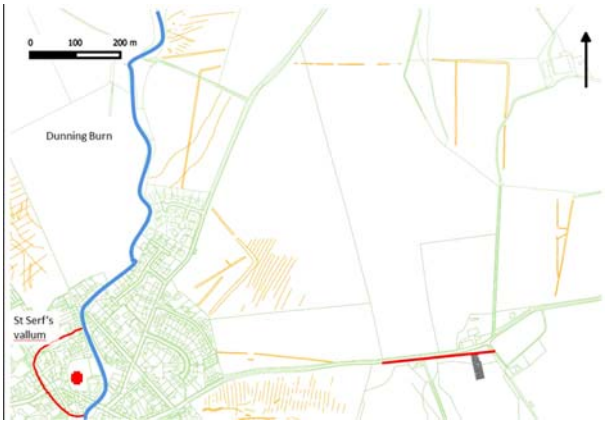
Excavations at Dunning Roman Camp: SERF sites PH14 & KM14



Data Structure Report

By

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2014

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Summary

As part of the Strathearn Environs and Royal Forteviot (SERF) Project, excavation were carried out in two areas within the Roman temporary camp at Dunning, Perthshire (NMRS: NO01NW 7) in June to July 2014. This camp is one of the largest of its kind in Scotland at 47 ha, and has six entrances.

PK14. *A number of small trenches were excavated on the south-eastern stretch of the defences of Dunning Roman Camp to establish the line of the defences and their chronology. This part of the defences, within the grounds of Pitcairns House, was not visible on aerial photographs and lay outside the scheduled area. Geophysical survey failed to locate the defence line, but trial trenches excavated by hand located them immediately south of the old Dunning to Bridge of Earn road. The line established showed that the southern defences were kinked in two places, at two suspected entrances, confirming that the camp had six entrances. Excavation revealed that the ditch had a typical Roman military profile - V-shaped, with a wide basal slot - and was up to 2.5 m wide and almost 2m deep. The two fully excavated trenches both showed that the ditch had been re-cut after a period of infilling. The associated bank on the northern side only survived as a faint ghost in the subsoil, but was separated from the ditch by a 2m wide berm. No artefacts were recovered. The evidence of recut of the ditch matched the sequence seen in previous excavations on the western and northern defences, and shows that the whole area of the camp was re-occupied at some point, possibly in the second century AD.*

KW 14. *Excavations were carried out at Kincladie Wood, Dunning. Two trenches were opened over the remains of what has been traditionally interpreted as a Roman camp north of Dunning village, parts of which remain upstanding within Kincladie Wood. At Kincladie Wood, the primary Trench (1) revealed the structure of the bank and V-shaped ditch delimiting the extent of the camp close to one of its northern entrances. The ditch was defined by an original cut and a later, cruder recut, each with a linear 'ankle-breaker' slot at the base. A berm measuring 1.4m wide separated the bank from this outer ditch. A slot abutting the southern, inner face of the bank, likely contained a sloping wooden revetment for the rampart. The rampart had a turf base, and possible remains of a palisade were seen. Trench 2 exposed a heavily waterlogged ditch in the approximate location of the* titulus. *No artefacts of the Roman period were recovered, but potential dating material was recovered from a charcoal patch beneath the bank.*

Overall the excavations are important for two reasons. Firstly, in showing a more elaborate form of construction of the primary defences than is usual in a temporary camp: the timber revetment on the interior of the rampart, and the berm between the ditch and rampart. Secondly, the recutting of the ditches throughout the whole circuit of the camp shows that the whole camp was re-occupied by a significant force of soldiers, rather than a reduced area of the camp being reused.

Introduction

Phase 2 of the Strathearn Environs and Royal Forteviot (SERF) project has a geographical focus on the Dunning region. Following the discovery in 2011 of the Castle Craig broch, with its abundant Roman material culture (James 2011; James & Campbell 2012), it became clear that the Roman military presence in the area had to be a focus of research. Accordingly in 2014 it was decided to carry out targeted trial excavations on the defences of Dunning Roman Temporary Camp (hereafter RTC), the closest Roman military site to Castle Craig (Fig 1).

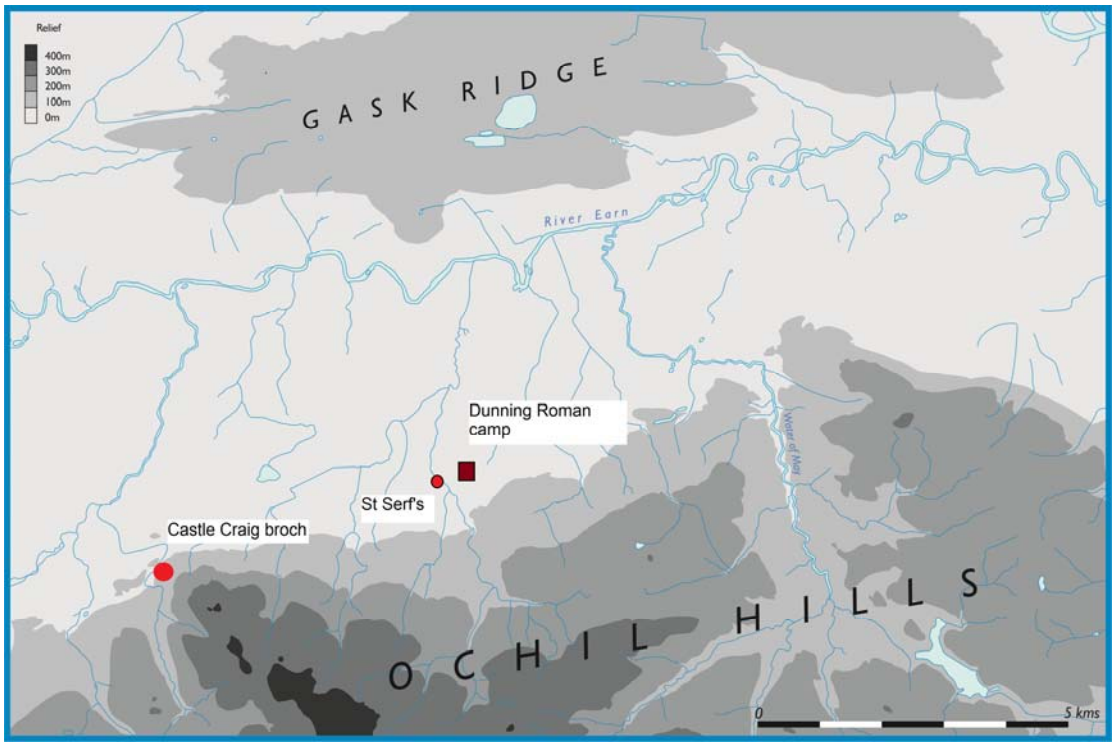

Fig 1 SERF project area with sites mentioned

Two areas were initially selected for investigation (Fig 2): one in the only area of surviving upstanding monument in Kincladie Wood (SERF KW14) in the North-West of the camp; the other in the South-East within the grounds of Pitcairns House (SERF PH14). The excavations were carried as part of the University of Glasgow's archaeological fieldschool. The excavations took place from 28th June to 10th July 2014 during a dry sunny period.

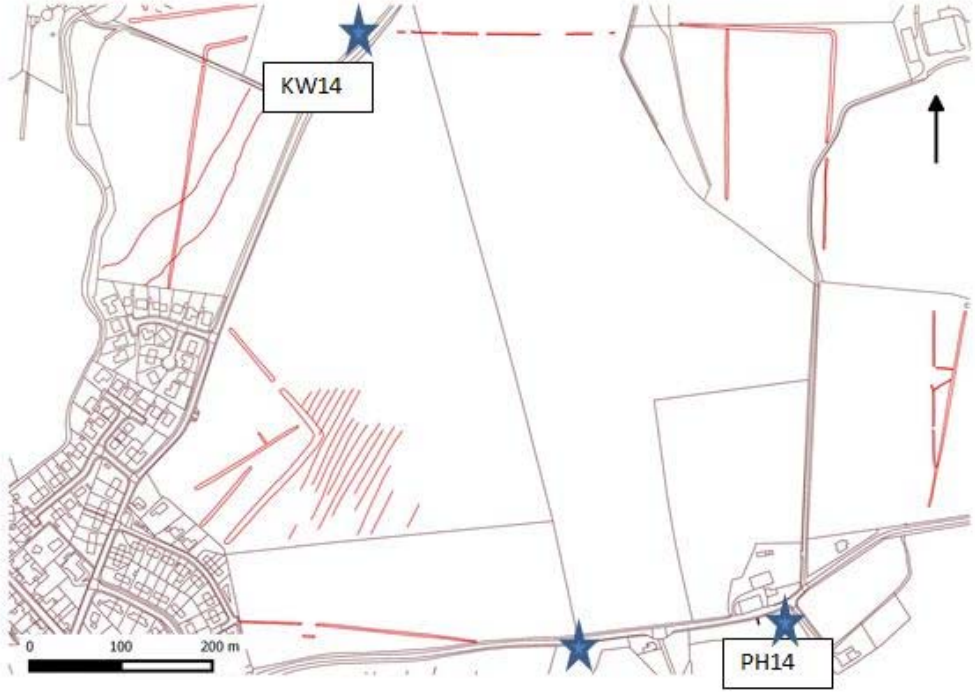

Fig 2 The Dunning camp as transcribed from aerial photographs, with sites of excavations

Dunning RTC (NMRS: NO01NW 7) is one of the larger Roman camps in Scotland at 47.3ha (117 acres), and is of sufficient size to contain a legion of 5000 men (Jones 2011, 191-2). It is also unusual in having six entrances, with two each in the north and south sides and one each in the east and west. The only other RTC of similar size and shape is at Carey, Abernethy (ibid, 160), and the two have therefore been linked in discussions. The southwest corner of the camp is now under the town of Dunning. Two minor roads follow the south and western sides of the camp, and a farm track the eastern side.

The camp is sited on gently rolling agricultural land (at about 50m OD) lying between the broad alluvial plain of the River Earn with its fluvio-glacial terraces to the north, and to the south, the steeper northern slopes of the Ochil Hills Old Red Sandstone volcanic formations. The camp itself however, is situated on a slightly raised mound of Devensian boulder clay, except for a band of fluvioglacial deposits along its eastern edge. The underlying Scone Sandstone Formation is completely obscured by the overlying glacial and fluvio-glacial deposits.

Archaeological and historical background

The RTC site lies in the parish of Dunning, Perthshire, within the medieval earldom of Strathearn, one of the most important earldoms of medieval Scotland. The parish is first mentioned in the early 13th century, though it was probably already in existence then for some time (Rogers 1992, 43-4). Pitcairns is first mentioned in the early 13th century (*Peticarnie* 1247; *Petikarn* 1283), and is one of a series of *Pit-* names in the Dunning vicinity which have been interpreted as dependent settlements or touns of Dunning shire (ibid, 305). The *–cairn*s element of the name possibly relates to the large tree-covered mound just north of the present Pitcairns House, which may have seen in the early medieval period as a prehistoric burial mound, though it is probably a natural feature. The site of St Serf's monastery in Dunning lies immediately outside the camp, on the other side of the Dunning Burn (Fig 8). Its foundation probably dates to the early 8th century, and early remains have been uncovered there as part of previous SERF excavations, including burials dated to the 9/10th century

beneath the Romanesque tower (Campbell 2013). Whether the association with the Roman camp is fortuitous is a matter for debate, but this appears to be the only close association of an early medieval ecclesiastical site with a Roman camp in Scotland. For Kincladie Wood (*Kincledi* 1444–5), the Gaelic placename elements mean "head (or top) of the ditches", presumably referring to the upstanding remains of the camp, which were extensive before the agricultural Improvements of the 18/19th century. Today only about 130m of the rampart are upstanding, within Kincladie Wood.

