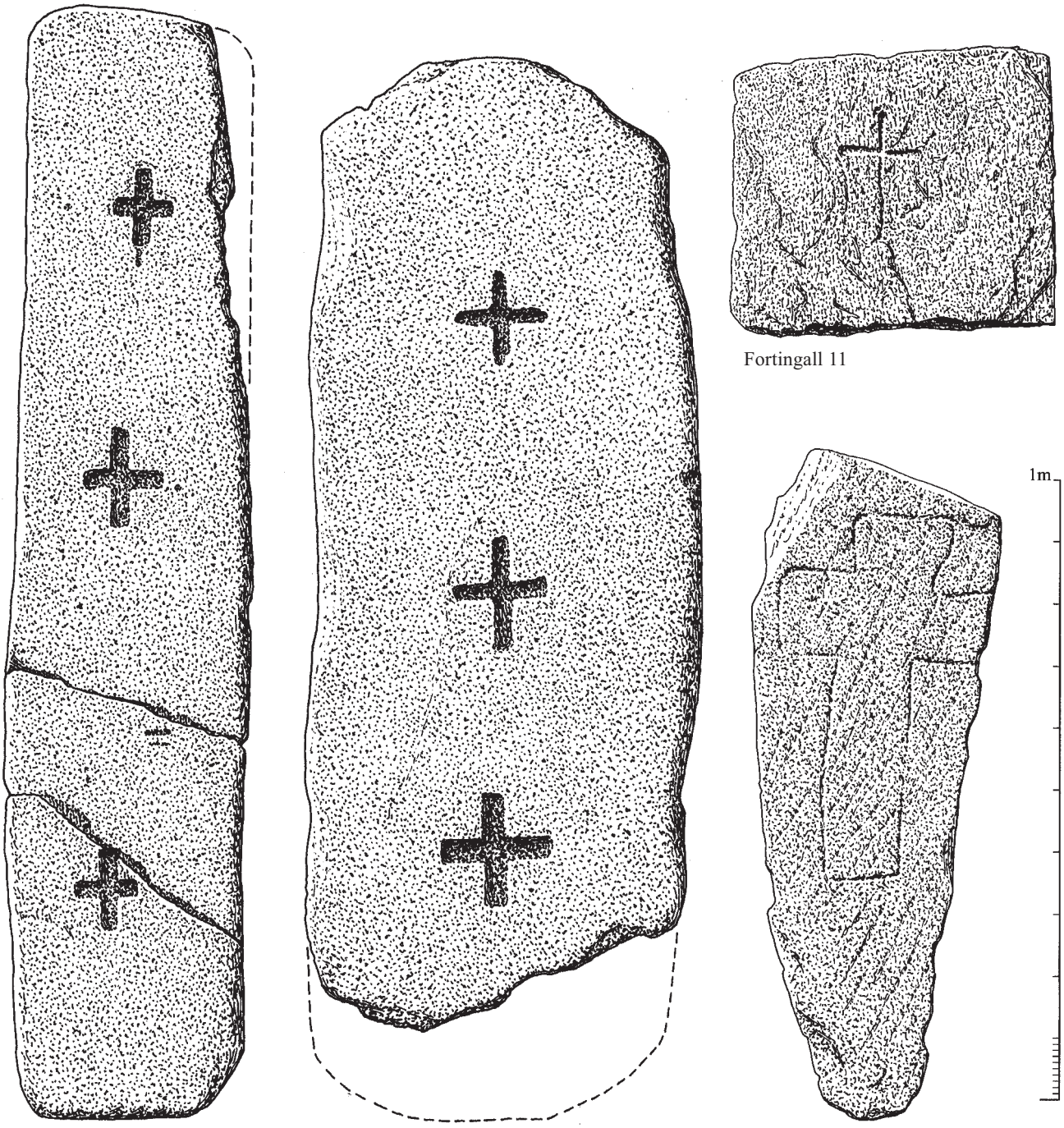
This is a more substantial slab of brown-grey schist, found, like Fortingall 9, lying on top of the south wall of the churchyard (until recently shrouded in ivy). It now stands against the south wall of the church, held by metal brackets. Like Fortingall 9, its worn surface bears traces of rough dressing and bears three equal-armed, sunken crosses set out along its axis. Unusually, the reverse face of the slab is also neatly dressed by stagging, though it bears no further decoration. The slab is broken at one end, and the surviving portion measures 1570mm in length by 625mm in breadth and up to 105mm in thickness, but the symmetry of the design suggests that it was originally a little over 1700mm in length. Again boldly cut with a U-section up to 22mm deep, the crosses are between 175mm and 145mm across. One of the end crosses betrays something of the process of its manufacture, shallow grooves in its terminals indicating that the broad arms of the cross have been enlarged from a much narrower incision.

