

# **Drumbrae, near Stirling: Historic Environment**

Setting Appraisal for Larger Clearing D



by Thomas Rees

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on behalf of University of Edinburgh

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# Contents

<b>Introduction .....</b>	<b>3</b>
Consideration of Setting and the Use of Clearings in UK Forestry Standard .....	3
Management Guidance in the Assessment.....	4
Approach to the Setting Appraisal .....	5
Topographic and Geological Background .....	5
<b>The Scheduled Monuments and their Setting.....</b>	<b>6</b>
S2 Pendreich, Two Cairns of 960m ENE of - SM2544 .....	7
S3 Pendreich, Cairn 1000m Ene Of - SM2537 .....	7
S4 Pendreich, Standing Stone 1280m NE of - SM47124 .....	9
The Setting of the Group and its Key Characteristics .....	9
<b>The Forestry Proposal and Larger Clearing D.....</b>	<b>15</b>
Form of the clearing .....	15
Adjacent Planting.....	16
<b>The effect on the setting of the group .....</b>	<b>16</b>
Key Characteristic A- an undivided large area of unimproved grassland.....	16
Key Characteristic B – the location of the cairns relative to the standing stone .....	17
Key Characteristic C – views to western Ochils and Upper Forth valley .....	17
Key Characteristic D – restricted views of cairns as skyline features.....	17
Key Characteristic E – views to distant contemporary monuments .....	18
Use of visualisations, nature and seasonality in interpretation.....	18
<b>Conclusion .....</b>	<b>23</b>
<b>References .....</b>	<b>23</b>
<b>Contact Details .....</b>	<b>23</b>

## Introduction

1. A historic environment assessment (Anderson & Cathcart 2023) was prepared for the University of Edinburgh to inform a proposed planting scheme at Drumbrae, near Stirling (centred on NS 81765 98877).
2. These works established a baseline of historic environment assets present, based on archival sources and site inspection. Management guidelines were presented that sought to protect significant sites in an appropriate setting.
3. This report was prepared to support the University of Edinburgh in addressing UKFS Historic Environment Guidelines (2017), specifically, Good Forestry Practice Requirements 1 to 4.
4. Within the extent of the assessment area, three assets protected by designation as Scheduled Monuments, under the terms of the Ancient Monuments and Archaeological Areas Act 1979 (as modified), were identified in a grouping near Pendreich. These were three prehistoric funerary cairns (**S2 & S3**) and a fallen prehistoric standing stone **S4**.
5. Based on the evidence gathered for the assessment, positive management was recommended to safeguard these sites within Larger Clearing **D**. The design of the larger clearing sought to ensure the integrity of the multiple sites.
6. This Setting Appraisal expands on the original assessment report to present our understanding of these three designated assets, the key characteristics of their setting and how the design of the larger clearing and their adjacent planting will effect their setting.
7. This appraisal was prepared to explain the consequence of the proposed design relative to UKFS Historic Environment Guidelines (2017), specifically Historic Environment Guideline 11 and is informed by Historic Environment Scotland’s guidance on Setting (2016).

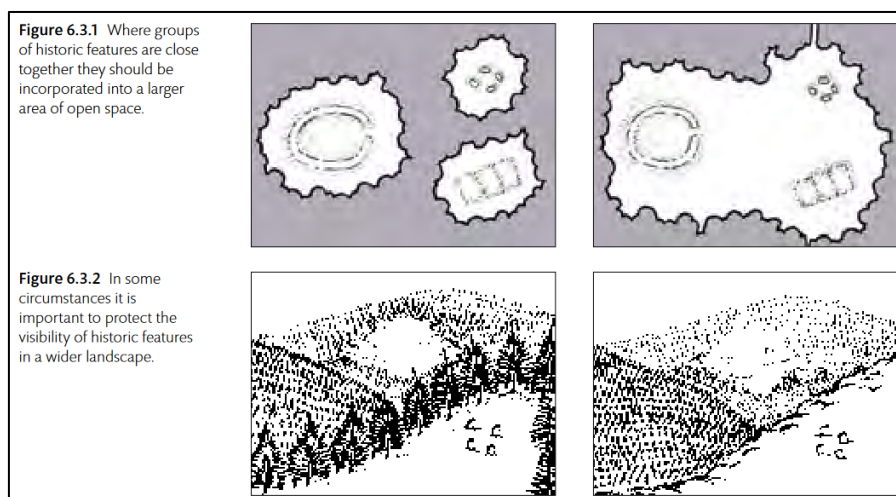
### *Consideration of Setting and the Use of Clearings in UK Forestry Standard*

8. The consideration of the setting of historic environment features, as opposed to the protection of their physical extent, is covered by only one paragraph in the Forestry Standard:

*“The settings of features, in addition to the features themselves, may be relevant and will need to be considered in the forest management plan. Where groups of features occur (Figure 6.3.1) adjacent to each other, a larger area of open space is preferable to a series of smaller spaces. Where features are prominent in the landscape (Figure 6.3.2), or have sight lines associated with their function, then the area to be excluded from planting will need to be larger to accommodate these visual qualities.”*

*UK Forestry Standard (2017) p 88*

9. The figure referenced (Figure 6.3.1) in this text illustrates the limited scale of larger clearings typically anticipated to protect groups of features.



10. The guidance on setting is encompassed within Historic Environment Guideline 11:  
*“11 Plan an appropriate area of open space around features of historical significance; for scheduled Monuments this will normally be a minimum of 20 m. Consider the setting as well as the individual features.”*  
*UK Forestry Standard (2017) p 89*
11. The Forestry Standard also addresses the management of any open space formed through forest design for the retention of historic environment features:  
*“Open space within woodland can provide an appropriate setting for specific historic environment features, or be of historical interest in its own right. Keeping these areas free from woody vegetation can help to preserve the features, provide physical access and capture something of the visual context and spirit of place. open space can also provide biodiversity benefits by maintaining open-ground plant and animal communities. However, thought needs to be given to monitoring these areas and, if necessary, undertaking active management.*  
*Once grazing by livestock ceases, most open areas will start to revert to woodland through vegetation succession. succession can take decades in areas where there is a dense grassy sward from a previous grazing regime, but may be quite rapid where the ground is disturbed in some way – for example by rabbits or where trees have been removed. Where present, deer and rabbits will provide some grazing; occasionally admitting livestock will increase grazing levels but careful management will be required. an alternative to grazing is mowing, cutting or flailing. even one cut per year can help control coarse vegetation, favour low-growing ground cover species and grasses, and encourage incidental grazing. Bracken obscures features and rhizomes can disturb archaeological deposits. Once established, it will prevent grazing and lead to vegetation succession. repeated cutting, just when the fronds have unfurled, will help keep it in check.”*  
*UK Forestry Standard (2017) p 91*
12. The guidance on open space is encompassed by Historic Environment Guidelines 18 & 19:  
*“18 Aim to maintain the open settings for features of historical interest; where appropriate monitor changes in vegetation and consider using grazing or mowing as part of the management plan.*  
*19 Manage public access so that open settings for historical features are not subject to erosion or damage caused by visitor pressure”*  
*UK Forestry Standard (2017) p 91*
13. Historic Environment Guidelines 11, 18 & 19 informed the management guidance provided within the preceding assessment (Anderson & Cathcart 2023).  
*Management Guidance in the Assessment*
14. The assessment (Anderson & Cathcart 2023) identified  
*“The three Pendreich Cairns (**S2** & **S3**) are Scheduled Monuments as good examples of prehistoric funerary cairns. These make a significant contribution to the historic landscape character and are anticipated to retain complex archaeological strata, including human remains. As such they have been ascribed National significance and should be **protected** with a 20m buffer, managed as a clearing and maintained as open space.*  
*Please note that the surveyed extent of **S3** is slightly larger than the scheduled area the protection buffer should be applied to this larger area.*  
*Pendreich Standing Stone **S4** is a Scheduled Monument, being a fallen early prehistoric standing stone. This makes a moderate contribution to the historic*

