

**Limerigg Woods, Falkirk:
Archaeological Assessment and Survey**

Data Structure Report

by Louise Turner and Claire Williamson

issued 27th March 2009

revised 2nd April 2009



Rathmell

Archaeology Ltd

Quality Assurance

This report covers works which have been undertaken in keeping with the issued brief as modified by the agreed programme of works. The report has been prepared in keeping with the guidance of Rathmell Archaeology Limited on the preparation of reports. All works reported on within this document have been undertaken in keeping with the Institute of Field Archaeology's Standards and Policy Statements and Code of Conduct.

Signed Date

In keeping with the procedure of Rathmell Archaeology Limited this document and its findings have been reviewed and agreed by an appropriate colleague:

Checked Date

Copyright Rathmell Archaeology Limited. All rights reserved.

No part of this report may be copied or reproduced by any means without prior written permission from Rathmell Archaeology Limited. If you have received this report in error, please destroy all copies in your possession or control and notify Rathmell Archaeology Limited.

This report has been prepared for the exclusive use of the commissioning party and unless otherwise agreed in writing by Rathmell Archaeology Limited, no other party may use, make use of or rely on the contents of the report. No liability is accepted by Rathmell Archaeology Limited for any use of this report, other than the purposes for which it was originally prepared and provided.

Opinions and information provided in the report are on the basis of Rathmell Archaeology Limited using due skill, care and diligence in preparation of the same and no explicit warranty is provided as to their accuracy. It should be noted and it is expressly stated that no independent verification of any of the documents or information supplied to Rathmell Archaeology Limited has been made.

Contents

1 Non-Technical Summary	4
2 Introduction	4
3 Methodology	4
4 Archaeological and Historical Background	5
5 Results	17
6 Mitigation and Recommendations	34
7 Conclusion	34
8 References	35
Appendix 1 - Gazetteer	38
Appendix 2 - Registers	43
Appendix 3 - Discovery & Excavation in Scotland	48
Contact Details	49

Figures

Fig. 1a-b	Historical maps	6
Fig. 2 a-b	Historical maps	7
Fig. 3 a-b	Historical Maps – 1 st edition Ordnance Survey (1864)	9
Fig. 4a-b	Historical Maps – 2 nd Edition Ordnance Survey (1898)	10
Fig. 5a-b	Historical Maps – 3 rd Edition Ordnance Survey (1916)	12
Fig. 6	Vertical Aerial Photographs Showing Study Area	14
Fig. 7	Oblique Aerial Photograph – Blackrigg Farmsteading	15
Fig. 8	Site Plan – Blackrigg Farmsteading	19
Fig. 9	Blackrigg Farmsteading – Site Photographs (i)	20
Fig. 10	Blackrigg Farmsteading – Site Photographs (ii)	21
Fig. 11	Blackrigg Farmsteading – Site Photographs (iii)	22
Fig. 12	Site Plan – Drumclair Farmsteading	24
Fig. 13	Drumclair Farmsteading – Site Photographs (i)	25
Fig. 14	Drumclair Farmsteading – Site Photographs (ii)	26
Fig. 15	Standing Building Survey – Site Photographs (i)	28
Fig. 16	Standing Building Survey – Site Photographs (ii)	29
Fig. 17	Standing Building Survey – Site Photographs (iii)	30
Fig. 18	Standing Building Survey – Drawn Elevations of Building 201	32
Fig. 19	Standing Building Survey – Drawn Elevations of Building 202	33

1 Non-technical Summary

- 1.1 A programme of archaeological survey and associated standing building survey was carried out for Forestry Commission Scotland at Limerigg Woods, Falkirk during March 2009. Work focussed upon two blocks of land, each measuring roughly 1 ha. in extent. These were centred upon the sites of two deserted post-medieval farmsteadings; Blackrigg farm (NS 851 713), and Wester Drumclair (NS 860 711).
- 1.2 Shown on maps dating back to the mid-18th century, the remains at Blackrigg farm probably represent the surviving remnants of 19th century buildings. These now survive as grass-covered footings. Mining remains and some traces of post-medieval cultivation are also present in their vicinity. Survey work covered the farm buildings and associated structures, but also included some nearby cultivation remains and industrial features.
- 1.3 Occupation of Wester Drumclair farm can again be traced back to the mid-18th century by mapping evidence, but the upstanding remains appear to be 19th century in date. They survive as exposed wall footings, with some larger stretches of upstanding masonry present. These lie within an area of ornamental tree-planting, again of 19th century origin, with the remains of a railway lying to the E. The survey covered the farm buildings and plantation features, and included the adjacent railway cutting. More detailed recording of the farm buildings was also undertaken.
- 1.4 Recommendations for the continuing management of the two core sites were made, in keeping with best practice.

2 Introduction

- 2.1 A programme of archaeological assessment and survey works was required by Forestry Commission Scotland at Limerigg Woods, Falkirk. These archaeological works formed part of a wider range of activities focussed upon known historic sites located upon the national forest estate. The aim was to inform on both the management and the interpretation of the sites in question (see below), with a public relations element to the exercise in the form of a site visit by local primary school children from Limerigg Primary School.
- 2.2 The area comprises two blocks of land, each measuring roughly 1 ha. in extent, and centred upon the sites of two deserted post-medieval farmsteadings, that of Blackrigg farm (NS 851 713) and Wester Drumclair (NS 860 711) respectively. These sites are currently within open moorland (Blackrigg) and clear-felled woodland (Wester Drumclair). The works involved a detailed field survey of both areas, using a Leica Total Station, and a detailed drawn building survey of the upstanding remains of the farmsteading of Wester Drumclair.
- 2.3 During the archaeological survey, additional observations were made regarding the current condition of both monuments, with the specific aim of identifying areas where the archaeology is currently threatened by environmental factors (such as erosion or burrowing animals). Suggestions have been made, where appropriate, as to how the management regime could be improved through positive intervention in order to counter these threats and thus ensure the preservation of both sites in the longer term.
- 2.4 All works were undertaken in keeping with the Terms of Reference issued by Matthew Ritchie, Forestry Commission Scotland Archaeologist. All school liaison and visits were arranged and managed by Emma Stewart, Community and Environment Ranger, Forestry Commission Scotland. Geoff Bailey, Falkirk Council Archaeologist, was advised of the works.

3 Methodology

- 3.1 The programme of works agreed with Forestry Commission Scotland commenced with a desk based assessment. This consulted resources within
 - (i) the National Monuments Record of Scotland (known archaeological sites; oblique aerial photography; archived commercial reports);

- (ii) Sites & Monuments Record (known archaeological sites);
 - (iii) Historic Scotland records (Scheduled Ancient Monuments and other designations);
 - (iv) National Library of Scotland (bibliographic records, historic Ordnance Survey and pre-Ordnance Survey mapping);
 - (v) local museums, libraries and other archives (Old & New Statistical Accounts, local history books).
- 3.2 A substantial portion of the fieldwork was undertaken between the 17th-19th March 2009 with a further site visit made on Tuesday 24th March 2009 to complete the building survey of Wester Drumclair and to accommodate the visit of the primary school children. Detailed site plans compiled with the use of the Leica Total Station to the standards required of a Level 2 survey (RCAHMS, 2004) were then prepared using the data obtained on-site.
- 3.3 The standing fabric of buildings at the farmsteading of Wester Drumclair were subject to a detailed drawn building survey. This survey comprised a basic drawn record of all upstanding external elevations (undertaken at a scale of 1:100), with more detailed drawings undertaken (at a scale of 1:20) where surviving features of architectural interest (e.g. doorways, windows) survived *in situ*. Sample sections of masonry were also recorded in these more detailed drawings, allowing the character of the stonework to be shown in detail.

4 Archaeological and Historical Background

- 4.1 The desk-based assessment did not identify the presence of any sites protected for their archaeological or historical merit under the terms of the *Ancient Monuments and Archaeological Areas Act 1979* or buildings protected under the *Town and Country Planning Act 1997* within the proposed planting area.
- 4.2 *Historic Landuse*
- 4.2.1 The earliest map coverage available for the proposed planting area is Blaeu's Map of 1654 (Fig. 1a). This shows the River Avon, and lying immediately to the south, a significant settlement at Slamannan, presumably a baronial residence built to supersede the motte which still survives there (NMRS No. NS87SE 1). Located in close proximity is a church, presumably that dedicated to St Lawrence which was replaced by a modern church building in 1810 (NMRS No. NS87SE 2). A mill is also depicted on a nearby tributary of the Avon. The area to the south of Slamannan, where the farmsteadings of Blackrigg and Wester Drumclair are now situated, is devoid of features, which suggests that it was not particularly conducive to cultivation. This fits in neatly with the local tradition, related in the Old Statistical Account (Macnair 1791-9, 79) that the place name 'Slamannan' comes from a comment made by a farm labourer, who in response to a query from the landowner, the Earl of Callander and Linlithgow, declared that ploughing the land there would 'slay man and mare'. While this statement is purely apocryphal, it suggests that the area did not comprise prime agricultural land, and pre-19th century map evidence would tend to support this.
- 4.2.2 Moll's Map of 1745 shows the area around Slamannan in greater detail (Fig. 1b), with Black Loch depicted, and the placename 'Banhatstain' (the forerunner of 'Balquhatstone') shown in approximately the same location as the structures depicted by Blaeu at Slamannan. The place name 'Slamannan' appears now in association with a natural feature, 'Sloamannan Moore', which presumably refers to an area of grazing or rough pasture, which again suggests that the area is not widely cultivated at this time.



