THE UNIVERSITY OF STIRLING CAMPUS



Conservation Plan

Simpson & Brown Architects
October 2009

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Appendix II Historical Information Relating to Stirling University

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Appendix IV 2009 Campus Plan A3

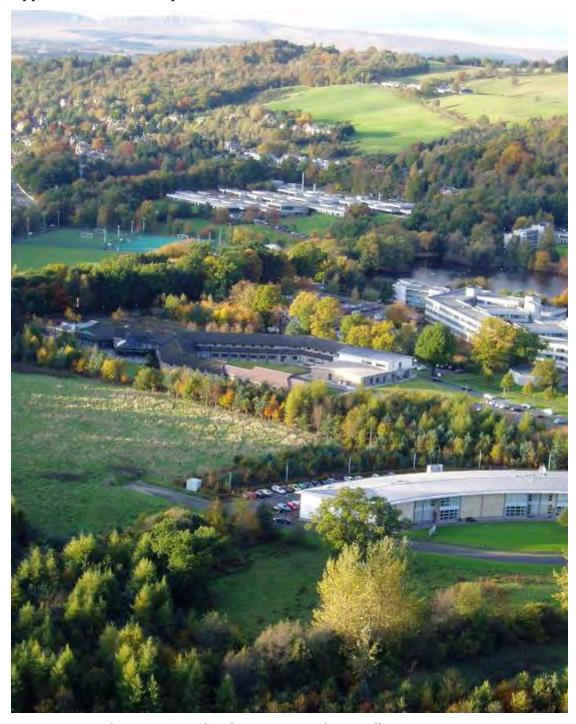


Figure 1 View of western area of Stirling University from Wallace Monument 2008

1.0 EXECUTIVE SUMMARY

The University of Stirling has recently completed its Estates Strategy, and this report is intended to inform further development of the campus as educational and operational requirements change in the future.

This report has examined the significance of the site, which contains outstanding university buildings, listed by ICOMOS UK as among the top twenty 20th century sites in the UK. There are two Category A listed buildings, five Category B listed buildings, 2 Category C (S) listed buildings and a Scheduled Ancient Monument, as well as several unlisted buildings. These are set within a picturesque designed landscape of approximately 334 acres (135 hectares) of open and wooded landscape, situated to the north east of Stirling city centre. The report concludes that there are opportunities to enhance the significance of the historic buildings and the landscape setting, and that development of new buildings would be possible in some areas.

The majority of the buildings on the site were constructed for educational use in the 1960s and 1970s.

If the buildings were to be extended or altered there is a clear opportunity to investigate the original finishes, and to restore those which remain in part.

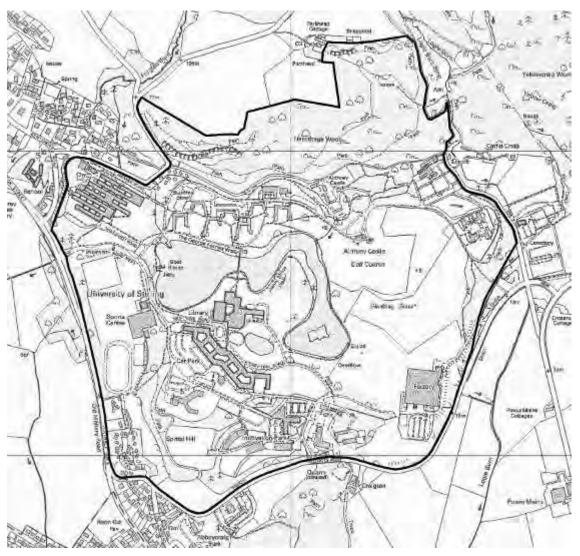


Figure 2 Inventory of Gardens and Designed Landscapes, map of Airthrey Castle site. This is also the study area boundary. HS

2.0 INTRODUCTION

2.1 Objectives

This conservation plan has been commissioned by Stirling University Estates and Campus Services Department.

The aim of this report is to inform the future conservation, repair, use and management of the buildings and landscape of the University of Stirling. It will inform future proposals for conservation and repair work to the buildings, as well as alterations that are required to facilitate their ongoing and improved use where required.

The conservation plan assesses and sets out in summary what is important about the campus, and the information gathered is then considered in an assessment of cultural significance, for the site as a whole and for its various parts, to be summarised in this report by a summary statement of significance. Eleven character areas within the campus have been identified and analysed.

The purpose of establishing the importance of the site is to identify and assess the attributes which make a place of value to our society. Once the heritage significance of the buildings and associated structures and their context within the designed landscape is understood, informed guidelines can be drawn up which will enable that significance to be retained, revealed, enhanced or, at least, impaired as little as possible in any future decisions for the site. A clear understanding of the nature and degree of the significance of the buildings and other elements of the site will not only suggest constraints on future action, but it will introduce flexibility by identifying the areas which can be adapted or developed with greater freedom. This appraisal will identify opportunities within the site.

From all of this information, a set of policies, or guidelines have been drafted which are intended to inform the future conservation, repair, management and use of the buildings and the designed landscape according to best conservation practice.



Figure 3 Location of Stirling University

2.2 Study Area

The study area is located to the north east of Stirling, adjacent to Bridge of Allan. The northern part of the estate extends into the lower foothills of the Ochil Hills, and the surrounding landscape to the north and east is a mixture of hillside and farmland. The study area boundary is shown on figure 2.

2.3 Designations

The site contains nine listed buildings and one Scheduled Ancient Monument (SAM).

Pathfoot Building	Category A	HB No 51327
Principal's House	Category A	HB No 51322
Airthrey Castle Yard Nuffield Staff Houses 2 and 3	Category B	HB No 51323
Airthrey Castle Yard Nuffield Staff Houses 4 and 5	Category B	HB No 51324
Airthrey Castle Yard Nuffield Staff Houses 6 and 7	Category B	HB No 51325
Airthrey Castle	Category B	HB No 10412
East Lodge including Gatepiers	Category B	HB No 10428
Garden Cottage	Category C (S)	HB No 10453
Bridge over Airthrey Loch	Category C (S)	HB No 51326
Airthrey Castle Standing Stone	SAM	

The entire campus falls within the area identified by Historic Scotland as the Airthrey Castle site in the Inventory of Gardens and Designed Landscapes. The study area boundary follows this boundary exactly.

There are no statutory designated sites within the landscape. One non-statutory Wildlife Site exists, which consists of Airthrey Loch, covering an area of approximately 25 acres (9 ha). There are also areas of non-statutory Ancient Woodland (AW), and Long Established Woodland of Plantation Origin (LEWPO).

2.4 Structure of the Report

The Conservation Plan follows the guidelines set out in the Historic Scotland document *Conservation Plans: A Guide to the Preparation of Conservation Plans.* The reports will also follow the processes and guidelines outlined by the internationally recognised documents *The Conservation Plan* 5th Ed. (The National Trust of Australia, 2000) by James Semple Kerr; and *The Illustrated Burra Charter: good practice for heritage places* (Australia ICOMOS, 2004) by M Walker and P Marquis-Kyle.

Reference is also made to the British Standard BS 7913 – Guide to the principles of the conservation of historic buildings (1998) and the detailed guidelines prepared by the Heritage Lottery Fund – Conservation Management Plans Checklist, Conservation Management Plans Model Brief and Conservation Management Plans: Helping your application (2004).