*landscape character and is anticipated to retain complex archaeological strata. As such it has been ascribed National significance and should be **protected** with a 20m buffer, managed as a clearing and maintained as open space.”*

15. Further, when considering larger clearings their role was recognised as being to retain improved settings for significant sites, enabling related sites that are within the same immediate landscape to be protected within a shared clearing (enabling their interpretation as a group) and protect short-distance significant sightlines. For the three scheduled monuments at Pendreich, the assessment recommended the formation of Larger Clearing **D**:

*“This larger clearing retains the immediate setting of three scheduled areas encompassing three prehistoric funerary cairns (**S2** and **S3**) as well as a fallen standing stone **S4**. In addition, the putative additional standing stones (**S32** and **S40**) are also retained within this clearing. The clearing is designed to retain the interrelationship between this tight cluster of chronologically comparable monuments. Further, this clearing captures both military practice trench complexes **S13** along with the bank and rig blocks they interact with. Retaining the ground between the two linear trenches and the ground to the E (rear) also offer the potential for further work to look for additional features including communication trenches. Safeguarded within this larger clearing would also be Rig Blocks **CL** and **CT** as well as parts of Rig Blocks **CM** and **CS**. There would also be multiple sections of bank **S45** as well as sheepfold **S41**, mound **S27** and enclosure **S23**”*

16. The assessment also gave management guidance on the edge treatment of clearings, the need for long-term clearing management and that the early prehistoric monuments in Larger Clearing **D** were suitable for promoting access and interpretation.

#### *Approach to the Setting Appraisal*

17. The setting appraisal re-presents the baseline established by the original assessment (Anderson & Cathcart 2023). In keeping with Historic Environment Scotland’s guidance on Setting (2016) the key characteristics of the setting of the monuments will then be established both in terms of their interaction with one another and the broader landscape (physical and cultural). The proposed forest design, in particular the form of Larger Clearing **D** and adjacent planting, will then be presented before the consequence of this change is assessed on the key characteristics of the setting of the monument group.
18. All works were conducted in keeping with the Chartered Institute for Archaeologists’ Standards and Policy Statements and Code of Conduct and Historic Environment Scotland Policy Statements.

#### *Topographic and Geological Background*

19. Larger Clearing **D** (centred NGR: NS 8119 9939) and the group of three early prehistoric scheduled monuments lie in an upland area formed by a low unnamed hill (240m to 274m OD) of unimproved pasture to the west of the Sheriffmuir Road roughly 1.8km NE of Bridge of Allan.
20. The Beaully to Denny overhead line travels N/S over the eastern side of the hill carried by a series of steel lattice towers.
21. To the NW of the hill is the Wharry Burn that drains to the SW, flowing into the Allan Water just S of Dunblane. Beyond the Wharry Burn is the predominantly afforested moorland of Sheriff Muir. To the SW the ground falls towards the combined valley floor of the River Teith and River Forth that the Allan Water flows into. To the east are the summits of Loss Hill and Dumyat, the western edge of the Ochils.
22. The solid geology of the hill is a sedimentary conglomerate from the Ochil Volcanic Formation; this is overlain by Devensian till.

## The Scheduled Monuments and their Setting

23. The three assets protected by designation as Scheduled Monuments, under the terms of the Ancient Monuments and Archaeological Areas Act 1979 (as modified) are two prehistoric funerary cairns **S2** (Pendreich, Two Cairns of 960m ENE of, HES: SM2544), one prehistoric cairn **S3** (Pendreich, Cairn 1000m Ene Of, HES: SM2537) and a prehistoric standing stone **S4** (Pendreich, Standing Stone 1280m NE of, HES: SM2545).
24. The most abundant and robust upstanding remains we have from the Neolithic are monuments related to belief, the treatment of the dead, and identity. There is a continuity in the construction and use of these monuments, frequently using stone as the primary construction material, into the Bronze Age often sharing a common location. These monuments do not have any clear functional or domestic role. The standing stone **S4** and funerary cairns **S2** & **S3** at Pendreich can be placed in this tradition and inferred to date from the late Neolithic to middle Bronze Age. However, caution should be taken with this date range given some evidence suggests continuity into the late Bronze Age should be considered. Further, once these monuments mark the landscape they can act as a focus for both related and unrelated activity; the former may include flat cemeteries (ie burials without markers) around the primary funerary or ritual monuments.
25. When a standing stone was erected is challenging to determine; once erected it marks a location in the landscape, accentuating any natural prominence the site may have originally held. Their purpose, meaning and significance to contemporary society are uncertain, and most likely changed with time. Solitary standing stones may have been understood to form alignments with other stones, monuments or natural features, including distinctive skyline features. Studies of perceived alignments have argued that there are recognisable lunar or astronomical alignments recorded in their placement. Alternatively, a solitary standing stone may have had a role as a landscape marker, a point of reference bearing a human mark within a predominantly natural environment. Some monuments of this period are designed to be experienced through movement along a prescribed route, as such a single stone may be a waymarker on such a route.
26. The burial practice established by at least the early Bronze Age was one of predominantly individual burial, though with significant diversity in the conventions followed: cremation or inhumation, presence and treatment of gravegoods and whether the remains were placed within a burial chamber, the design of that chamber (typically a short cist) and if a mound or cairn was erected over the burial. The Pendreich cairns are inferred to be simple cairns erected over a primary burial, possibly in a cist although this is unknown. Clusters of cairns are viewed as cemeteries, with the potential insertion of later burials into the fabric of the cairns or in the surrounding ground – forming a flat cemetery in the intervening ground. Standing stones have also been known to attract later burials at their foot.
27. Such cemeteries are often considered to represent a familial or community burial place. Burial and the erection of funerary monuments is only one stage in the burial process. Where cremation is part of the funerary rite, a pyre location is a stage in that rite as is any preparation of the body or gravegoods for interment. This chain of ritualised actions links the burial site back to the community the individual came from. The location of a cemetery, and particularly upstanding cairns or mounds, have been recognised in some instances to be particularly prominent from nearby, lower-lying ground. This has been taken to visually connect funerary monuments with the more likely areas of the landscape for contemporary cultivation and settled occupation.
28. The distinct cluster of these early prehistoric monuments at Pendreich should be assumed to reference or relate to each other in their positioning in the landscape. There is also the likelihood that at some points in their use, they were understood in conjunction with other monuments and landscape features – many of which may be lost or obscured.
29. The assessment drew attention to a further, broadly contemporary, funerary cairn that lies 760m to 810m to the WSW of the cairns (**S2** & **S3**), outwith the assessment area, in Cuparlaw Wood (Pendreich cairn HES: SM7022). To this should be added Fairy Knowe cairn (HES: SM2543) some 1.9 to 2km to SW and Kippenross House burial mound (SM4502) some 3km to the NW of our cairns respectively. Both Kippenross House burial mound and

Fairy Knowe cairn are substantive features standing over 2m high, Fairy Knowe cairn sitting in an open landscape while Kippencross House burial mound has been planted as a roundel within mature parkland. In comparison, Cuparlaw Wood is a slight cairn that is only 0.5m high with the overlying wood being the identifiable feature in the landscape.