Fig. 1a: Extract from Blaeu's Map of 1654

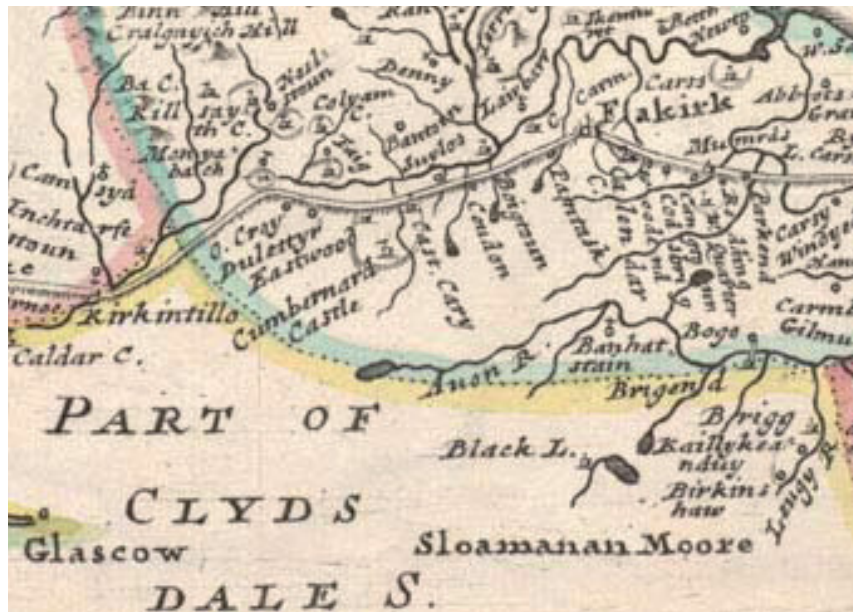


Fig. 1b: Extract from Moll's Map of 1745



Fig. 2a: Extract from Roy's Military Map of 1747-55



Fig. 2b: Extract from Thomson's Map of 1832

- 4.2.3 It is Roy's military map of 1747-55 which first shows the landscape around Limerigg in sufficient detail to allow direct comparison with modern (i.e. post 19th century) mapping of the area (Fig. 2a). By this time many of the farms, and their associated steadings, have been established. Blackrigg is depicted as an L-shaped rectangular building with an attached enclosure to the S, and a second ancilliary building abutting the N end of the enclosure in the E. Wester Drumclair is also shown, but the settlement here is more dispersed, comprising perhaps four rectangular buildings or three rectangular buildings and a rectangular enclosure. Limerigg is also shown, as is 'Baluhaston', which although obviously comprising a substantial structure with associated enclosures does not have any designed landscape elements present. The general character of the landscape is agricultural, with cultivated land clearly depicted in the vicinity of each of the farm steadings described above. A single road runs from N to S, following a similar course to that followed by the modern B8022.
- 4.2.4 In terms of the number of farms occurring, Thomson's map of 1832 shows little change from Roy's earlier map (Fig. 2b). However, his farms are shown in less detail, with the structures at Blackrigg and Wester Drumclair respectively shown as single rectangular blocks. This may not, however, reflect the actual layouts of the farm buildings. One difference which is clearly apparent in Thomson's map is, however, the road layout. While Roy shows a single road running from N to S and passing through Limerigg, Thomson shows a network of roads and tracks connecting both farmsteadings in association the earlier N-S road depicted by Roy.
- 4.2.5 It is with the onset of the Ordnance Survey mapping programme that the landscape around Limerigg is first shown in any great detail. By examining successive editions of these maps, the history of occupation and land use in the vicinity of both farmsteadings throughout the 19th century can be interpreted and its changing character described in detail.
- 4.2.6 The 1st Edition Ordnance Survey map (1864) shows a landscape that is overwhelmingly rural in character. However, there are hints of the industrialisation that is to come, with two coal pits evident, one lying WSW of the farm of Limerigg, the other lying to the S of Drumclair. The latter lies at the end of a tramway, the former connected to the tramway by way of a branch line. In addition to the farm buildings at Blackrigg, Drumclair, Limerigg and Newfieldyke (amongst others), there are several long, unnamed rectilinear structures which are likely to be workers' rows; terraced housing built to provide accommodation for the community of miners and their families. Also evident in the wider landscape are designed landscape features such as shelter belts and roundels.
- 4.2.7 The first of the two farms studied, that of Blackrigg (NMRS No. NS87SE 10)), comprises three rectangular structures arranged in a 'U' shaped plan around the N, E and W sides of a central yard (Fig. 3a). A small outshot projects from the W wall of the easternmost structure. All of the buildings are shown as solid shapes, which suggests that at this time, the farm was occupied and in active use. The farm buildings are set within a complex arrangement of small fields, of irregular plan, which presumably comprise areas used for the production of arable crops or root vegetables, with the larger fields beyond probably used for the grazing of livestock. There is a pond to the NE and a well to the N. The farm is served by an access road or track which approached from the E.
- 4.2.8 The second farm, Drumclair, comprises two discrete structures set at right angles (Fig. 3b). One was 'L'-shaped on plan, oriented WSW-ENE with a projecting wing to the NNW. The second was rectilinear on plan, and oriented NNW-SSE. There is a smaller outbuilding or extension to the SSE with a projecting outshot evident on the ESE-facing wall. All the structures are roofed, which suggests that the farm is occupied and in use at this time. The farm buildings are set within an arrangement of fields or plantations which surround them to the N, S and E. A rectangular enclosure or small field lying immediately to the N appears to be planted with trees around its perimeter, which suggests that the trees formed a shelter belt for a paddock or orchard. Lying to the N, W and E of this is a larger 'U'-shaped area which has been planted with trees or shrubs and which may again have been created to form a shelter belt. Lying further W (outwith the limits of the survey area) is a circular plantation or roundel created as an ornamental feature in the landscape. The farm buildings are accessed via a road or track which approaches from the SSE.

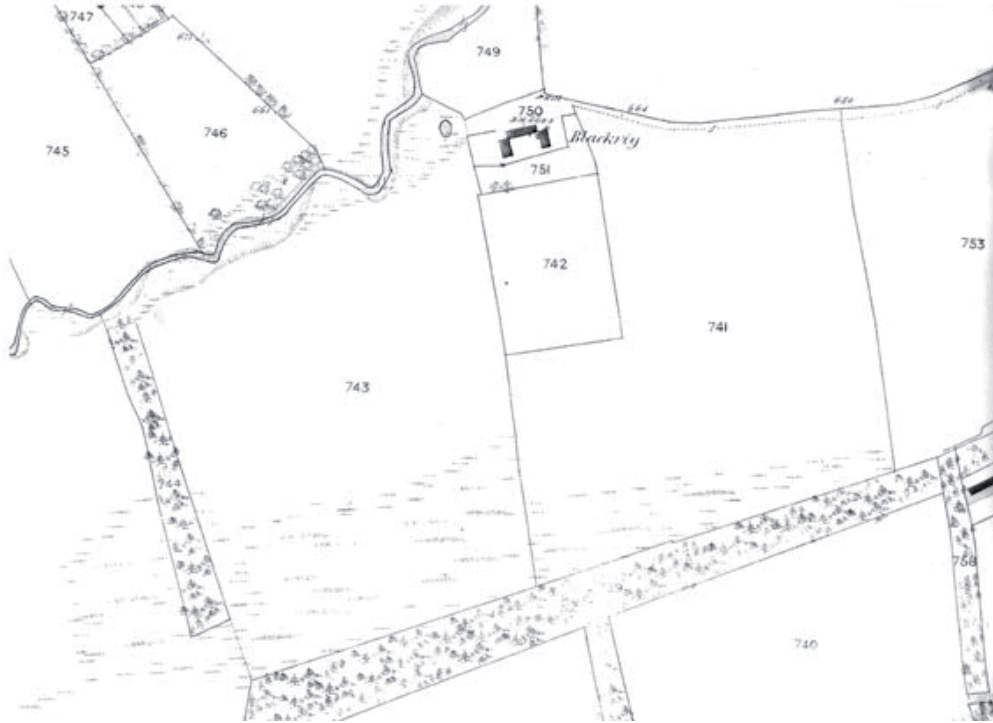


Fig. 3a: Extract from Ordnance Survey 1st Edition Map of 1864 (1:2500) - Blackrigg



Fig. 3b: Extract from Ordnance Survey 1st Edition Map of 1864 (1:2500) – Drumclair



Fig. 4a: Extract from Ordnance Survey 2nd Edition Map of 1898 (1:2500) - Blackrigg



Fig. 4b: Extract from Ordnance Survey 2nd Edition Map of 1898 (1:2500) - Drumclair

- 4.2.9 The 2nd Edition Ordnance Survey map (1898) was surveyed approximately four decades later. It shows a landscape transformed by the expansion of coal-mining throughout the area; as a consequence, the outlook from both farmsteadings would have changed radically in this time, with mining activities commencing in their immediate vicinity. The Balquhatstone Colliery has been opened in the vicinity of Blackrigg (NMRS No. NS87SE 10), the Limerig Colliery in the vicinity of Drumclair. The village of Limerig has now become a focus for industrial activities relating to the coal industry, with a row of coke ovens present which indicates that the raw material being extracted from the collieries in the area are being processed to form a more specialised and presumably more desirable product; coke is produced when bituminous coal is heated at a high temperature in order to remove the impurities present (Oglethorpe 2006, 275). This provides a product compatible with use in the iron-smelting industry, which was a major consumer of coal in the wider area. The tramway featured on the 1st edition map has developed into a mineral railway which has extended eastwards beyond Limerig (which is now divided into 'Limerig' and 'High Limerig'. Branches extend from main trunk line to both the Balquhatstone and Limerig collieries
- 4.2.10 By 1898, the farmsteading at Blackrigg (Fig. 4a) was hemmed in to W and S by elements of the Balquhatston Colliery. Two pitheads lie close to the farmsteading – Pit No. 8 to the ENE, with its mine-shaft, associated spoilheap and tramway, and Pit No. 3, which lies immediately to the S of the farmsteading. The branch of the mineral railway which serves the Balquhatston Colliery terminates just to the W of the farm, and the access track which serves the farm is cut through by the tramway serving Balquhatston No. 8. A substantial spoil heap or bing is also starting to accumulate to the W of the steading. Despite the steady encroachment of the colliery upon its land, Blackrigg shows no signs of shrinkage or impoverishment. Instead, the farmbuildings show evidence of expansion, with the E building being extended to the N, and all three buildings remaining as roofed, and presumably occupied, structures. The complex of fields to the N and S of the steading have been largely removed, especially to the N and the E, and the well is no longer shown. The trackway, however, has been extended westwards to terminate at the E side of the coal bing, presumably so it can serve the colliery as well as the farmsteading.
- 4.2.11 Drumclair, by contrast, suffered less encroachment in its immediate proximity (Fig. 4b). A complex of colliery buildings lies to the NE, comprising buildings, coal bings and a raised level (Limerig Colliery, Pit no. 5, NMRS No. NS87SE 43) and the farmsteading now has a branch of the mineral railway running from N-S to its immediate E. This curves round to the S and runs roughly ENE-WSW to the coke ovens at Limeriggs. However, while the evidence suggests that the farm at Blackrigg remains viable, perhaps even successful, (the expansion of its structural elements at this time would suggest the latter) Drumclair shows signs of shrinkage. One building, the NNW-SSE structure, is depicted as unroofed, though the other remains roofed and presumably occupied. The stand of trees lying immediately to the N of the farmsteading has been removed, with trees occurring instead around the limits of the outer 'L'-shaped plantation. This perhaps reflects the fact that the trees depicted in this location had not yet reached maturity at the time the 1st edition map had been surveyed and had therefore not been depicted as upstanding trees. The ornamental plantations lying to the W and SW of Drumclair, while depicted as extant, are now devoid of trees, which may once again indicate less investment on the part of the landowner in the rural and agricultural side of their estate.
- 4.2.12 The 3rd Edition Ordnance Survey map (1917) shows another radical change in the landscape. The rise to prominence of the coal industry throughout the area during the late 19th century has ceased, and the industry subject to rapid decline. Balquhatston Colliery has fallen into disuse, as has the Limerig Colliery. The shrinkage of the industry is also reflected by the closure of the mineral railway, which is already annotated as 'dismantled'. Some of the miners' rows at Barnsmuir (to the SSE of Drumclair) are also shown as unroofed and therefore abandoned, further emphasising the change of fortunes suffered by the coal industry in the Limerigg area.

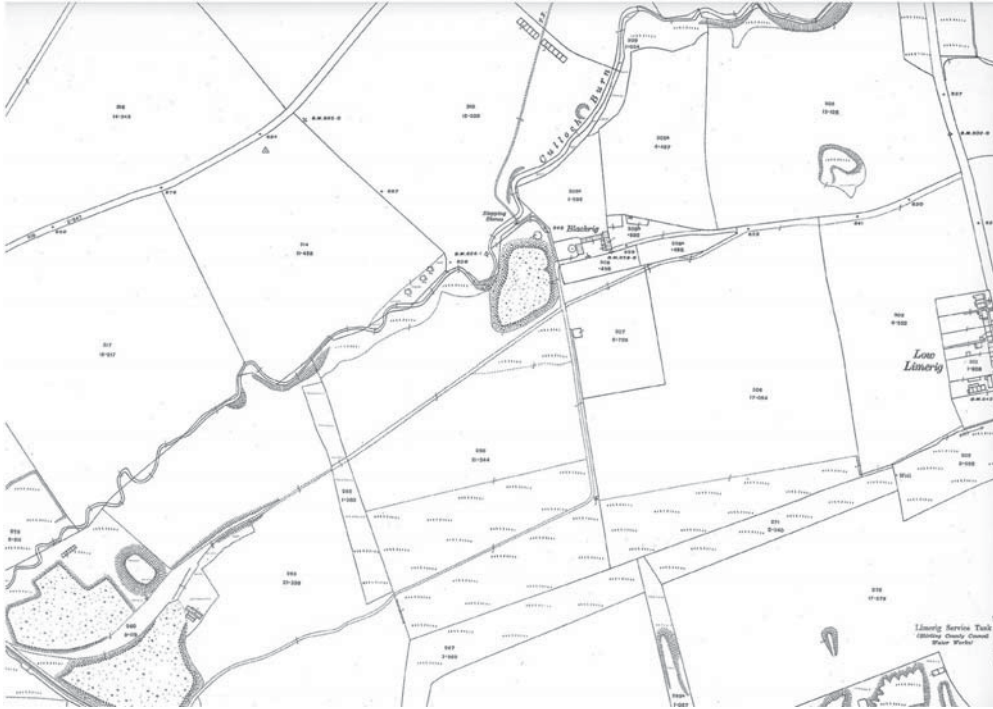


Fig. 5a: Extract from Ordnance Survey 3rd Edition Map of 1916 (1:2500) - Blackrigg