2.5 Limitations

Thorough documentary research has been carried out for this report, however it is likely that more information may become available in the future. Research in the archives of Stirling University was limited as the archive was in the process of being relocated during the study period. It is accepted that further research may add to the historical development contained within this conservation plan, and it should be updated accordingly.

Investigation of buildings did not include any opening up. Further information about the fabric of the pre 1960s buildings within the estate is likely to come to light in the event of works being carried out.

2.6 Project Team

This report has been written by Simpson & Brown Architects. The study team for the conservation plan comprised John Sanders, Tom Parnell and Cath McFarlane.

2.7 Acknowledgements

Simpson & Brown gratefully acknowledges the assistance provided by the following persons, archives and organisations during the completion of this report:

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2.8 Abbreviations

The following abbreviations have been used throughout this report.

BL British Library

HS Historic Scotland

NAS National Archives of Scotland NLS National Library of Scotland

NMRS National Monuments Record of Scotland

S&B Simpson & Brown

SJSM Sir John Soane's Museum

StAU St Andrews University

UoSA University of Stirling Archive

UoS University of Stirling

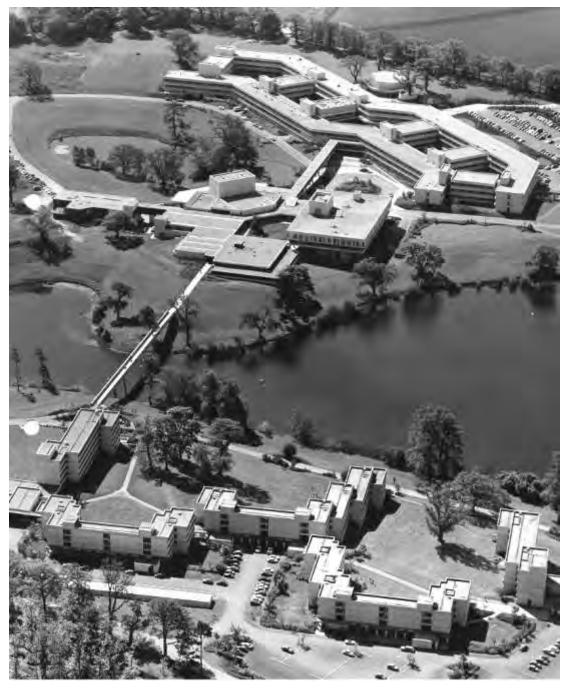


Figure 4 Oblique aerial view of the university campus in the 1970s $\ RMJM$

3.0 HISTORICAL DEVELOPMENT

3.1 History Prior to Late 18th Century

The position of the Airthrey estate on gently sloping ground at the foot of the Ochil Hills, close to Stirling, has been attractive since prehistoric times. The site has a particularly long recorded history. Its prehistoric importance is clear from two surviving standing stones and recorded antiquarian finds in the vicinity.

The extent and ownership of the estate has changed frequently. At least four principal houses are known to have been built, including the present castle. Despite this long history, the landscape today is largely the product of a single picturesque conception, initially laid out in the late 18th century, and sensitively adhered to up until the present day, including the positioning and design of the university buildings.

The owner who had the single greatest impact on the present landscape was Robert Haldane, who between 1787 and 1798 created the loch, employed Thomas White (Senior) to assist with the designed landscape, and built Airthrey Castle. Prior to this, there had been alterations to the roads, and the great 18th century work of laying out plantations had begun. The appearance of the previous houses at Airthrey is unknown.

The earliest reference to '*Ethereari*' dates from the 12th century. The earliest reference to a building on the estate is its destruction in 1645. During the Civil Wars, the Manor House of Airthrey, belonging to Sir John Graham of Braco (a relation of James Graham, 5th Earl of Montrose) was destroyed, under the Marquis of Argyll's orders, together with the nearby house of Menstrie. '*Ethra*' is shown on Adair's 1685 manuscript map (figure 5), with a house, suggesting that the house had been rebuilt.



Figure 5 Manuscript map of Stirlingshire, John Adair 1685 NLS

The first details of landscaping works to the estate date from the early 18th century.

¹ Information from 'Airthrey Roads, Captain Haldane's Magic Roundabout' KJH Mackay, D Angus, in 'Forth Naturalist and Historian' volume 9

John Dundas of Manour (a nearby estate to the south east) had acquired Airthrey in 1706 by exchanging it for another estate with the Earl of Hopetoun, then owner of Airthrey. His descendant John Ramsay of Ochtertyre (1736-1814) described² how John Dundas's son Robert began to plant trees in 1716 or 1717 'but the hill was not planted until 1725'. John lived at a house outwith the estate,

'until 1747 when he built a small snug house at Airthrey. Conscious of his ignorance of country affairs, he contented himself while there with making a kitchen-garden, and having a few acres in grass, without any corn, or adding to his father's small enclosures. He spent his time... among his books. To the want of relish for a country life rather than the extent of his debts, may be ascribed his rash sale of this sweet place to Captain Haldane, in 1759.'

The position of the house is unknown. It is shown on a map of 1769 but it is not possible to gage its position from this (see figure 8). One clue to its position may be the remains of the walls of the stables and offices, which have a mid 18th century character, and are relatively elegant for a mere stables. It is possible that the 'small snug house' was later extended to form offices and stables, and that the nearby walled garden was the 'kitchen garden'. In 1827 it was described as 'the old orchard³'.

General Roy's Survey of the mid 18th century (figures 6,7) shows this house, set in the fertile cultivated valley of the Forth, misnamed as 'Menstry'⁴. The map shows a square plantation with allées to north and south. In the centre is a square enclosure, with a house. This may be the kitchen garden described above, with trees to the north planted on 'the hill', corresponding to the present Hermitage Wood.





Figure 6 General Roy's Survey, detail of **Figure 7** Forth Valley with Abbey Craig 1747-55 *BL* Airthrey es

Figure 7 General Roy's Survey, detail of Airthrey estate 1747-55 BL

The only other indication of the estate's appearance before the time of Robert Haldane is a map showing alterations to the roads carried out in the 1750s and 60s (figure 8). This map shows the removal of the old road between the villages of Pathfoot to the west and Logieburn to the east of Airthrey, which had passed relatively close to the landowner's house (shown as a dotted line). By the mid to late 18th century it was becoming common practice for landowners to increase the distance between themselves and their tenants by any means available, including moving villages, redirecting public roads, and constructing new boundaries.

² in 'Scotland and Scotsmen of the 18th century', quoted in 'Airthrey Roads, Captain Haldane's Magic Roundabout' KJH Mackay, D Angus, in 'Forth Naturalist and Historian' volume 9

³ See below section 4.5.1

 $^{^{\}rm 4}$ Identified by the position of other features. 'Airthrey' is marked to the west, also incorrectly.



Figure 8 Detail of Plan of Airthrey Roads, Farquharson 1769 NLS

This plan shows formal avenues to the south and east of the house, with the house itself a simple block. Robert Haldane (at Airthrey 1759-67) had made his fortune with the East India Company and invested in his family home at Gleneagles and Airthrey on his return – living at Airthrey. Court records state:

'He conceived to himself the fashionable modern fancy of beautifying his place in an elegant manner, and considered it as an essential requisite to get quit of these roads which intersected his ground in an ugly and inconvenient manner; and, amongst others, he was not a little hurt with the idea of one passing hard by the door of his house; a situation which, whether really incommodious in itself or not, it is well-known no person chooses to put up with if he can possibly avoid it.'5'

Whether or not the public road passed so close to the house (which seems unlikely), Haldane built, at his own expense, a 'New Road', placing gates on the old roads, which at the time caused local protests and a court case. The new, tree-lined route can be seen to the south and west of the house on Stobie's 1783 map (figure 9), with 'Ethra' reached from the north east, passing through the village of Logie.