30. There are no other standing stones close to Pendreich, although the 'Gathering Stone' (Canmore 25277) 2.5km to the NNW on Sheriff Muir may be a prehistoric standing stone. This stone has also fallen and been shattered into three pieces that lie within a forestry clearing. Some 3km to the NE of standing stone **S4** is the Lairhill standing stone alignment (SM4539). Although only one stone remains standing of the five stones present, these stones form a SW to NE alignment with the gaps between extant stones varying from 70m to 135m. The southwestern stone carries rock art, about 20 cup marks, on its exposed surface.
31. Care should be taken when considering the relationships between monuments in a modern, post-improvement landscape with historically low levels of woodland cover. Woodlands reached maximal development in Scotland by 3000 BC, the late Neolithic which is the start of the time window for our monuments to be placed in the landscape. Around Stirling the form of the woodland cover is anticipated to have been oak, hazel and elm woods with birch present as a subsidiary element. Such woodland would not have been continuous, being broken by clearings formed by topographic features, climatic events or the impact of anthropic action that locally modified woodland presence, composition and/or structure. The altitude of the hills within the area of the clearing is not sufficient to have prevented woodland cover, although any base-poor soils are unlikely to have been colonised by oak or elm (Tipping 1994, Ramsay & Dickson 1997).
32. Between the late 4<sup>th</sup> and early 3<sup>rd</sup> millennium BC there was a loss of elm from the woodland cover (the 'elm decline'). The earliest agricultural clearances coincide broadly with the elm decline, in this region they are thought to have been small and temporary clearances. Such clearance appears to have been to enable the cultivation of cereal crops. The evidence for clearance from pollen records suggests episodic events with localised intense clearance that then reverts. Moving towards the 2<sup>nd</sup> millennium, in the early Bronze Age, there appears to be some evidence of intensification of clearance leading, slowly, to some substantially open landscapes after c 1000BC, towards the end of the Bronze Age. These landscapes are frequently associated more with increases in grassland along with sedges, plantain, sorrel and bracken suggesting pastoral landscapes (Davies 2006).

### *S2 Pendreich, Two Cairns of 960m ENE of - SM2544*

33. Two adjacent prehistoric cairns (NGR: NS 81248 99230) were identified by the RCAHMS in 1954 (Canmore: 47127 & 47134; SC HER: 1209). The cairns are mostly covered in grass, though the northwestern one has a shallow depression in the centre potentially caused by excavation that reveals a few larger stones. The northwestern cairn measured approximately 12m in diameter with a maximum height of 0.85m whereas the southeastern cairn measured approximately 7m in diameter with a maximum height of 0.2m.
34. The two cairns were identified through the assessment walkover sustained this recorded description (Figure 1a & 1b) with their location being atop a small steep-sided unnamed rise (245m OD) approximately 143m to the south of **S3**. This knoll shared the NW/SE alignment of the two cairns. The centre of the southeastern cairn is some 40m to the NW of the bank bounding the post-medieval field system **S45** that covers the slope to the south. A more pronounced 19<sup>th</sup> century bank field boundary lies beyond this, surmounted by mature trees around 85m to the S. The associated rig blocks (**CV** & **CW**) are bounded by this field system.
35. The two cairns have been classified as burial cairns and were scheduled in 1966 with the scheduled area currently depicted as a rectangle extending to 59m NW/SE and 35m transversely that covers the surveyed extent of the monuments.

### *S3 Pendreich, Cairn 1000m Ene Of - SM2537*

36. A possible prehistoric burial cairn (NGR: NS 81246 99382) was identified by RCAHMS in





Fig 1a: **S2** Cairns from NW



Fig 1b: **S2** Cairns from SE



Fig 1c: **S3** Cairn from NW



Fig 1d: **S4** Standing Stone from NW

1954 (Canmore: 47119; SC HER:1223 & 1232). The mound measures approximately 6m in diameter and has a height of 0.27m. The single cairn was identified through the assessment walkover with the cairn lying on the eastern side of a gentle rise (250m OD) approximately 143m to the north of **S2** (Figure 1c).

37. The cairn has been classified as a burial cairn and was scheduled in 1966 with the scheduled area currently depicted as a circle of 20m diameter that does not cover the western portion of the surveyed extent of the monument.

*S4 Pendreich, Standing Stone 1280m NE of - SM47124*

38. A fallen standing stone (NGR: NS 81376 99671) was identified by RCAHMS in 1954 (Canmore: 47124; SC HER: 1229 & 1229.01). The four-sided fallen stone measures 4.4m in length with a width of between 0.4m to 1.4m.
39. The fallen standing stone lying NW/SE was identified during the assessment walkover (Figure 1d) at the summit of a low, unnamed hill (274m OD). Further, it was noted that the fallen stone lay atop or had at its margin a collection of medium-sized stones that may either be a residual cairn or displaced packing stones from the stone socket.
40. The fallen standing stone was scheduled in 1966 with the scheduled area currently depicted as a circle of 17m diameter that covers ground to the SW of the surveyed location of the stone.

*The Setting of the Group and its Key Characteristics*

41. All three scheduled monuments lie within an area of low, ridge-like knolls or hills that, until recently, were used as unimproved grazing. The vegetation cover is predominantly tussocky grass with some patches of reeds and heather. No fences or walls separate these assets, although there are several historic field banks and traces of rig blocks between them that survive as low topographic features. The presence of the Beaully-Denny overhead route to the E is evident from nearly all locations, the steel lattice towers being the tallest immediate feature in the landscape. In many locations, the conductors break the skyline and disrupt medium and long distance views. To the S, W and N mature woodland and forestry are evident as a substantial portion of the land use while to the E recent planting in the Loss valley and the N slopes of Dumyat is starting to change this view comparably.
42. The site of the fallen standing stone **S4** is the summit of a low hill that is afforded panoramic medium-distance views to the E and N while long-distance views are offered to the W and S (see Figures 2a-d).
43. The medium-distance views to the E are of the western fringe of the Ochils (2-3km distant), in particular Dumyat which stands apart from the balance of these hills due to the path of Loss valley and Menstrie Glen to the N and E of that hill (Figure 2c). The summits of Loss Hill, Colsnaur Hill and Myreton Hill are also visible though these hills merge into a general upland massif. None of these summits appear to carry early prehistoric monuments.
44. To the north views are afforded of the southern edge of Sheriff Muir, including the commercial plantations lying across the Inventory Battlefield and Macraes Monument (Figure 2d). The intervening Wharry Burn cannot be seen while the Sheriff Muir spur is of comparable height to the summit, effectively curtailing the general view to approximately 2km although mountain summits at greater distances will be visible. It is credible that, without the forestry, a view of the 'Gathering Stone' (a possible prehistoric standing stone) if it was upstanding would have been achievable on the crest of the spur. However, the Lairhill standing stone alignment cannot be seen due to the lower slopes of Brown Hill blocking that view.
45. The convex, rounded form of the low hill and summit denies the location of the standing stone views of the slopes of the hill to S and W as well as some shorter distance views such as that to Cuparlaw Wood cairn. There is a clear view of the cairns **S2** & **S3** to the SSW, although neither is afforded a skyline location with cairn **S3** challenging to identify while the knoll carrying cairns **S2** is more visible, though Black Hill lies to the immediate rear. It is notable that should cairn **S3** have been sited any further to the N, it would fall into the 'dead ground' of the lower slopes of the hill that could not be viewed from the summit.