The RTC itself is first mentioned by MacFarlane in 1723 as a 'trench capable to contain several thousands of men' (Mitchell 1906: 121), though he wrongly ascribed it to the medieval period. The camp was clearly an upstanding earthwork at this period, but agricultural improvements of the early 19th century removed all trace of the defences soon after, except for the surviving section in Kincladie Wood. The camp was not noted in Miller's discussion of the forts along the northern borders of the Ochils in relation to the Mons Graupius question (Miller 1857: 49), so presumably the ramparts had been mainly destroyed by then. Most of the interior lies on boulder clay and was uncultivated heathland up till that point, and in the 17th century were part of the kirklands of Dunning (*National Archives of Scotland GD56/48*), perhaps illustrating some long-standing connection between the church and camp.

Dunning RTC itself has been the discussed in terms of its relationship to other marching camps and historically attested campaigns by the Roman army (Jones 2011, 104-5). In particular, it has been cited for its putative role in the battle of Mons Graupius (ibid; Fraser 2005; Campbell 2010), an identification partly based on the equation of Mons Graupius with the placename Duncrub, which lies 1.2 km west of the camp (Watson 1926: 56; Feachem 1970). Duncrub was the medieval thanage estate centre of the Rollo family. However, the placename evidence is dubious and many other possible locations for this important battle have been put forward.

No Roman period finds have been certainly reported from fieldwalking in the camp, though Neolithic arrowheads have been found according to local reports, and there is a second-hand local account of 'Roman tiles' being found on the eastern side. The early iron age hillfort of Dunknock lies immediately to the south and has been excavated as part of the SERF hillfort programme (Poller 2008; Dalglish *et al* 2009; Poller 2015). In 1981 a bronze age socketed axehead was found in the field below Dunknock, just west of the present excavations, and in 1997 a stone axehead in the same field. Roman coins have also been reportedly found in a garden within Dunning.

Previous work

Roman activity in the area is mentioned in passing in the Old Statistical Account of Scotland (OSA Volume 19, 442) and "camps and fortifications" in the New Statistical Account (NSA Volume 10, 717). Crawford (1949, 59), described the upstanding remains in Kincladie Wood as "…leaving the Dunning-Forteviot road obliquely, on the west side of it" (*ibid.*) suggesting the bank and ditch could be part of a Roman camp. The site was then briefly mentioned by Feachem (1970) who misidentified it as a likely Stracathro-type camp. Aerial reconnaissance carried out at the site during the early 1970s by St Joseph (1973) indicated that the camp at Dunning is not of the Stracathro type, but was a much larger monument with multiple entrances and corresponding *tituli*.

It has been speculated that these camps would have been used on the march to the complex of Roman sites at Carpow, east of Abernethy. General dimensional similarities between the camp at Carpow (106 acres) and Dunning and Abernethy have also been noted (Hanson 1978, 144). The camps at Dunning and Abernethy were probably contemporary; the chance presence of closely-spaced camps of almost identical size and very similar morphology at different dates is highly unlikely (Dunwell & Keppie 1995, 60).

The Dunning camp was first excavated by St Joseph who, as well as carrying out aerial reconnaissance, excavated narrow trial trenches within Kincladie Wood (St Joseph 1973). This work demonstrated that the camp was nearly square in form and not a Stracathro-type monument (Dunwell & Keppie 1995). In 1988, Dr. Lawrence Keppie of the Hunterian Museum in the University of Glasgow, on behalf of Historic Scotland, excavated an area adjacent to the northern entrance to the camp (on the opposite, southern, side of the B934 to the excavation discussed in this report). The perimeter ditch proved to be U-shaped and rather shallow, measuring 3m wide and cut into the subsoil to a depth of 0.75m from the Roman ground surface. The ditch narrowed as it approached the B934, with the terminus presumed to be underneath that road. No evidence of the accompanying rampart was discovered, it presumably having been ploughed flat. Upon excavating to the north of the ditch, no trace of the *titulus* was found, Keppie concluded that its remains must lie entirely under the modern road and within Kincladie Wood. The excavation yielded no small finds (Dunwell & Keppie 1995, 53). Keppie suggested two distinct phases of use, with the latter indicated by the ditch being narrowed through partial in-filling prior to reuse. In 1992, in advance of a housing development, part of the western entrance was excavated by the Centre for Field Archaeology (CFA). There were signs of re-cutting in both termini adjacent to the entrance, but nowhere else (Dunwell & Keppie 1995, 55). Both possible re-cuts were U-shaped in profile, were approximately 1m deep, and were made after up to a metre of deposits had infilled the original cut; the implication being that this re-cutting occurred substantially later than the original construction. A metalled trackway was also discovered running towards the entrance to the camp, attributed to a post-medieval origin on dubious grounds.

Acknowledgments

As well as the individual acknowledgments detailed in the two excavation reports below, the Project directors would like to thank our funders, especially Historic Scotland who have constructively supported the project since its inception. The project was partly sponsored by the British Academy (LRG: 45610); Historic Scotland (Archaeology Funding Programme) and the University of Glasgow. The research of SERF is benefited by partnerships with the Royal Commission on the Ancient and Historical Monuments of Scotland (www.rcahms.gov.uk), Perth and Kinross Heritage Trust (www.pkht.org.uk), and Dunning Historical Society.

Pitcairns House: Excavations at Dunning Roman Temporary Camp, SERF site PH14

Ewan Campbell

Summary

Introduction
Four trial trenches were opened, all lying in the landscaped oak woodland bordering the edge of the Pitcairns House estate, immediately to the south of the old Dunning to Bridge of Earn road (centered around NGR NO 026145) which was the original medieval routeway to Perth. This area of the camp is currently outside the area of the scheduled monument. The woodland was bounded to the north by the estate wall, apparently constructed around 1820.

Aims
The aims of the PH14 excavations were twofold. Firstly, to identify the line of the RTC defences, as this is the only section which does not appear on aerial photographs; and secondly to help to establish any chronology for the defences. This section of the defences is important as it crosses the boundary of the possible contraction of the camp implied by one aerial photograph (Jones 2011: illus 118).

Methodology
The initial step was to conduct a geophysical survey of the site, undertaken the week before the excavations. Resistivity encountered problems and was not successful. Magnetometry was restricted by a series of overhead power cables to an area of 60 x 20 metres traversing the possible line of the ditch (see Fig 8 for location). The survey area stopped 8m south of the estate wall due to the presence of powerlines – by unfortunate coincidence, this later turned out to be the position of the southern edge of the RTC ditch. No obvious features apart from a modern metal service pipe to Haughend were found (Fig 3). During this survey a recently excavated drainage ditch was seen in the eastern part of the wood running to within 15m of the estate wall. This showed the topsoil was exceptionally deep in this part of the field (over 1.0m) due to colluvial action, and that the natural subsoil was a dense orange gravel of fluvio-glacial origin, in places overlain by hard banded silts. The edges of the drainage ditch were cleaned, but no signs of the Roman defences were seen in the sides. It therefore seemed that the only way of finding the RTC ditch was to dig a series of slit trenches. The first, measuring 6.5 x 1.0m, was located running south from the estate wall, avoiding the mature oak trees. This was later extended to 10 x 1m after the ditch was located. As initially no features were seen, a second trench was located in the western part of the woodland. After the RTC ditch had been located in these two trenches a third was opened at the eastern end of the wood, in order to check the alignment, and to possibly locate the corner of the camp. A fourth trench, also to confirm the line, was opened between Trenches 1 and 3 but encountered a service drain and had to be abandoned. The trenches were deturfed and dug by hand, and later backfilled.

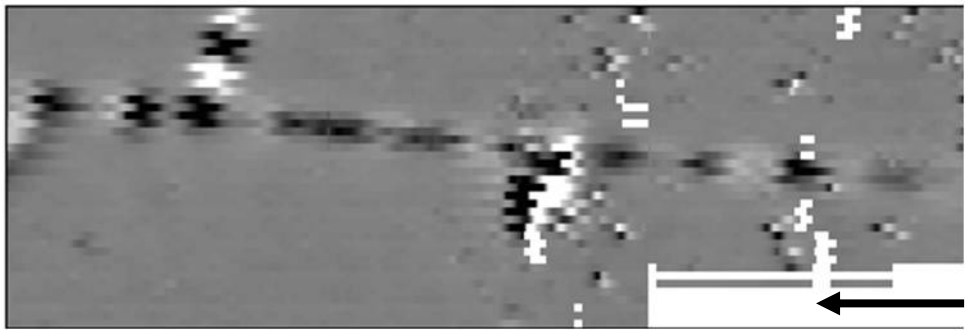

Fig 3 Geophysical survey results, showing water service pipe.

The excavations

Trench 1

Trench 1 was located opposite the barn of Haughend, 3.5 m west of an electricity pole (Site origin at NO 0279 1455). The only modern feature seen was the construction trench for the estate wall [004]. In the northern part of the trench, a silty layer of subsoil (005) survived undisturbed by rooting or plough erosion. This had a convex form, about 3m wide and a maximum height of 0.2m. It was interpreted as the ghost of the RTC bank, where subsoil had been protected by this bank and by a layer of stones (003) which thinned out southwards. The stony layer was cut by the construction trench of the wall.

About 6m south of the estate wall the northern edge of a ditch was located. As this seemed to be the RTC ditch, the trench was extended south for another 4m, and both sides of the ditch were found. The ditch [012], proved to be 2.5m wide, with straight sides and a shallow V-shape, with a maximum depth of 1.6m below the natural. The base was flat-bottomed with a wide 'ankle-breaker'. If 005 did indeed reflect the position of the bank, there was a berm of about 1.5-2.0m between it and the ditch.

The infill of the ditch showed a sequence of activities (Figs 4, 5). The initial fill of the 'ankle-breaker' was a layer of large voided stones derived from the natural gravels (021), with a thin skim of small gravel at the base. These stones were patchily distributed, and had clearly been tossed into the ditch before any weathering had taken place. The ditch had then silted up with a grey-brown silt (011/015) to a depth of 0.7m. This layer survived on both sides of the ditch, but was cut [014] in the centre by another stony layer (022) with smaller stones and more gravel, which also had the form of an 'ankle-breaker'. This in turn was overlain by a layer of loose gravel which thinned towards the southern side of the ditch, and was clearly derived from erosion of a bank to the north. Above this layer the fill was indistinguishable from the forest soil (002).

Fig 4 The west side of the ditch in Trench 1, showing the asymmetrical gravel layer 010, and the stone filled basal slot 021.

This sequence was interpreted as an initial cut, with the stones being immediately added for drainage purposes, followed by a substantial period of silting up. The lack of gravel in this silting, suggests the adjacent bank was of turf construction. The ditch was later re-cut, again in typical Roman military form, with stones in the 'ankle-breaker' slot. This time the adjacent bank was of gravel subsoil, which quickly filled the ditch, leaving only a gentle depression.

The only finds, apart from modern pottery and glass in the area near the road, were a sherd of post-medieval Throsk ware in 003, and charcoal pieces in 022. Samples were taken from the ditch silting contexts.

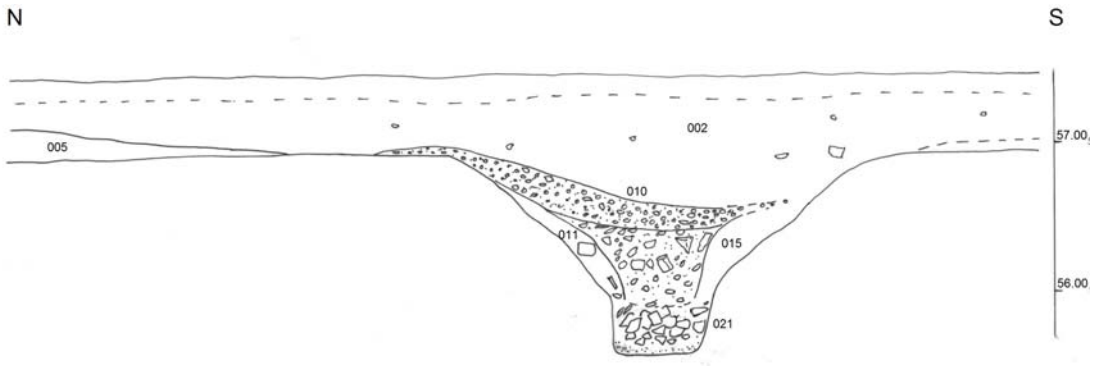

Fig 5 Section of east face of Trench 1, showing recut ditch (height in m OD)

Trench 2

Trench 2 was located near the western end of the woodland, in the area where possible lines of the RTC defences converged (NO 0260 1452). Initially, due to the depth of topsoil which had to be removed, three 1 x 1m test pits were dug to natural gravel, at 1m, 5m and 12m south of the wall. Only the one closest to the wall showed features, just catching the edge of the ditch. This trench

was extended to 3.5m south of the estate wall, and uncovered both sides of the ditch. Any bank associated with the ditch would have lain under the present road.

