

SERF 2007: Report on Landscape Survey

Michael Given, 18 January 2008



Contents

Introduction	1
Project aims	1
Methods	2
Knowes Farm survey area: background	3
Prehistoric	6
Blaeberry Hill settlement	6
Cultivation	6
Enclosures and settlements	7
Improvement and field boundaries	9
Conclusions	10
Suggestions for future work	11
Appendix: sites and features in Knowes Farm survey area	12
Bibliography	13

Introduction

The first season of the SERF Landscape Survey took place between 14 and 18 August 2007. The main activity consisted of walkover survey on Knowes Farm, 3 km south of Dunning. SERF is very grateful to Ann Myles for her permission to carry out fieldwork on her farm, and to her and David Myles for their help. Thanks also to the successive teams of students for their hard work and enthusiasm, and to Stephen Digney for his help.

This reports first summarises the aims of the SERF Landscape project as a whole, and then discusses the results of the brief walkover season in August 2007.



Figure 1. Walkover survey on the Black Hill of Kippen

Project aims

1. Investigate the relationship between people, their landscape and their environment in the Dunning, Forteviot and Forgandenny parishes, at all periods
2. Investigate communication routes along and across Strathearn and the Ochils, particularly in the Neolithic and Medieval periods
3. Investigate the relationship between the Iron Age forts in the Ochils and in Strathearn
4. Document and study the development of agriculture from pre-improvement to improvement

5. Examine changing settlement patterns, and the relationship between settlements, land use and the environment
6. Investigate the later 'biographies' and changing meanings of prehistoric and medieval monuments.
7. Provide data for the National Monuments Record of Scotland
8. Provide training and experience for University of Glasgow students and others

Methods

1. Investigation, visiting and and documentation of the main known sites and features across the study area
2. Systematic and intensive walkover survey of between 5 and 10 survey areas, which provide a representative topographical, historical and environmental sample of the study area
3. Database and GIS analysis of distribution patterns, intervisibility, environmental change, etc.
4. Full integration with all other components of SERF: documentary history, excavations, fieldwalking, geophysics, standing building survey, etc.

Walkover survey methods, 2007

Each day a team of between 4 and 6 students walked systematically across the southern part of the farm c. 20 m apart, flagging any features of interest, and returning to record them on a form and discuss their interpretation. In this way we sampled an area c. 800 x 1800 m, and recorded 35 sites. The data on the forms was entered into the project database, and the location of the features was digitised on the GIS.



Figure 2. Pont's map, late 16th century (Map 21). To the south of Dunning can be seen Kelty, East Rossy, Pitmuidry (Pitmeadow), Buchanduy's (Balquhandy?), Thanesland. <http://www.nls.uk/pont/>

Knowes Farm survey area: background

The survey area consisted of Knowes farm, Casken Hill, Eldritch Hill and the eastern part of the Black Hill of Kippen. This area is approximately 1.7 km north-south and 1.4 km east-west, and the elevation ranges from 220 to 440 m asl. We concentrated on the southern, lower part of this, with a further transect running northwards over Eldritch Hill. The current land use is a hill sheep farm, with extensive moorland grazing over unimproved grass pasture with gorse and bracken at lower elevations and heather and grass moorland at upper elevations. This area was chosen for the first season of walkover survey because it was likely to have reasonably good survival of archaeological material, and was easily accessible.

Three sites in the survey area were previously known through Canmore (see Appendix 1): the standing stone called the 'Grey Stone' (SF001); a probable farmstead site (SF004); and a complex of enclosures (SF005). We also visited the site of the known Medieval settlement of Blaeberry Hill, 1 km SE of Knowes Farm (SF027). There are extensive Neolithic, Iron Age, Roman, Medieval and Post-Medieval remains in the immediate vicinity of Dunning, at the foot of the Ochils 3 km north of Knowes Farm (Christison 1899-1900: 72-76; Dunning 2005) (*DES* 1998: 75; *DES* 2004: 102-3).