Fig 2a: **S4** View to SW

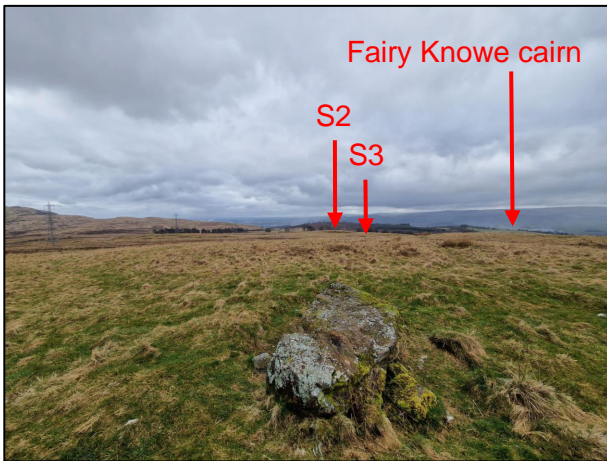


Fig 2b: **S4** View to SSW, S2 & S3 Cairns

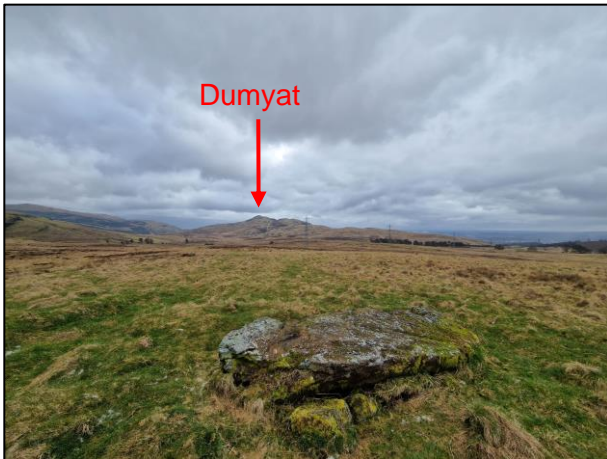


Fig 2c: **S4** View to SE, Dumyat



Fig 2d: **S4** View to NNE, Sheriffmuir



Fig 3a: **S2 & S3** View from N



Fig 3b: **S3** View from ESE



Fig 3c: **S3** View from SE

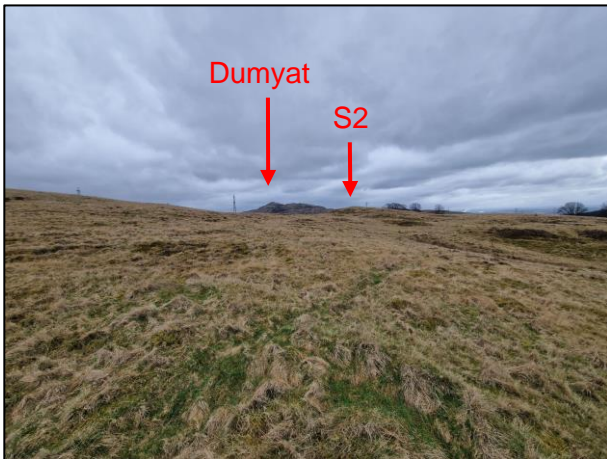


Fig 3d: **S2** View from NW



Fig 4a: **S2** View to SE



Fig 4b: **S2** View to SSW



Fig 4c: **S2** View to SW, Gargunock Hills



Fig 4d: **S2** View to NNE, **S3** & **S4**

Also, the toppled standing stone has its broadest face to the SSW/NNE; if this fairly reflects how it was erected, then it would have been most visible as a landscape feature from the direction of these southern cairns, and the Gathering Stone on Sheriff Muir.

46. Beyond Black Hill to the S and SSE, the summit is afforded long-distance views of the Touch Hills and the flood plain of the Mid Forth valley immediately below Stirling.
47. To the SW (see Figure 2b), Fairy Knowe cairn is visible on the crest of the slope formed by a shoulder of the Hill of Aithrey, with the Upper Forth valley stretched out behind and to the W (see Figure 2a). Kippenross House burial mound does not appear to be visible, although extensive views across the Upper Forth valley and onto the Gargunnoch Hills are evident.
48. Moving S from the summit the location of the standing stone is quickly lost from sight, due to the convex slope. Cairns **S2** start to become more distinct in the landscape, standing on their knoll that can be differentiated from Black Hill, even cairn **S3** edges towards being on a slight crest formed by the ridge it surmounts (Figure 3a). Viewed from a modest distance to the ESE, cairn **S3** achieves a skyline location (Figure 3b) although should the viewer move closer to the cairn, this is rapidly lost (Figure 3c). The obscurity of the cairn is in part explained by its very slight form, but also by its siting on the eastern end of a low ridge, with that ridge ensuring it has relatively poor sightlines when compared to the other two monuments (though still many good quality views, to the SW in particular).
49. The difference between cairn **S3** and cairns **S2** is again evident when approaching these cairns from the lower ground to the W. Cairn **S3**, set back from W edge of its ridge, cannot be seen until the summit of the ridge is reached. In comparison, cairns **S2** can be viewed in a prominent skyline location to the right, S, of a minor burn valley; from some locations, it appears on the skyline in conjunction with the summit and shoulder of Dumyat free of the broader Ochils (Figure 3d). These interesting views are disrupted by the towers of the Beaully-Denny overhead route with their conductors visibly breaking the skyline.
50. From atop the cairns **S3** (Figure 4a) a clear view of Dumyat is afforded to the SE, with NW/SE alignment of the two cairns though obliged by the form of the knoll also orientating on the hill. The Beaully-Denny overhead route continues to be a modern intrusive and disruptive feature in this view. The 19<sup>th</sup> century field margin trees to the immediate S of the knoll, as well as those of Cocksburn Wood to the SE, are notable elements of the view. From the knoll, the views to the Mid Forth valley have been almost wholly lost (Figure 4b) with Black Hill more dominant to the S, through the Gargunnoch Hills remain visible to the SW.
51. From this lower location, the site of the Cuparlaw Wood cairn is now visible to the WSW although this slight cairn, only 0.5m high, is in woodland and cannot be distinguished at this distance (Figure 4c). The Fairy Knowe cairn, which is much more substantial standing 2.2m high, remains visible and being on a crest is more recognisable in the modern landscape. The dominant long-distance view is to the W with the full breadth of the Upper Forth valley visible.
52. The views N from the cairns **S2** (Figure 4d) are restricted to short-distance ones that stop at the summit on which the standing stone **S4** was sited. The series of ridges that form the series of low hills are evident in this view, though cairn **S3** remains obscure in this view. As in so many views, the Beaully-Denny overhead route makes a significant intrusion, drawing the viewer's eyes to the E and the march of the towers across this landscape.
53. As a group, we recognise that the key characteristics of their collective setting that both relate to the interpretation of the potential role and function of these monuments, as well as their sense of place, are that:
  - a. the monuments sit within an undivided large area of unimproved grassland with uninterrupted lines of sight between all three monuments and are set within a broadly rural landscape that includes farmland and forestry;
  - b. the cairns are located to the south and, relative to the shape of the erected standing stone, on its most visible side and as close as they can be while remaining in sight;