Fig. 5b Extract from Ordnance Survey 3rd Edition Map of 1916 (1:2500) - Drumclair

- 4.2.13 By 1916, the farmsteading at Blackrigg is flanked to the W and S by the relict remains of the Balquhatston Colliery (Fig. 5a). The adjacent coal bing has extended further to the N and W in the intervening years prior to the closure of the colliery, and the branch of the mineral railway and tramway has been closed and dismantled. The colliery buildings at both pitheads have also been largely dismantled. By contrast, the farmsteading itself again shows evidence of expansion. The outshot present on the W wide of the E N-S building has been extended to the N, and there is a circular platform evident to the W of the westernmost farm building. This is of the correct dimensions and appearance to represent the site of an open horse-gang (for illustrated example, see Hay & Stell 1986, 11), normally used in threshing. A similar feature is shown on the 1st Edition Ordnance Survey Map of 1864 at the nearby farm of Limerigg and is annotated 'Churning Machine', which suggests a use in the dairy industry, though the example at Blackrigg is apparently several decades later in date. The access track which once serviced the adjacent pithead to the SW is still extant, and a series of enclosures have been created in the vicinity of the farm buildings.
- 4.2.14 While the farmsteading at Blackrigg appears to be thriving, that of Drumclair shows further evidence of contraction (Fig. 5b). By 1916, one of the two buildings, the NNW-SSE structure, is shown as unroofed, while the other WSW-ENE range is now partially unroofed. This suggests that the structure has been abandoned in recent times and is now falling into disrepair. The 'L'-shaped block of woodland which protects the farm buildings to W and N is also showing evidence of decay, with upstanding trees shown only on the W side. Limerigg Colliery has also been abandoned – the railway that runs to the W of Drumclair has been turned into a footpath in the vicinity of the farmsteading, and the colliery buildings are shown as roofless ruins.

4.3 *Aerial Photographs*

- 4.3.1 The National Monuments Record for Scotland holds a number of vertical aerial photographs within its collections which provide detailed coverage of both areas. These images were taken on various occasions over a number of years between the 1940's and 1990's. Consultation of these resources gave an insight into changing land use patterns throughout the late 20th century, and provided a useful companion to the map coverage which has already been discussed.
- 4.3.2 Comprising a series of images taken between the 1940's and 1960's, the vertical aerial photographs provide insights in particular on two aspects of land management within the wider area (for examples, see Fig. 6a-b). These include the eradication of some of the monuments associated with the coal industry (in particular, the coke ovens at Limerigg) and the rise of the timber extraction industry. In the earliest photographs, taken in the 1940's and 50's (e.g. Fig. 6a), afforestation has not yet commenced and a number of the features shown on the early Ordnance Survey maps are clearly visible, including the designed landscape features and the 'L'-shaped shelter belt at Drumclair. Both Blackrigg and Drumclair are clearly visible as upstanding ruins in the landscape. By 1971, large-scale afforestation has commenced; Blackrigg lies clear of the planted area, while Drumclair and its associated plantings survive as an isolated pocket within a coniferous plantation. By the 1980's Drumclair can now be identified only as area of deciduous trees (the shelter belt) which contrast with the surrounding conifers. The former designed landscape features have virtually been eradicated, though on one aerial photograph taken in the 1990's (Fig. 6b), traces of the smaller, more northerly, roundel can still be seen as an outline within the coniferous plantation.
- 4.3.3 Mention should also be made of a series of oblique aerial photographs taken by RCAHMS in the 1990's. These show the area around Limeriggs in great detail, but with Drumclair situated by this time within a mature coniferous plantation, no detailed views of the farmsteading are available. Blackrigg, by contrast, is shown in very great detail on a series of oblique shots which show the ruins of the farm buildings, the adjacent mining remains and areas of rig-and-furrow cultivation (Fig. 7). Taken in the late afternoon or evening, with the sun low in the west, they reveal a number of the features later identified in the field survey and are a useful means of locating the site within its wider landscape context.



Fig. 6a: Vertical Aerial Photograph Showing Areas of Interest in 1949 (Crown Copyright)



Fig. 6a: Vertical Aerial Photograph Showing Areas of Interest in 1996 (Crown Copyright)



Fig. 7: Oblique aerial view of Blackrigg farmsteading and environs, from N, showing building footings, horse-gang, adjacent mining remains and rig-and-furrow cultivation

(Crown Copyright)

4.4 *Archaeological Background*

- 4.4.1 Direct evidence of human occupation and land use in the parish of Slamannan itself is sparse, but in the wider context of the Forth Valley, there are numerous examples of human activity dating back as far as the immediate post-Glacial period, the Mesolithic (Waugh 1977). Shell middens of Mesolithic date have been identified on the banks of the River Forth, and finds of Neolithic pottery and lithic implements have been recovered in and around Falkirk. Waugh notes that the celebrated prehistoric monument at Cairnpapple Hill, which was a focus of ritual and funerary activity from the Neolithic through to the Iron Age, is visible from the town of Slamannan (Waugh 1977, 2). The Roman presence is also not directly attested within the parish, but the Antonine Wall and associated Military Way lie only a few miles to the north (Waugh 1977, 4).
- 4.4.2 By contrast, medieval occupation within the parish of Slamannan is firmly attested by physical remains. The remains of a motte, an earth-and-timber castle of 11th or 12th century date, survive as an upstanding feature within the town (NMRS No. NS87 SE 1), and the importance of the area at this time is further demonstrated by place name evidence. A church and associated holy well dedicated to St Lawrence would have had its origins in the medieval period (NMRS No. NS87SE 2.), and the mill, shown on Blaeu's map of 1654 as lying on a tributary to the S of the castle and church, may also have its origins in the medieval period. At this time, the grain produced on an estate would have been ground at a centralised location and a portion of the flour removed as a tithe paid to the landowner.
- 4.4.3 The lands of Slamannan formed part of a barony which passed through various hands throughout the medieval period, reflecting the upheavals of the Wars of Independence (Waugh, 1977, 12-14). Part of the barony passed to Sir James Sandilands in 1374, and still remained within the family until the 1560's. However, another notable family also possessed a share of these lands; the Livingstones, who later became the Earls of Callendar and Linlithgow. A charter of 1470 records King James II giving the lands of Slamannan to Lord Livingstone (Davidson, 18) and they appeared to have remained in this family, with the Earls of Callendar and Linlithgow remaining the feudal overlords until their forfeiture in 1715.
- 4.4.4 The Earls of Linlithgow continued to prosper until the Civil War of the mid-seventeenth century, when their fortunes progressively dwindled on account of their staunch Royalist and ultimately, Jacobite loyalties. This ultimately resulted in the forfeiture of their lands, which included Slamannan, after the 1715 Rebellion. The Exchequer Records make reference to this seizure amongst the Forfeited Estates Papers of 1715 (National Archives, Ref. No. GB 234 E644) – the 4th Earl of Callender and 5th Earl of Linlithgow did, however, escape with his life by fleeing to the continent, and he died in exile in Rome in 1723. His lands were sold to the York Buildings Company in 1720, and sold on to Mr William Forbes of London in 1783 (Balfour 1904).
- 4.4.5 The forfeiture of the Earl of Callendar and Linlithgow forms the backdrop to the later development of the parish of Slamannan. By the time the agricultural improvements of the late 18th and 19th centuries are taking place, the once-vast holdings of a single landowner have already been fragmented and sold on to various owners. The author of the Old Statistical Account laments the lack of agricultural Improvements throughout the parish (Macnair 1791-9, 84), and puts this down to the large number of owner-occupiers present throughout the parish, who cannot afford to invest large amounts of money in their land and associated infrastructure. He also notes that the land in many places is ill-suited to either the production of arable crops or the fattening of beef cattle, with income raised instead by dairy farming. By the mid-19th century, dairy farming is still a predominant source of income. However, it seems likely that there has been some consolidation of land-holdings by this time, with certain landowners managing to acquire a number of farms and encouraging investment and improvement by their tenants.
- 4.4.6 Documentary evidence relating to the farmsteadings of Blackrigg and Drumclair illustrates this very clearly; the Ordnance Survey Object Name Book of 1864, created as a companion to the 1st Edition Ordnance Survey map, describes Blackrigg as '*A farmsteading, one storey, slated and in good repair. Property of Mrs Waddell of Balquhatston House, Slamannan*'. In

this same resource, Drumclair is described as being ‘*A considerable large farmsteading, one storey, slated and in good repair. Property of Henry Taylor, Springburn, Parkhead, Near Glasgow*’. What is evident is that by this time, one farm – Blackrigg - is in the ownership of a local, recently established, dynastic family, the Waddells of Blaquhatston. The Waddells are the owners of Balquhatston between the years of 1843 and 1902 – they are mentioned in the directories of gentlemen’s seats for both and for the intervening period, too (see Findlay 1843 and Giles 1902). Drumclair is one of a number of farms in the parish owned by an absentee landlord (Davidson 1834-45). Another document held in the National Archives of Scotland, suggests that Mr Taylor came into the ownership of Drumclair through the financial misfortune of an earlier owner – a Sederunt book of 1819-20 details the purchase of the lands of Limeridge and Drumclair following a bankruptcy (GB 234 CS96/3382).

- 4.4.7 The levels of investment put into their lands by both the Waddells of Blaquhatston and Henry Taylor appear to be consistently high. Both landowners appear to have encouraged the improvement of their estates by their farming tenants – a late 19th century Census indicates that the tenant of Drumclair was born in Ayrshire (E. Stewart *pers. comm.*), which suggests that Mr Taylor had invited an established farmer well-versed in Improvement agricultural methods to take up the tenancy of this particular farm in order to maximise its output. Map evidence suggests that both farmsteadings were subject to expansion in the early to mid-19th century, and also indicates that Mr Taylor had created a number of ornamental woodland features in order to improve the appearance of his estate.
- 4.4.8 Towards the end of the 19th century, however, agriculture was becoming eclipsed by the rapidly-developing coal industry. Limerig Colliery, located in close proximity to Drumclair and presumably occupying land owned by Mr Henry Taylor, was established by 1869. It was under the ownership of John Nimmo of Slamannan, the first of a dynasty which was closely associated with the coal-mining industry around Limerig and Slamannan during the late 19th century. Balquhatston Colliery was established on land belonging to the Waddells of Blaquhatstone, with the New Statistical Account detailing the early history of this enterprise as follows, ‘*Since the commencement of the railway, there have been different bores made on the lands of Balquhatston... and ... there have been found several seams of coal from one to three feet thick. About twenty-five workmen are employed, and nearly fifty tons daily of coal are conveyed to market by the railway*’ (Davidson, 1834-45, 278). The colliery must have been leased from the landowners, for its owner is not the Waddells themselves – between 1869 and 1880, it is in the ownership of John Watson, before passing into the hands of John Nimmo by 1898 (Patterson, *web 2009*). By this time, 253 men were employed at Balquhatston and 172 at Limerig. Operations were not entirely free from mishap – in 1859, a miner and resident of Slamannan, Andrew Heaps, was charged with the culpable homicide of Andrew Freckleston, another Slamannan resident, at No. 2 Pit, Balquhatston Colliery (National Archives of Scotland, Ref. No. GB 234 AD14/59/95).