Later developments meant the 'New Road' was soon obsolete (see below), but the pattern of the southern part of the landscape today retains the outline of a

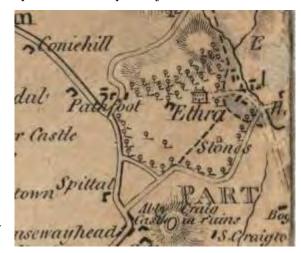


Figure 9 Stobie's map of Stirlingshire 1783 *NLS*

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 $^{^5}$ Information from 'Airthrey Roads, Captain Haldane's Magic Roundabout' KJH Mackay, D Angus, in 'Forth Naturalist and Historian' volume 9

regular and mostly straight stretch of this road (figure 10), an unusual feature in the otherwise wholly serpentine and picturesque layout. The footpath between the car parks to the west of the Cottrell Building and the chalet accommodation at Pendreich Way follows approximately the route of the 'New Road' to the then village of Pathfoot.



Figure 10 Current campus plan overlaid on 1865 1st Edition, with Haldane's 'New Road' indicated in blue where the pattern survives, and dotted red, where it is lost or partially lost S&B

3.2 Airthrey Estate 1786 – 1889

Landscape Overview

Robert Haldane (1764-1842) inherited his great-uncle's estates at the age of four. By 1786 he had served in the navy under his uncle, had been on the Grand Tour, and studied at Edinburgh University. He married in 1786, and in September 1786 Haldane moved to Airthrey with his new bride. Almost at once they set about improving the estate.

By early 1787 he had begun digging out the loch.

'At Airthrey there were many fine old trees, chiefly beeches, elms, and limes, but in some places they had been planted at the beginning of the last century [18th century] with too much formality. This he undertook to remedy... His experiments in this way were generally successful, and at the time attracted so much wonder as to give rise to the absurd report amongst the people, that he was contemplating the removal of the old house to a preferable situation⁶'

In fact, Haldane commissioned the architect Robert Adam to design an entirely new house. It is not known whether this was on the site of the existing building, but as the Haldanes seem to have closely supervised the works to the landscape, it is possible they lived in the old house and a new site was chosen.

⁶ Alexander Haldane 'Memoirs of the Lives of Robert Haldane of Airthrey and of his Brother' 1852

The picturesque landscape design they chose was, like the house, the apogee of fashion, and arguably peculiarly suitable for the natural landscape of the estate. The picturesque style was popularised and perfected by the English designer Lancelot 'Capability' Brown, and is characterised by smooth undulating grass running up the house, naturalistic planting of trees, scattered, in clumps and in belts, and serpentine Flowers, shrubs, and what was previously considered 'gardening' were confined to the walled garden, usually well out of sight. All over the country formal gardens and avenues were swept away. The principal challenge of the style was the need for mature trees in the right places. 'While it was possible to plant from scratch successfully in a formal garden, the romantic garden of the sublime demanded a mixture of nature in maturity and decay. Tall handsome trees formed a striking silhouette... their colours complementing the stone and their age making venerable the new structure they Brown had invented machinery to move trees into the 'correct' positions and this was developed by Sir Henry Steuart in the 1780s, who was a patron of Thomas White and son. Haldane's experiments at Airthrey led to his being consulted in 1820 by the Botanic Gardens in Edinburgh when the plant collection was moved from Leith Walk to its new site.

In his 'An Encyclopaedia of Gardening' John Claudius Loudon noted the involvement of the landscape designer Thomas White senior, a pupil of 'Capability' Brown, in 1798. 'From nearly the first Introduction of the new style in Scotland to the present time, annual journeys have been made into Scotland from the county of Durham by the late White, and subsequently his son. White, senior... of much information on country matters and generally respected in Scotland... Airthrey, near Stirling, and Bargany in Ayrshire, are the principal productions of this family⁸'

No plans for Airthrey are known to survive, but the layout of the designed landscape is consistent with the work of the Whites, particularly the approaches (see below CA6). The Whites worked all over Scotland, with the encouragement and patronage of Sir Henry Steuart.

Loudon also recalled having seen in 1802 sketches by Alexander Nasmyth (1758-1840) 'an eminent landscape painter in Edinburgh' for 'planting... a part of the Ochil hills near Airthrie and Alva, which struck us as in a good and very superior taste. We believe they have only partially been carried into execution.' These sketches may have been earlier in date. Nasmyth was in Italy 1782-4, returning to Scotland thereafter, and at work on several landscape design projects in Scotland including Culzean Castle and Inveraray.

In summer 1798 Robert Haldane sold Airthrey to his wife's uncle, Robert Abercrombie, and devoted the rest of his life and fortune to missionary work, together with his brother James. He is variously reported as having been of a devout character from his infancy, and as having been converted by a mason named Carr, one of the builders working on the castle. Haldane and his brother were influential in the development of Congregationalism in Scotland.

Airthrey Castle

A detailed history of the castle is included below in Section 4.6 Character Area 6.

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⁷ AA Tait 'The Instant Landscape of Sir Henry Steuart' Burlington Magazine Vol 118 No 874 January 1976

⁸ JC Loudon 'An Encyclopaedia of Gardening' 1822

Buildings in the landscape

The buildings in the landscape are described in detail in character areas 5, 7, and 9.

Most of the policies were laid out as parkland, but to the north of the castle was a more intimate area, containing the pleasure grounds and the practical supporting buildings upon which the smooth running of the household depended. These were the walled garden, icehouse, stables and offices, and cottages, possibly including a washhouse. Further to the north, up the hill, a built, which was was cistern functioning, (with extensions) in 1944 as 'a gravitation water supply from natural springs,



Figure 11 Interior of Summer House 2009

collected in storage tanks.'9 All these were built partly for display, as examples of an improved estate. From the bowling green visitors would have seen Ivy Cottage. The walled garden and Garden Cottage would have been features to be appreciated from the East Drive. Within Hermitage Wood, Haldane built two buildings to show off his views, the Hermitage and the Summer House, reached from an extensive networks of paths. Although now ruined, these are among the most interesting buildings in the estate. These buildings are described in detail in CA 9.

Icehouse

An icehouse was a typical component of an 18th century estate, and after the digging of the loch there would have been a ready supply of ice available within the estate. The frozen loch is known to have been used for curling and skating, and Haldane himself was nearly drowned after falling through the ice.

Walled Garden

The 18th century character of Garden Cottage (see below) suggests an 18th century date for the garden, as the cottage was clearly designed as a decorative feature within it. The character of the bricks in the surviving walls of the walled garden suggest a late 18th or early 19th century date. It would have been fitted with glasshouses along the north wall.

Like other aspects of the estate it was extravagantly praised: the Gardener's Magazine described it in 1842 as 'perfect as regards culture and neatness and the abundance and fine quality of fruit' 10.