**Fortingall 11**

One of the coping-stones mortared into the top of the south wall of the churchyard, towards its west end, bears an incised cross. The stone has been cut from a larger slab measuring at least 510mm in breadth, and the surviving fragment is some 440mm in length. A Latin cross, it is heavily worn and while one arm is some 7mm deep, the shaft is barely visible, running into an irregularity in the surface of the stone. With these caveats in mind, the cross is about 210mm high by 122mm across the arms.

**Fortingall 12**

A fourth slab of schist, bearing an irregular outline cross, was recognised in the course of the graphic recording and has now been placed on top of a low wall to the west of the enclosure containing the Yew tree. Evidently intended as an upright pillar some 123mm in thickness, it is complete, measuring 1094mm in length and tapering from 376mm wide at the smooth oblique fracture that forms its upper end to a rough point at the other. Defined by a shallow groove, which does little more than bruise the rippled fracture plane that forms the surface of the stone, the cross is set towards the broader




*The Fortingall cross-slabs illustrated by John Borland. Scale 1:10*



end, and measures 579mm in height by at least 322mm across the arms, though it is difficult to be certain whether the groove outlining the sinister arm returns at the edge of the stone.

These crosses are important additions to the assemblage of stones recorded at Fortingall – a collection exceeded in size by only a handful of others in Scotland. The two slabs bearing three crosses (Fortingall 9 and 10) were evidently conceived as recumbent monuments, while the stone bearing the outline cross is almost certainly an upright marker. Outline crosses of this sort are found widely in the west highlands, with examples in Dumbartonshire at Rosneath and Ballevoulin (Fisher 2001, 82, no.10.2; 84, no.13) and others further afield in Argyll. The two recumbent monuments bearing three crosses are more unusual, but form a local group with the examples from Strathfillan (Lacaille 1924, 124–5) and Old Faskally (Robertson in DES 1991, 72). Slabs recorded at Iona (RCAHMS 1982, 182, no.6.17) and Vallay, North Uist (Fisher 2001, 110, no.47.1) have crosses at either end, as does at least one other

recumbent slab at Fortingall (Fortingall 7). The latter also bears the outline of an axe between its two crosses, and it is not clear whether the combination of axe and crosses belong to a single design or simply indicate the re-use of an early Christian stone in a later period (Robertson 1997, 142).

*Stratford Halliday and John Borland RCAHMS*

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Lacaille, A D 1924 'Some Antiquities in Strathfillan, Perthshire. Cupped boulder near Helensburgh, and Cross-slabs in Glen Fruin, Dumbartonshire' *Proc Soc Antiq Scot,* 58 (1923–4), 124–30.

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## Clarkly Hill

Our January speaker, Dr Fraser Hunter is Principal Curator Archaeology, Iron Age, Roman and Early History at the National Museum of Scotland. Over the years, Fraser has dug many fascinating sites, and added a great deal to our awareness of early historic Scotland. In recent years, he has given talks at Pictavia on his work at Birnie, where, over a 12-year period, he uncovered a multi-period site with occupation stretching from the late Bronze Age to the medieval.

2011, however, saw him move to a site some 12 kilometres away at Clarkly Hill, close to the Pictish fort at Burghead. The location had produced a number of finds over the years, mostly made by metal detection, which spanned a period from the Bronze Age to the medieval. These included a number of brooches, fragments of harness fittings and a scatter of denarii – all of the Roman/Iron Age period. The latest coins dated to the 190s AD, which suggests that there was at least an overlap between activity at Clarkly Hill and occupation of the site at Birnie. Aerial photography had revealed indications of prehistoric settlement in the area, while a geophysical survey had shown traces of what appeared to be roundhouses.

Three trenches were opened in a two-week season of excavation. One was aimed at investigating the setting of what was probably a dispersed coin hoard (the denarii found earlier). Another sought to confirm the presence of roundhouses, and a third cut across an anomaly detected by geophysics on the northern edge of the site. Was it the case that Clarkly Hill was a similar site to Birnie, regarded as a power centre? If so, how common were such centres in this area? Also, did the proximity of the fort at Burghead have any impact on Clarkly Hill which meant a different development here compared with Birnie as Burghead developed in the Pictish period?