As in Trench 1, there was a narrow construction trench for the estate wall [004]. The RTC ditch [009] was V-shaped with extremely steep sides, flat-bottomed with an 'ankle-breaker' 0.5m wide. The width of the ditch was 2.1m, and the maximum depth below the natural was 1.6m.

As with Trench 1, there was a sequence of infills (Fig 6). Above a thin skim of gravel (019) and silt (018), was a layer of homogenous grey-brown silt (017) which filled the ditch to depth of 0.7-0.8m. This context was only seen on the north side of the ditch. On the southern side 017 was cut by [020], a vertical slot filled with very loose gravel and small stones (013). The south side of this recut followed the side of the original ditch cut. Filling the upper part of the ditch was a homogenous brown loam (008), indistinguishable from the topsoil.

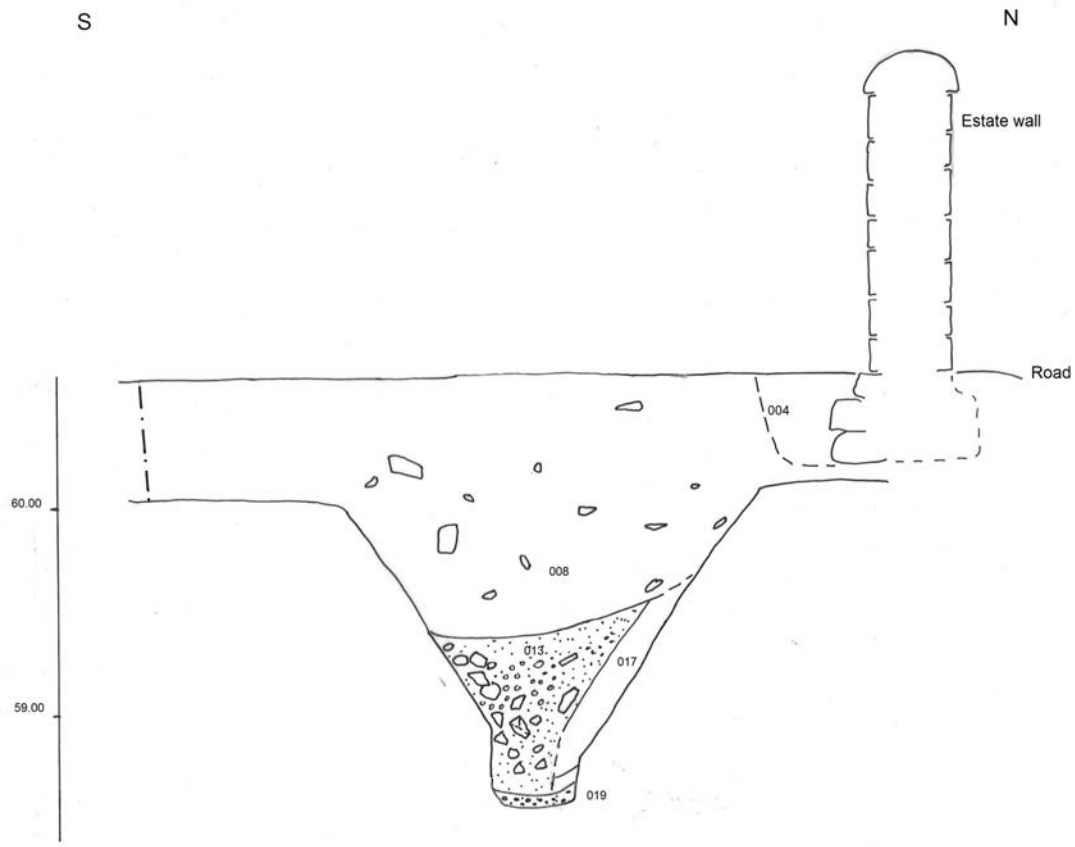

Fig 6 Trench 2: Section of west side of ditch showing re-cut (height in m OD).

This sequence was interpreted as an initial cut which was allowed to infill over a considerable period of time. As with Trench 1, there was no indication of a bank being eroded. This infilled ditch was recut, partly using the old side of the ditch, with a new, narrower slot in the bottom, which was immediately filled with gravel, presumably for drainage. Unlike in Trench 1, there was no sign of subsequent erosion of a gravel bank into the recut.

Trench 3

As the south side of the RTC had a distinct kink in its alignment around the westernmost entrance, there was a possibility that the south-eastern section was also misaligned. Trench was excavated to check whether this was the case. The initial trench measured 4 x 1m and lay 10m south of the

estate wall and 2m west of the eastern boundary of the wood at the lane to Garvock (NO 0283 1455). This was excavated to natural with no sign of the ditch. As in Trench 1 however, there was a 'ghost', a mound in the silt subsoil which might have indicated the former presence of a bank. The trench was extended southwards, and encountered the southern edge of the ditch (the northern edge lay under a baulk). The cut [026] resembled those in the other trenches, but only the top 0.5m of the fill could be excavated. The fill (025) was much finer, cleaner silt, very similar the natural silt in this area of the woodland. The top part was sealed by a thin layer of stones (024). The ditch's maximum width would have been 2.0m.

Trench 4

This trench lay just to the west of the gateway into the eastern field (NO xxx), and was opened to confirm the line of the ditch, but had to be abandoned due to an agricultural service pipe. However, it seemed that the northern edge of the ditch lay more than 3.5m south of the wall as natural was encountered there.

Discussion

Ditch alignment (Figs 7, 8)

Trenches 1-3 show that the line of this stretch of the defences was straight (Fig 7), but at an angle to the other sections of the southern side. It seems clear that there was a second entrance in the south side, and that it was utilised by the medieval Perth road which crossed into the interior of the camp at this point. The three sections of the southern side were therefore at angles to each other, with the line kinked at both entrances, and so each must have been laid out separately (Fig 8). This may have been because there is no direct line of sight along the southern side – the eastern entrance was situated at the highest point on the southern side. Whatever the reason, this gives some insight into how large camps such as this were surveyed and constructed. The south-eastern corner of the camp must lie in the field to the east of the woodland. A local resident says the line of the corner was seen in cropmarks there recently.

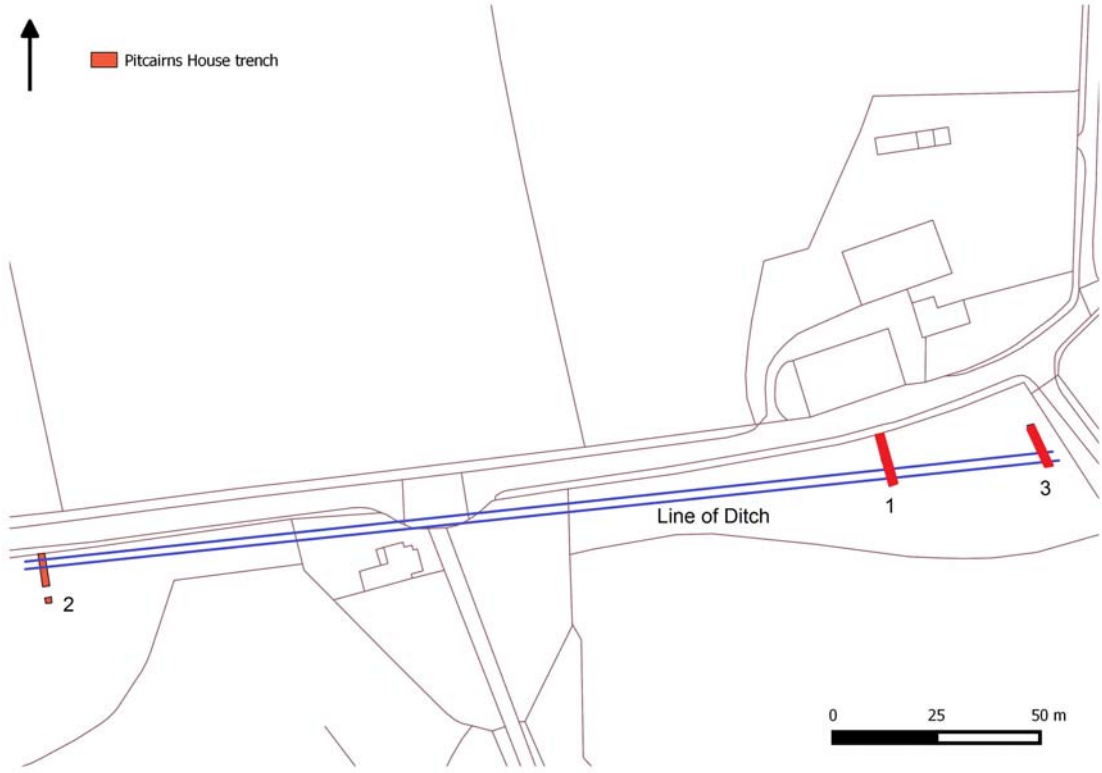

Fig 7 Line of RTC ditch as seen in Trenches 1-3

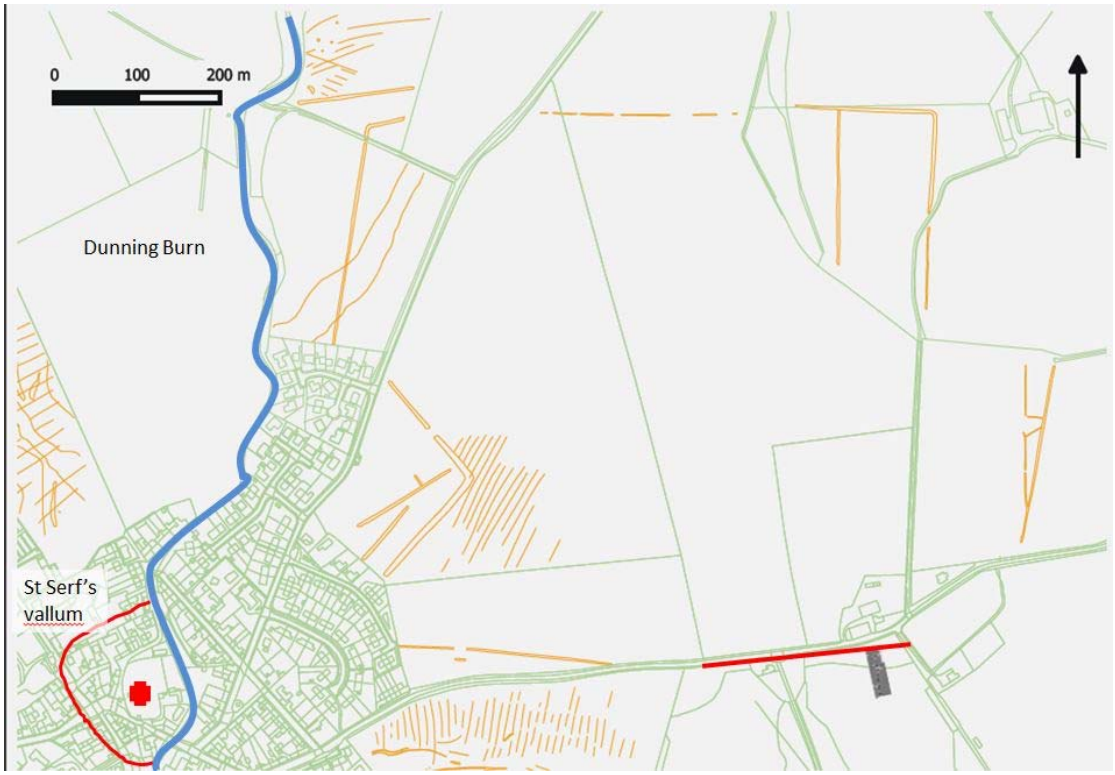

Fig 8 The Roman camp with the newly established line of the southern ditch.