^{9 1944} Sales Particulars, UoSA

 $^{^{\}rm 10}$ quoted in the HS Inventory of Gardens and Designed Landscapes





Figure 12 Walled garden 2009

Figure 13 Walled garden 2009

Stables. Home Farm

No offices were included in Robert Adam's designs for the new castle. At other houses Adam designed stables and offices in wings, or outbuildings within a courtyard, whereas at Airthrey the buildings he designed for the courtyard were to be merely 'gatehouses'. This suggests that at Airthrey the buildings already existed.

It is also possible that the 'small snug house' of 1747 was later adapted to form offices. The character of the surviving masonry suggests a mid 18th century date, and this site would have been a typical position for a house of that date.

It seems less likely however that the road-building Robert Haldane of the 1760s would have been so concerned about the passing public had his house been as considerably raised above the level of the parkland as the offices were. It is possible that the offices had been built as part of his improvements of the 1750s and 60s, and that the main house was on another site.

The stables are possibly shown on Stobie's 1783 map as a C-shaped block near to Airthrey house and definitely appear on Grassom's map of 1817.



Figure 14 1st Edition OS map showing steading 1865 NLS

The 1865 OS map (figure 14) shows that the main building by this date was a three-sided courtyard containing a smaller C-shaped building, with a separate block to the north having a round horse gin to turn a mill.

A more detailed history is included below, Section 4.6 Character Area 6.

Garden Cottage

The position of this cottage within the walled garden was carefully chosen, and its front elevation included an elegant porch. The building contains some 18th century joinery and fireplaces.



Figure 15 Garden Cottage 2008

Sir Robert Abercromby (at Airthrey 1798-1827)

Sir Robert Abercromby KB, was Governor of Edinburgh Castle, and had acquired a large amount of prize money in India11. At this date both the castle and the picturesque designed landscape would have been highly fashionable, with an additional attraction of income from the 3.000 acre estate.

He too carried out improvements to the estate, although no works to the house are recorded. These included continuing to extend the physical distance between the landowner's house and his tenants' dwellings by clearing them away, while building new improved housing for them. During his ownership the roads controversy was resolved by the construction in 1817 of a turnpike road, further south, now the B998. Abercromby also either built or extended the road between Logie and Pathfoot which gave access to the offices, allowing parishioners (and the minister) to travel in a direct route between the two places.

Abercromby moved the population of the village of Logie¹², providing new houses at Causeyhead. He also 'discontinued the village of Pathfoot'13. A new manse and offices were built near to the new church of Logie, to the south of the old building.







Figure 17 East Lodge from north west 22009

¹¹ Prize money and trading profits from India funded the improvements at Airthrey by three owners: Robert Haldane I (1759-1768), Sir Robert Abercromby, and later Donald Graham (1889-1901)

¹² At Logie one old lady persistently refused to move to the new cottages, until eventually she was promised a new cottage anywhere else on the estate, to which she agreed. Abercromby was surprised to learn that the site she had selected was in front of Airthrey Castle. She was allowed to stay in her existing house. RM Fergusson 'Logie A Parish History' 1905

¹³ RM Fergusson 'Logie a Parish History' 1905





Figure 18 Top of southern gatepier, East Lodge 2008

Figure 19 1st Edition OS showing West Lodge 1865 *NLS*

Abercromby employed the local architect William Stirling to build two smart new lodges to his estate, one at each end of the approaches from west and east. No plans or historic images of the buildings are known to survive. The West Lodge is shown on the 1st Edition OS 1865 (figure 19). It was demolished in the 1960s to make way for the new University entrance. The East Lodge survives (figure 16-17). Stirling designed similar lodges for Monzie Castle.

A report from 1827 by Andrew Hutton¹⁴, factor for the late Sir Robert Abercrombie, noted that the mansion house and the Mains Farm were let to Thomas Duncanson, including 'the Old Orchard'. This was probably the walled garden shown on the OS map of 1865, to the east of the stable block. Hutton also noted that a dwelling house at the offices had been fitted up, and 'There are two old women who live in part of the offices here, Widow Watson and Widow Graham.' Hutton also complained of the lack of an estate plan, meaning 'the information regarding it must be in many places defective'.

Airthrey Estate 1828-1889

Airthrey remained in the hands of the Abercromby family until 1889.

Over the course of the 19th century the building fell out of fashion, but the landscape was very little altered, acquiring only the addition of specimen trees within the pleasure grounds north of the castle.

The Gardener's Magazine visited in 1842 and noted a 'beautiful varied park with a large artificial lake.' In 1852 the Reverend Charles Rogers published his book 'A Week in Bridge of Allan' 15, which was intended to promote Airthrey Spa in nearby Bridge of Allan. Rogers' descriptions are useful. No major alterations had been made to the landscape design established by Haldane and Thomas White in the 1790s, and the growth of trees over the next 50 or 60 years means that Rogers was seeing the picturesque landscape in its heyday. His descriptions of the Hermitage and Summer House are included below.

'here the attention is at once arrested by the magnificent scenery... The precipitous side of the hill is studded by a majestic array of towering trees, which seem to raise their tops heavenwards; while the surface of the cliff is clad by the all-clustering ivy, which likewise entwines the massy trunks of the lofty timber.

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¹⁴ NAS GD124/17/667

 $^{^{15}}$ The Reverend Charles Rogers (1825-1890) was an important figure in the history of the National Wallace Monument, and established the Stirling Improvement Society.

The hill gradually becoming less precipitous, may soon be easily ascended, and the visitor (having previously obtained permission from the gardener), by walking up its sloping and wooded banks, will experience a picturesque entertainment which he cannot fail to appreciate. Footpaths, tastefully and conveniently laid out, traverse in interesting foldings the side of the hill, penetrate its sylvan recesses, and conduct to its summit, from several points of which are commanded prospects rarely exceeded even in the more celebrated landscapes.'

Rogers was particularly struck by the East Approach:

The avenue leading from the east gate of Airthrey to the centre of the park, gradually reveals a spectacle of romantic beauty and grandeur rarely surpassed in any landscape scenery of this country, commanding as it does a view of the wooded and far-stretching Ochils, and the fertile plain beneath, with its beautiful combination of crag, wood, and water, while on the fine old trees the gay squirrels prosecute their unceasing gambols... The gardens, with their beautiful greenhouses and hotbeds, are attained before reaching the castle.

'On the lawn east of the castle are three upright stones; one of these, a modern erection, denotes the convergence, at that point, of the three counties of Perth, Stirling and Clackmannanshire. With the other two a more interesting history is connected. One of them is about 8 feet in height above the ground, and 8 ½ feet in girth, and the other rises 9 feet 4 inches in height above the surface, and is 14 feet 9 inches in girth.'

'The mansion...is a castellated structure of moderate size, but sufficiently adapted to the scenery'

'The avenue now leads westward by the northern side of the lake, which covers 30 acres and has its surface adorned by graceful swans.'

The 1865 1st Edition OS map shows this landscape in detail (figure 20). The area of parkland is clearly indicated on this map and on the 1885 estate plan below. It is this area of park that forms the land holding of the University today.