Historical maps consulted so far include maps by Timothy Pont in the late 16th century (Figure 2, Figure 3), General Roy's military map of 1747-54 (Figure 4), James Stobie's map of 1783 (Figure 5), and the first (1862/1866) and second (1901) edition Ordnance Survey maps. In general, there is good continuity of place names. Knowes Farm first appears in 1783. Thanesland disappears between 1783 and the 1860s. Settlement on Pont, Roy and Stobie's maps seems mostly concentrated in the valley bottom and on the lower slopes up to about 200 m asl. Moving southwards over the Ochils, there is nothing marked until the valley of the Water of May.



Figure 3. Pont's map, late 16th century (Map 22). North at top, with the River Earn. It shows Duncrub, Dunvn (Dunning), Garuak (Garvock), Strowie Hill (Struie), and Muccassy (Muckersie). <http://www.nls.uk/pont/>

Roy's map of 1747-55 (Figure 4) is particularly valuable for portraying the cultivation extending north of Pitmeadow, perhaps to about the 200 m contour, but not as far as Thanesland, which probably lies in the southern boundary of our survey area. It also shows the policies round Duncrub House, the residence of the Rollo family, and Pitcairn House.

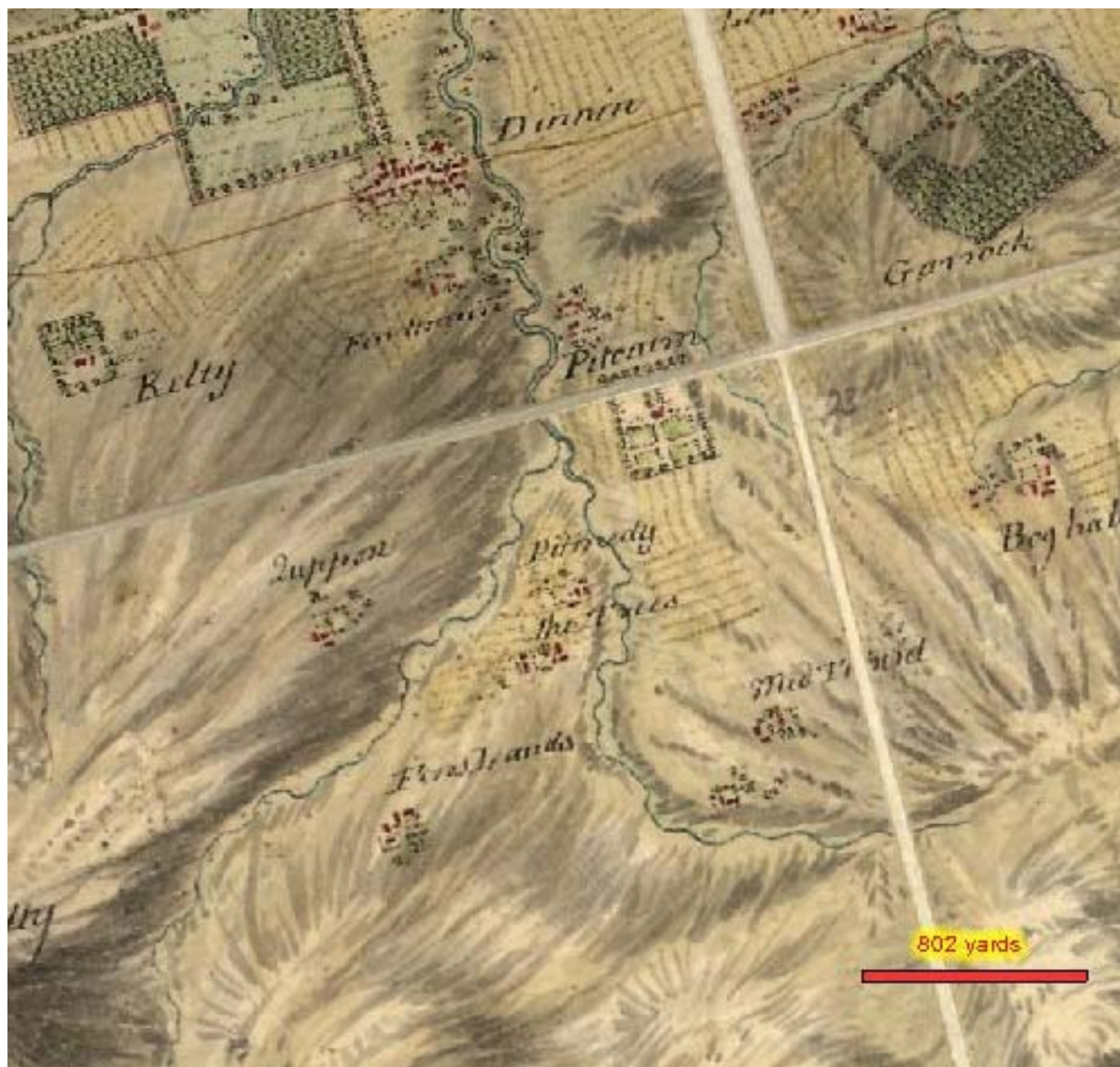


Figure 4. General Roy's map, 1747-1755. At the top is Dinnin (Dunning), with the Duncrub policies to its NW and the main Auchterarder-Perth road running through it. South of it are Kelty, Findony, Pitcairn (with policies), Kippon (Kippen), Pitmedy (Pitmeadow), The Trees, Thenslands (Thanesland), and Mid Third. <http://geo.nls.uk/roy/>

Stobie's map of 1783 has the first appearance of 'Know' (Knowes Farm) and 'Blackberryhill', which is presumably the abandoned settlement now called Blaeberry Hill. Thanesland still appears in the more arable area immediately south of our survey area; nothing is marked in the hill country in the northern part of the survey area. In general, Stobie shows dense settlement in the plains, with village, policies, estate houses, and what are presumably substantial farms, and a series of farms along the foothills of the Ochils and penetrating up the glens.

An account of the burning of Dunning by the Jacobites in 1716, apparently written soon after the event, includes several references to agricultural buildings and facilities within the village itself (Reid 1989: 135-140). These include barns, 'houses, lofts, and corn-yards', and stackyards. This suggests a certain nucleation of agricultural settlement, at least in the valley bottom. The author