5 Results (for accompanying Gazetteer, see Appendix 1)

- 5.5.1 The field survey at Blackrigg took place on the 16th March, 2009, and comprised a detailed survey of all upstanding features using a Leica Total Station. The survey area comprised a block of land measuring approximately 1 ha. in extent, centred on the farmsteading at Blackrigg (NS 851 713, NMRS No. NS87SE 10). During the site visit and initial data gathering exercise, the position of the 1 ha. block was shifted slightly to the south, in order to exclude an area disturbed by recent afforestation and to incorporate instead a stretch of surviving rig-and-furrow cultivation (Fig. 8). Where larger features such as spoil heaps and field boundaries were present in the study area, as much of the surviving extent as was feasible was incorporated into the final plan, in order to place the 1ha. block into a wider landscape context. All sites were identified, characterised and recorded at a level consistent with a Level 1 Survey, with the results of the exercise described below.
- 5.5.2 The main focus of the survey at Blackrigg was the farmsteading itself (**101**) which survived as a roughly ‘L’ shaped arrangement of building footings upstanding to a height of 0.5m in places (Fig. 9a). The masonry was much overgrown, but one or two corner-stones, or quoins, appeared to remain *in situ* beneath vegetation build-up. There were ephemeral

traces of the W N-S wing and the various additions to the structure that are evidenced on the various editions of the Ordnance Survey historic mapping for the area.

- 5.5.3 Of particular interest at Blackrigg was the well-preserved remains of a levelled circular platform **102**, measuring approximately 10m in diameter, which lay to the immediate W of the farmsteading **101** (Fig. 9b). This has the character and dimensions of an unroofed horse-gang (Hay and Stell 1986, 11). While horse-gangs are invariably associated with threshing-machines, a similar platform is shown on the 1st Edition Ordnance Survey map of 1864 at the nearby farm of Limerig with the annotation 'Churning Machine' presumably used in the large-scale production of butter or cheese. Since dairy farming is highlighted as a major source of income in the parish in both the Old and New Statistical Accounts, attempts to maximise production through mechanisation during the late 19th century come as no surprise, and it is possible that **102** represents the remains of a similar horse-power churning machine.
- 5.5.4 Also surviving in various degrees of preservation were the numerous field boundaries and enclosures shown on the various editions of the Ordnance Survey historic maps. In some instances, mature hawthorn trees were still present along the line of the banks (e.g. **106**, **107**, **109**), indicating that hedging was the preferred form of containment for livestock. This was consistent with the nature of the upstanding remains, which comprised earthen banks, in many cases having associated ditches present, with very little stone content evident. Some evidence of phasing was apparent; an earthen bank **106** with remnants of its hedge surviving was seen to overlie an earlier field boundary **114** that had once run on a roughly similar course (Fig. 10a).
- 5.5.5 Also of note is a circular feature **104**. This measured approximately 5m in diameter and was defined by a broad earthen bank upstanding to a height of 1m in places (Figs. 10b & 11b). It is shown as a 'pond' on the 1st Edition, and there was evidence that the banks had been breached in several places in order to allow the water within to escape downslope to the adjacent watercourse.
- 5.5.6 While rig-and-furrow cultivation was clearly shown on aerial photographs of the farmsteading and its environs taken by RCAHMS in 1991, the planting of deciduous trees to the N of farmsteading **101** in the intervening period had resulted in its destruction in this location. However, some faint traces of rig-and-furrow **120** were evident in another field, lying to the S of the access road (Fig. 11a). These were, however, difficult to spot at close quarters, with the result that while oblique photography taken from a distance revealed these features relatively well, it was difficult to plot their location with any degree of confidence or accuracy during the actual field survey element of the work.
- 5.5.7 Evidence relating to the area's industrial past was also clearly attested. Dominating the skyline to the W was a substantial coal bin **105**, which extended into the study area on its W side (Figs. 11a-b). Despite some quarrying in the S face, the feature had survived relatively intact to the present, with tip lines still visible on its upper surface. Since this was an extensive feature that extended far beyond the study area, its full extent was neither mapped nor fully established.
- 5.5.2 Other features associated with mining were the trackbed of the railway or tramline that once ran from Balquhatstone Pit No. 8 to the nearby mineral railway to the SW. The course of this feature now survives as the current access road (unnumbered) and is defined on either side by modern field boundaries. A mound **122** at the SW corner of the study area also appears to have been linked with the mining operations that once took place here – it occupies the site of a building shown on the 2nd Edition Ordnance Map as associated with Balquhatstone Colliery Pit. No. 3.

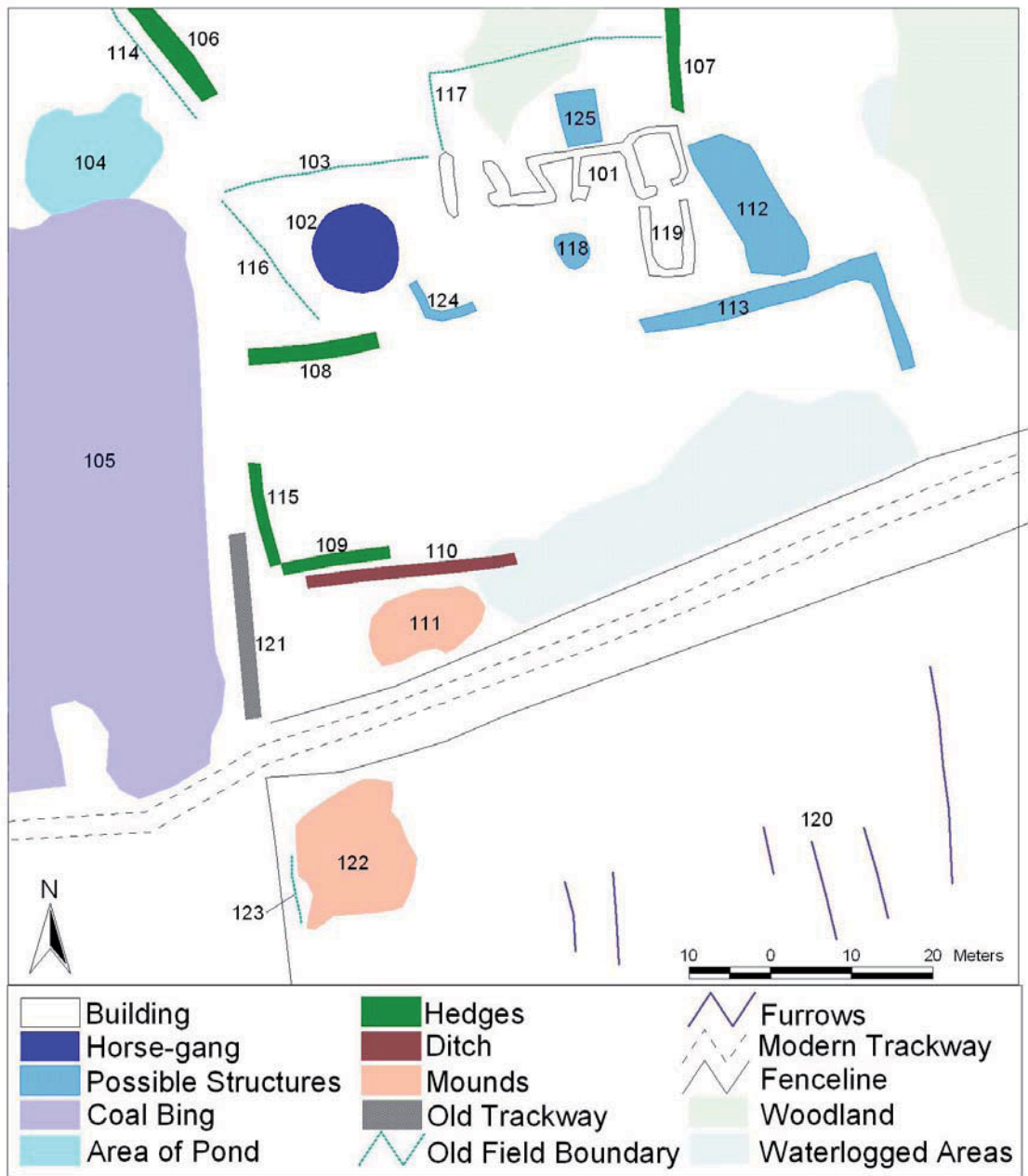


Fig. 8: Site Plan – Blackrigg Farmsteading & Nearby Features



Fig.9a: Farmsteading **101** from W



Fig. 9b: Horse-Gang **102** From N, with Field Boundary **103** in foreground



Fig. 10a: Extant Hedgerow **106**, with Relict Field Boundary **114** to Left



Fig. 10b: Banked Feature ('Pond') **104**



Fig11a: Extant Rig-and Furrow Cultivation from top of Coal Bing **105**



Fig. 11b: N End of Coal Bing **105**, with Banked Feature ('Pond') **104** to Right

5.6 *Field Survey - Drumclair*

- 5.6.1 The survey took place on the 17th March, 2009, and comprised a detailed survey of all upstanding features using a Leica Total Station. The survey area comprised a roughly 1 ha. block of land centred on the farmsteading of Drumclair (NS 860 711).
- 5.6.2 The farm buildings at Drumclair comprised a single N-S oriented rectangular building **201** with an adjacent E-W aligned rectilinear block **202** (Fig. 13a). There was an outshot to the N at the W end of **202**. The buildings survived in much better condition than those previously identified at Blackrigg, with the N and S gable walls of **201** surviving virtually to wallhead height and the W wall of **202** surviving to a height of 3m in places. These upstanding remains were subject to a standing building survey which will be detailed in section 3.7 below.
- 5.6.3 In addition to the extant remains of the farm house, there was evidence of earlier phasing of occupation on the site that predated the current upstanding features. In particular, there was evidence of an earlier outshot **208** on the N side of the W end of **202**, which survived only as footings (Fig. 13b). There was another possible structure **214** lying to the N; though this survived only as very ephemeral traces, it revealed evidence of a wall return. No features were shown in this location in any of the available mapping.
- 5.6.4 Traces of the woodland planting shown around the N and W sides of the farmsteading on the historic mapping also survived here. The 'L'-shaped shelter belt was defined by a broad bank (**209 & 210**), the original dimensions of which had probably been exaggerated by soil build-up around the roots of the trees (probably beech) which had been originally planted there and which had since grown into maturity (Fig. 14a). Lying on the external N and W sides of these banks were ditches **211** and **212**. A second bank, **203**, again running roughly E-W, served to further subdivide the area enclosed by the 'L'-shaped shelter belt. To the N of this, the ground was marshy and waterlogged, to the S more free-draining, though badly scarred by furrows resulting from 20th century afforestation. An additional field boundary **204** also bounded the E edge of the site, running in a roughly NNW-SSE direction. Again, this was associated with a ditch, **216**.
- 5.6.5 The only evidence of industrial activity to be identified in this particular 1 ha. block was railway cutting **205** associated with the railway running from Limerig Colliery to the N (Fig. 14b). While mapping clearly shows this running adjacent to field boundary **204/216**, the field survey showed that the cutting actually encroached upon the earlier bank and ditch which had formed the boundary. This may be the result of later erosion within the cutting, which has caused the earlier features to slump downwards towards the base of the later feature and thus become indistinct.