Ditch form and stratigraphy

In both Trenches 1 and 2 the ditch was the same form – V-shaped sides with a flat-bottomed slot at the base. This is a classic Roman military profile, and is enough to date the ditch to the Roman period. In Trench 2 the profile was exceptionally steep, and the basal slot would have provided a means of digging without being constricted by the narrowing V of the sides. It is noticeable that the basal slot here is wider than in the Kincladie Wood section. The boulders deposited in the basal slot in Trench 1 did not represent deliberate destruction and infill of the ditch, seemed to be a local response to drainage (this section of the farmland is subject to flooding). Taking into account the probable depth of the original topsoil, the ditch would have been around 2m deep when constructed.

The stratigraphy shows that the first phase of the ditch was allowed to silt up naturally, rather than being deliberately backfilled. The length of time this indicates is unknown, but must have been considerably more than a season's campaigning. The second phase of ditch was of similar form to the first, with basal slot, so presumably also relates to Roman military occupation. In Trench 2 the re-cut went to the same depth as the original ditch, though it was narrower, but in Trench 1 it was shallower, and the upcast must have been closer to the northern edge to account for the asymmetric infill by (010). Although there are slight differences between the two trenches, they both show the same sequence of re-occupation.

The bank

Although no traces of the bank remains, the 'ghost' of the bank seen in Trenches 1 and 3 suggest that it was of similar size to that seen in Kincladie Wood, about 3m wide, with a 2m berm between it and the ditch. Before the construction of the estate wall in the 19th century, the degraded bank

would have served as a field boundary. Context (003) may be the remains of this, and the boundary of the medieval roadway.

Implications

It is now clear that three sides of the fort show the same sequence of re-occupation after a period of natural silting. In particular, the Pitcairns House excavations show that similar activity occurred along the entire south-eastern line of the defences. This is important as this section would have straddled the area of the putative reduced fort shown by Jones (2011, illus 118). The implication is that the entire area of the camp was re-occupied at some point, whether or not the additional cropmark in the north-eastern sector represents a separate Roman phase of activity. However, the present excavations provide no additional dating evidence for these phases of activity. If the berm tentatively identified in Trench 1 did exist, it mirrors the situation in Kincladie Wood, and suggests that the camp was more substantial than a normal temporary marching camp. These conclusions will be discussed further in the Kincladie Woods report.

Conclusions

The 2014 excavations were successful in their aims – the line of the south-eastern sector of the camp was established, and it was shown to have had two phases of military activity. These results fit into the wider picture emerging that the camp is more substantial than normal temporary marching camps. Although the initial finding of the line of the ditch was hampered by lack of good geophysical results, and the depth of topsoil which had to be removed by hand, the effort proved to be worthwhile.

Acknowledgements

The Project is especially grateful to the landowner, Lord Rollo, for permission to excavate, and to Robert MacPhail for help on the ground. Most of the excavation was carried out by volunteers from ACFA: Ian Marshall, Margaret Gardiner, Libby King, Alison Blackwood, and Gerry Hearns. Thanks also to Pauric Logue and Patricia Neuhoff for able supervisory assistance and Cathy MacIver for the geophysical survey and GIS work.

Kincladie Wood: Excavations at Dunning Roman Temporary Camp, SERF site KW14

Data Structure Report

Joss Alexander Durnan

1. Introduction

1.1. Aims

The purpose of the excavation at Kincladie Wood was to establish the character of the construction of the bank and ditch believed to define the northern side of a Roman camp, as little is known about the methods of construction of Roman camps of this size. Specifically, the excavation sought to:

- Locate the ditch terminal at the north entrance, and where it was anticipated there was a greater chance of recovering finds,
- Recover reliable dating evidence pertaining to the construction and/or use of the bank and ditch and so for the camp,
- Obtain a more detailed understanding of the chronology of use of the camp drawing upon previous investigative work; and to
- Explore the extent of preservation of archaeological remains in two different parts of the site (the other being the unscheduled area excavated close to Pitcairns House (see above).

In the area of the excavation the subsoil consists of dense clay which crates locally damp conditions. The camp ditches frequently hold standing water which may explain why this area is wooded rather than under cultivation. The area of excavation falls within in Kincladie Wood which is composed of mixed deciduous woodland, including mature oaks, managed and owned by Dunning Community Trust. A conspicuous feature of the woods around the camp rampart are a series of mature oak planted at a regular intervals. The excavation area lay adjacent to the B934 which passes through one of the north entrances to the camp.

2. Methodology

2.1 Excavation Methodology

The excavation was undertaken between 21st June and 7th July 2014 by SERF team members and students from the University of Glasgow. During the excavation two trenches were dug by hand. The trenches were positioned based on:

- Their potential to meet the aims of the project,
- Their potential for revealing stratigraphic phases of construction and use of the site, and
- Their potential for retrieving radiocarbon samples that may be used to date the construction of features as closely as possible (i.e. the initial construction phase of the camp).

All contexts were recorded in plan and section, as appropriate, by measured drawing, digital photography and written description on *pro forma* sheets. Artefacts were recorded by context and in three dimensions if they were determined to be *in situ*. Bulk soil samples (20L where possible) were taken from contexts deemed to be *in situ* and of archaeological significance. Two smaller kubiena tin samples were removed from the W-facing section of Trench 1 which samples the ground surface prior to the initial construction of the camp.

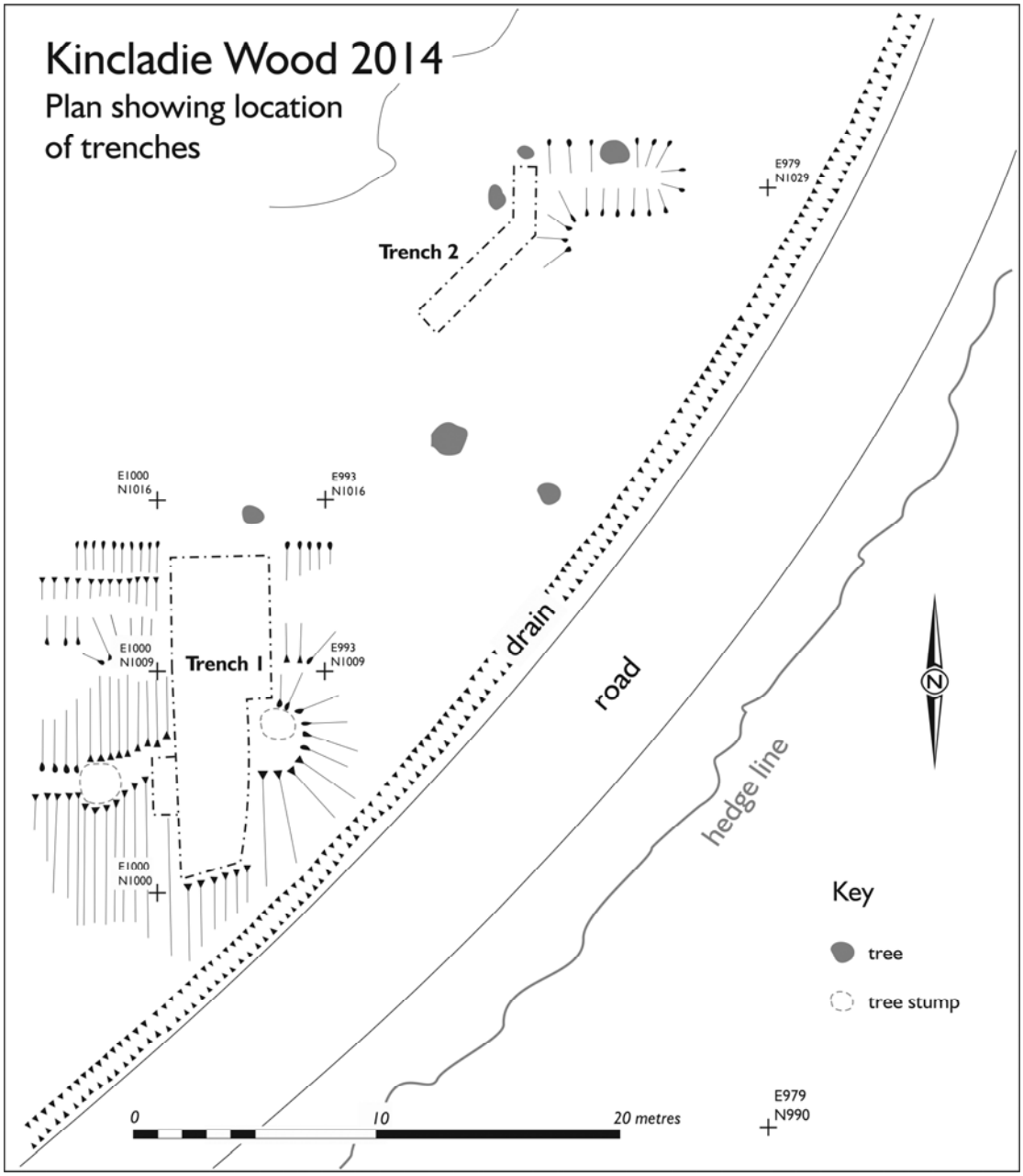

Fig 9 Location of trenches showing tree stumps constricting Trench 1

2.1.1 Trench 1

Trench 1 (measuring 13m by 4m approximately N-S) was positioned over the upstanding bank and ditch, as close to the B934 as safety would allow (Fig 9). The close proximity of the trench to one of the camp's entrances, an area which may have seen more traffic of people,

increased the likelihood of recovering finds, material for radiocarbon dating, and entrance-specific structures. However, the verge and drainage ditch at the side of the modern road, combined with dense vegetation meant that the trench was positioned between one and 7m from this drainage ditch. The east and west extents of the trench as it crossed the bank were restricted by two massive oak tree stumps (Fig 9). A small extension (measuring 1m by 2.4m) was added to the western edge of this trench in the later stages of excavation, but was restricted by the presence of a bees nest below the aforementioned tree stump.

2.1.2 Trench 2

Trench 2 was positioned over a waterlogged channel located 11m NE of Trench 1, within the wood itself. It was believed that this channel, due to its size, form and location, may have been the remains of the ditch of the *titulus* positioned in front of the entrance through which the B934 now runs. The trench consisted of a 1m wide slot over the channel, with a 4m long extension running SW to investigate any remains of Roman road material on the path out of the entrance.

3. Results

3.1 Trench 1

3.1.1 The ditch and camp exterior

The first phase of activity in Trench 1 was defined by ditch [043] which was cut into boulder clay, the natural subsoil (031). This ditch was V-shaped in profile and measured 1.75m deep by 3.1m wide. At its base was a linear slot 0.3m deep and 0.15m wide, interpreted as the Roman 'ankle-breaker' (Fig 10, 11). This narrow trough, found at the base of Roman ditches, is believed to have made them more difficult to traverse without trapping a foot. This linear slot was filled with deposit (041), a soft slightly silty sand. Deposit (040) filled the ditch itself to a depth of 0.5m. This context, a firm grey-pink slightly silty clay, bore a strong resemblance to the natural subsoil below, which made finding the true extent of cut [043] challenging. At the top break of slope on the north edge of [043], a medium-sized stone (034) (0.3m long by 0.2m wide by 0.25m high) was set into a hollow, with its long side running parallel to the length of the ditch. Packing this stone firmly into place was friable dark grey-brown slightly sandy silt (036).