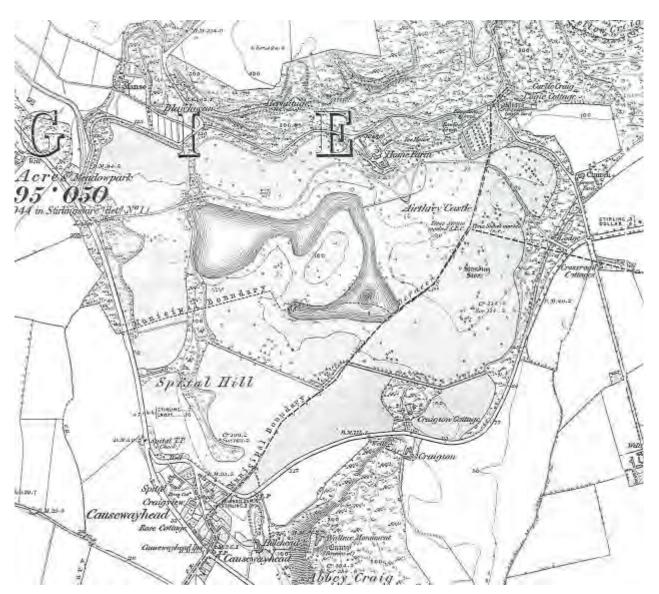


Figure 20 1st Edition OS map 1865 NLS

On this map the picturesque layout of the policies¹⁶ is clear. The serpentine loch at the centre, with gently sloping parkland, and gently curving approaches from east and west are characteristic of this approach to landscape design. Where trees are planted in belts, including around the boundaries of the polices, these are irregular in outline, and the majority of the trees are widely scattered. Along the East Drive trees are planted at some distance from each other. The immediate vicinity of the castle contains a few widely spaced trees. The estate boundaries to the north and east are concealed by belts of trees, as is the boundary to the west in the vicinity of the western entrance drive.

A description of the estate is recorded in a sales particulars of 1885^{17} , which includes a plan of the estate (figure 21). At this date, the total estate was about 3100 acres imperial, including farms. The policies are shown in pink, to the south of the plan.

¹⁶ The term is common in Scotland. The 'policies' (from the Latin 'politus' meaning embellished) comprise landscape areas which are laid out for aesthetic enjoyment, usually in the vicinity of a house, and often forming part of a larger estate including agricultural land, as at Airthrey.

¹⁷ 1885 Airthrey Estate Particulars, T&RB Ranken WS, St Andrew Square Edinburgh, UoSA



 $\textbf{Figure 21} \ \ \text{Plan of the Estate of Airthrey 1885}. \ \ (\text{White line weights to hold map flat}) \ \ \textit{UoSA}$



Figure 22 Detail of estate plan showing policies 1885 *UoSA*

This plan shows a slight development of the policies in a more Victorian taste. In particular, just to the south of the house a circular border with shrubs is shown, with a single tree planted very closely to the west (figure 23). Neither of these features appears on the 1880 photograph of the building.

Two small islands are shown on the loch, and there appear to be slightly more trees than on the 1865 OS. The OS Gazetteer of 1883 described the park as of 'remarkable beauty, commanding superb views of the Ochils and the plain beneath them'.



Figure 23 Detail of estate plan showing possible flower border south of castle *UoSA*

Although by the 1880s Adam's symmetrical castellated house was deeply unfashionable, the 1885 Sales Particulars describe the Castle as 'well suited to the character of the surrounding scenery.' It was in excellent order, and contained an Entrance Hall, Dining-room, Drawing-room, Library, Boudoir, 8 Bedrooms, 2 Dressing-rooms and ample Servants' accommodation.

The Stabling and Offices are commodious and suitable. There are 4 Coachhouses, 2 Harness-rooms, 24 Stalls and 2 Loose-boxes, and ample accommodation for Coachmen and Grooms.

The Garden extends to about 3 ½ acres, and has a magnificent exposure. It is well stocked and most productive with Vinery, Peach-house, Conservatories, etc. Gardeners' Houses adjoin.

The Park, which is surrounded by a high wall and has three Lodges extends to about 315 acres imperial, and is about three miles in circumference. It is intersected by tastefully formed Avenues and Walks, studded with stately trees, and embellished by a large Serpentine Lake.

The panoramic views from the Mansion and the lands and hills adjacent are of unrivalled grandeur.'

'The Park is divided into enclosures, which are let annually for grazing at low rents.'

'The Plantations on the Estate are extensive and thriving, and greatly enhance its beauty. They cover an area, outside the park, of over 620 acres, containing picturesque walks of fully 20 miles in extent.

Large portions of the lands might be advantageously feued for Building purposes, without injuring the attractions of the Estate as a residence.'

'excellent Trout fishing which has been strictly preserved, in the Serpentine Lake within the Park, which extends to about 25 acres'

The following estate buildings were listed:

Airthrey Castle, Offices and Garden

Lodge (West Gate)

Land Steward's House, Garden, Croft etc

Forester's House, Garden, Lodge etc

Cottage (Old Logie)

Sawmill and Cottages, Pendreich

Gamekeepers' House and Kennels, Parkhead

3.3 Airthrey Castle 1889 – 1939

In 1889 the Airthrey Estate was bought by Donald Graham CIE (1844-1901), who brought a further Indian-derived fortune to the estate, having worked in Bombay for a number of years. The Grahams

'built a large addition to the castle, at a cost of £15,708, and otherwise greatly improved the grounds, cleared the loch of weeds, planted trees along its banks, ornamented the island, put a bridge across one part, and did much more to enhance the beauty of this lovely and delightful place¹⁸'

Graham was the son of John Graham Esq. of Skelmorlie Castle, Ayrshire. He had been educated at Harrow and became a partner in the East Indian House of Messrs Graham, Glasgow. He married Gertrude Clara Laurence Dunsterville in 1872 and

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¹⁸ RM Fergusson 'Logie a Parish History' 1906

they had eight sons. His father had leased Skelmorlie from the Earl of Eglinton, and extended it in 1856 and again in 1864, adding two new wings, in an individualistic version of Scots Baronial (including Gothic dormers)¹⁹.

Donald Graham employed the architect David Thomson to extend Airthrey in 1889 and the extensions were complete by 1891. Thomson was a prolific local architect, with an established practice in the area and in Glasgow. The reason for the choice of architect is not clear, but because of the size of the Graham's family and their collection of architectural antiques, some enlargement of the house was probably essential. A detailed account of the alterations is included below at Section 4.6.1.

Landscape

It is notable that although Graham's extensions to the castle altered it significantly to fit a more romantic view of how a Scottish castle ought to look – asymmetrical, with a dominant tower – the alterations to the landscape were slight, and much more sympathetic. The existing combination of natural crags, woodland, parkland and loch was perhaps seen as already providing an appropriate setting for a Scottish castle.

In a photograph of 1904 (figure 24) the house is shown set in open parkland with magnificent mature trees to the east and west, and a backdrop of densely wooded hillside. The immediate setting of the house was not ornamented with borders of flowers, but climbing plants were grown over the lower levels of the basement, softening the 18th century outline.



Figure 24 View of the castle from south west 1904. Purpose of fenced area in foreground unknown. StAU

The 2nd Edition OS map of 1899 (figure 25) shows that the island was increased in size, and a boathouse, pier, and footbridge were constructed at the water's edge. In the pleasure grounds to the north east of the house and west of the walled garden conifers were planted to form an arboretum, and a well was added at the foot of the

 $^{^{\}rm 19}$ The architect was probably William Railton of Kilmarnock. Further alterations were made by John Honeyman in 1876.

crag housing the stable block, close to where a small waterfall fell from the crag housing the stables and offices. These were fashionable improvements, which did not undermine the conception of the picturesque landscape.