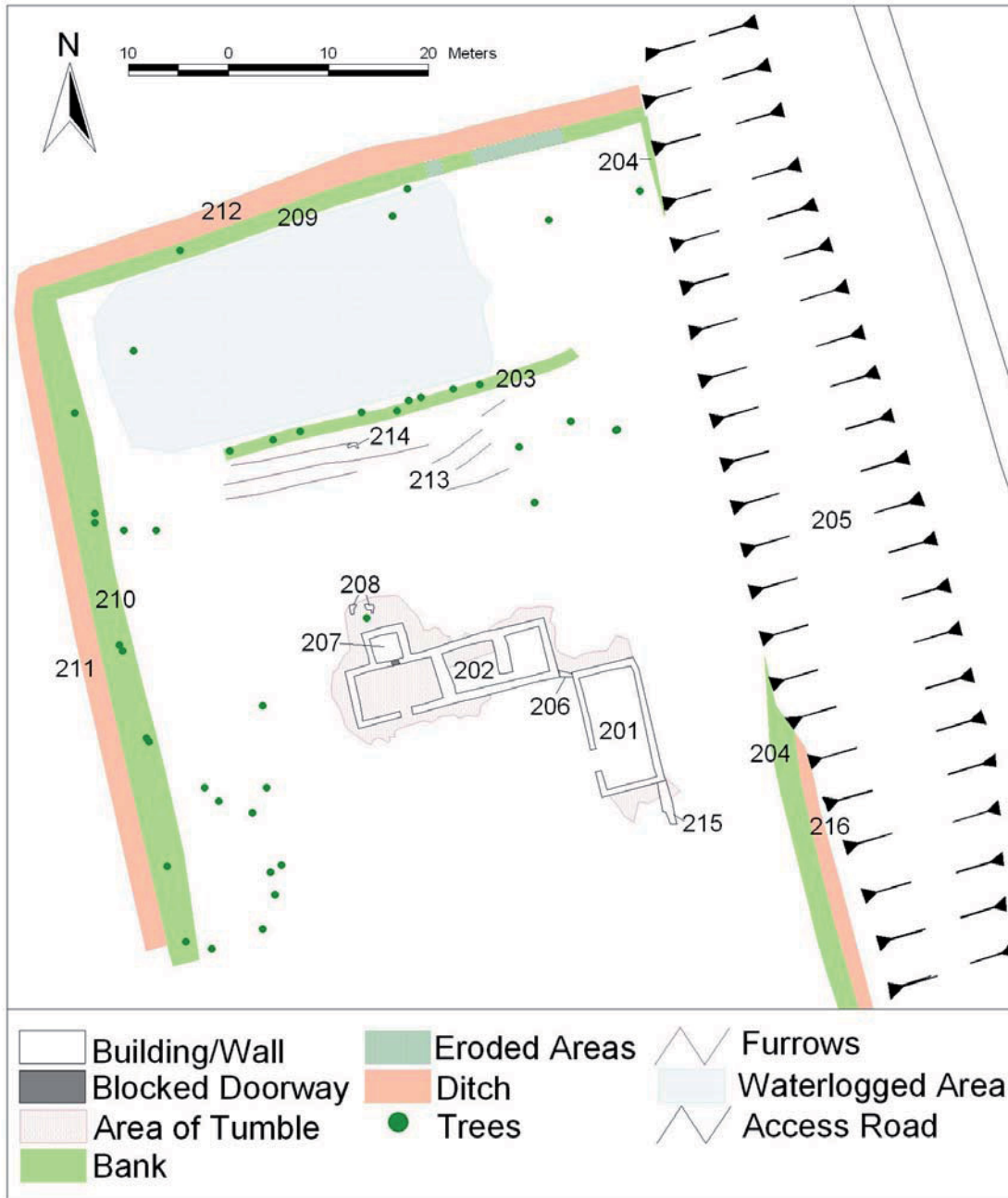


Fig. 12: Site Plan – Drumclair Farmsteading & Environs



Fig. 13a: Drumclair Farmsteading – Building **201** with Building **202** in foreground



Fig. 13b: Footings of Earlier Structure **208**



Fig. 14a: Looking SE over W Boundary Bank and Ditch (**210/211**) towards farmsteading



Fig. 14b: Railway Cutting **205** with Field Boundary **204** to left

5.7 *Standing Building Survey - Drumclair*

- 5.7.1 Following the initial field survey, the two upstanding buildings that once formed Drumclair farmstead were subject to a more detailed standing building survey which took place on the 18th and 24th March respectively. The work was carried out to RCAHMS Level 2 standard, with a full photographic record produced as well as accompanying descriptions. In addition, a series of drawings were undertaken of the upstanding elevations. These were routinely undertaken at a scale of 1:100. However, where the nature of the upstanding remains required it, i.e. where there were surviving in situ architectural features such as doorways or windows, more detailed drawings were produced. Detailed depictions of the masonry were also recorded on these more detailed elevations, in order to illustrate a representative sample of the masonry (Building 201 – N, S, W Elevations; Building 202, W Elevation, N Elevation, W end). The products of these two levels of recording were subsequently combined using Adobe Illustrator to create the composite series of elevations presented in this report.
- 5.7.2 The first of the two buildings, **201**, was rectangular on plan and aligned NNW-SSE. Its gable walls survived to wallhead height (Figs. 15a, 16a, 18); the N wall had a narrow window at ground floor height, with several quoins surviving in situ at the W side. Skewputts were also in situ at wallhead level (Fig. 15b). The S gable wall retained a number of quoins, but the skewputts in this instance were absent (though one collapsed example lay close by). There was a window at attic level, and an usually broad entrance towards the S end of the W wall. Wall footings running S from the S gable wall suggested that the building had once been extended further to the S, something which is supported through reference to the historic mapping.
- 5.7.3 The second building, **202**, was rectangular on plan and aligned WSW-ENE. It was subdivided into three compartments, of which the westernmost was the largest. The W-facing elevation survived to around 3m in height: there was a blocked doorway in the N wall of the W compartment (Figs. 17a, 19), leading into a small outshot which projected N from the W end, and evidence of a second doorway, slightly offset, in the S-facing elevation (Fig. 17b). This could be identified only by the presence of isolated quoins in the inner face.
- 5.7.4 In both buildings, the masonry comprised snecked rubble, with cherrycocking evident throughout. The walls had originally been pointed with mortar. Though the vast majority of the stone was unworked or only very roughly worked, the quoins and skewputts were made of sandstone which had been subject to much more careful finishing. The masonry here was dressed, with a contrasting plain margin. Some of the larger boulders making up the rubble-built interior were stugged, which suggests that the external surface would once have been rendered. Traces of rendering were still visible on the W-facing elevation of **202** (Fig. 16b).
- 5.7.5 The large doorway in the W wall and lack of fireplace in **201** would suggest that it functioned as a farm building (perhaps a combined barn/cart shed) rather than a house structure – it could be inferred from this that the ‘window’ at attic-level in the S-Facing Elevation was in fact a hatch allowing the easy removal of animal feed from a hayloft area. With the westernmost compartment of **202** being the largest and therefore the most commodious, it could be argued that this would have represented the actual farmhouse. However, there was no evidence which could confirm this, with no traces of any windows or fireplaces surviving in situ.



Fig.15a: Drumclair Farmsteading – N-Facing Elevation of **201**



Fig. 15b: Detail of Skewputt, W Side of N-Facing Elevation, **201**



Fig. 16a: Building **201**, S-Facing Elevation



Fig. 16b: Building **202**, W-Facing Elevation



Fig. 17a: Building 202, Blocked Doorway in N-Facing Elevation, W end



Fig. 17b: Building 202, S-Facing Elevation, W end

5.8 Discussion

- 5.8.1 The archaeological survey characterised and recorded two poorly understood nineteenth century farmsteads. These two sets of structures both had complex histories, having evolved and expanded during the mid nineteenth century before being impacted by the growth of the mining industry. This detailed survey has informed on the current condition of the sites and has established precise locational data relating to each farmstead and its associated remains. As such the survey has provided a sound base for the long term curation of these two important sites.
- 5.8.2 Both sites had been subject to different management regimes in the past 50 years, but the levels of survival apparent on each site did not altogether reflect this. Blackrigg had remained in open, unplanted moorland, and as a result the complex arrangement of buildings, associated features and enclosures remained relatively intact. The only place where destruction had occurred lay to the N of the farm buildings, where an area of deciduous woodland had been planted in a stretch of ground which had previously revealed rig-and-furrow cultivation on aerial photographs dating to the early 1990's. Following planting, no trace of the rig-and-furrow cultivation could be seen in this area, though the vegetation was extremely overgrown here and this may have masked any surviving features.
- 5.8.3. Drumclair, by contrast, had been located in the midst of a coniferous plantation which had recently been harvested. In this scenario we could preconceive that widespread destruction of the site had already taken place, but this proved not to be the case. Though ploughing and planting had taken place right to the S limits of the farmstead, to the N and W limits of the ornamental planting/shelter belt (**209/210** and **211/212 respectively**) and in the area between shelter belt **203** and the farm buildings, the actual upstanding remains – whether buildings or earthworks – remained undisturbed. Even a substantial proportion of the original trees that formed the shelter belts remained upstanding and *in situ*. Despite the use of heavy plant upon the site during the harvesting process, those areas where recent damage to the upstanding remains were evident were limited. The site's experience from afforestation and subsequent harvesting appears to have been a relatively benign one.
- 5.8.4 As part of the archaeological field survey, aspects of land management were taken into account with a view to establishing the current condition of the upstanding remains and mapping any areas where they were under threat as a result of the current land use regime. The site plans shown elsewhere show areas where land management could be improved in order to help stabilise the site or ensure its long term survival. These recommendations are detailed below.

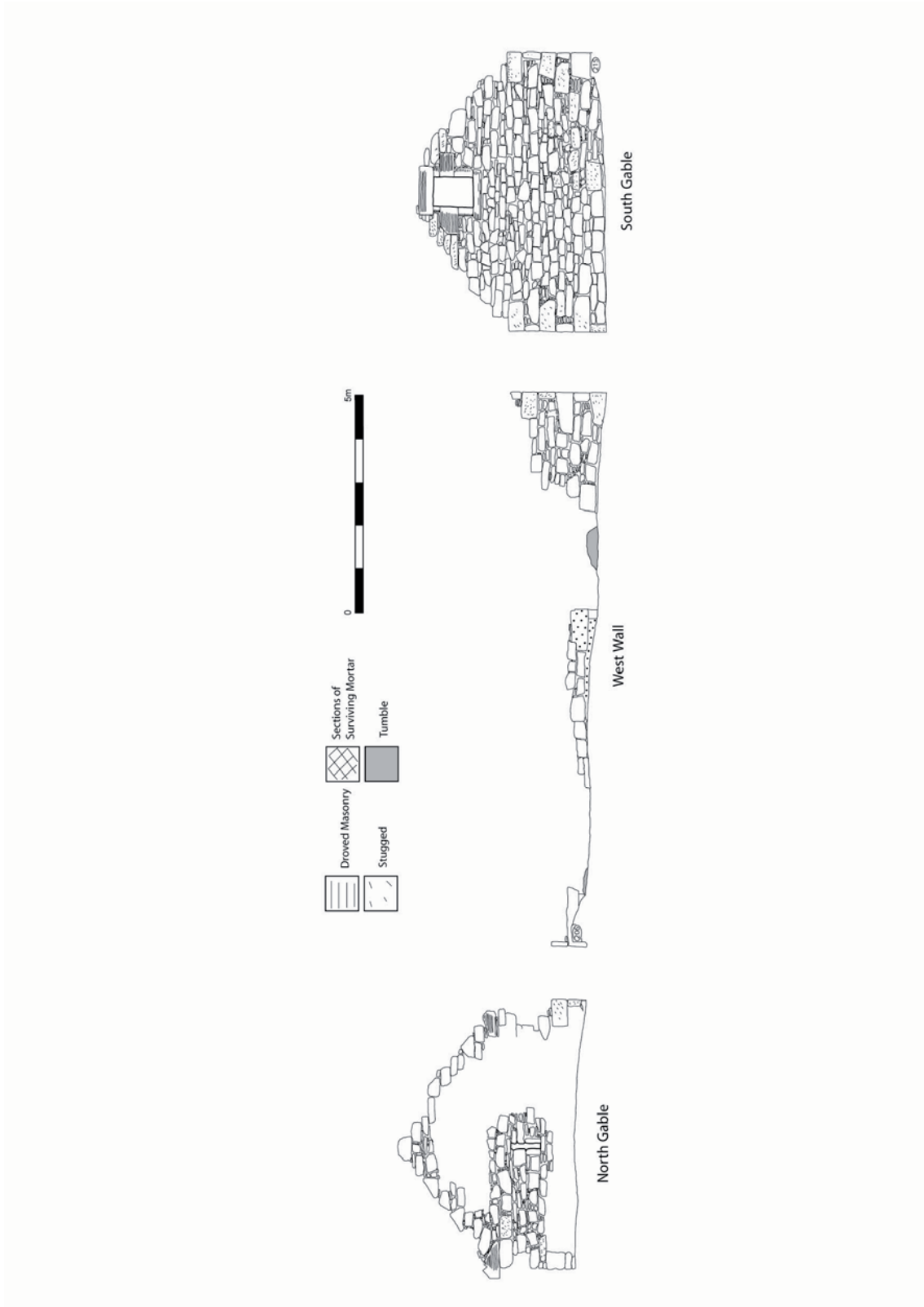


Fig. 18: Surviving Elevations of Structure **201** – N, S & W Elevations (S- & W-Facing Elevations Complete; Sample of Surviving Masonry Shown in N-Facing Elevation)