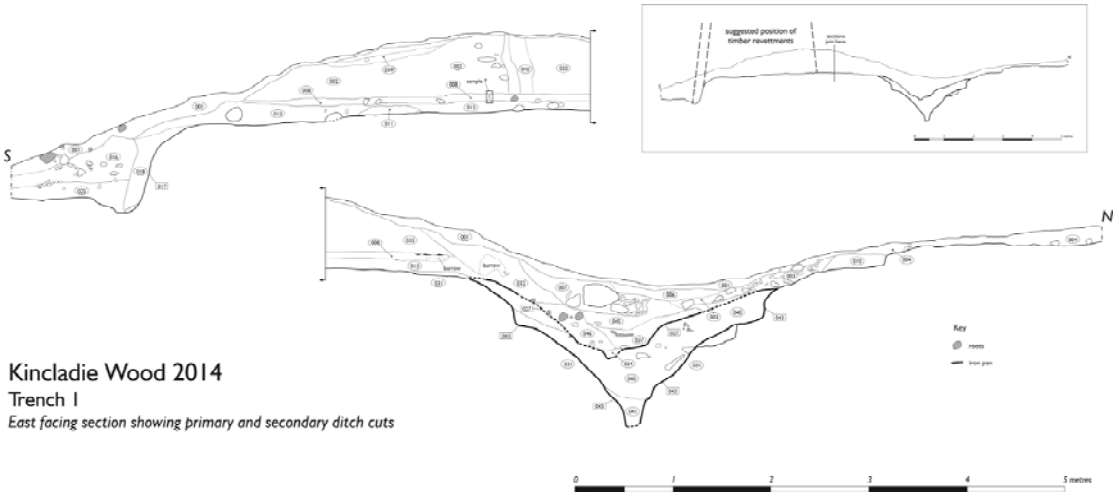

Fig 10 Section of ditch and rampart, showing possible reconstruction of bank

Cut into the upper levels of primary ditch in-fill (040) was a secondary cut, [027]. This secondary ditch was much smaller than the earlier one, measuring approximately 2m wide by 0.75m deep. This ditch also had a smaller "ankle-breaker" at its base, measuring 0.1m deep by 0.1m wide which was filled with a firm grey clay, deposit (024). The upper fills of the secondary ditch [027] consisted of a series of deposits: friable slightly sandy silt (046), soft silty clay (037), friable sandy clay (032) and soft slightly silty clay (045). These deposits were heavily disturbed by large (up to 100mm) tree roots which ran parallel to the line of the ditch where they were attracted to the moisture retained in the ditch.

Very roughly cut into the upper ditch fill (045) was a linear feature measuring 1.5m by 4m and filled by a deposit of medium to large (100-250mm) sub-angular stones (007). This feature was interpreted as a crude 'soakaway' or drain to take away water runoff from the road. Adjacent to (007) in the north of the trench was context (003), a rubble of mixed sub-angular and rounded stones, which appears to have been a deliberately laid coarse paving of irregular stones and cobbles. Overlying contexts (007) and (003) was deposit (006), a friable brown-grey slightly silty clay that represents the final fill of the ditch prior to the current topsoil.

Fig 11 The ditch showing primary ankle-breaker, secondary infill and late cobbling/drain

3.1.2 The bank

The ground surface immediately prior to the construction of the rampart was visible in section as context (013). This firm, but somewhat friable light brown-red slightly clayey sand bore a strong resemblance to the much firmer subsoil (031) beneath it. Initially (031) was excavated in a 1.5m wide sondage to a depth of c. 2m as it was interpreted as possible redeposited natural used in constructing the core of the bank. This later proved not to be the case as the soil quickly became almost too solid to excavate and remained as an entirely homogenous and sterile boulder clay full of churned up bedrock.

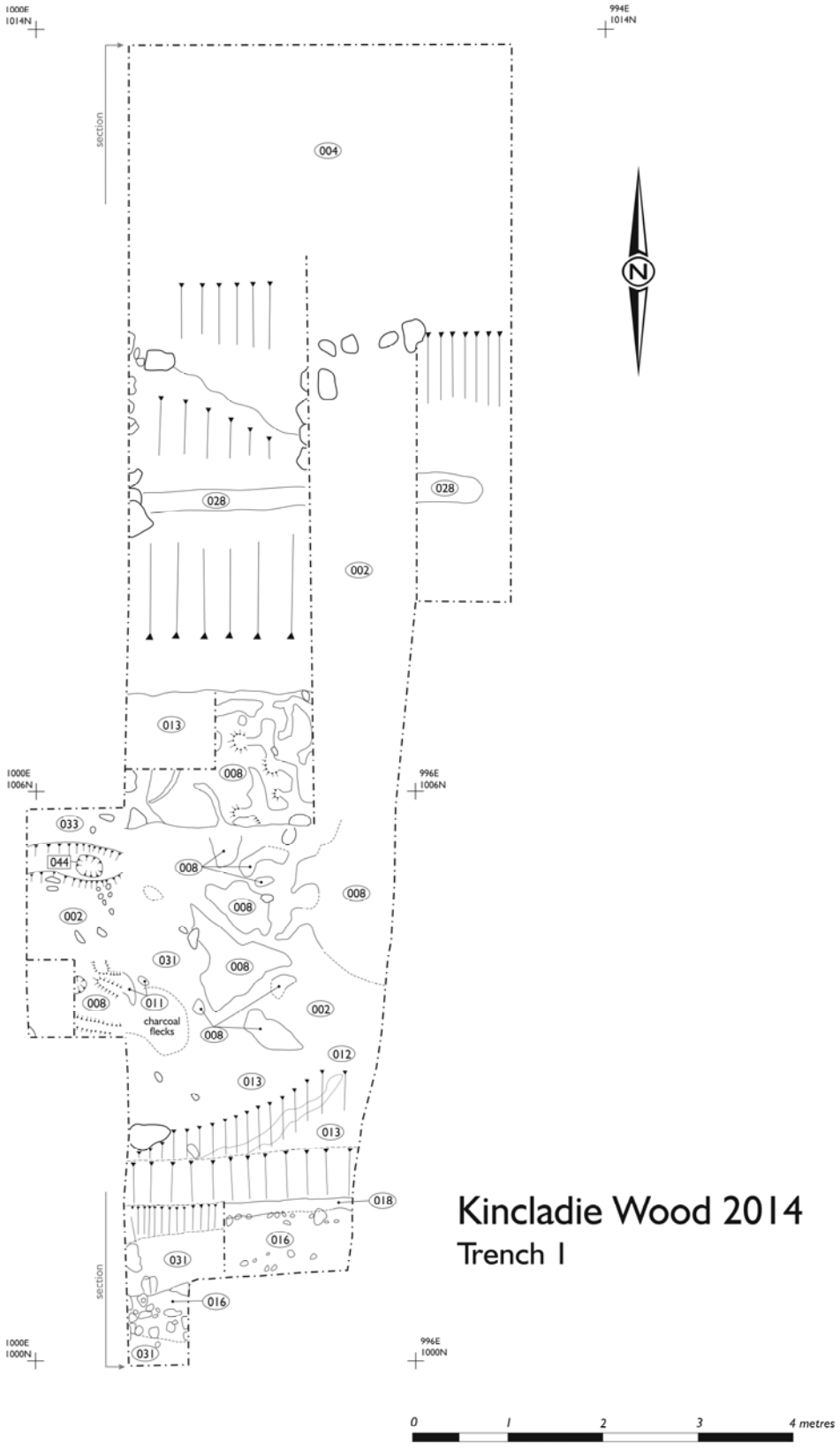

Fig 12 Plan of Trench 1

Set into the old ground surface (013) was deposit (011), a friable dark grey-black slightly clayey silt with frequent small to medium charcoal inclusions. This patch of burnt material, approximately 0.7m at its widest, may represent a basic hearth or camp fire used shortly before construction of the overlying section of rampart began. The extension of the trench to the west revealed a medium-sized flagstone (c. 250mm diameter) resting flat and up against this burnt material. Sealing this and the old ground surface (013) was deposit (008), a narrow (50-100mm) band of soft light orange-grey sandy clay. Deposit (008) was interpreted as the initial rampart foundation consisting of cut turves (Fig 13). Considerable bioturbation in the form of small animal burrows was evident throughout context (008). In plan, these broke up the context in a linear fashion, generally appearing at right angles to each other . These burrows, assumed to be along the easiest path of movement, were therefore interpreted as representing the gaps between the turves.

Fig 13 The turf base layer (008) of the rampart

The turf layer (008) spanned the entire width of the ground between the primary ditch cut [043] and the linear revetment slot on the interior side of the bank [035] and was overlain by a number of features. At the north face of the bank, deposit (033) overlay (008). This context was initially believed to be the same as (002), the firm light brown-red slightly sandy clay that composed the main body of the bank, but through differential drying (033) revealed itself to be a slightly more orange-coloured deposit. South of this, also overlying (008) was deposit (042), a narrow (150-200mm) band of slightly sandy clay inclined slightly to the south and spanning from (008) up to the topsoil (001), a depth of 450mm. South of (042) lay deposit (002). This firm, brown-red slightly sand clay was redeposited subsoil that made up the bulk of the remaining bank and represents the remaining structure of the

camp rampart. The rampart appears to have originally stood c. 3.5 m wide with a berm c. 1.5m broad between the rampart and the ditch.

A possible outer timber revetment (024) was revealed through differential drying on the northern side of the bank (Fig 14). The 1m by 2.4m western extension of Trench 1 revealed a possible post-hole [044] and palisade slot in this area, supporting the hypothesis that (042) is part of a front revetment. Unfortunately this putative post-hole was heavily disturbed by burrows, so making this interpretation tentative

Fig 14 Possible palisade posthole [044] and palisade slot on north side of bank

3.1.3 The rampart revetment

Abutting the southern face of the rampart, in the interior of the camp, was cut feature [035] (Fig 14). This linear slot, 0.85m deep on the north side and 0.55m deep on the south, approximately 0.5m wide at the base, represents a trench into which a timber plank revetment for the rampart was probably placed sloping towards the body of the rampart at an angle of about 15°. This revetment is represented in [035] by fill (018), a friable slightly sandy silt in place of the now-decomposed revetment structure. Above this, two layers of rubble filled the remainder of slot [035] and would have served as packing for the revetment (025 and 016). Fill (025) was likely redeposited subsoil, and (016) was a mix of rounded stones 100-200mm in diameter in a slightly clayey silt matrix. The southern face of cut [035] was difficult to discern; this was likely due to the proximity of the B934's drainage channel which lay approximately 1m from the trench edge. The cutting of this channel will almost certainly have disturbed any archaeological material relating to the Roman camp,

and in this instance may have caused slumping or movement of the subsoil into which [035] was cut, obscuring its southern extent.

Fig 14 The steeply angled timber slot [035] fill (018) on the inner face of the rampart.

The topsoil (001) was a friable orange-brown slightly clayey silt, varying in depth from 50mm to 150mm and consistent throughout the trench.

3.2 Trench 2

Due to considerable waterlogging, excavation of Trench 2 was particularly challenging and progress was slow. The first phase of activity in this trench was the cutting of a V-shaped ditch [029] (Fig 15). Based on this ditch's form and size (1.5m wide by 0.8m deep) it is suggested that this is the ditch of the *titulus* that would have stood immediately to the south. There is no evidence of an 'ankle-breaker' feature at the base of this ditch due to

linear feature [030]. This feature has either cut through the base of [029] at a later phase, or may be part of the original feature's profile. Cut [030] is box-shaped in profile, 0.3m in diameter and at least 0.25m deep at the point where it cuts [029] (approximately 0.75m below the modern topsoil). The lower fills of this feature could not be fully excavated due to the aforementioned waterlogging, which also limited the extent to which the features within this trench could be interpreted.