also mentions 'the meall that had been exacted from the country about by way of tax, and had been laid up in my Lord Roll's house of Duncrub' (Reid 1989: 136).



Figure 5. James Stobie, *The counties of Perth and Clackmannan*, 1783. Note Know (Knowes Farm) and Blackberryhill (presumably the abandoned settlement now called 'Blaeberry Hill'). <http://www.nls.uk/maps/early/664.html>

The author of the *Old Statistical Account* of 1791-1799 describes himself as 'a Friend to Statistical Inquiries'; his interest in upland enclosures and land use also makes him a friend of landscape archaeologists (see below). For the lower, arable parts of the parish, he notes the substantial agricultural improvements, including crop rotation, higher rents, and extensive liming of ground (Statistical 1791-1799: 436). The main employment in Dunning consisted of weaving; there were also good numbers of wrights and masons (440).

By 1834-1845, when the *New Statistical Account* was written, there was 'no land in undivided common' in the parish of Dunning. Crop rotation was standard, and in the late 1810s there was some very substantial draining of marsh land and what seems to have been raised bog around Duncrub. The author clearly views the landscape though improvement-tinted spectacles:

In place of a dreary swamp, producing only what is noxious, there is now a smiling and luxuriant meadow, enlivening the landscape by its beauty, and yielding a liberal return to enlightened and well-directed enterprise. (Statistical 1834-1845: 721)

SURVEY RESULTS

Prehistoric

The Gray Stone (our site ID: SF001) is a standing stone with a surviving height of 2.13 m, roughly triangular in plan, with a base 1.24 x 0.72 x 1.06 m (NE corner of map in Figure 8). There are extensive views over Strathearn to the south, though the profile of the hillslope means that it is not visible from immediately downhill. The standing stone on the north side of Dunning should be visible, but is obscured by the houses of the village. According to a story perhaps of some antiquity, the Gray Stone is also the gravestone of the Marmaer of Atholl, who died at the Battle of Duncrub on the valley floor below in 965 (Canmore); another version has the Dunning stone as his gravestone and the Grey Stone marking the spot where he died of his wounds (Dunning 2005: 9). This is a particularly striking example of the re-use and re-interpretation of monuments in this landscape. The landowners have recently constructed a sign on the road and a path to facilitate visitors.