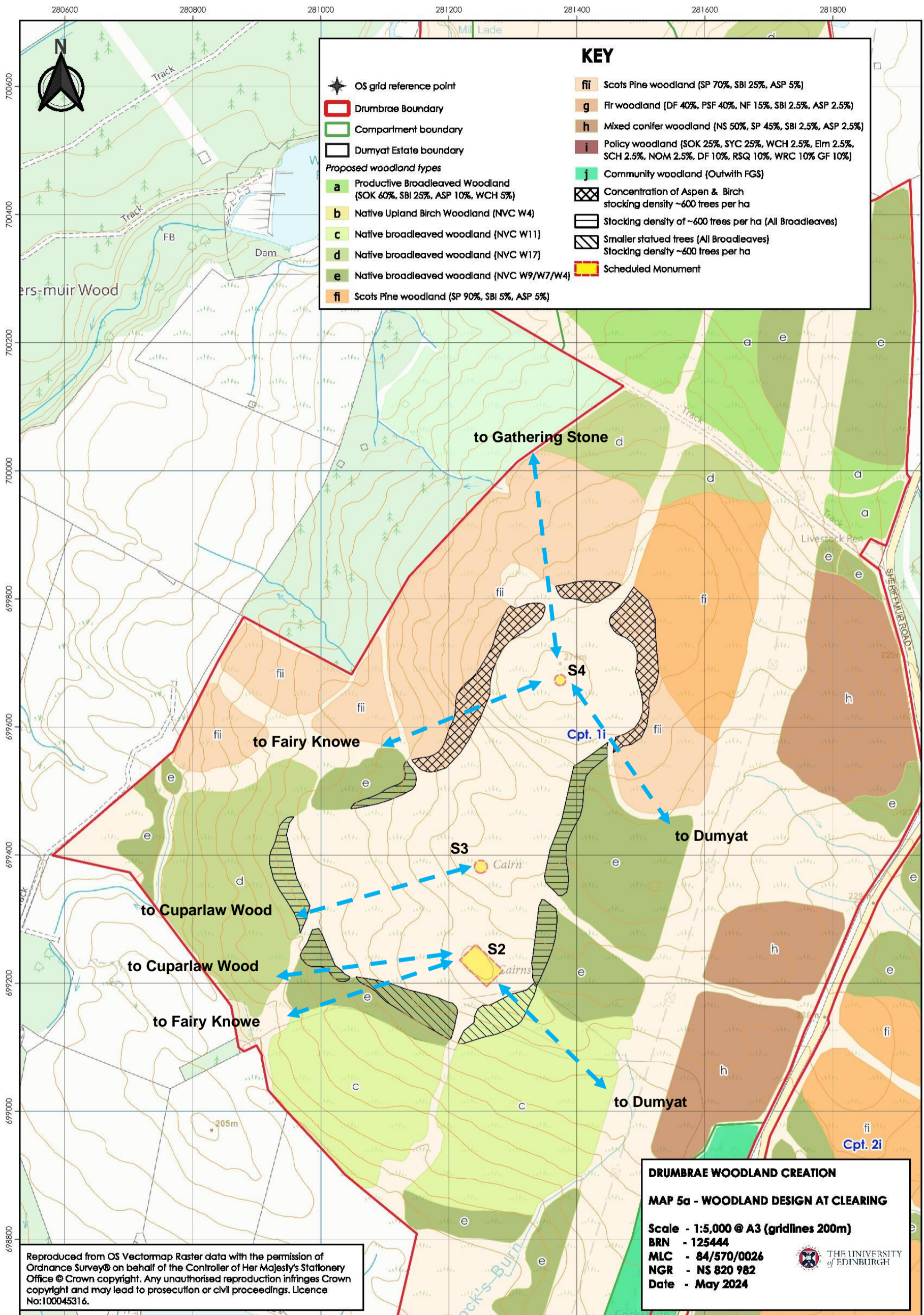


Fig 5: Woodland Design at Larger Clearing D with selected external views discussed in text highlighted

- c. the monuments are all afforded views of:
  - the western Ochils, in particular, the summit and upper slope profile of Dumyat which are disrupted by the Beauty-Denny overhead route; and
  - the Upper Forth valley including the northern slope of the Gargunnock Hills.
- d. from restricted locations, the cairns can be recognised as skyline features despite their slight form;
- e. the cairns and standing stone are afforded, or may have been afforded in the past, views to more distant contemporary monuments including Cuparlaw Woods cairn, Fairy Knowe cairn and the Gathering Stone but these are not universal from all monuments.

## The Forestry Proposal and Larger Clearing D

- 54. The Larger Clearing **D** recommended at Pendreich by the historic environment assessment has been realised in the forest design in a slightly larger form than that proposed within Compartment 1i. The proposal is made up of predominantly native broadleaved species with a fair proportion of diverse conifers (predominantly Scots pine), the latter will deliver carbon, biodiversity and landscape benefits.
- 55. The clearing has been designed to retain the interrelationship between this tight cluster of chronologically comparable monuments. In addition, the woodland edge has been held well back from the monuments to ensure that many long-distance views are retained in particular to the west and the higher slopes of Dumyat. A soft woodland edge will be created, through lower-density planting of native broadleaved species along with Scots pine.
- 56. As a whole, this compartment will be deer-fenced to prevent damage to juvenile planting. These deer fences will be removed when the trees are fully established, although agricultural stock will continue to be excluded. Access to the clearing will be available via several rides connecting to the car park and existing tacks, using self-closing gates to allow access into the enclosed ground.
- 57. Interpretative material will be provided at key locations linked to the clearing, including at the car park, main entrances, and by features of interest. Interpretative boards will provide information on aspects such as access, natural history, and cultural heritage. The cultural heritage interpretative material used will be developed in liaison with Stirling Council's Archaeologist, Historic Environment Scotland, and interest groups.
- 58. No agricultural use of the clearing is practical or financially viable, access routes to the clearing will be maintained, and any natural regeneration will be removed. The growth of bracken will be controlled on assets of national and regional importance, which includes all three scheduled monuments, and their protective buffer zones (20m deep for the scheduled monuments).
- 59. No forest road construction is proposed within the compartment. No formal path construction works are proposed at this stage, although this will be kept under review as it is recognised that the woodland creation will attract additional use, and may channel currently unrestricted access into formal corridors. The Community Ranger will monitor recreational use on-site, and will liaise with stakeholders.

### *Form of the clearing*

- 60. The clearing will be 17.12ha in extent being roughly an acute triangle in plan with a bulbous northern head around standing stone **S4**, the southern corner being close to cairns **S2** while the western side lies far to the west of cairn **S3**. On the axis NNE/SSW running broadly through Pendreich standing stone **S4** and cairns **S2** the clearing will be approximately 600m long, while transversely it measures 450m (see Figure 5).
- 61. This clearing is 2.88ha larger than the recommended clearing, predominantly due to the expansion of the bulbous head of the clearing around the standing stone **S4**. There are to be eight exits from the clearing, two from each of the cardinal points.



62. The two exits to the east will offer curving (from standing stone **S4**) and straight (from cairn **S3**) rides that link to the unplanted wayleave for the Beauldy-Denny overhead route. The ride from the standing stone **S4** will face onto a 160m broad unplanted belt that reaches east to the Sheriffmuir Road while that from cairn **S3** will have a conventional ride travelling onto the road. The Beauldy-Denny overhead route wayleave offers routes down, south, to Cocksburn Wood with car parking at this location in the Community Woodland.
63. Of the two exits to the south, both are to be slightly curving rides that broaden as they head south, downslope, to the adjacent neighbouring pastoral fields. The eastern ride of this pair will start immediately south of cairns **S3**, the western falling to the ruined cottage of Pendreichmuir **S22**. The western pair of rides are the narrowest to leave the larger clearing joining broader rides as they head west. To the north, two rides will leave the clearing on the northern side of the hill surmounted by standing stone **S4**. The western of the pair will end in a small clearing to the immediate NW while the eastern travels on to the SE/NW track that runs from Sherrifmur Road towards Waltersmuir Reservoir and the area to be formed into the grazed Compartment 1v.

### *Adjacent Planting*

64. The planting around the bulbous head of the clearing will be Scots pine woodland (see key on Figure 5 for composition) with the fringe planting mix weighted to the broadleaf elements of this woodland type (Birch and Aspen) while the balance of the clearing will be bounded by different compositions of native broadleaved woodland (Oak, Alder, Ash and Birch - NVC W11, W17 and W9/W7/W4, see Figure 5). All of this planting is to form a woodland cover that will be retained in the long term as a permanent land-use change.
65. Around the majority of the fringe of the clearing, the adjacent planting will be restricted to a stocking density of approximately 600 stems per ha (planting density will be increased elsewhere in the mix to attain the required planting density overall). The depth of this reduced stocking density varies and at its greatest is 65-70m deep. Further, on the southern edge adjacent to cairns **S3** the broadleaves to be planted will also be smaller stunted trees that will mature to have a lower terminal height.
66. The field edge trees to the south of the clearing will be retained and protected within the new planting unless they pose a safety issue.

### **The effect on the setting of the group**

67. The proposed woodland creation scheme will change the landscape character that surrounds the group of three scheduled monuments and hence has the potential to impact the key characteristics of their collective setting (as laid out above in items a to e).
68. The scale of the clearing used in the forest design is such that the relationship between the monuments would be retained. The introduction of a wooded environment beyond this clearing will restrict some external views to and from the group of monuments, this may impact the key characteristics of their setting. Each characteristic is considered in turn below.

### *Key Characteristic A- an undivided large area of unimproved grassland*

69. The three scheduled monuments will remain in a large 17.12ha clearing of unimproved grassland that will be undivided. This is considerably larger than the typical field enclosure to the W and S of the proposed woodland which are in the 4.5ha to 8ha range. Further, these fields are rectilinear in plan and enclosed by either a drystone wall or post & wire fence. In contrast, the clearing will have an organic, curved form with the lower density planting on the fringe giving a permeable and open edge to the clearing.
70. In terms of scale, a person walking across the clearing from W/E over rough ground and upslope will take roughly 11 minutes (450m at 3kmph plus 1 minute for 10m height gain). The same person will take 15 minutes walking S/N through the clearing (600m at the same rates).
71. Farming, forestry and woodland are all recognised as rural land uses and perceived by many as 'natural'. The introduction of woodland closer to the monuments will change the

balance of the landscape character at this locale, although both commercial forestry and woodland are current aspects of the surrounding landscape character. The scale of the clearing and its character will retain the setting of an undivided large area of unimproved grassland. One consequence of the woodland proposal will be to lessen the visual intrusion of the Beauldy-Denny overhead route to the east of the clearing, obscuring the lower sections of the steel lattice frame towers.