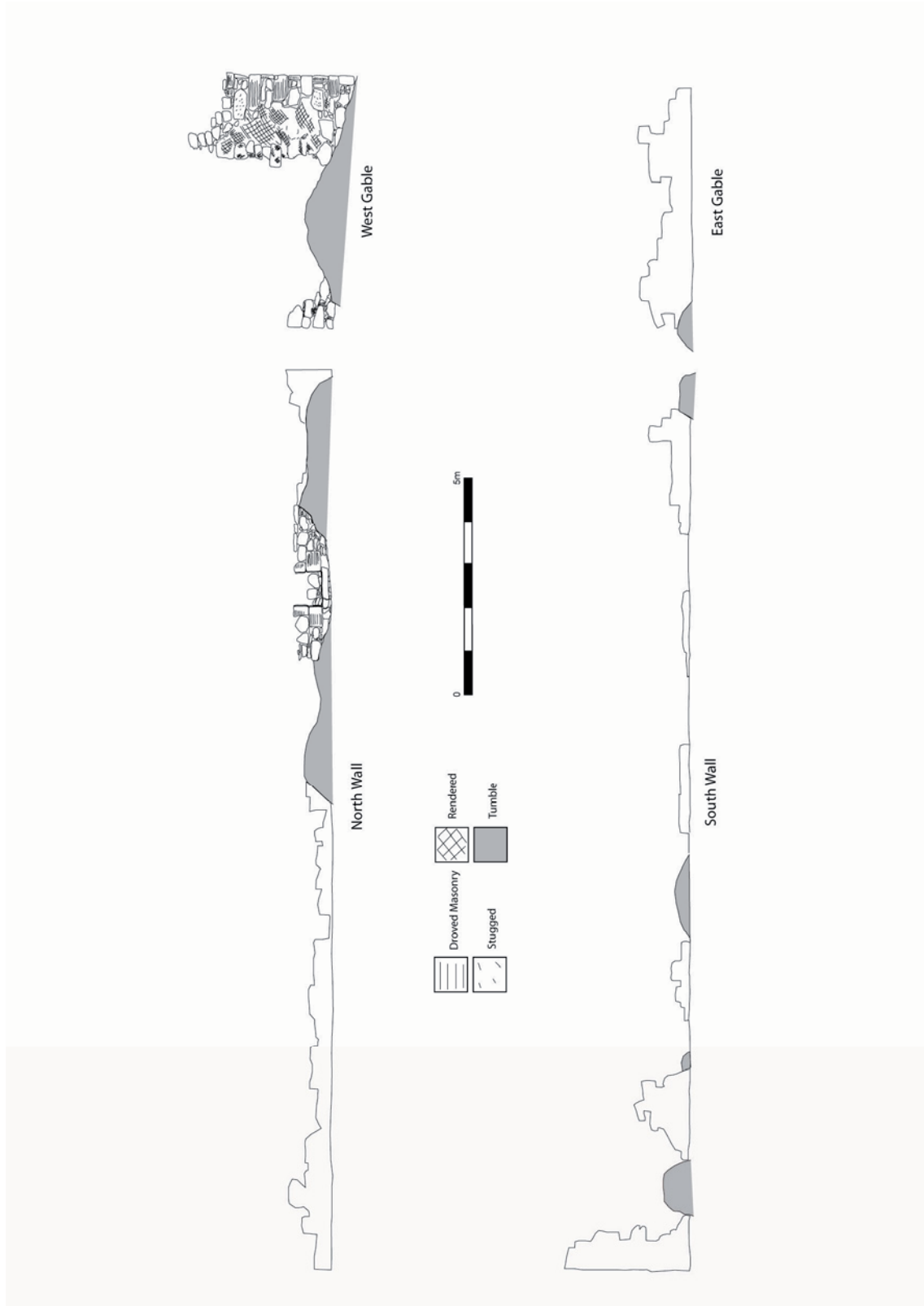


Fig. 19: Surviving Elevations of Structure **202** – For Details of Masonry see W End of North Wall and W Wall

6 Mitigation and Recommendations

- 6.1 The first of the farmsteadings, that of Blackrigg, currently lies in an area of rough grassland which is not currently subject to grazing by livestock and which shows only limited evidence of interference by burrowing animals. The site and the surrounding area which shows the greatest density of surviving archaeology (to the S and W of the farm buildings) are therefore unthreatened by the current land management regime. To prevent scrub growth, regeneration and the incursion of bracken becoming a problem in the future we would recommend either a grazing or a cutting regime be considered.
- 6.2 However, it should be noted that an area of deciduous woodland has been planted immediately to the N of the farm buildings. To further protect this monument during the harvesting of these trees and to improve its wider landscape setting, consideration should be made with regards to the removal of some of these young trees, in order to create a wider buffer (at least 20m) between the known extent of the site and the S edge of the woodland planting. The site should also be subject to regular monitoring to ensure that damage by burrowing animals does not become more extensive.
- 6.3 The site of Drumclair is different in character and thus offers a different range of issues. Since it consists of standing fabric to considerable height we recommend:
- Consolidation and retention of upstanding masonry (where masonry cannot be retained economically, we recommend that at least stub walls are retained rather than wholesale loss of wall);
 - Removal of scrub from masonry and interior of farmsteading (undertaken since survey)
 - Creation of at least 20m buffer zone around limits of site (plantation banks to N and W) during next phase of planting;
 - Avoid use of heavy plant within the limits of the site (stick to areas where site has already suffered damage/destruction through past land use) and particularly in waterlogged area in NW portion of site.
- 6.5 Planting design and forestry working practice should meet established industry standards for the integration and maintenance of archaeological sensitive areas in keeping with Forests & Archaeology Guidelines (Forestry Authority 1995).

7 Conclusion

- 7.1 A programme of archaeological survey and associated standing building survey was undertaken on the sites of two post-medieval farmsteadings at Limerigg Woods, Falkirk. The archaeological works were carried out during March 2009 for Forestry Commission Scotland.
- 7.2 The area comprises two blocks of land, each measuring roughly 1 ha. in extent, and centred upon the sites of two deserted post-medieval farmsteadings, that of Blackrigg farm (NS 851 713) and Wester Drumclair (NS 860 711) respectively. These sites are currently open moorland (Blackrigg) and clear-felled woodland (Wester Drumclair). The works involved a detailed field survey of both areas, using a Leica Total Station, and a detailed drawn building survey of the upstanding remains of the farmsteading of Wester Drumclair.
- 7.3 Recommendations for the continuing management of the two core sites have been made in keeping with best practice.

8 References

Documentary

Balfour, J (ed.)	1904	The Scots Peerage founded on Wood's Edition of Sir Robert Douglas's Peerage of Scotland
Davidson, A	1834-45	The Parish of Slamanan, Account of 1834-45, Vol. 8, pp.273-280
Findlay, J	1843	Directory of Gentleman's Seats in Scotland. Grant, Edinburgh
Forestry Authority	1995	Forests & Archaeology, Guidelines.
Giles, A	1902	The County Directory of Scotland Grant, Edinburgh
Hay, G D and Stell, G P	1986	Monuments of Industry: An Illustrated Historical Record
Macnair, J	1791-9	The Parish of Slamannan, or St Lawrence, Account of 1791-99, Vol 14, pp. 78-87
Oglethorpe, M	2006	Scottish Collieries: An Inventory of the Scottish Coal industry in the Nationalised Era, RCAHMS, Edinburgh
Ordnance Survey	1855	Name Book, Stirlingshire
RCAHMS	2004	Survey and Recording Policy
<i>Cartographic</i>		
Bartholomew, J	1912	Ayr
Blaeu, J.	1654	Lothian et Linlitquo
Moll, H	1745	The Shires of Stirling & Clackmannan
Ordnance Survey,	1864	1 st Edition, Stirlingshire, Sheet XXXV. 10, 1:2500
Ordnance Survey	1898	2 nd Edition, Stirlingshire, Sheet XXXV, 10, 1:2500
Ordnance Survey	1916	3 rd Edition, Stirlingshire, Sheet XXXV, 6, 1:2500
Ordnance Survey	1917	3 rd Edition, Stirlingshire, Sheet XXXV, 5, 1:2500
Roy, W	1747-55	Military Map of Scotland
Thomson, J.	1832	Stirlingshire
<i>Aerial Photographs</i>		
541/A/467	26/4/49	RAF Vertical Aerial Photograph (1:10000)
B71484	1991	RCAHMS Oblique Aerial Photograp
OS/96/157	15/6/96	Ordnance Survey Vertical Aerial Photograph (1:9600)

Web-mounted Sources

Paterson, T http://web.ukonline.co.uk/members/tom.paterson/mining/mining_stirlingshire.htm

Other Sources

Crown Office Precognitions, 1859: Precognition Against Andrew Heaps for the Crime of Culpable Homicide at No. 2 Pit, Balquhatson Colliery – National Archives of Scotland, Ref. No. GB234 AD14/59/95

Forfeited Estates Papers 1715: General Management: Sales of Estates - National Archives of Scotland, Ref. No. GB234 E607/3

Forfeited Estates 1745: Particular Management: William Boyd, Earl of Kilmarnock, Kilmarnock Estate, Ayrshire, Stirling and West Lothian Counties - National Archives of Scotland – National Archives of Scotland, Ref. No. GB234 E761

Productions In Processes, 1495-1947: John Crichton, Merchant, Glasgow. Sederunt Book, 1819-20. National Archives for Scotland GB234 CS96/3382

Appendix 1: Gazetteer of Sites

Site No.	Area	Type	Description	Interpretation
101	Blackrigg	Structure	Rectangular or 'L-shaped' structure with at least four and possibly five compartments. It measures approx. 5.2m x 28.5m in extent. Survives to one or two courses in height but the remains are now much obscured by vegetation growth.	Remains of post-medieval farmsteading building Shown on historic Ordnance Survey mapping.
102	Blackrigg	Structure	Circular stone platform measuring 10.7m in diameter and 0.4m high. Located to W of farmsteading 101.	Horse-gang, possibly 19 th or early 20 th century in date. Shown on 3rd Edition Ordnance Survey map.
103	Blackrigg	Boundary	Limits of levelled area on which horse-gang stands. Runs E-W and measures 23.4m long. Possible earthen bank, with occasional stone present. Measures 0.8m high.	Old field boundary, shown on historic Ordnance Survey mapping.
104	Blackrigg	Pond	Circular pond with earthen bank which has been breached to NE and SE to allow water out. Earth higher on NE side – piled up here from breaches through bank. Rest of bank is 0.6m high approx. Measures 12.2m internal diameter. Bank measures between 1m and 2.8m wide.	Site of pond which is shown as an extant feature on the 1 st edition Ordnance Survey map
105	Blackrigg	Bing	Large coal bing. Measures 74m from N-S, E-W extent undetermined and upstanding to a height of 10m on the eastern side. Tip lines visible on the upper surface.	Coal bing, tip lines still visible on upper surface and some quarrying has occurred in the S face. Shown on 2nd and 3rd Edition Ordnance Survey maps.
106	Blackrigg	Boundary	Hedgerow running NW-SE. Measures 29.5m long and 2.5m wide. Hawthorns present.	Old field boundary, appears to supersede 114 which runs adjacent to the SW. Shown on 2nd and 3rd Edition Ordnance Survey maps.
107	Blackrigg	Boundary	Hedgerow comprising of an earthen bank planted with very mature hawthorns. Runs N-S. Measures 87m long (minimum), 2.2m wide and 0.4m high. Steeper slope on E	Old field boundary. Shown on historic Ordnance Survey mapping.