The first trench, around the area of the coin finds, revealed a sand-blown layer which had sealed an old plough soil sometime in the post-medieval period. The coins had been scattered in antiquity, and were found in this soil layer which also covered the remains of what may have been a Pictish-period building. This had a slabbed floor with a hearth. However, there was no evidence for substantial wall foundations. Below this were deposits and features which produced finds dateable to the Iron Age.

The second trench revealed a similar building represented by a rectangular stone platform, 5.6 by 4.4 metres, surrounded by a cobbled yard, overlying a large Iron Age ring-ditch building about 12.5m in diameter. In this area, the later building yielded no dateable finds. However, the area of the ring-ditch house had seen later activity, with stones erected round the edge. Small cist-like structures and some unusually grouped deposits were found, suggesting some ritual actions carried out here.

The third trench, over the northern edge of the site revealed debris of iron smelting – slag and charcoal. Large stone-built hearths indicated that this was an industrial part of the site, with evidence for non-ferrous metal working too.

Metal detecting turned up more early finds – Iron Age metalwork as well as Romano-British.

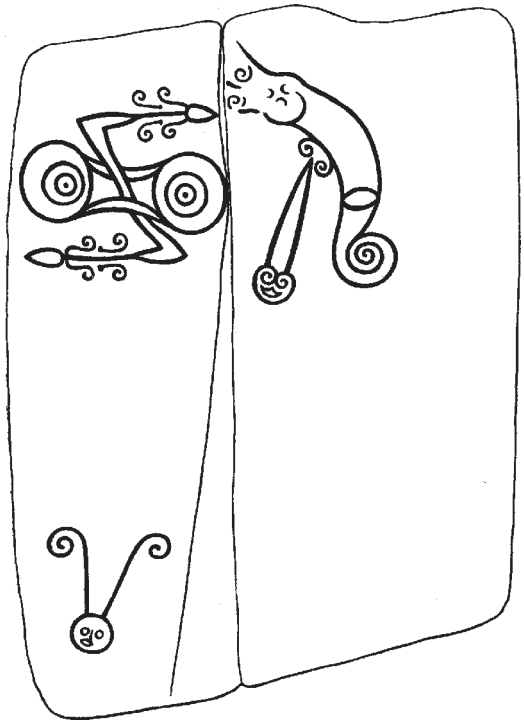
The short excavation here did not give enough time to sort out the complex sequence of activity around the round house in trench 2, or the context of the hoard in trench 1. Dating evidence for the later houses, with their paved floors and cobbled yard is still to be obtained. Fortunately,

a second season is planned, and we hope to hear more of Clarkly Hill.

Fraser once again gave us an excellent talk, showing how much archaeology still has to reveal about life in Pictish times and the relationship of Pictish settlement to earlier activity. *SH*

## The Galloway Picts Project

To mark the 150th anniversary of the founding of the Dumfriesshire and Galloway Natural History and Antiquarian Society (DGNHAS) in 1862, the Society undertook an excavation of the Dark Age stronghold at Trusty's Hill just outside Gatehouse of Fleet, between 19 May and 2 June this year.



*The carved symbols on the rock surface at Trusty's Hill, Anwoth (ECMS, iii, p.478, fig. 508)*

Trusty's Hill is conspicuous amongst the hillforts of Galloway for the Pictish symbols, comprising a double disc and Z-rod and a 'fish monster' and 'sword', carved on an exposed face of bedrock at the entrance to the fort. There may also be an Ogham inscription along the edge of this stone.

What has intrigued archaeologists is that the stone dates from the first millennium AD when south-west Scotland was inhabited by people usually perceived to be Britons, not Picts or Scots.

The Pictish symbol stone at Trusty's Hill is unique in Galloway and potentially represents crucial evidence for the early cross-cultural exchanges that forged Dark Age Northern Britain and led to the emergence of the Kingdom of Scotland.

An excavation of this site was done in 1960 by Charles Thomas at the encouragement of DGNHAS, using the (relatively) unsophisticated archaeological techniques of the time, but did not recover the archaeological evidence that could now be used to date the occupation and destruction of the fort, to demonstrate the status of its inhabitants or to explicitly link the occupation of the fort with the carvings. The principle objective of the new excavation was therefore to recover archaeological evidence from Trusty's Hill and subject this to modern analysis. This will enable better understanding of the Trusty's Hill symbol stone in the context

## PAS Annual Conference

**Saturday 6 October, 2012**

**A K Bell Library, Perth**

### Fortingall to Forteviot and Beyond

**Programme**

Morning

9.30–10.00 Registration

10.00 Welcome

Thereafter the following speakers

(titles and times to be confirmed):

**Niall Robertson**

on the early medieval sculptured stones of Highland Perthshire

**Oliver O'Grady**

on the recent excavations of the Pictish monastery at Fortingall

**Heather James**

on the SERF Project excavation of a broch

**Cormac Bourke**

on early Christian hand bells

**John Sherriff**

on 'Pictish' hillforts in Strathearn

**Mark Hall**

on the Pictish sculpture from Forteviot and Invermay

Lunch is included in the fee.