72. This key characteristic will not be affected by the proposed woodland.
73. That the large clearing would be bounded predominantly by broadleaf woodland facilitates a change in the broader perception of the landscape around these monuments. As recognised above, the contemporary late Neolithic to late Bronze Age landscape would have been one of broadleaf woodlands within which clearings were established and subsequently expanded. Our current perception of an upland grazed landscape contrasting with lowland enclosed fields is a medieval, post-medieval and later construct of anthropic deforestation and land use.
74. The broader landscape will change, this is compatible with an alternative exploration of the significance and landscape setting of these monuments.

*Key Characteristic B – the location of the cairns relative to the standing stone*

75. The proposed woodland and clearing will not alter the relative locations of the monuments nor the ability to understand the intervening topography and hence the use of this topography to select their locations when originally constructed.
76. This key characteristic will not be affected by the proposed woodland.

*Key Characteristic C – views to western Ochils and Upper Forth valley*

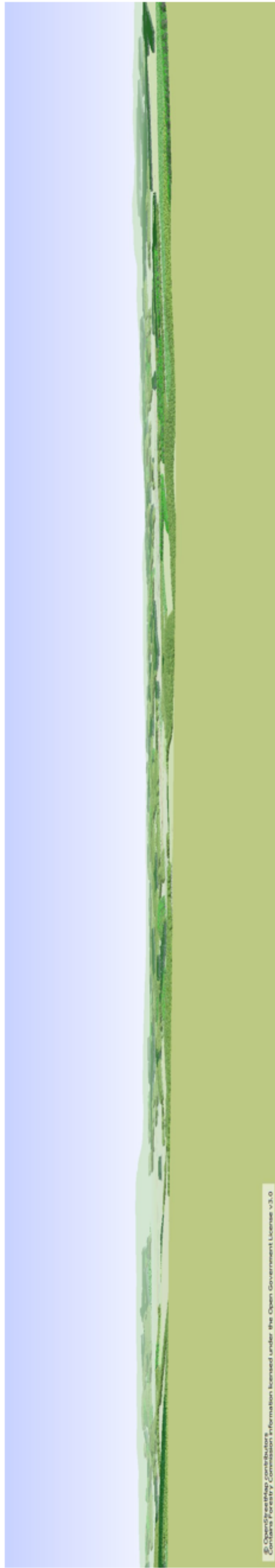
77. A series of visualisations have been generated analysing the consequence of the proposed planting (see Appendix 3 Visualisations of the Proposal, reproduced as Figures 6 to 9 below).
78. Viewpoint 3 (reproduced as Figure 6) offers the panorama of the view west from Cairn **S3** in 2023 (before planting) and 2064 (mature woodland) showing the retention of long-distance views to the west along the upper Forth Valley with the hills on the left bank of the River Teith around Arnhall Castle remaining visible. At greater distances, the northern face of the Gargunnock Hills and the eastern slopes of the Touch Hills are clearly visible.
79. Similarly, the visualisation from the Standing Stone **S4** (Figure 7) also shows extensive retained views into the upper Forth Valley although with some restriction to the W. The work in generating these visualisations has also examined reciprocal views such as those from Dumyat (see Figure 9) that confirm the higher slopes of Dumyat to the east will also remain visible from Standing Stone **S4** although will be gradually obscured from the Cairns (**S2** & **S3**).
80. The views will be altered in the short to medium distance by the increase in woodland cover, however, this will not remove the ability to recognise and see these views from within the clearing including at some of the individual monuments.
81. This key characteristic will retained in an altered form by the proposed woodland.

*Key Characteristic D – restricted views of cairns as skyline features*

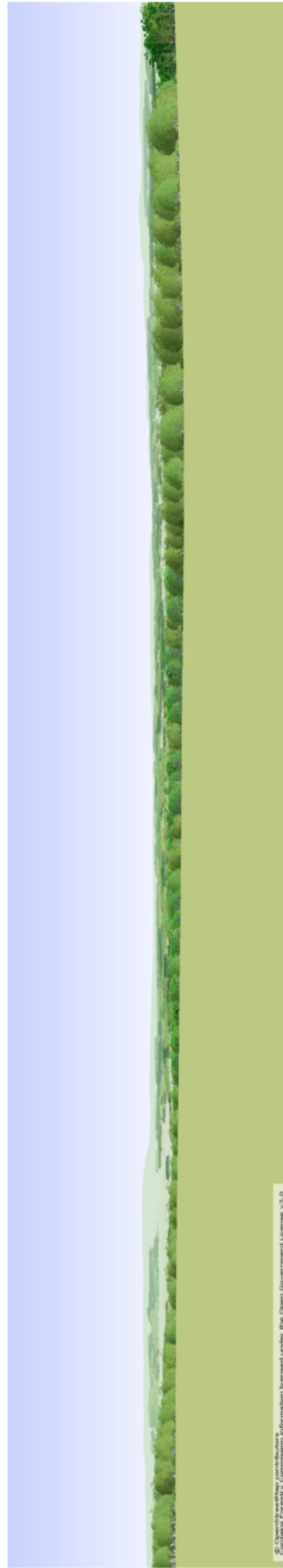
82. The restricted views enabling the cairns to be recognised as skyline features are all afforded from locations within the clearing. Hence the proposed woodland will not alter the ability to access, see and interpret these views. This in particular relates to the views placing Cairn **S3** as a crest feature from the E and SE or Cairns **S2** as a summit feature from the NW, N and S.
83. Where views interact with more distant landscape features, such as Cairns **S2** and the skyline form of Dumyat when viewed from the NW, the gradual loss of the medium distance views to the upper slopes will diminish this relationship and there may be a seasonal loss (see discussion of seasonality below).

84. In some of these views, the proposed woodland planting will appear behind the monument. This will alter the view but will not remove the ability to experience and interpret the changing prominence of the monuments relative to the position of the individual in the immediate landscape.
85. This key characteristic will retained in an altered form by the proposed woodland.
- Key Characteristic E – views to distant contemporary monuments*
86. There are currently no views afforded to some contemporary monuments, such as Kippencross House burial mound or the Gathering Stone from the monument group. Fairy Knowe cairn is visible to all the elements of the group while Cuparlaw Wood cairn (or at least the canopy of the wood) is visible from the cairns (**S2 & S3**).
87. The visualisation from Cairn **S3** (Figure 6) that shows the retention of the open views to the Upper Forth valley also shows the retention of views to Cuparlaw Wood cairn and Fairy Knowe cairn. The reciprocal visualisation from Fairy Knowe cairn (Figure 8) shows the northern section of the clearing including Standing Stone **S4** remaining visible. In both cases, there will be woodland in the foreground, with the views of these contemporary monuments will be over the canopy formed by this woodland.
88. The southern portion of the clearing including Cairns **S2** are expected to gradually lose their visibility of Fairy Knowe cairn and the woodland at Cuparlaw Wood cairn.
89. This key characteristic will retained in an altered form by the proposed woodland.
- Use of visualisations, nature and seasonality in interpretation*
90. The visualisations used to assess the changes to Key Characteristics C to E depict anticipated woodland impact when in full leaf (ie summer) and, by 2064, achieving full height assuming healthy growth. The visualisation software uses generalised height information not detailed height information for historic environment assets (that would place the viewer slightly higher). As such these visualisations are a worst-case scenario in the summer of 2064; for the three decades leading to this views will be less altered and during autumn or winter months the woodland will be slightly more permissive of views through its upper canopy.
91. The woodland proposal will safeguard the physical form of the monument group. As laid out above, the clearing is sufficiently substantial that by the summer of 2064 aspects of all external key characteristics that form their setting will have been retained for the group, though not at every location they are currently afforded. Hence, by moving through the clearing and between the monument all the key characteristics can be experienced and considered. As also already noted, the broader landscape will change, this is compatible with an alternative exploration of the significance and landscape setting of these monuments.
92. The intent within the Drumbrae woodland proposal is for a Ranger service to be active and interpretation provided for the prehistoric monument group in conjunction with communicating natural history and landscape information. This woodland proposal will allow the exploration of the monument group within the large clearing that may in some ways replicate a Bronze Age style landscape. Hence the seasonality of views, natural environment soundscape and changing flora and fauna across the clearing can be experienced with appropriate interpretation. This may facilitate different perspectives on the monument group and how they could have 'fitted' into both their contemporary cultural and natural environment. Such experiential interpretation does not detract from the objective of the forest design to retain the key characteristics of the setting of the monument group whilst also protecting their physical form.