Site No.	Area	Type	Description	Interpretation
108	Blackrigg	Boundary	side. Hedgerow running WSW-ENE although surviving at W end as line of upstanding hawthorn trees. Where the trees survive, the associated earthen bank is barely discernible.	Old field boundary. Shown on historic Ordnance Survey mapping.
109	Blackrigg	Boundary	Broad bank surrounding roots of mature trees running WSW-ENE. Measures 1.5m wide and 13.4m long. Runs adjacent to ditch 110 which lies on its S edge.	Old field boundary. Shown on historic Ordnance Survey mapping.
110	Blackrigg	Ditch	Broad shallow ditch (waterlogged) running WSW-ENE. Measures 2.2m wide and can be traced over a distance of 25.8m. Lies immediately to the S of hedgerow 109.	Ditch, originally forming part of old field boundary (in association with 109)
111	Blackrigg	Mound	Oval shaped mound measuring 14.8m x 8.7m x 2m high.	Possible spoil heap, may represent earthwork associated with railway which was present to the S.
112	Blackrigg	Enclosure	Levelled area, roughly rectangular on plan, located to E of structures 101 and 119. Defined to the S by an upstanding stretch of bank, with possible bank to E. The W and N edges are very poorly defined. Measures approx. 19.7m x 6.8m in extent.	Levelled stretch of ground, initially interpreted as possible enclosure but now thought to result from land use occurring within the area occupied by a series of field boundaries and access tracks shown on historic Ordnance Survey mapping.
113	Blackrigg	Enclosure	Rectilinear area of ground to S of 101 and 119, defined by an upstanding earthen bank to E and N. Interior levelled slightly and now very waterlogged. The width of the bank varies between 2.3m and 6m in extent. This bank encloses an area measuring roughly 30m x 15m. Truncated on S edge by railway.	Levelled stretch of ground, initially interpreted as possible enclosure but now thought to result from land use occurring within the area occupied by a series of field boundaries and access tracks shown on historic Ordnance Survey mapping.
114	Blackrigg	Boundary	Earthen bank with some stones present, running in NW-SE direction. Traced over a distance of 26.4m and now truncated. Runs adjacent to hedgerow 106 which sits to the NE.	Old field boundary, appears to have been superseded by hedgerow 106. Shown on 1st Edition Ordnance Survey Map.

Site No.	Area	Type	Description	Interpretation
115	Blackrigg	Boundary	Line of old hedgerow represented by four upstanding hawthorns. No associated earthworks evident though hollow present between line of hedge and adjacent track 121. Measures 12.8m long.	Old field boundary, shown on historic Ordnance Survey mapping.
116	Blackrigg	Boundary	Earthen bank running NW-SE. Possible extension of 115. Discernable just as a slight undulation on ground. Roughly 2m wide, 0.2m high and 19m long.	Old field boundary, shown on historic Ordnance Survey mapping.
117	Blackrigg	Boundary	Line of old hedge, shown by upstanding shrubs (hawthorn). No upstanding earthworks survive in association. Runs N-S for 9.5m before turning W-E for 28m.	Old field boundary, shown on historic Ordnance Survey mapping
118	Blackrigg	Hollow	Oval shaped hollow measures 3m x 4m x 0.5m deep (although a maximum of 0.75m in few places). Rabbit burrowing in the NE of the hollow has revealed a buried stone laid horizontally and has also brought a quantity of fused shale and slag to the surface.	Oval hollow in ground located to SW of farmsteading. Purpose and origins unknown.
119	Blackrigg	Structure	Rectangular shaped footings of E wing of U-shaped steading. Upstanding to 0.5m (2 courses?). Encloses area measuring 8.7m x 6.3m. Angle of wall return remains exposed at SW corner but the rest is very much overgrown.	Remains of footings of structure which may represent E wing of U-shaped steading shown on historic Ordnance Survey mapping.
120	Blackrigg	Rig & Furrow	Linear furrows running roughly N-S at approx. 6-7m intervals. Minimum of 6 identified measuring maximum 26.7m in length.	Area of rig and furrow located in field to S of farmsteading
121	Blackrigg	Track	Old trackway running NNW-SSE. Measures 5m wide and approx. 22.9m long. Located to the E of coal bing 105 and W of boundary 115.	Old trackway, shown on 2nd and 3rd Editions of the Ordnance Survey mapping.
122	Blackrigg	Mound	Sub-oval mound measuring 16m x 14.7m x 1.6m high. Located in field to SE of coal bing 105.	Irregular shaped mound, probably representing the remains of a structure visible on the 2 nd Ordnance Survey which was related to mining activities in the area
123	Blackrigg	Boundary	Earthen bank running NNW-SSE. Located to the W of	Old field boundary, shown on historic

Site No.	Area	Type	Description	Interpretation
124	Blackrigg	Structure	mound 122. Measures 8.4m long. L-shaped bank located to SE of horse-gang 102. Measures 5.2m (NNW-SSE) and 5.3m WSW-ENE.	Ordnance Survey mapping. Possible remains of structure located to SE of horse-gang 102.
125	Blackrigg	Structure	Rectangular levelled area of ground located to N of structure 101. Measures 4.7m x 6.6m.	Possible building platform which may have formed an extension to N of structure 101. Not shown on historic mapping.
201	Drumclair	Structure	Eastern building of farmsteading. Rectangular in shape, aligned NNW-SSE. Measures 12.8m x 6.5m in extent. Gable walls still upstanding to a height of 4.3m with skewputts in situ in S gable. Dislodged skewputts lie close to original position at E side of S gable. Fabric is mortared snecked rubble with cherrycocking evident. Stugged ashlar quoins, lintels and window surrounds. Side walls upstanding to maximum height of 1.5m (S end, W wall) but mostly only surviving to one or two courses in height. Doorway in W wall with one window present in both gables.	Remains of post-medieval farmsteading, shown on historic Ordnance Survey mapping.
202	Drumclair	Structure	Western building of farmsteading. Rectangular building running WSW-ENE. Measures 20.8m x 6.1m in extent. Subdivided into at least 3 compartments. The W gable wall is upstanding to height of 3.8m, and the N wall survives to height of 4 courses in places. Fabric is mortared snecked rubble, with droved ashlar quoins, and some cherrycocking. There is clear evidence of a doorway at the W end. Outshot 207 projects N from the W end of the N wall with a blocked doorway present in the adjoining wall of 202.	Remains of post-medieval farmsteading building, shown on historic Ordnance Survey mapping.
203	Drumclair		Bank running WSW-ENE. Raised ground is evident in places around the roots of upstanding trees, but any associated earthworks have been largely destroyed by recent forestry activity. Measures 26.5 in length..	Bank which appears to have formed a subdivision within sheltered belt/planted area located to North and West of farmsteading. Shown on historic Ordnance Survey mapping.

Site No.	Area	Type	Description	Interpretation
204	Drumclair	Boundary	Bank running NNW-SSE cut by railway cutting 205 to the E. Originally comprised a hedgerow (surviving hawthorn) with occasional mature trees. Traced for a distance of at least 91.3m. It measures a maximum of 1.5m in width and 1m high.	Old field boundary. Shown on historic Ordnance Survey mapping.
205	Drumclair	Railway Cutting	Very large U-shaped ditch located to E of farmsteading. Runs NNW-SSE. Very steeply sloping sides with a flat base, now with self seeded trees present. Cuts through field bank 204 and ditch 216. Measures approx. 20m wide and 4.6m deep.	Cutting for rail or tramway
206	Drumclair	Structure	Small section of walling, perhaps acting as infill between the SE corner of structure 202 and the NW corner of structure 201. Postdates the farm buildings. Has 2 neatly placed footings or plinths (rectangular) with worked stone blocking (displaced skewputt) over the top. Measures 1.57m long and 0.5m high.	Possible blocked gap or gateway
207	Drumclair	Structure	Square outshot projecting to N of structure 202 at W end. masonry upstanding to 2 courses. Measures 3.25m x 4.5m in extent, with walls upstanding to a height of 0.55m. The walls are 0.5m thick. Stugged ashlar quoin <i>in situ</i> at N end, W side. The rest is rubble built with blocked entrance present between 207 and 202.	Outbuilding/outshot projecting to N of structure 202 at W end. Shown on historic Ordnance Survey mapping.
208	Drumclair	Structure	Rectangular building located to north of structure 207, on same general alignment, but 208 is built in a slightly different location. Measures 2.35m wide, 0.65m long with over 0.35m thick walls.	Remains of structure which appears to have predated the existing structure 207.
209	Drumclair	Boundary	Low broad earthen bank running WSW-ENE. Measures 1.3m wide and 61.7m long, with height varying between 0.2m (S side) to 0.4m (N side). Occasional mature beech trees still standing. Runs adjacent to ditch 212 which sits to the N, and merges with bank 210 at the Western end.	Earthen bank which defines the N extent of the sheltered belt/planted area located to North and West of farmsteading. Shown on historic Ordnance Survey mapping.
210	Drumclair	Boundary	Broad, flat topped earthen bank running NNW-SSE.	Earthen bank which defines the

Site No.	Area	Type	Description	Interpretation
			Measures 3m wide and 69m long, with height varying between 0.2m (E side) to 0.7m (W side). Occasional mature beech trees still standing. Runs adjacent to ditch 211 which sits to the W, and merges with bank 209 at the N end.	Wextent of the sheltered belt/planted area located to North and West of farmstead. Shown on historic Ordnance Survey mapping.
211	Drumclair	Ditch	Broad shallow ditch running NNW-SSE. Measures 1m wide, 67.3m long and reaches a maximum depth of 0.5m max. U-shaped cut with flat bottom. Runs adjacent to bank 210 which sits to the E and merges with ditch 212 at the Northern end.	Outer ditch lying adjacent to bank 210.
212	Drumclair	Ditch	Broad shallow ditch running WSW-ENE. Measures 2.1m wide, 61.7m long and reaches a maximum depth of 0.7m (S side). U-shaped cut with gently rounded bottom, now silted up and waterlogged in places. Runs adjacent to bank 212, which sits to the S, and merges with ditch 211 at the W end.	Outer ditch lying adjacent to bank 210.
213	Drumclair	Rig & Furrow	Narrow linear furrows, aligned mainly WSW-ENE at roughly 1.5m intervals. 7 identified, running to maximum length of 21m.	Modern disturbance resulting from 20th century afforestation.
214	Drumclair	Structure	L-shaped wall return. Only one course high. Measures 0.65m by 0.5m. Isolated in area of forestry to the N of the farmstead.	Possible remains of structure. Not shown on historic Ordnance Survey mapping.
215	Drumclair	Structure	Remains of wall running NNW-SSE abutting the SE corner of structure 201 carrying on the line of its E wall but is not built into it. Measures 0.8m wide, 0.16m high and 4.6m long. Only survives to one course high.	Wall forming surviving later extension to S end of 201. Post-dates 201. Shown on historic Ordnance Survey mapping.
216	Drumclair	Ditch	Broad ditch which runs NNW-SSE. Measures 1.5m wide and 0.45m deep, with course traced over a distance of 27.6m. U-shaped in section with flattish base. Runs adjacent to bank 204 which sits to the W and has been cut by railway cutting 205 to the E.	Runs adjacent to bank 204