A clear hut platform on the slopes of Mount Eldritch, previously unrecorded, is likely to be Iron Age (SF025; Figure 6; near SW corner on map in Figure 8). The platform is flat and circular, 4.3 m in diameter, and has a distinct though shallow ditch surrounding it, especially on the NE (downslope) side.



Figure 6. Hut platform on Eldritch Hill (SF025)

Blaeberry Hill settlement

Blaeberry Hill is the modern name of an abandoned settlement, possibly the one called Blackberryhill on Stobie's map of 1783 (SF027; Figure 5). A note in the 1960s mentions a 'feu charter' of the settlement dated 1565 (*DES* 1967: 40). In an area some 200 m across, left as an enclave within a commercial spruce plantation, are scattered overgrown lumps from collapsed buildings. The clearest complex, on the east, has a range of five roughly square rooms, each about 5 x 5 m, with another structure in more rubble masonry built over the two northerly rooms (SF027.1). In the centre of the clearing is a prominent rocky outcrop.

The most striking feature of the settlement is a substantial perimeter ditch and earth dyke which is still clearly visible on its N, NW and SE sides. The profile shows a low earth or turf dyke on its inner edge, a deep V-shaped ditch, and another low dyke on its outer edge. There is a possible entrance on the northern side. This is strongly reminiscent of the assart dykes creating enclosures for settlement and cultivation within medieval royal or baronial hunting forests, which have a similar irregular course and bank-and-ditch profile (Dixon 2003: 61-63). Another possibility is suggested by the *Old Statistical Account* of 1791-1799, which records upland enclosures with one or two houses and some cultivation (*Statistical* 1791-1799: 435).

Cultivation

Most of the sites and features recorded in the Knowes Farm survey area dated to the period just before and after the period of Improvement in the 18th and early 19th centuries. These provide useful material in addressing our research questions about agricultural improvement and the patterning and development of settlement.

We recorded two areas of well-preserved rig and furrow (see map in Figure 8). The patch in the north-east (SF002) consisted of three clearly visible rigs about 30 m long, with less clear extensions to the north-west and south-east. The width of the rigs, from centre of furrow to centre of furrow, was reasonably consistent: 9.90 m, 9.40 m, and 9.95 m. The width of the furrows ranged from 49 to 60 cm. They did not have sufficient length visible to detect if they were curvilinear, but their width and their curved profile puts them firmly into Halliday's 'broad, high-backed, curvilinear rig' category (Halliday 2003: 70-72). Similar ones in Menstrie Glen on the southern side of the Ochils, 22 km to the south-west, were still in use in the mid-18th century, just before Improvement (Cowley *et al.* 2001: 52).

The other area of rig and furrow, lying 500 m uphill to the south-west, is very different (SF020; Figure 7). They lie on a relatively level terrace between a burn and a turf dyke, at an elevation of 330 m. Some 10 rigs are still visible, at notably irregular intervals: even excluding one interval which may span a disappeared rig, they vary from 2.0 to 4.5 m. At 15 m long, no obvious curves can be detected, though they are by no means straight or regular. They apparently have a flat-topped profile, though this might be an artefact of their preservation. Their small width suggests that they are Halliday's 'narrow curvilinear rig' (Halliday 2003: 74). In Menstrie Glen, this 'narrow, low rig' seems often to be the product of splitting wide rigs by adding another furrow inbetween; these are the main form of cultivation in the period immediately before Improvement in the mid-18th century (Cowley *et al.* 2001: 52-53).

Both these areas of cultivation were presumably used mainly for oats, with some bere barley and legumes (Cowley *et al.* 2001: 21).



Figure 7. Rig and furrow cultivation on Casken Hill, looking north-east. The strips run from right to left, each one marked with a flag (SF020)

Enclosures and settlements

One of the most striking anthropogenic features of the survey area is a large complex of turf-walled enclosures on the summit of Casken Hill (SF005). They underlie and therefore predate the improvement-period boundaries consisting of stone dykes (see below).