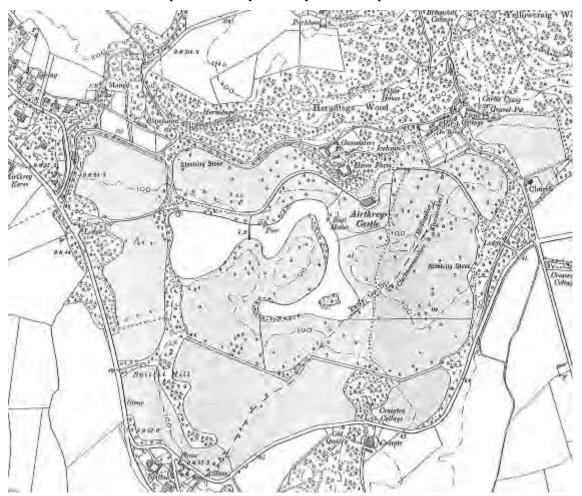


Figure 25 Polices shown on 2nd Edition OS 1899 NLS

The island in the loch was planted with varied species to form interesting reflections in the water. Trees were planted in two belts at the western edges of the loch. A track running between the East Approach and Craigton Cottage in the south of the policies is shown on this map. It was later removed and does not appear on the 1923 OS map.

Airthrey Estate 1901-1939

Donald Graham died in 1901, and his widow and Trustees inherited the estate. The 1923 OS map (figure 26) shows little alteration to the estate, apart from the addition of a Sewage Tank. The 1922 inventory noted the following estate buildings: Boat House, Garage, Harness room, and Racquet Court.

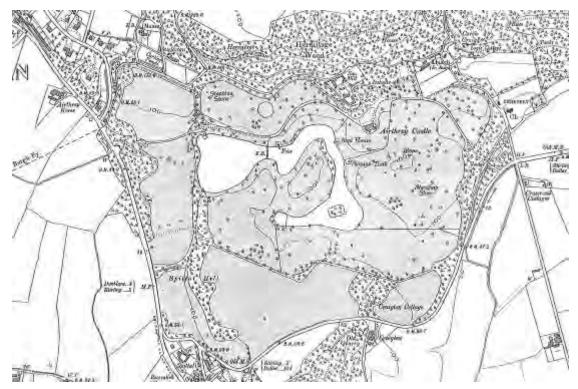


Figure 26 1923 OS map *NLS*

3.4 Airthrey Maternity Hospital 1939 – 1969

In 1939 Mrs Donaldson offered the castle and grounds to the government as an Emergency Maternity Hospital. She herself continued to live there and assisted in its running. In 1941 she moved to a house she owned which had become vacant, leaving the whole of Airthrey Castle available for the hospital. Forty beds were now available, whereas previously there had only been room for five to ten patients. Inspection reports indicate the hospital was highly successful, with a death rate for mothers and infants well below the national average, and anecdotal reports that the mothers particularly appreciated its position away from the noise of the town. The mothers had almost all chosen to go to Airthrey, and most stayed a week before birth, some longer, and apparently wished to stay much longer. 70% of mothers were from Clydebank, which had been severely hit by enemy action, with others from Dumbarton, and evacuees from England and Wales who had settled in the area. A 1942 report from visiting Dept of Health staff and nurses reported that 'in spite of the fact that it was a converted mansion house, it was surprisingly easy to run as an institution'. The report found that the women liked being at Airthrey, where they could walk in the grounds, far from the town.

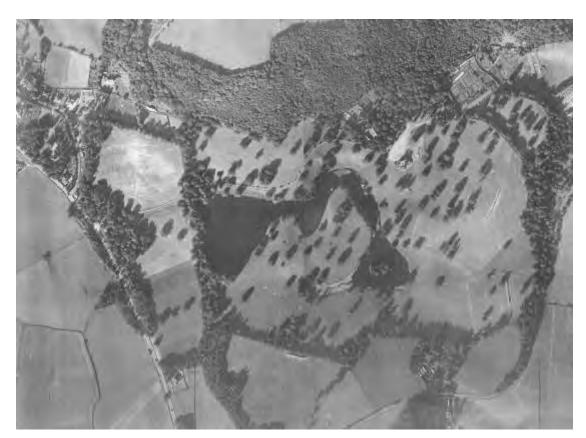


Figure 27 Aerial photograph of Airthrey policies September 1947 NMRS

In October 1944 the Graham Trustees put the estate up for sale.

'The property extends to upwards of 2900 acres, of which 300 acres are within the Policies, including Airthrey Loch (25 acres), grass parks and woodlands, all enclosed by a substantial wall, ensuring privacy; 150 acres are carse land situated to the west of the Stirling-Bridge of Allan Road, and the remainder comprises arable land, grazings, moorland and woodlands, mainly situated on the south and west slopes of the Ochil Hills and rising to and altitude of about 1000 feet.'

'The Castle is pleasantly situated on ground rising to about 150 feet overlooking the Loch and Parks, and has extensive views in all directions. The principal entrance is at the West Lodge on the Stirling-Bridge of Allan Road, and there is also an entrance by the East Lodge on the Stirling-Alva Road. The policy grounds are laid out with mature timber, rhododendrons (which are a feature in their season) etc while the Loch with its trout fishing is an added attraction²⁰.'

In 1947 the estate was sold, initially to what were described as 'a firm of Edinburgh speculators²¹'. This firm divided the land into four lots. The central portion, including the house, was bought by Stirling County Council, who leased it to the NHS.

Few if any alterations were made to the parkland and wooded policies, and a number of undated photographs from this period probably give a good impression of how the estate had looked in the 19th century (figure 28-35, 37). 19th century estate fencing can be seen in some of the photographs.

²⁰ NHS archive NAS

²¹ NHS archive NAS



Figure 28 East Approach UoSA



Figure 29 View of castle from west *UoSA*



Figure 30 Parkland north of loch UoSA



Figure 31 View south from Hermitage Wood *UoSA*



Figure 32 Parkland, Hermitage Wood UoSA



Figure 33 Airthrey Loch UoSA



Figure 34 Airthrey Loch UoSA



Figure 35 Footbridge at north of loch *UoSA*

In 1948 the West Approach was lit by electric lights.

The Maternity Hospital continued to be very successful until the building of a new Stirling Maternity Hospital in 1969, after which Airthrey was vacated and handed over to the new university.