Within the section made by these two cut features, all of the fills appear to be sympathetic to the cut of [029]. It does not appear as though the fills of [029] were cut through to make feature [030]. Nevertheless, it is suggested that [030] is a re-cut of [029] as a drainage channel. [029] was either re-excavated at this time, or had been maintained as a drainage channel up until the point of this re-cutting. At the base of this feature was (015) a friable dark brown silty sand, overlying which there was a succession of deposits: a soft light orange-brown clay (019), a friable charcoal-rich silt (023), a firm dark brown-orange silt rich in oxidised ferrous metal fragments (022), and a soft dark brown-black silty clay (014). These were all very wet, the conclusion being that this channel still actively drains water away from the nearby B934. Incidentally, Kincladie Wood has a number of other boggy channels somewhat similar to this one; the *titulus* ditch may have been re-used as drainage to maintain the wood.

Fig 15 Trench 2. Ditch fills

The flat area excavated immediately to the south of this ditch, where a road leading into the camp would likely have been, did not reveal any archaeological deposits. Overlying natural subsoil (031) was a friable silty spread (038), interpreted as natural soil accumulation, lying directly below topsoil (001). The topsoil in Trench 2 was of a very

similar character to that in Trench 1 but generally shallower, reaching a maximum depth of 100mm.

4. Discussion

4.1: The first Roman Camp

4.1.1 Pre-camp burnt feature

The first discernible phase of activity at the site is represented by the spread of burnt material (011) sealed by the rampart. This feature appeared to have burned into the old ground surface (013); a degree of interfacing between these two contexts, in the form of charcoal flecks encircling the main bulk of (011), supports this hypothesis but there was no indication of a cut for this feature. Context (011) may represent a basic hearth or a single episode of deliberate burning, possibly immediately prior to the construction of the camp. When this period of activity had ended, the bulk of burnt material was either deliberately covered with redeposited (013) or accidentally covered by trample.

While it should be noted that this phase of activity may have happened after the cutting of the ditch [043] and the revetment trench [035] rather than before, however this seems unlikely. Context (011) is sealed by (008), the turf foundation of the bank, which is in turn a component of the first bank and ditch structure. If the bank and ditch structure was constructed as one single unbroken event it therefore seems more likely that burnt feature (011) was created shortly before construction began, or during the construction.

4.1.2 Construction of the rampart

A layer of cut turves (008) was laid down as the base of the bank on top of the old ground surface (013). The ditch [043] and revetment slot [035] were cut into the natural subsoil (031), the spoil from which appears to have been used to make up the body of the bank (002), resting on top of the turves (008). The V-shaped ditch, measuring 3.1m wide by 1.75m deep, contrasts with that found on the other side of the road by Keppie, which was U-shaped and measured at 3m wide and 0.75m deep.

Two hypotheses are proposed to explain this discrepancy. The first is that Keppie may have simply have excavated the re-cut ditch and believed it to be the original. Indeed, during this SERF excavation, the primary cut was not discovered until the secondary ditch was “over-cut”, revealing further deposits. Even then, the differences between the fills of the primary ditch and its cutting into the natural subsoil were recognisable only through differing compaction – the lower fills were almost identical to the natural subsoil in colour and composition. The second hypothesis is that Keppie did fully excavate the ditch, but that the bank and surrounding natural material has been eroded away through years of ploughing – a possibility which Keppie proposed (Dunwell & Keppie 1995, 53). In comparing the different excavations, the varying character of the ditch’s profile seems to be a distinctive feature of the site. For example, the 1988 and 1992 excavations revealed U-shaped ditches,

whereas the ditch in this excavation is clearly V-shaped in profile. Further still, the ditch in the south of the site is also V-shaped, but considerably deeper and somewhat narrower than that in Kincladie Wood (see above). The varying character of the ditch can probably be explained by different groups of workers digging out different sections of ditch, or different parts of the camp requiring greater levels of protection. Also the clay-rich Kincladie soils may have retained the steep ditch sides better.

The bank may have been constructed of successive layers of turf and redeposited natural material, as represented by context (039), a deposit just below the modern ground surface on the crest of the bank which was only noted in section. It bears a strong resemblance to turf layer (008) but lies on top of the redeposited natural (002), which forms the body of the rampart. However, this cannot be suggested with certainty as the remains of the bank are much disturbed and the distinctive linear burrows seen in (008) were not observed.

Within slot [035] a steeply-angled revetment, probably of timber planks, was put in place to hold up the earthen bank. Once these timbers (018) were positioned, the remainder of the slot was backfilled with compacted clayey silt (016) overlying more friable sandy clay (025). Currently there are no known parallels of this characteristic at other Roman camps in Scotland (R H Jones, pers comm), however its presence would imply a more permanent structure. Certainly it should be considered that the site is not a 'temporary camp' in the conventional sense – that is one constructed for a legion or legions on the march. The camp's wider context bolsters this interpretation: it lies close to the Gask Ridge, a significant Roman frontier, and the Roman sites at Abernethy and Carpow – monuments of a comparably massive size compared to other temporary camps.

A possible outer timber revetment (024) was revealed through differential drying on the northern side of the bank. A possible post-hole [044] in this area, supports the hypothesis that (042) is part of a front revetment. Unfortunately this putative post-hole was heavily disturbed by burrows, so making this interpretation tentative. To the north of (042) turf layer (008) continued for a distance of approximately 1.4m as far as the southern lip of the ditch. Assuming this 1.4m wide stretch was left uncovered while the camp was in use, it was therefore interpreted as a berm between the bank and ditch. This would make the footprint of the rampart a more realistic figure for an installation of this size – 3.5m instead of 4.9m, which would have made it wider than the 60km-long Antonine Wall – a structure which also has an (albeit much broader) berm. A similar berm was seen in the Pitcairns House excvations.

Presumably while the main structure of the camp's enclosing bank and ditch was being built, the *tituli* located in front of each entrance were also constructed. No visible traces of the northern *titulus* bank at this entrance could be identified with confidence (despite Keppie's 1988 assertion that it remained upstanding to an extent within the wood), leaving only the cut features [029] and [030] representing the corresponding ditch.

4.2 Abandonment of the first camp

Possibly during the working life of the camp, or immediately after its abandonment, the "ankle-breaker" slot at the base of the ditch filled with a soft silty sand (041). When the camp fell into disuse, earthen material from the bank, and possibly from the northern edge of the ditch, slumped over the berm (as context (033)) into the ditch [043] causing it to silt up (040). This reflects the results from CFA's 1992 excavation which suggested that degradation of the rampart provided the main source of material filling the ditch (Dunwell & Keppie 1995, 55). The extent to which the ditch was filled by slumped rampart (040) is unknown as this deposit was later cut into by the secondary ditch [027], however it is likely that the ditch was still visible when [027] was cut, as this ditch lies more or less directly above the original one. It is likely that the *titulus* ditch also began to silt up around this time, however the re-cut of [029] by [030] and the considerable water-logging in Trench 2 made this difficult to clarify.

4.3 Second phase of occupation

When the camp was reoccupied a smaller ditch [027] was cut into (040) on approximately the same alignment as the original. This ditch was considerably shallower than [043]: 1.15m compared to 1.75m when measured from the first layer of turves (008). It is unclear how the bank would have appeared during this phase of occupation as it has since been much eroded. However, given that there are no obvious re-cuts relating to the timber revetment on the interior face, this would suggest that the original revetment was either still in place and re-used, or had been covered over with no replacement. The absence of any clear re-cut of the *titulus* suggests that it too was either not used again, or completely dug out to, or beyond, its original extent.

With no diagnostic material recovered during the excavation (with the exception of charcoal from (011), for which a C14 date has still to be obtained) the length of time between each phase of use of the camp is difficult to ascertain, but the degree of slumping of the rampart suggests years rather than days.

4.4 Second phase of camp abandonment and ditch re-use

When the camp again fell into disuse, the secondary ditch [027] began to silt up, initially with bank material (046) and (032) and later with silty clay deposits (037) and (045). An indeterminate time later (032) and (045) were very roughly cut into to create the 'soakaway' feature (007) which roughly follows the course of the ditch, taking water away from the B934 road (Fig 16). This area was likely chosen for the 'soakaway' as it was already acting as a drainage feature, as indicated by the very wet deposits within ditch [027], and the large tree roots within them which ran parallel to the ditch. It is likely that this drainage feature was, based upon the nineteenth and twentieth centuries midden material recovered from adjacent deposits (003) and (007), constructed many centuries after the camp fell out of use. If the 'soakaway' feature relates to the drainage of the B934, then it was likely laid down while the camp's rampart remained an impassable barrier, as the road (which passes through the camp's entrance) would have been originally laid down at this time.

Fig 16 The infilled Roman ditch with late deposits and soakaway

4.5 Kincladie Wood as a public space

The Ordnance Survey First Edition map records Kincladie Wood as "witches burned here in 17th century". During the nineteenth century, the wood was also known as "M'Lady's Wood" in reference to Lady Rollo who had the wood maintained as a public space for locals and visitors to the area (Dunning Community Trust). It was probably at this time that a degree of aesthetic landscaping occurred within the wood, notably the planting of oak trees at regular intervals along the length of the bank, including the two stumps of which determined the location of Trench 1. The *titulus* ditch re-cut [030] may also have related to this phase of activity, acting as a drainage channel for that part of the woodland. The wood later served as a space for travelling folk to live in for periods of time (Dunning Community Trust). This occupation was indicated by the layer of hard standing (003) laid down adjacent to the soakaway'; feature, which was present in the north of Trench 1 and the south of Trench 2. This layer, along with loamy deposit (010) beneath (003) contained a number of discarded late nineteenth- and early twentieth-century items, as did the possible midden fill of the ditch (004). These finds probably represented rubbish deposits relating to the travellers' activities.

4.5 Contemporary appearance of the site

As the twentieth century has progressed, and travellers were discouraged from camping in the woods, the site has taken on the appearance of a grassy bank. Within the last decade, fallen trees and overgrowth have been removed from Kincladie Wood when it was

purchased by Dunning Community Trust in 2004. At some point, as the road leading north from Dunning (now the B934) has been upgraded, drainage channels (approximately 1m wide and 1m deep) have been dug on either side of it. The channel abutting the south-east corner of Trench 1 likely truncated or heavily disturbed the southern edge of the revetment slot (035), as this part of the feature could not be discerned.

In a broader sense, post-improvement farming has had a significant impact upon the appearance of the camp, which is now, excluding the upstanding remains within Kincladie Wood, visible only as a cropmark in regularly ploughed fields. Local roads, such as the B934, follow routes defined by the perimeter bank and ditch of the camp, either by skirting along it or passing through an entrance, as the B934 does. This would suggest that some of the camp remained upstanding to such an extent that it would have been inconvenient to traverse when these roads were initially laid down.

5. Conclusion and observations

The excavation at Kincladie Wood has revealed new information about how Roman structures of this size were constructed. The upstanding remains of the rampart proved to be significant, having given some idea of how it may have been constructed compared to previous excavations which have been devoid of any discernible rampart material. An earth and turf rampart, with a deep ditch and modest berm in between, suggests a style of construction broadly similar to that of the Antonine Wall. The evidence of a substantial inner timber revetment suggests that the 'Roman temporary camp' label is misleading – particularly when other factors such as the monument's size, proximity to other similar sites, and the Gask Ridge – are considered. The interpretation offered here is that this was a semi-permanent structure linked to long-term activities such as constructing the Gask Ridge or establishing the Carpow legionary fortress.

The excavation was unable to locate the terminus of the bank and ditch. It now seems likely that these have been truncated by works relating to the construction of the modern B934. However, it is clear that Trench 1 is located close to the terminus, demonstrated by the gradual narrowing of the rampart from the west section to the east.