## Drumbrae Landscape Visualisations View 3 – NS 814993 Panorama 2023 & 2064



**Year 2023** - The three scheduled bronze age/Neolithic monuments on the western hillside are intervisible, and the locality provides expansive views, notably to the west, along the upper Forth valley, and eastwards towards Dumyat's summit.



**Year 2023** – The woodland edge has been held well back from the monuments to ensure that long distance views to the west are retained. A soft woodland edge will be created, utilizing native broadleaved species along with Scots pine. The higher slopes of Dumyat will also remain visible.

Fig 6: Landscape Visualisation View from Cairn **S3** centred to the W

## Drumbrae Landscape Visualisations View from Standing Stone Panorama 2023 & 2064



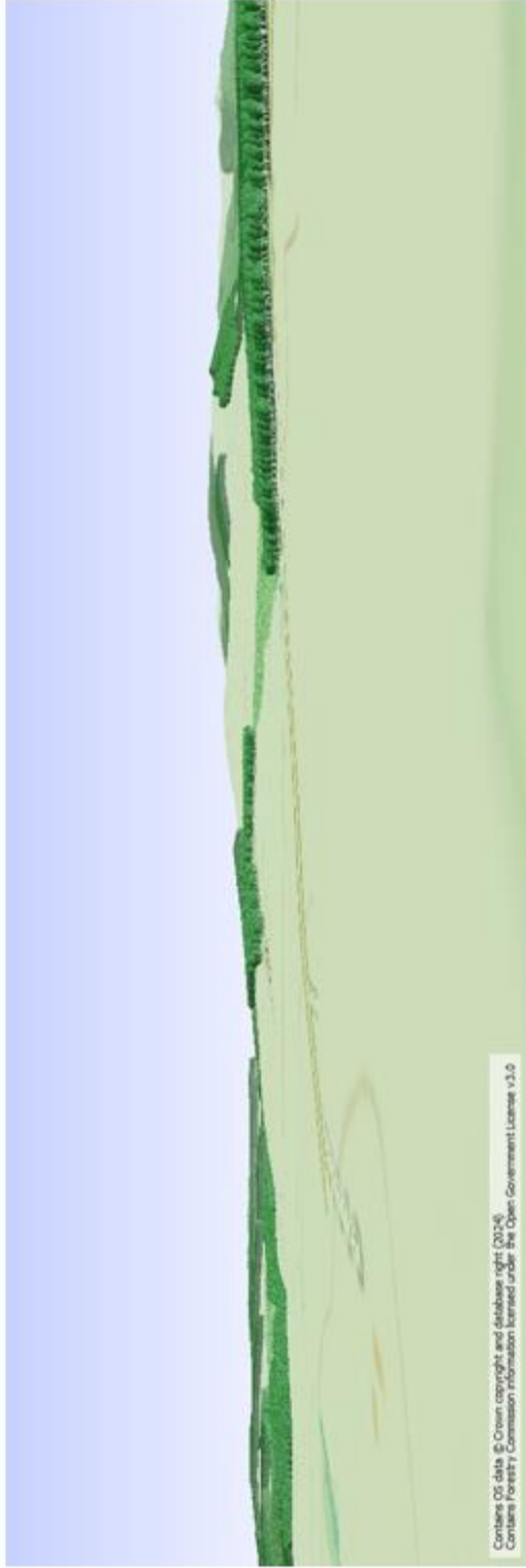
**Year 2024** – Situated on the rounded summit of Cocksburn Hill, the standing stone offers panoramic views, notably to the south and west. In addition to taking a broad sweep of the distant countryside, there are shorter distance views southwards onto the smaller knowes, occupied by the scheduled cairns. Fairy Knowe, a similar feature, is also visible. While access to the scheduled features is available, their presence is unrecognised and uninterpreted.



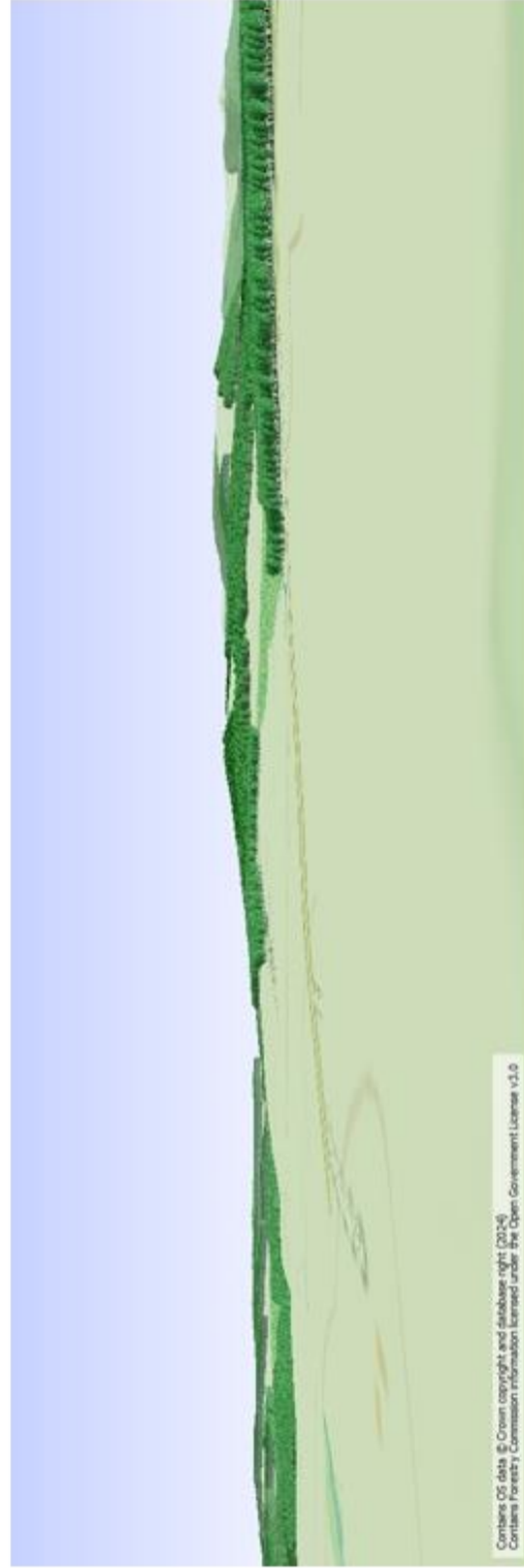
**Year 2064** – Views onto the scheduled features (both the cairns within the site, and Fairy Knowe) will remain available, being framed by broadleaved woodlands in the main. Views to the west from the standing stone will be partially obscured, but this view will be available from elsewhere in the clearing. Public access will be facilitated, and interpretive material made available. Views onto the summit of Drumbrae will be retained in the longer term.