The complexity and sheer number of enclosures suggest that they are for managing livestock. The author of the Old Statistical Account describes the high moors as being 'occupied in extensive sheep-walks'; the dry soil and 'excellent pasture-grasses', he says, make up for the cold climate and exposed situation (Statistical 1791-1799: 434-435).

In Menstrie Glen similar complexes of turf enclosures seem to result from the 18th-century practice of 'tathing', where livestock were grazed in specific enclosures which would be cultivated the next year, thus ensuring they were properly manured. Smaller enclosures beyond the head dykes were more likely to be for gathering livestock during operations such as shearing (Cowley et al. 2001: 23). Excavation of similar enclosure walls at Over Newton, near Elvanfoot in Upper Clydesdale, showed that the enclosure was built over and so post-dated rig and furrow cultivation, suggesting a change from primarily arable to primarily pastoral production (Dunwell *et al.* 1995: 73)

The author of the *Old Statistical Account* for Dunning suggests that by the late 18th century there was very little upland cultivation, though in the past it had indeed taken place within enclosures, presumably for tathing:

These high lands remain mostly uninclosed, except by a few dikes of earth or turf, that formerly had, in irregular forms, chiefly circular, been drawn round some small parcels of ground, once in tillage. These small inclosures, if they deserve the name, are now very properly left in pasture, except one or two adjoining to each dwelling-house, and which are cropped mostly with oats and potatoes. The produce in these high situations is extremely scanty, and the harvest very late. (Statistical 1791-1799: 435)

This close association between enclosures and settlement does seem to be the case at the Casken Hill enclosures. Immediately to the east of the complex are two rubble piles from collapsed structures (SF003). The southern one is roughly rectangular and measures 6.5 x 2.3 m, with two hollows perhaps indicating two collapsed rooms (SF003.01). The other one is 3 m to the north, and is roughly 9 x 3 with a possible entrance on the south.