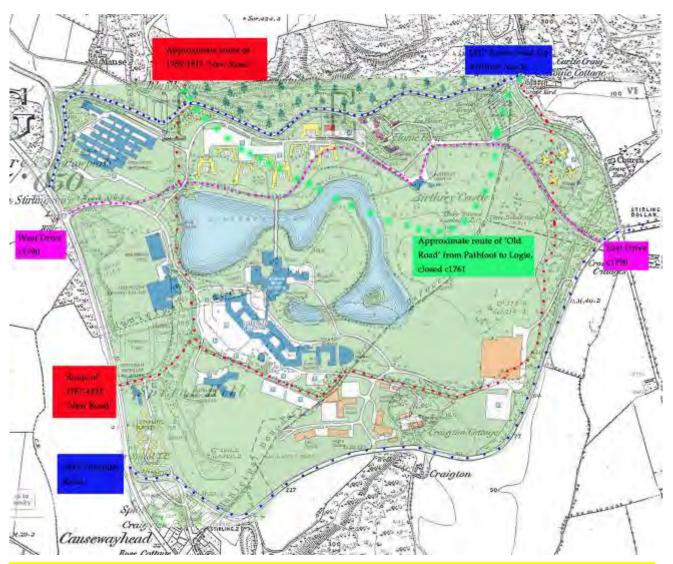


Figure 36 Historical development of roads within the estate. Current campus map overlaid on 1^{st} Edition OS 1865 S&B



Figure 37 Airthrey Castle from south west, undated mid 20th century view of castle in parkland setting little altered from 19th century *UoSA*

3.5 Establishment of the University



Figure 38 Portrait of King James VI and I, c1606, *NPG*

'James VI and I returned to Scotland in 1617, and took part in a great scholastic disputation at Stirling. So pleased was the King with this display of Latin oratory that he announced his intention of founding a 'free college' in Stirling. Alas, the King did not fulfil his promise, in spite of the laudatory Latin poems presented to him by Master William Wallace (1612-17), and his grammar school pupils; otherwise Scotland's fifth university would not still be a subject of discussion.'22

It was not until 1946 that the town council made its first formal claim for a university to be established at the town, yet even that claim was to be largely ignored until 1960 when Sir Keith Murray of the University Grants Committee visited Scotland to discuss the possibility of a new university in the country.

No action was taken immediately, but by 1963 six other towns had applied to the UGC: Ayr, Cumbernauld, Dumfries, Falkirk, Inverness, and Perth.

²² From an essay on the History of Stirling High School, written by 'Miss Thomson' in 1962, published on the Stirling High School website http://web.stirlinghigh.co.uk/heritage/history.html, 12-Dec-2008

There were a number of criteria that the sub-committee charged with reaching the final decision applied: 'the essential provision of a site of not less than 200 acres, the attractiveness of an area to staff, the presence of industry in the area as a stimulus to pure and applied science and a good supply of lodgings '23.

The sub-committee quickly narrowed down the shortlist to the locations within the central belt area, despite intense lobbying from Inverness, where the establishment of a university was seen as being crucial to the reinvigoration of the Highland economy. Ayr and Dumfries were also deemed unsuitable.

Of the remaining candidates, Cumbernauld was popular with many pundits, a strong contender as a result of being in easy reach of Glasgow. Nevertheless there was 'a feeling at the time that Cumbernauld would be an unattractive place both for student and staff and unlikely to draw people away from the established centres '24. Perth 'suffered from being too close to Dundee and St Andrews 25, and proposed an awkward site.

This left the contest between two candidates, Falkirk and Stirling. The competition between the two was fierce. Andrew Duncan, the secretary of the committee formed in Falkirk to work on the project, referred to Stirling as 'just a snob town'26. Falkirk had been extremely confident of success; after all, they had collected over £1 million towards the project, a key indicator of local enthusiasm and support that was of enormous consideration to the UGC sub-committee. Falkirk was also ideally placed in the central belt, with the strong potential for a technology-focussed university with links to the industry at Grangemouth. Andrew Duncan had also been bullish enough to complain about a delay to the UGC's final decision to an MP: 'Shilly-shally over new university decision intolerable '27.

Nevertheless Stirling 'had the advantage of being a smarter location, an historical town with good middle class credentials and of having a beautiful site '28. The decision in favour of Stirling was announced on the 17th July 1964.

3.6 The Robbins Report

²³ Murray, Peter, "University of Stirling", Architectural Design, March 1973, p154-5

 $^{^{24}}$ Murray, Peter, "University of Stirling", $Architectural\ Design,$ March 1973, p155

Murray, Peter, "University of Stirling", Architectural Design, March 1973
 Murray, Peter, "University of Stirling", Architectural Design, March 1973
 Murray, Peter, "University of Stirling", Architectural Design, March 1973
 Murray, Peter, "University of Stirling", Architectural Design, March 1973

²⁸ Murray, Peter, "University of Stirling", Architectural Design, March 1973

Lionel Robbins was a noted economist of the 20th century. Having been based at the London School of Economics from 1925, he became renowned for his work during the Second World War, advising on the economic conduct of the war, and acting as the UK delegate at conferences that took the decision to found the World Bank and the International Monetary Fund. He was also a member of the committee that negotiated the Anglo-American loan agreement of 1945 that was crucial to the recovery of the UK economy in the post-war years. He became a life peer in 1959.

The Robbins Report, published in 1963, is often referred to as the document that led to the expansion of the university sector in the UK in the 1960s. Lord Robbins, as chair of the Committee on Higher Education from 1961-64, did indeed make many recommendations, including one that the Colleges of Advanced Technologies should become universities (Strathclyde being one Scottish example).



Figure 39 1964 Portrait of Lionel Charles Robbins, Baron Robbins (1898 - 1984). *NPG*

However, with regards to the creation of new universities the report largely reflected what the University Grants Committee had already been actively engaged with since the 1950s. As an example, both Sussex and East Anglia Universities had opened prior to the publication of the Report, with York and Lancaster amongst the others already approved. Nevertheless, the report was a ringing endorsement of the UGC's programme, and 'provoked a sensation'²⁹, with the government issuing a white paper within 24 hours in response. In 1963 the report 'sold more copies than any other government document'³⁰. In the context of the establishment of the University of Stirling, the Robbins Report is crucial in that it recommend that at least one new university be built in Scotland.

3.7 The Plate Glass Universities

The term *plate glass university* is one that was coined by Michael Beloff in his 1968 book of the same name. Although little used today, it accurately encapsulates the era in which tertiary education in the UK expanded rapidly.

'I had at the start to decide upon a generic term for the new universities — they will not be new for ever. None of the various caps so far tried have fitted. "Greenfields" describes only a transient phase. "Whitebrick", "Whitestone", and "Pinktile" hardly conjure up the grey or biscuit concrete massiveness of most of their buildings, and certainly not the black towers of Essex. "Newbridge" is fine as far as the novelty goes, but where on earth are the bridges? I have chosen to call them the Plateglass Universities. It is architecturally evocative; but more important, it is metaphorically accurate. '31

²⁹ http://www.lse.ac.uk/resources/LSEHistory/robbins.htm, 05-Dec-2008

³⁰ McKean, John Maule, "RMJM at Stirling", Architectural Review, 1973, p360

³¹ Beloff, Michael, The Plateglass Universities, 1968, p11

The foundation of the *plate glass* universities was to revolutionise the tertiary education sector in the UK, dramatically increasing the number of students, and changing the entire demographic of academia in general. Not only were the new universities bringing higher education to a sector of society that had not had the opportunity before, in many cases they were staffed by younger academics who embraced the unique opportunity to bring a new approach to the sector. This was not without controversy – the plate glass universities were seen as being hot-beds of student radicalism, or at least more so than older universities. At the University of Essex, which opened in 1964, student protests against Vietnam and visits by Enoch Powell and Dr Inch from Porton Down Defence Science and Technology Laboratory gained nationwide press³². The University of Stirling too saw student protest against a visit by the Queen in 'who was subjected to four letter abuse and rude suggestions as to her lineage [which] put Stirling firmly on the map along with most of the other green field campuses as centres of student unrest'³³. This resulted in much criticism both in the press and amongst locals, with students even being barred from local buses in riposte.