Fig 6: Landscape Visualisation View from Standing Stone **S4** centred to the SW

## Drumbrae Landscape Visualisations View from Fairy Knowe Panorama 2023 & 2064



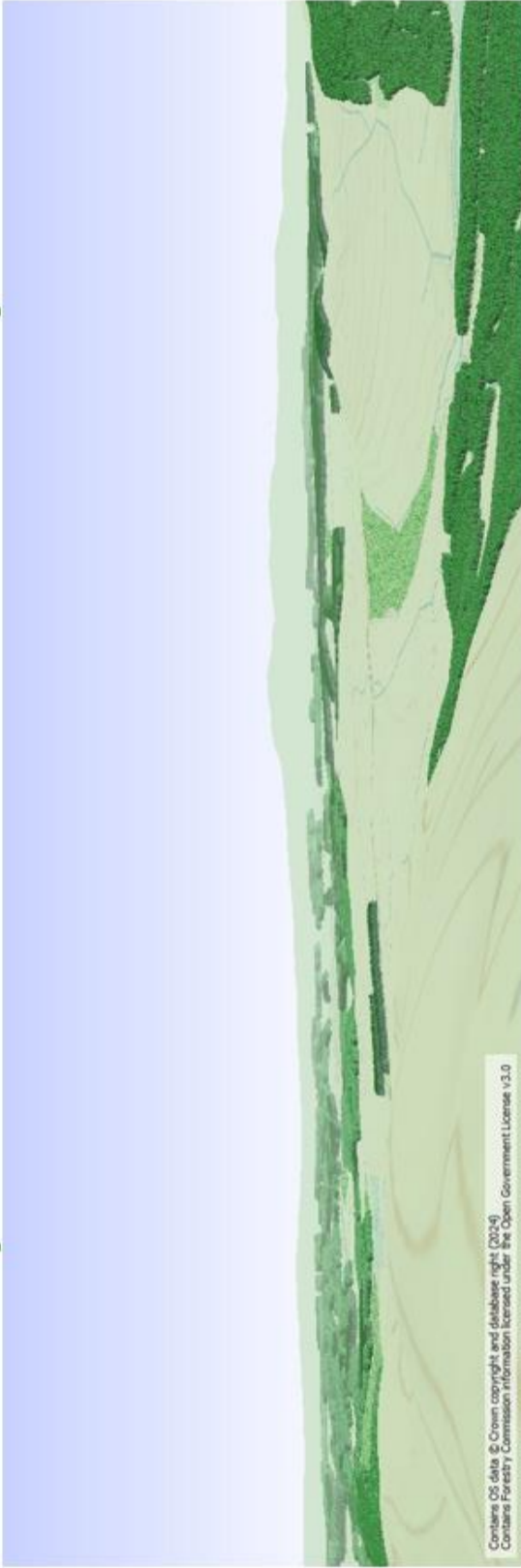
**Year 2024** – Fairy Knowe occupies a pivotal position on the edge of a plateau, overlooking Bridge of Allan. The location also permits views to the north-east, onto the western flank of the Ochils. Cocksburn Hill, and the three scheduled features can be seen in the middle distance, above some young woodlands.



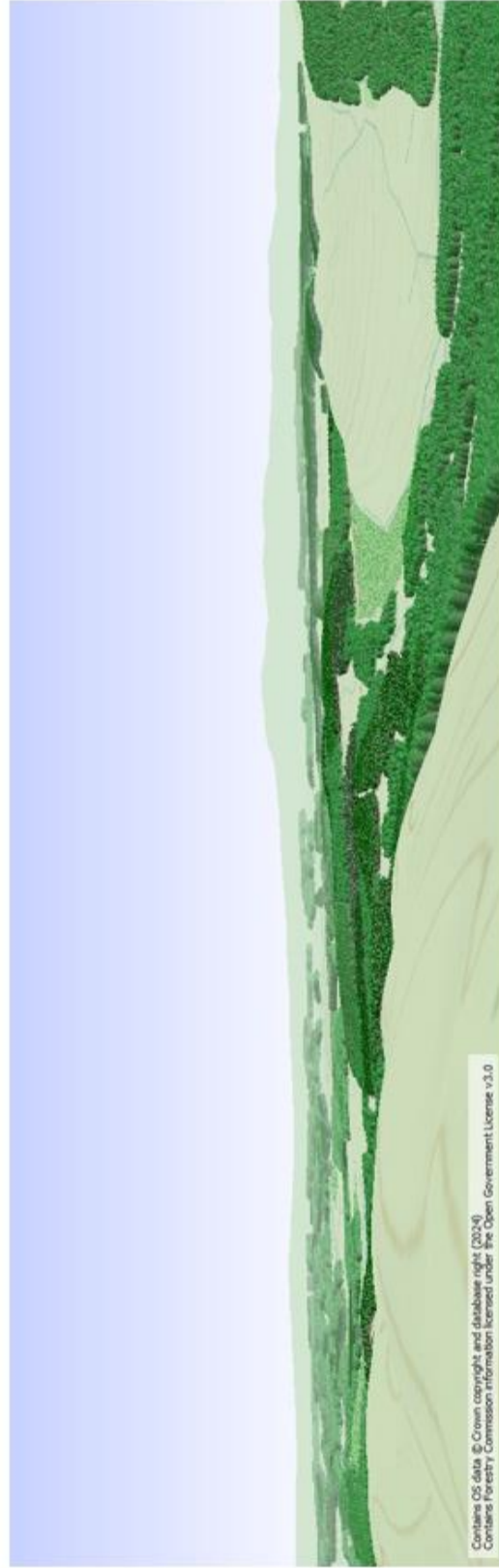
**Year 2064** – While the planting will, in time, prevent intervisibility between the southern cairn and Fairy Knowe, the knowe which contains the standing stone will remain clearly visible, fringed with a mixture of broadleaved and Scots pine woodland.

Fig 8: Landscape Visualisation View from Fairy Knowe centred to the NE

## Drumbrae Landscape Visualisations View from Dumyat Panorama 2023 & 2064



**Year 2024** – The summit of Dumyat offers panoramic views to the south and west, taking in part of Drumbrae, including the lower ground on either side of Sherrifmuir Road. The most obvious features are the roadside pinewood and the high voltage powerline (not represented above), with the rounded summit of Cocksburn Hill, punctuated by the fallen standing stone. **NB** Cocksburn Hill is not visible from Castle Law Hill Fort.



**Year 2064** – The higher parts of the hill, seen in the foreground will remain open, while the woodlands on the east side of Cocksburn Hill will be prominent in the middle ground, reducing the visual impact of the powerline. The clearing around the scheduled features will reduce in terms of visibility over the years, but visibility on to the standing stone will be retained.

Fig 9: Landscape Visualisation View from Dumyat centred to the NW

## Conclusion

94. A setting appraisal for three Scheduled Monuments, three prehistoric funerary cairns (**S2** & **S3**) and a fallen prehistoric standing stone **S4**, near Pendreich.
95. This appraisal explained the consequence of the proposed design of afforestation at Drumbrae on the setting of these monuments. The appraisal was prepared relative to UKFS Historic Environment Guidelines (2017), specifically Historic Environment Guideline 11 and is informed by Historic Environment Scotland’s guidance on Setting (2016).
96. The appraisal has found that the key characteristics of the monument group will either remain unaltered by the woodland creation or be successfully retained in an altered form by the proposal.
97. Interpretation, access and a Ranger service are integral to the woodland proposal. These will enable the character of the monument group and the key characteristics of their setting to be shared with visitors. Further, the presence, natural heritage and seasonality of the woodland can be used to explore different conceptual models of how the Bronze Age landscape may have interacted with the monument group.
98. This position is compatible with the UK Forestry Standard.

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## Contact Details

99. Rathmell Archaeology can be contacted at our Registered Office or through the web:

Rathmell Archaeology Ltd	<a href="http://www.rathmell-arch.co.uk">www.rathmell-arch.co.uk</a>
Unit 8 Ashgrove Workshops	
Kilwinning	t.:01294 542848
Ayrshire	f.:01294 542849
KA13 6PU	e.:contact@rathmell-arch.co.uk

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