Reliable dating evidence was recovered in context (011). Most of this charcoal rich context was sampled, sub-samples from which could be radiocarbon dated. This context, found securely sealed at the base of the rampart, could provide a reliable *terminus post quem* for the primary construction. Two kubiena samples were recovered from the west section of the bank overlapping the turf layer (008) and rampart core material (002) above, which may supply contemporary palaeo-environmental evidence.

Along with the excavations at Pitcairns House, the evidence from Kincladie Wood, when considered against previous excavations of the site, illustrates a Roman structure of considerable complexity. Given its wider context within a landscape of significant Roman activity, the camp at Dunning, of which only a fraction of its perimeter has been investigated, could benefit from further investigation.

How this site or other Roman sites within the SERF study area may relate to the currently understood 'native' activities has not been adequately answered through this excavation. At Castle Craig broch, evidence of interaction between native peoples and Romans has been demonstrable (James 2011;James& Campbell 2012). Investigating the interior of the Dunning Camp through excavation, with an aim to recover artefacts or related dateable material, could potentially reveal more information in this capacity. However, such work would not be possible without prior investigations such as large-scale geophysical survey.

6. Acknowledgements

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Appendices PH14

i) Contexts

Context	Area	Type	Description	Interpretation	Relationships
001	01	Deposit	Turf and Topsoil		
002	01	Deposit	Loose mid-brown loam, very few stones, deepest in S end of trench	ploughsoil/forest soil	under 001
003	01	Deposit	Loose orange-brown sandy loam with many pebbles/stones	Upcast from construction of estate wall, or degraded field bank	
004	01	Cut	Half U-shaped ditch along S side of estate wall	Construction trench of wall, and repointing ditch later	cuts 003
005	01	Deposit	Reddish-brown hard clay loam, occasional charcoal flecks. Forms a hump in the subsoil, dipping off to N and S. Stops 2m from ditch edge. 3m wide.	Subsoil protected from plough erosion by remains of RTC bank	under 003, 002
006	02	Cut	vertical trench on S side of estate wall	Construction trench of wall, and repointing ditch later	
007	02	Deposit	Turf and topsoil		
008	02	Deposit	Loose brown loam with scattered stones	Ploughsoil/forest soil	Fills 009
009	02	Cut	V-shaped ditch, with flat bottom. Steep straight sides. Max width 2.10m, depth below natural 1.60m.	RTC ditch	Filled with 019, 018, 017
010	01	Fill	Very loose gravel, pea to pebble sized. On N side of RTC ditch. Thicker of N side, dies away to S.	Wash from bank after recut.	Under 002, over 022, fills 014
011	01	Fill	medium compact silty loam, brown-grey, few stones. On N side of ditch cut 012	Silting up of 012	under 010, cut by 022, fills 012
012	01	Cut	V-shaped ditch, with flat bottom and broad ankle-breaker. Max width 2.3-2.6m, depth from natural 1.30m.	Primary cut of RTC ditch	Filled with 019, 018, 017
013	02	Deposit	Loose, voided gravel and stones. On S side of bottom of RTC ditch. Much larger stones in patch at W end.	Primary fill of recut-deliberate? For drainage	under 008, fills 020
014	01	Cut	Steep-sided slot with flat bottom - 'ankle-breaker'. In middle of RTC ditch, only visible below 010. Max width 0.80m, depth 0.50m.	Secondary recut of RTC ditch.	Cuts 011/015, over 021, fill 022
015	01	Fill	Compact bron-grey silt, few stones. On S side of RTC ditch 012.	Silting up of 012	under 010, cut by 022, fills 012, equals 011.

016	03	Deposit	Light brown soft silt. Heavily rooted in places.	colluvial silt/forest soil	under turf
017	02	Fill	Brown-grey silt, few inclusions. Only on N side of ditch, max width 0.20m	Silting up of RTC ditch 009	fills 009, cut by 020
018	02	Fill	Dirty soft dark brown silt, 0.05m thick	Primary silt of RTC ditch 009	under 017, over 018
019	02	Fill	loose gravel, pea sized. 0.05m thick	Primary fill of RTc ditch	under 018, fills 009
020	02	Cut	V-shaped cut with flat base - 'ankle -breaker'. S side same as S side of 009, N side cuts 017, but not visible in 008	Secondary recut of RTC ditch.	Cuts 017, fill 013
021	01	Fill	Loose voided rubble - rounded boulders, cobbles, pebbles. In base of RTC ditch. Junction with base of 022 difficult to see. Max depth 0.65m	Primary fill - for drainage?	under 022, 011, 015, fills 012
022	01	Fill	Coarse loose gravel/ voided stones. At base of 010. Forms a band in centre of ditch, flanked by 011/015.	First fill of recut - for drainage?	under 010, fills 014
023	03	Deposit	Hard sandy silt with orangey streaks in stratified layers. In middle part of trench. Max width c. 4.0m	Natural fluvio-glacial silts, protected from disturbance by RTC bank. Cf 005	under 016
024	03	Deposit	Small stones in soil. Max depth 0.10m	top fill of ditch?	under 016, over 025
025	03	Fill	Hard silt, light brown. Not fully excavated - only t0 0.5m below natural.	silting up pf RTC ditch	fills 026, under 024
026	03	Cut	Straight-sided ditch cut. Only exposed on S side. Not fully excavated . Max width 2.0m	RTC Primary ditch cut.	filled with 024, 025

ii) Small Finds

SF No.	Context	material	type	No. pieces	description/comments	Date
001	022	charcoal			large pieces of roundwood	03/07/2014
002	003	pottery	Throsk ware	1	bodysherd	28/06/2014

iii) Drawings

Drawing No.	Subject	Area	Description	Type	Scale	Drawn by	Date
001	005	1	Pre-ex plan of ditch and bank	Plan	1:20	ENC	02/07/2014
002	009	2	Pre-ex plan of ditch and bank	Plan	1:20	ENC	02/07/2014
003	012	1	Section, East side of trench	Section	1:20	ENC	04/07/2014
004	012	1	Plan of South end trench with ditch	Plan	1:20	ENC	06/07/2014

005	012	1	Section West side of trench	Section	1:10	ENC	06/07/2014
006	009	2	Section East side of trench	Section	1:10	ENC	07/07/2014
007	009	2	Section West side of trench	Section	1:20	ENC	07/07/2014
008	026	3	Plan of Ditch	Plan	1:20	ENC	09/07/2014
009	026	3	Section of trench, W side.	Section	!:20	ENC	10/07/2014

iv) Photos

Photo	Area	Context	Description	Taken from	Initials	Date
PH14_001	1, 3, 4		Site setting	SW	ENC	
PH14_002	2		Site setting	SE	ENC	
PH14_003	1		Trench setting	SE	ENC	28/06/2014
PH14_004	1	004	Topsoil removed	N	ENC	28/06/2014
PH14_005	1	004	Construction trench estate wall	E	ENC	28/06/2014
PH14_006	1	003	Stoney layer	S	ENC	28/06/2014
PH14_007	1	005	Bank remains	NE	ENC	01/07/2014
PH14_008	1	005	Bank remains	E	ENC	01/07/2014
PH14_009	1	012	Ditch appears	SE	ENC	02/07/2014
PH14_010	1	014	Recut in ditch	W	ENC	03/07/2014
PH14_011	1	014	Recut in ditch	NW	ENC	03/07/2014
PH14_012	1	014	Recut in ditch	NE	ENC	03/07/2014
PH14_013	1	021	Stones in base of ditch	E	ENC	07/07/2014
PH14_014	1	010, 021	Stones in base of ditch	E	ENC	07/07/2014
PH14_015	1	010, 021	Stones in base of ditch	W	ENC	07/07/2014
PH14_016	2	Trial pits		S	ENC	03/07/2014
PH14_017	2	009, 008	Ditch under excavation by ACFA volunteers	S	ENC	03/07/2014
PH14_018	2	009	after removal of 008	W	ENC	04/07/2014
PH14_019	2	009	near bottom of ditch (with Margaret)	S	ENC	05/07/2014
PH14_020	3	setting		S	ENC	07/07/2014
PH14_021	3	023	Ghost of bank	E	ENC	07/07/2014
PH14_022	3	026, 024	South Edge of Ditch	S	ENC	09/07/2014
PH14_023	1	012	Post-ex of Ditch	above	ENC	06/07/2014
PH14_024	1	012	Post-ex of ditch	W	ENC	06/07/2014
PH14_025	2	009	Post-ex of ditch	NW	ENC	06/07/2014
PH14_026	2	017	Post-ex close-up of Primary fill and recut	W	ENC	06/07/2014
PH14_027	1		Backfilling		ENC	10/07/2014

Appendices KW14

i) Contexts

Context	Area	Type	Description	Interpretation
001	1	Deposit	Friable orange-brown slightly clayey silt	Top soil
002	1	Deposit	Firm mottled brown-red slightly sandy clay	Remains of main structure of bank
003	1	Deposit	Firm dark brown-black slightly sandy silt	Post-Roman rubble base of surface abutting ditch
004	1	Deposit	Friable mid orange-brown sandy silt	Possible ditch fill/midden layer
005	1	Deposit	Firm light brown-mid orange clayey silt	Probable fill of ditch, possibly same as (004)
006	1	Deposit	Crumbly dark brown-grey slightly silty clay	Upper-most fill of ditch [027]
007	1	Deposit	Soft mid grey-brown very clayey silt	Possible slump into ditch from (003)
008	1	Deposit	Soft light orange-grey mottled dark grey sandy clay	Foundation layer of bank - clay/decomposed turves
009	1	Fill	Firm dark grey-brown slightly silty clay	Probable modern/early modern backfill - likely deposited soon after (007)
010	1	Deposit	Crumbly dark grey-brown slightly silty loam	Loamy layer beneath (003)
011	1	Deposit	Crumbly dark grey-black slightly clayey silt in a mid grey-brown clay matrix	Possible hearth, possibly contemporaneous with construction of bank
012	1	Deposit	Firm mid brown-grey mottled orange sandy clay	Probable slumped remains of (008)
013	1	Deposit	Firm but crumbly light brown-red slightly clayey sand	Ground surface immediately prior to construction of bank
014	2	Deposit	Soft dark brown-black slightly silty clay	Lower fill of possible field drain ditch
015	2	Fill	Friable dark black-brown silty sand	Fill of possible "ankle-breaker" at base of titulum
016	1	Deposit	Firm mid red-brown slightly clayey silt	Probable packing for possible revetment (018)
017	1	Cut	Rectilinear, straight steep sides, aligned E-W	Backfilled slot, possibly for revetment of timbers
018	1	Fill	Friable mid 0range-brown mottled mid brown-grey slightly sandy silt	Fill in place of now-decomposed timber revetment
019	2		Soft light orange-brown clay	Clayey deposit in baseof titulum ditch
020	1	Fill	Firm light grey-red clay	Upper fill of ditch [027]
021	2	Deposit	Firm light yellow-grey slightly silty clay	Spread of dumped material
022	2	Fill	Firm dark brown-orange clayey silt	Layer of waste oxidised metal
023	2	Fill	Friable dark brown-black clayey silt	Silty charcoal-rich fill of titulum ditch
024	1	Fill	Firm grey clay	Fill of "ankle-breaker" at base of [027]