As this promises to be a popular event, early booking is advisable.

A form is enclosed with this Newsletter

of the surrounding settlement, which is important for understanding why the stone was inscribed and by whom, and what this means for our understanding of cross-cultural interactions in the middle of the first millennium AD, a time when Scotland was emerging as a distinct country within the British Isles.

The excavation of Trusty's Hill represents a rare opportunity to make a real difference to understanding past identities in Galloway and the formation of national identity in Scotland during the first millennium AD.

An initial training day took place in Gatehouse of Fleet on Saturday 19 May, prior to the start of the excavation on the following day.

## The elusive site of the Battle of Dunnichen

At a public meeting in the Reid Hall in Forfar on 10 May, Historic Scotland gave a presentation on the non-inclusion of the site of the Battle of Dún Nechtain (Dunnichen) in their Inventory of Historic Battlefields. This meeting was well attended reflecting the strength of local opinion on the subject. The Inventory, which affects council planning decisions, is now in its third cycle of additions and will be resolved this month.

As consultants to the Inventory, Dr Iain Banks and Dr Tony Pollard of the Centre for Battlefield Archaeology in Glasgow were the main speakers.

When discussion was opened to the audience, Graeme Cruickshank passionately promoted the putative site at Dunnichen in Angus, but was unable to provide sufficient proof of the actual location of the battle. Dr Iain Glen, who had travelled from the north, spoke about the claims for siting the battle at Dunachton in Badenoch, following Alex Woolf's hypothesis, but conceded that again there was insufficient proof.

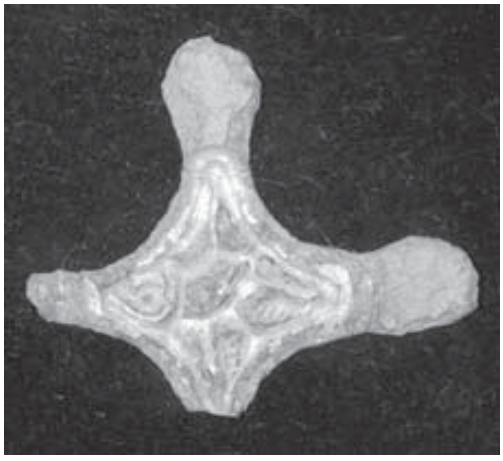
Early battle sites are extremely difficult to pinpoint and even the much later Battle of Largs (1263) does not appear in the Inventory as its site cannot be specifically located. Hard evidence and accurate mapping are required when decisions are made regarding planning applications for developments which could affect a battle site.

Currently there are no recorded artefactual remains from the battle of Dunnichen, and no human remains that can be associated with the fighting, but there is potential for the survival of artefacts, as stated in 'Dún Nechtain' the Research Report of the battle:

> … hand-to-hand fighting would result in the deposition of a variety of physical remains. Arrowheads, damaged weapons and personal accoutrements like belt-buckles, scabbard and sword fittings, and horse-harness would have been lost or abandoned during the action and subsequent flight and pursuit. There is also potential for human remains from the battle, especially if Northumbrian losses are as high as the sources suggest. However it is important to note that in the case of early sites such as Dún Nechtain, the sheer length of time since the material was deposited will frequently have had a highly detrimental impact on its survival.

The battle-scene on the Aberlemno kirkyard stone is regarded by many people as representing the action of the battle of Dunnichen, however as this is open to interpretation, it cannot be cited as evidence of a particular battle having been fought in this part of Angus.

One positive outcome of the meeting was the suggestion that it might be feasibe for the two communities of Dunnichen and Dunachton to jointly undertake research and fieldwork to determine if more can be discovered to link the battle with either of these places.



*The Anglo-Saxon harness mount from South Leckaway, Angus*

## PAS Newsletter 64

The deadline for receipt of material is

**Saturday 11 August 2012**

Please email contributions to the editor
<pas.news@btconnect.com>