Appendix 2: Registers

Photographic Register

Image No.	Digital	Print		Slide		Description	From	Date
		Film No.	Neg. No.	Film No.	Neg. No.			
1		1	1	1	19	Structure 101 – W end	NE	17/03/09
2		1	2	1	20	Structure 101 – W end	SW	17/03/09
3		1	3	1	21	Structure 101 – W end	W	17/03/09
4		1	4	1	22	Structure 101 – view from W end	W	17/03/09
5		1	5	1	23	Structure 101 – W end, compartment 1	S	17/03/09
6		1	6	1	24	Structure 101 – compartment 2	S	17/03/09
7		1	7	1	25	Structure 101 – compartment 3	S	17/03/09
8		1	8	1	26	Structure 101 – compartment 4, E end	N	17/03/09
9		1	9	1	27	Structure 101 – compartment 5, E end	W	17/03/09
10		1	10	1	28	Structure 125 – N end	N	17/03/09
11		1	11	1	29	Structure 102	N	17/03/09
12		1	12	1	30	Structure 102	W	17/03/09
13		1	13	1	31	Structure 102	S	17/03/09
14		1	14	1	32	Structure 102	E	17/03/09
15		1	15	1	33	Old boundary 103	E	17/03/09
16		1	16	1	34	Old boundary 103	E	17/03/09
17		1	17	-	-	Area of pond 104	E	17/03/09
18		1	18	1	35	Area of pond 104	SE	17/03/09
19		1	19	1	36	Coal bing 105	E	17/03/09
20		1	20	2	1	Hedgerow 106	E	17/03/09
21		1	21	2	2	Detail of hedgerow 106	NW	17/03/09
22		1	22	2	3	Shot of adjacent bank 114	SE	17/03/09
23		-	-	-	-	Shot of hedgerow 107	S	17/03/09
24		2	1	2	4	214 – view of possible wall return of structure	E	18/03/09
25		2	2	2	5	213 – view of 'rig' (modern disturbance?)	NE	18/03/09
26		2	3	2	6	209/212 – general view	W	18/03/09
27		2	4	2	7	209/212 – general view	SW	18/03/09
28		2	5	2	8	209 – detail of bank	SE	18/03/09

Image No.	Digital	Print		Slide		Description	From	Date
		Film No.	Neg. No.	Film No.	Neg. No.			
29		2	6	2	9	209/212 – view across ditch 212 and bank 209	N	18/03/09
30		2	7	2	10	210/211 – view along line of bank and ditch	N	18/03/09
31		2	8	2	11	210/211 – view across 211 to 210	W	18/03/09
32		2	9	2	12	210/211 – view across 211 to 210	WSW	18/03/09
33		2	10	2	13	210 – detail of bank	SSE	18/03/09
34		2	11	2	14	General view of site (Drumclair)	NW	18/03/09
35		2	12	2	15	Structure 208	W	18/03/09
36		2	13	2	16	Structure 207 – general view	SW	18/03/09
37		2	14	2	17	Structure 207 – W facing elevation	W	18/03/09
38		2	15	2	18	Structure 207 – N facing elevation	N	18/03/09
39		2	16	2	19	Structure 207 – blocked doorway in adjoining wall of 202	N	18/03/09
40		2	17	2	20	Structure 207 – blocked doorway in adjoining wall of 202, detail	N	18/03/09
41		2	18	2	21	Structure 207 – E facing elevation	E	18/03/09
42		2	19	2	22	Infill/blocking 206	NE	18/03/09
43		2	20	2	23	Infill/blocking 206	SW	18/03/09
44		2	21	2	24	Railway cutting 205	S	18/03/09
45		2	22	2	25	Railway cutting 205	N	18/03/09
46		2	23	2	26	General view of site (Drumclair)	NE	18/03/09
47		2	24	2	27	Wall 215	W	18/03/09
48		2	25	-	-	Detail of fallen skewputt	W	18/03/09
49		2	26	-	-	Ditch 216, bank 204 and cutting 205	S	18/03/09
50		2	27	2	28	Ditch 216, bank 204 and cutting 205 – looking E across 204 to 216 and 205	W	18/03/09
51		3	1	2	29	Ditch 216, bank 204 and cutting 205 – looking N to point where 205 cuts 204 and 216	S	18/03/09
52		3	2	-	-	General shot of 201	SE	18/03/09
53		3	3	2	30	201 – S elevation exterior	S	18/03/09
54		3	4	2	31	201 – interior elevation of S wall	NW	18/03/09
55		3	5	2	32	201 – detail of window in S wall from interior	N	18/03/09

Image No.	Digital	Print		Slide		Description	From	Date
		Film No.	Neg. No.	Film No.	Neg. No.			
56		3	6	2	33	201 – interior elevation of N wall	SW	18/03/09
57		3	7	2	34	201 – detail of window in N wall from interior	S	18/03/09
58		3	8	2	35	201 – General shot of W wall, exterior	NW	18/03/09
59		3	9	2	36	201 – shot of doorway in W wall from exterior	W	18/03/09
60		3	10	3	1	201 – N wall, exterior elevation	N	18/03/09
61		3	11	3	2	201 – N wall, detail of window, from exterior	N	18/03/09
62		3	12	3	3	201 – detail of skew putt, W side of N wall (from exterior)	N	18/03/09
63		3	13	3	4	201 – detail of quoin, W side of N wall (from exterior)	N	18/03/09
64		3	14	3	5	201 – detail of skew putt, E side, N wall	NE	18/03/09
65		3	15	3	6	202 – E facing elevation	E	19/03/09
66		3	16	3	7	202 – N facing elevation, E end	NW	19/03/09
67	-	3	17	3	8	202 – N facing elevation, central section	N	19/03/09
68	-	3	18	3	9	202 – N facing elevation, W end	NE	19/03/09
69		3	19	3	10	202 – W facing elevation	W	19/03/09
70		3	20	3	11	202 – S facing elevation, W compartment, W end	S	19/03/09
71		3	21	3	12	202 – S facing elevation, W compartment, E end	S	19/03/09
72		3	22	3	13	202 – S facing elevation, central compartment	S	19/03/09
73		3	23	3	14	202 – S facing elevation, E compartment	S	19/03/09
74		3	24	3	15	202 – W compartment, view of interior	E	19/03/09
75		3	25	3	16	202 – W compartment, view of interior	W	19/03/09
76		3	26	3	17	202 – central compartment, view of interior	E	19/03/09
77		3	27	3	18	202 – central and E compartment, view of interior	W	19/03/09
78		3	28	3	19	202 – central compartment, view of interior	S	19/03/09
79		3	29	3	20	202 – E compartment, view of interior	S	19/03/09
80		3	30	3	21	202 – E compartment, view of interior	W	19/03/09
81		3	31	3	22	General view of site (Drumclair)	SW	19/03/09
82		3	32	3	23	General view of site (Drumclair)	SE	19/03/09
83	-	3	33	3	24	Hedgerow 107	S	24/03/09
84	-	3	34	-	-	Hedgerow 107	S	24/03/09

Image No.	Digital	Print		Slide		Description	From	Date
		Film No.	Neg. No.	Film No.	Neg. No.			
85	79	3	35	3	25	Enclosure 112	NW	24/03/09
86	80	3	36	3	26	Enclosure 113	NW	24/03/09
87	81	4	1	3	27	Possible structure 119	SE	24/03/09
88	82	4	2	3	28	Possible structure 119	S	24/03/09
89	83	4	3	3	29	Hollow? 118	SE	24/03/09
90	84	4	4	3	30	Rig and furrow 120	NW	24/03/09
91	85	4	5	3	31	Hedgerow 108	NE	24/03/09
92	86	4	6	3	32	Possible structure 124	NW	24/03/09
93	87	4	7	3	33	Hedgerow 115	ENE	24/03/09
94	88	4	8	3	34	Old boundary 116	N	24/03/09
95	89	4	9	3	35	Hedgerow 109 and ditch 110	W	24/03/09
96	90	4	10	3	36	Spoil heap 111	W	24/03/09
97	91	4	11	4	1	Mound/structure 122	NW	24/03/09
98	92	4	12	4	2	Old boundary 123	N	24/03/09
99	93	4	13	4	3	View over steading at Blackrigg from top of coal bing 105	W	24/03/09
100	94	4	14	4	4	View over N end from top of 105	S	24/03/09
101	95	4	15	4	5	View over rig and furrow 120 and mound 122 from top of 105	NW	24/03/09
102	96	4	16	4	6	View over top of 105	S	24/03/09
103	97	4	17	4	7	General view from top of 105	SW	24/03/09
104	98	4	18	4	8	View along line of hedgerow 117	N	24/03/09

Drawing Register

Drawing No.	Sheet No.	Area/Trench	Drawing Type	Scale	Description	Drawer	Date
01	1	Drumclair	Elevation	1:20	Drumclair farmsteading structure 201, S facing exterior elevation	CLT	19/03/09
02	2	Drumclair	Elevation	1:20	Drumclair farmsteading structure 201, N facing exterior elevation	CLT	19/03/09
03	3	Drumclair	Elevation	1:20	Drumclair farmsteading structure 202, W facing exterior elevation	CLT	19/03/09
04	4	Drumclair	Elevation	1:20	Drumclair farmsteading structure 201, W facing exterior elevation	CLT	19/03/09
05	5	Drumclair	Elevation	1:100	Drumclair farmsteading structure 202, E facing exterior elevation (measured sketch)	CW	24/03/09
06	5	Drumclair	Elevation	1:20	Drumclair farmsteading structure 202, blocked doorway at W end of N facing exterior elevation	CLT	24/03/09
07	5	Drumclair	Elevation	1:100	Drumclair farmsteading structure 202, S facing exterior elevation (measured sketch)	CW	24/03/09
08	5	Drumclair	Elevation	1:100	Drumclair farmsteading structure 202, N facing exterior elevation (measured sketch)	CW	24/03/09

Appendix 3: Discovery & Excavation in Scotland

LOCAL AUTHORITY:	Falkirk
PROJECT TITLE/SITE NAME:	Limerigg Woods, Falkirk
PARISH:	Slamannan
NAME OF CONTRIBUTOR:	Louise Turner and Claire Williamson
NAME OF ORGANISATION:	Rathmell Archaeology Limited
TYPE(S) OF PROJECT:	Assessment and Survey
NMRS NO(S):	NS87SE 10 (Blackrigg); N/a (Wester Drumclair)
SITE/MONUMENT TYPE(S):	Farmsteadings, enclosures, rig and furrow, mineral line and bing
SIGNIFICANT FINDS:	None
NGR (2 letters, 6 figures)	NS 851 713, NS 860 711
START DATE (this season)	March, 2009
END DATE (this season)	March, 2009
PREVIOUS WORK (incl. DES ref.)	None
PROPOSED FUTURE WORK:	Uncertain
MAIN (NARRATIVE) DESCRIPTION: (may include information from other fields)	<p>A programme of archaeological survey and associated standing building survey was undertaken on the sites of two post-medieval farmsteadings at Limerigg Woods, Falkirk. The archaeological works were carried out during March 2009 for Forestry Commission Scotland.</p> <p>The area of interest comprised two blocks of land, each measuring roughly 1 ha. in extent, and centred upon the sites of two deserted post-medieval farmsteadings; that of Blackrigg farm (NS 851 713) and Wester Drumclair (NS 860 711) respectively. These sites currently comprise open moorland (Blackrigg) and clear-felled woodland (Wester Drumclair). The works involved a field survey of both areas, to RCAHMS Level 2 Standard, using a Leica Total Station, and a building survey, again to RCAHMS Level 2 Standard, of the upstanding remains of the farmsteading of Wester Drumclair. More detailed recording of surviving architectural features was undertaken where appropriate.</p> <p>Recommendations for the continuing management of the two core sites were made, in keeping with best practice.</p>
PROJECT CODE:	09010
SPONSOR OR FUNDING BODY:	Forestry Commission Scotland
ADDRESS OF MAIN CONTRIBUTOR:	Unit 8 Ashgrove Workshops, Kilwinning, Ayrshire KA13 6PU
E MAIL:	contact@rathmell-arch.co.uk
ARCHIVE LOCATION (intended/deposited)	Report to Falkirk Council Archaeology Service and archive to National Monuments Record of Scotland.

Contact Details

Rathmell Archaeology can be contacted at its Registered Office or through the web:

Rathmell Archaeology Ltd
Unit 8 Ashgrove Workshops
Kilwinning
Ayrshire
KA13 6PU

www.rathmell-arch.co.uk

t.: 01294 542848 f.: 01294 542849
e.: contact@rathmell-arch.co.uk

The Forestry Commission Scotland Archaeologist can be contacted via their office at:

Forest Enterprise Scotland Head Office
1 Highlander Way
Inverness Retail & Business Park
Inverness
IV2 7GB

t.: 01436 3252365
e.: matthew.ritchie@forestry.gsi.gov.uk

End of Document