025	1	Deposit	Friable mid red-brown sandy clay	Possible redeposited subsoil beneath (016) at base of [017]
026	1	Fill	Firm light grey clay	Primary fill of ditch [043]
027	1	Cut	Rectilinear	Re-cut of Roman ditch. Cut into sequence of fills in [043]
028	1	Fill	Friable light red-brown silty sand	Primary fill of ditch [027]
029	2	Cut	Rectilinear v-shaped cut	Cut of probable titulum ditch
030	2	Cut	Rectilinear box-shaped cut	Probable machine-cut trench at base of titulum
031	1	Deposit	Firm, very compact light brown-pink clay with grey and orange mottling	Natural subsoil
032	1	Deposit	Crumbly mid brown-orange sandy clay	Slumped bank material on N slope
033	1	Deposit	Firm mid brown-pink mottled mid brown-orange slightly sandy clay	Possible collapse from main structure of bank (002)
034	1	Structure	Single stone alligned paralell to ditch	Possible measuring/setting-out stone. Set firmly into (031) at top B.O.S. of ditch
035	1	Cut	Rectilinear, U-shaped	Trench dug for revetment and packing
036	1	Fill	Friable dark grey-brown slightly sandy silt	Fill packing <034> in place
037	1	Fill	Soft mid grey-brown silty clay	Fill of [027]
038	2	Deposit	Friable mid red-brown silt	Silty spread beneath topsoil
039	1	Deposit	Friable light yellow-brown slightly silty sand	Possible turf layer of bank (002)
040	1	Fill	Firm mid grey-pink slightly silty clay	Fill of primary ditch cut [043]
041	1	Fill	Soft light pink-orange slightly silty sand	Fill of primary ankle-breaker
042	1	Deposit	Firm mid red-brown slightly sandy clay	Possible N-facing revetment
043	1	Cut	Rectilinear, V-shaped	Primary ditch cut
044	1	Cut	Oval, U-shaped	Possible post-hole as part of N-facing bank revetment
045	1	Fill	Soft dark brown-grey slightly silty clay	Silty fill of [027], possible accumulation from later drainage
046	1	Fill	Crumbly mid red-brown slightly sandy silt	Heavily rooted fill of [027], only visible in section
047	1	Fill	Friable dark brown-grey clayey silt	Fill of ditch [027]

ii) Small Finds

SF No.	Context	Material	No. pieces	Description
001	007	Ceramic	5	Red unglazed sherds
002	001	Miscellaneous		19th Century field drain, glass
003	007	Ceramic/Glass	Bulk	fragments
004	003		Bulk	Modern rubbish
005	007	Ceramic	4	Field drain

iii) Drawings

Drawing No.	Subject	Description	Type	Scale	Drawn by
1	002	Measured sketch of deturfed contexted	Plan	1:50	RAP
2	003, 004, 005	Partial plan of rubble 003	Plan	1:20	DP, RW
3	003, 004	Partial plan of rubble 003	Plan	1:20	LT
4	003	Partial plan of rubble 003	Plan	1:20	TNB
5	003, 004, 005	Plan of rubble 003	Plan	1:20	RAP
6	002	Upper surface of crest of bank	Plan	1:20	CML
7	008	Mid-ex	Plan	1:20	JD
8	007, 009	Plan of rubble spread 007	Plan	1:20	TNB
9	007	Rubble in ditch	Plan	1:20	EC
10	017	Slot behind rampart	Plan	1:20	EC
11	Full site	Site plan (northern half)	Plan	1:100	LT, RW
12	Full site	Site plan (southern half)	Plan	1:100	CML, RW
13	014	W-facing section of possible titulus ditch	Section	1:10	WG, JL, DP
14	Full site	Possible extent of rubble 003 outwith trench	Plan	1:100	RW
15	020	Sondage through E of Trench 1	Plan	1:20	WG
16	016	W-facing section of possible revetment of rampart	Section	1:10	CML
17	002	Mid-ex, northern half of Trench 1	Plan	1:20	DP
18	031	Post-ex 031	Plan	1:20	RAP
19	???	Stones in bottom of ditch	Plan	1:20	RAP
20	002	Plan of Trench 1	Plan	1:50	RAP
21	038	W-facing section of SW part of Trench 2	Section	1:20	TNB, DP
22	002,008,017	E-facing section of inner slope of bank and cut 017	Section	1:10	TNB
23	002,008	E-facing section of crest of bank	Section	1:10	RAP
24	Trench 2	Plan of Trench 2	Plan	1:20	JL, LT
25	004	E-facing section of nothern part of Trench 1	Section	1:10	JA
26	027, 043	E-facing section of sondage in E of Trench 1 through ditch cuts	Section	1:10	KM
27	027, 043	W-facing section of sondage in W of Trench 1 through ditch cuts	Section	1:10	LT
28	027, 043	E-facing section of sondage in W of Trench 1 through ditch cuts	Section	1:10	JD
29	033, 039	W extension of Trench 1	Plan	1:20	RAP
30	039, 008	4x progressive plans of W. extension of Tr. 1	Plan	1:20	RAP

iv) Samples

Sample	Context	Size	Material	Reason for sample
1	008	M	Silty soil	Fill of ditch
2	011	M	Clayey silt w/charcoal	Probable hearth, C14 dating
2.1	011	S	Clayey silt w/charcoal	Probable hearth, C14 dating

3	024	L	Silty clay	Fill of ditch immediately above "ankle-breaker"
4	033	L	Silty clay	Probable Roman bank material
5	033	M	Silty clay	Lower layer of [033], more secure, directly above (008)
6	008	Kubina	Turf	Soil monolith through "turf" layer
7	008	L	Silty soil	
8	041	L	Sandy clay	Sand filling ditch
9	008			
10	011	L	Blackened soil	Probable hearth
11	008	Kubina	Turf	Soil monolith through "turf" layer

v) Photos

Photo	Area	Context	Description	Taken from	Initials	Date
2189	1	001	Working shot - deturfing	NW	JD	22/06/2014
2190	1	001	Working shot - rough cleaning	N	JD	22/06/2014
2191	1	001	Pre-ex - topsoil removed	N	JD	22/06/2014
2192	1	002	Pre-ex - topsoil removed	SSW	JD	22/06/2014
2193	1	002, 003	Pre-ex - topsoil removed	E	JD	22/06/2014
2194	1	002	Pre-ex - topsoil removed	E	JD	22/06/2014
2197	1	002	Spit of 002 removed and cleaned	N	ON	23/06/2014
2198	1	003, 006	Mid-ex shot of ditch fill 006 and rubble 003	SSW	JD	23/06/2014
2199	1	003	Mid-ex shot of ditch fill 006 and rubble 003	SW	JD	23/06/2014
2200	1	006	Working shot 006	NW	RW	24/06/2014
2201	1	008	Working shot 008	N	RW	24/06/2014
2202	1	008	Working shot 008	N	RW	24/06/2014
2203	1	008	Working shot 008	NW	RW	24/06/2014
2204	1	008	Working shot 008	SW	RW	24/06/2014
2205	1	006	Post-ex shot 008	S	LT	24/06/2014
2206	1	008	Pre-ex shot of context 008	NE	JA	24/06/2014
2207	1	002, 008	Working shot - S face of bank 002, 008	S	JD	25/06/2014
2209	1	002	S-facing section section of 002, 008	S	JD	25/06/2014
2210	1	002	S-facing section section of 002, 008	S	JD	25/06/2014
2211	1	002	Mid-ex 008	S	TB	25/06/2014
2212	1	008	Mid-ex	E	TB	25/06/2014
2213	1	008	Mid-ex	E	TB	25/06/2014
2214	1	002	Pre-ex	E	EC	25/06/2014
2215	1	002	Pre-ex	W	EC	25/06/2014
2217	1	010	Post-ex shot 003	W	KM	26/06/2014
2218	1	010	Post-ex shot 003	W	KM	26/06/2014
2219	1	011	Plan shot of burnt feature 011	E	JL	26/06/2014

2220	1	011	Plan shot of burnt feature 011	E	JL	26/06/2014
2221	1	Trench 1	General view of trench after cleaning	N	JD	26/06/2014
2222	1	Trench 1	General view of trench after cleaning	N	JD	26/06/2014
2223	1	002	Post-ex (008)	S	EC	26/06/2014
2224	1	002	Post-ex (008)	N	EC	26/06/2014
2225	1	010	General shot Tr. 1	S	JD	26/06/2014
2226	1	007	General shot Tr. 1	SE	JD	26/06/2014
2227	1	002	General shot Tr. 1	E	JD	26/06/2014
2229	1		Photo of a wheelbarrow	SE	JD	26/06/2014
2230	1	013	Pre-ex (013)	S	JL	26/06/2014
2231	1	013	Pre-ex (013)	S	JL	29/06/2014
2232	2	015	Mid-ex (015)	N	LT	29/06/2014
2233	1	007	Mid-ex (007)	N	MG	29/06/2014
2235	1	016	Mid-ex (016)	W	PO	29/06/2014
2236	1	016	W-facing section (016)	W	PO	29/06/2014
2237	1	016	Plan (016), (018)	W	JD	29/06/2014
2238	1	018	Plan (016), [017], (018)	W	CML	30/06/2014
2239	1		Working shot	N	JD	30/06/2014
2240	1		Working shot	N	JD	30/06/2014
2241	1		Working shot	NW	JD	30/06/2014
2242	1		Working shot	NW	JD	30/06/2014
2243	1	020	Pre-ex	S	WG	30/06/2014
2244	1	020	Pre-ex	S	WG	30/06/2014
2245	2	021	Plan	SE	DP	30/06/2014
2246	2	014	Section	W	JL	30/06/2014
2247	2	014	Section	W	JL	30/06/2014
2248	1	007	Mid-ex	N	JD	30/06/2014
2249	1	007	Mid-ex	E	JD	30/06/2014
2250	1	007	Mid-ex	ENE	JD	30/06/2014
2251	1	008	Pre-ex of (008) in N face of bank	W	JD	01/07/2014
2252	1	007	Mid-ex, lower layer of (007)	N	JD	01/07/2014
2253	1	013	Pre-ex, shown in relation to (013)	N	JA	01/07/2014
2254	1	024	Pre-ex, fill of ditch at E of trench	N	WG	01/07/2014
2255	1	024	Pre-ex	E	WG	01/07/2014
2257	1	024	Pre-ex	N	WG	02/07/2014
2258	1	024	Pre-ex	N	WG	02/07/2014
2259	1	024	Pre-ex	E	WG	02/07/2014
2260	1	024	Mid-ex	N	KM	03/07/2014
2261	1	024	Mid-ex	N	KM	03/07/2014
2262	1	026	Mid-ex	N	WG	03/07/2014
2263	1	026	Working shot - excavating probable "ankle-breaker"	NE	JD	03/07/2014

2264	1	026	Working shot - excavating probable "ankle-breaker"	NE	JD	03/07/2014
2266	1	031	Section	E	JD	05/07/2014
2267	1	031	Section	E	JD	05/07/2014
2268	1	031	Section	E	JD	05/07/2014
2269	1	031	Section	E	JD	05/07/2014
2270	1	034	Plan	W	JD	05/07/2014
2272	1	034	Plan	S	JD	05/07/2014
2273	1	024	Plan	S	TB	05/07/2014
2274	1	024	Plan	S	TB	05/07/2014
2275	1	024	Plan	S	TB	05/07/2014
2276	1	024	Plan	S	TB	05/07/2014
2277	1	008	Plan	E	DP	05/07/2014
2278	1	016	Plan	S	JD	05/07/2014
2279	2	004	Post-ex	NW	TB	
2280	2	004	Post-ex	NW	STD	
2281	1	028	Post-ex	S	TB	
2282	1	028	Post-ex	W	TB	
2283	2	019	Mid-ex	W	ON	
2284	2	019	Mid-ex	W	RG	
2285	2	019	Mid-ex	W	RG	
2286	1	008	Section	E	JD	
2287	1	008	Section	E	JD	
2288	1	008	Plan	E	JD	
2289	1	034	Post-ex	E	JD	
2290	1	034	Post-ex	E	JD	
2291	1					
2292	1					
2293	1	008	Kubina tin, Sample 6	W	JD	
2295	1	039	Pre-ex	S	CML	
2296	1	033	Section	W	JD	
2297	1	027, 043	Section	W	JD	
2298	1	027, 043	Section	W	JD	
2299	1	027, 043	Section	W	JD	
2300	1	008		E	TB	
2301	1	044		W	JD	
2302	1	011	Extension over hearth	W	TB	
2303	1	011	Extension over hearth	W	TB	
2304	1	011	Extension over hearth showing stne	W	TB	
2305	1	027, 043	E-facing section, W sondage	E	JD	