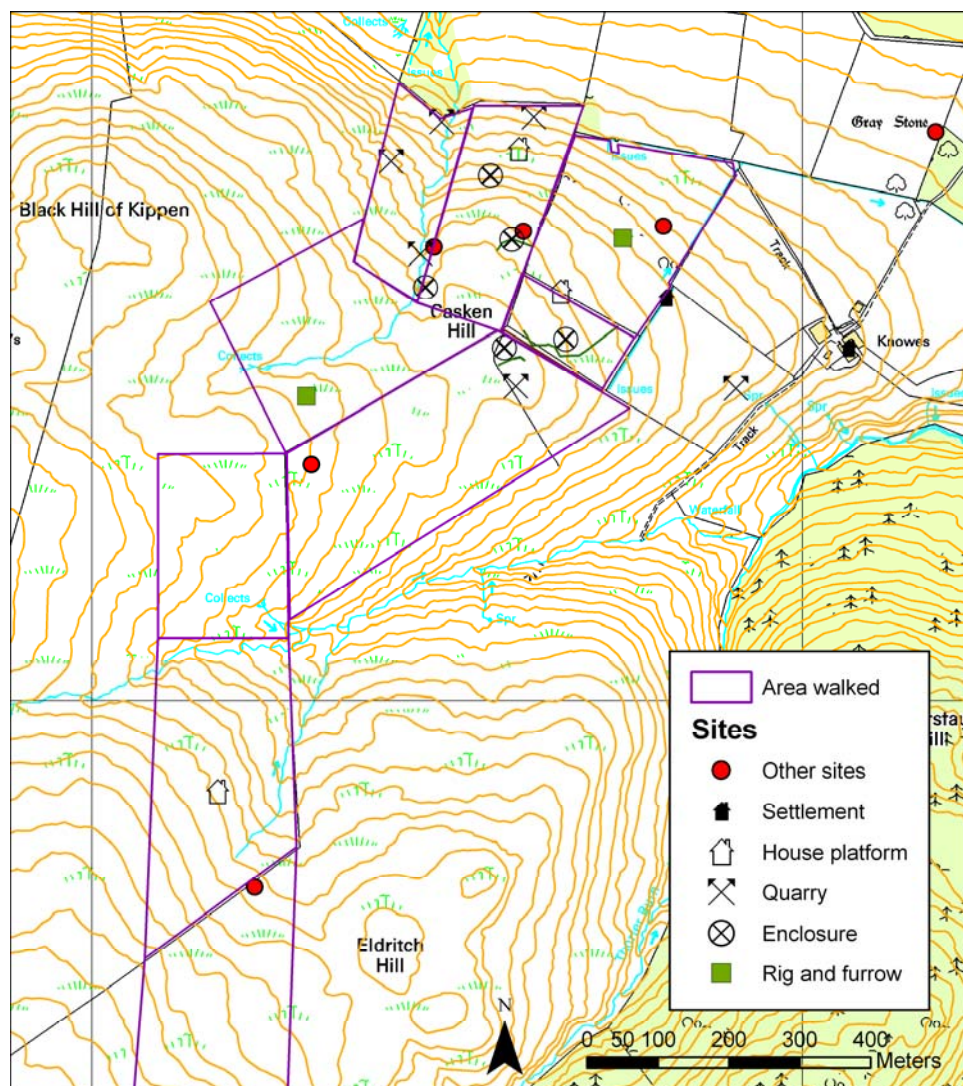


Figure 8. Map of Knowes Farm survey area and sites (map data from Edina digimap).

As well as these two definite structures there are three house platforms in the same area as the complex of enclosures (map in Figure 8; SF014; SF028). The second of these is placed immediately between the enclosures and the lower set of rig and furrow, and is well sheltered from the west and south-west by the summit of Casken Hill.

A further possible settlement is recorded on the NMRS as 'what may be the site of a farmstead' (SF004). This is mainly suggested by the configuration of the field boundaries, which for no clear practical reason form three sides of a rectangle. Within the rectangle the grass is much greener and better fertilised than in the pasture beyond it, and a stretch of walling 3 m long and 2.4 wide may represent part of an earlier building. The farmer, David Myles, told us that he had ploughed up foundation stones here. Most striking are two standard sycamores grown together into a single large, regular and very prominent canopy. A row of four more trees suggest the fourth, unwalled edge of the possible farmyard.

Taken together, all of this seems to be evidence for pre-improvement integration of livestock management, cultivation and dispersed settlement. A very useful way forward here would be to trace the development of infield, outfield and moorland field units, as well as new and changing settlements, as has been exhaustively done by Whittington for the Pitkellony estate 15 km to the west (Whittington 1973: 552-567).

Improvement and field boundaries

Improvement in Menstrie Glen was carried out during the 1750s and 1760s by James Wright of Loss. This involved drainage, the planting of parkland, new crops such as potatoes, rye grasses

and clover, the building of march-dykes and enclosures, and the creation of large sheep walks (Cowley et al. 2001: 25-26). The Improvement in our Knowes Farm survey area seems to have a similar pattern, driven presumably by one of the estates such as Pitcairn, Kelty or Duncrub whose policies can be seen in Roy's map of 1747-1755 (Figure 4). The planned village of Newton of Pitcairns, just north of Dunning, was built by the Grahams of Orchill in the late 18th century (Dunning 2005: 18).

Knowes Farm itself is a two-storey symmetrical gabled stone farmhouse, very much in keeping with improvement ideology, and sits in the south-west corner of a yard surrounding by stone stables and byres (Figure 9). These show various building phases, but apart from three obviously recent structures, the complex clearly dates from the second half of the 18th and 19th centuries.



Figure 9.
Knowes Farm:
the farmhouse
from within the
yard, looking
south.

The main manifestation of Improvement in the study area consisted of the stone dykes enclosing regular, often near-rectangular, fields. These are the modern field boundaries visible in the map in Figure 8 (some of them overlain by the purple boundaries of our fieldwalking units). Closely associated with these dykes are a series of small quarries. These are probably not the sources of building stone mentioned by the New Statistical Account (Statistical 1834-1845: 721), but rather were relatively ad hoc and used specifically as sources of stone for the adjacent dykes. The spatial correlation between the quarries and the dykes is very clear in Figure 8. The clearest example is SF007 on Casken Hill, which has a fairly standard size of 8 x 12 m. One worked quarry face is still visible, as well as three spoil heaps from the chippings, earth and other waste.

Conclusions

This brief season was intended as a pilot season for the broader SERF landscape survey, and was encouraging on two fronts. There is clearly a wide range of archaeological features which will allow us to address a number of high-level research questions. These include the dynamic relationship between people and their environment, the social experience of landscape, the biography of monuments, and the impact of ideologies such as Improvement on the landscape.

The other encouraging result of this pilot season was methodological. It is clear that even four days' work with a different team each day can give us a real insight into and understanding of the archaeology of a specific area. We now need to do the same in a range of localities across our very large study area, and integrate this with SERF's other research activities. By doing so, we will be able to analyse the landscape and the social relations embedded within it on a scale that is both local and regional.

Suggestions for future work

1. Continue these focused walkover survey projects in a range of locations across the study area, ideally doing one each year
2. Investigate and carry out summary recording of as many known sites as possible across the whole study area
3. Use the differential GPS to map complex features such as the enclosures on Casken Hill (it would be useful to return to these)
4. Map the rig and furrow by using old aerial photographs, as done at Menstrie Glen (Cowley et al. 2001: 52)
5. Integrate Nick Evans' historical data with the survey data (plus Canmore and other SERF data) in a linked database and GIS
6. Research the archaeological, theoretical and historical background of the main research questions
7. Invite the Menstrie Glen team to come and talk to us and the students (David Cowley et al.)
8. Meet with the Dunning Parish Historical Society to exchange information

Appendix: sites and features in Knowes Farm survey area

Site ID	Site type	Grid reference	Interpretation
SF001	Standing stone	NO 02187 11802	'Grey Stone'. Bronze-age standing stone. Known as burial stone for Maormer of Atholl after battle of Duncrub, 965 AD. Scheduled. NMRS: NO01SW 7
SF002	Cultivation	NO 01747 11651	Rig and furrow
SF003	Structure	NO 01802 11565	Footprints of 2 small houses or shelters
SF004	Structure	NO 01913 11762	Remains of building; possible enclosure; 6 standard trees. NMRS: NO01SW 57
SF005	Enclosure/Boundary	NO 01665 11509	System of turf or earth-walled enclosures. NMRS: NO01SW 32
SF006	Standing stone	NO 01083 11669	Possible stump of standing stone
SF007	Quarry	NO 01595 11442	Small quarry used to produce building material for dry stane dykes.
SF008	Enclosure/Boundary	NO 01579 11497	A large turf built field boundary, with sunken trackway leading to entrance
SF009	Path	NO 01308 11333	Possible sunken paths
SF010	Clearance cairn	NO 01708 11750	Clearance cairn, with other possible cairns and 2 small quarries
SF011	Track	NO 01480 11639	Track leading to cultivation
SF012	Enclosure/Boundary	NO 01468 11582	Possible field boundaries
SF013	Enclosure/Boundary	NO 01419 11507	Earthwork field boundary, area of rig and furrow; track
SF014	House platform	NO 01600 11778	Possible platform of turf structure
SF015	Quarry	NO 01621 11823	Possible quarry for buildings or stone wall
SF016	Enclosure/Boundary	NO 01560 11740	Possibly old field boundaries
SF017	Depressions	NO 01606 11661	2 oval depressions
SF018	Enclosure/Boundary	NO 01590 11650	Boundary line of some sort. Possible field boundary
SF019	Quarry	NO 01491 11816	Quarry and spoil heap
SF020	Cultivation	NO 01301 11428	Rig and furrow
SF021	Quarry	NO 01420 11760	2 quarries
SF022	Quarry	NO 01461 11629	Quarry
SF023	Structure	NO 00208 11477	Knowes farm: farmhouse & steading
SF024	Grouse butt	NO 01228 10736	Grouse butts built using the remains of field boundary wall.
SF025	Platform	NO 01176 10872	Possible prehistoric house platform
SF027	Settlement	NO 02682 10367	Blaeberry Hill. Medieval settlement. NMRS: NO01SW 19
SF028	Platform	NO 01660 11577	House platform
SF029	Quarry	NO 01905 11439	Quarry for stone dykes

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