These controversies proved however that the *plate glass* institutions were radical in more ways than one: the student rebellions not just acts of defiance against 'the establishment', but a reflection of the new universities' differing stance in society:

'The role of Plateglass in reviving a belief in the need for and virtues of higher education is especially important. Plateglass universities gives the lie to the view that universities are conservative, unchanging institutions. In syllabuses, examinations, teaching methods, administration, discipline, they have taken new initiatives.' 34



Figure 40 The Queen speaking with student in the library during her visit, Tom Cottrell to her right, October 12 1972 *Scotsman*



Figure 41 Student Jack Carter drinking wine from bottle as the Queen passes on bridge, October 12 1972 *Scotsman*

³² http://www.essex68.org.uk, 05-Dec-2008

³³ Murray, Peter, "University of Stirling", Architectural Design, March 1973,

³⁴ Beloff, Michael, The Plateglass Universities, 1968, p207

3.8 Expansion of the University Sector in the UK

Until 1822 there had been only six institutions – the 19th century saw the addition of a further seven universities, with another five following in the first decade of the 20th. Reading was established alone in 1926, with a further five in the 1940s and 50s. Thus, prior to the wave of new universities that included Stirling, there were only 24 universities in the UK³⁵, falling broadly in to the terms *ancient* and *red-brick*.

The plate glass expansion saw the creation of a further 24 universities, therefore doubling the UK total to 48 by 1969. With the addition of the Open University in 1969, the private University of Buckingham in 1976, and the merger of St David's College under the umbrella of the federal University of Wales there was a total of 49 universities by the end of the 1980s. The Further and Higher Education Act of 1992 saw the next big expansion, with 38 former polytechnics becoming universities almost immediately. Further expansion took place in the 21st century, with the current total standing at 109 universities³⁶.

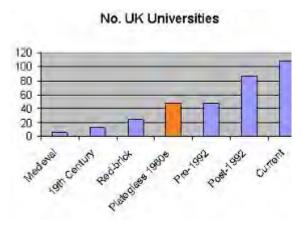


Figure 42 Graph showing growth of number of UK universities.³⁷ *S&B*

3.9 Contemporary Comparisons with other University Campuses

Prior to the completion of the final Development Plan at the UoS, the Interim Development Committee visited a total of ten universities between the 29 January and 3 February 1967. The principal Tom Cottrell wrote a detailed report, which at the time was confidential, detailing their thoughts and findings from the trip. John Richards from RMJM accompanied the Committee.

The ten universities that the Committee visited, in order, were: Nottingham, Warwick, Oxford, Southampton, Sussex, Kent, Essex, East Anglia, York and Durham. This gave the Committee a variety of institutions from *Ancient* to *Plate-glass*, concentrating on the latter for closer comparison.

³⁵ There were a number of universities that were merged or demerged, but this total refers to the number as existing immediately prior to the *plate glass* expansion.

³⁶ As of August 2008, according to http://www.universitiesuk.ac.uk/, 28-Nov-08. However this total counts the federal Universities of London and Wales as single institutions, despite some constituent institutions having been granted independent status. Some such institutions are yet to fully devolve, and/or grant their own degrees.

 $^{^{37}}$ Numbers shown include applicable mergers and demergers, but not the recent demergers from federal universities.



Figure 43 The University of Nottingham's Trent Building. Dr Eric Ritchie/Images of England

3.9.1 Thematic Comparisons

I Development Plans

Cottrell noted that of the six new universities visited, Sussex and Kent did not have development plans: 'they originally had layout plans of the individual buildings, which were <u>followed</u> by rather general zoning ideas, derived from what had already been put on the ground.' Essex and East Anglia 'had plans which appear to have been conceived primarily in architectural terms: the university was essentially conceived as a building, or a closely interlocking series of buildings.' Furthermore, 'the remaining two universities, York and Warwick, had abstract development plans. The York plan is of a mainly collegiate university... [with] specialised buildings... interspersed, more or less at random, among the colleges. The Warwick plan is denser.' Overall, Cottrell seemed to have been quite satisfied that Stirling had embraced the idea of a development plan

ii Preliminary Buildings

Another key aspect for the visits was to note how each of the new universities had managed the initial intake of students and the preliminary buildings. Although by the time of the visit Pathfoot was already under construction, Cottrell was interested to see how initial buildings had been used after the completion of further buildings. Both Kent and York used existing buildings on the site in conjunction with a building in the respective town centres – 'presumably [to] be disposed of when they are finished with it" and the benefit that the "preliminary building problem is out of sight to the visitor [to the permanent campus]'.

Warwick, Essex and East Anglia all had preliminary buildings on or close to the site. At Essex, these were cheap huts, which although the 'cost will have been small', there was a knock-on effect in that unrealistic schedules were placed on the construction of rest of the university. East Anglia provided preliminary buildings that housed 800 students – buildings that were 'too extensive to throw away', yet for which an alternative use had yet to be found. Cottrell was also critical of the distance between the preliminary and main buildings, and heavy maintenance costs that would be incurred in order to accommodate future use. Cottrell was impressed by the preliminary buildings at Warwick, which seemed to be similar in nature to Pathfoot. They were close to the main buildings, intended to continue to house a growing department, and incorporated a common room which was to remain in use.

iii Student Residences

Cottrell noted that the traditional halls of residences, arranged with study-bedrooms, dining-rooms with high tables for formal dinners, libraries and common rooms for each hall, was being phased out, and did not appear at any of the new universities. There was however the notable exception of Nottingham, where, paradoxically, the university authorities said it was proving popular.

Separation of males and females was largely done on a floor-by-floor basis, with joint communal restaurants and/or common rooms. Nottingham was again a notable exception with male and female halls being at opposite ends of the campus, with the result that 'undesirable characters from the town tend to hang around the women's halls, without the deterrent of having men to deal with as well'. Cottrell highlighted the pattern of flats of 5-6 students with common pantries, with restaurants nearby as being the ideal. He noted that 'we saw a horrible example in Southampton, where 22 students shared a pantry and the nearest restaurant is a mile away'.

Cottrell noted that students appeared to enjoy doing their own cooking, but qualified that by noting that they 'had not been at it for very long, and this may pall; therefore easy access to good restaurants may be important in the long run.'

iv Student Facilities

Interestingly, Cottrell discovered that whilst the longer-established Nottingham, Southampton and Durham, all had large students union buildings, four of the new universities did not have a similar facility. Only Warwick and Sussex had similar facilities, Sussex also having the advantage of 'an extensive (and attractive) senior common room' (figure 44).



Figure 44 Senior Common Room at the University of Southampton. RCAHMS

Cottrell noted that it was important to provide additional informal social spaces throughout the university, particularly for arts students. He particular liked the arrangements at York, with coffee bars and the like intermingled amongst the teaching areas. Cottrell also noted that these spaces worked best with smaller spaces for 20-50 people: 'if the areas are larger, the noise level becomes too high when they are full, and the appearance becomes depressing when they are empty'.

Sports facilities were controlled by universities, and not students unions, and were provided on a university-wide basis, 'even in the most collegiate universities'".

v Libraries

Cottrell particularly liked the libraries at Sussex, Warwick and York, in that order, despite their very different architectural treatments. Externally, he preferred York, designed by RMJM.

vi Costs

John Richards made notes on the costs and standards of each university that was visited. 'One important general point was very obvious. Since the initial Sussex building, there has been a general decline in the standard of quality in the buildings provided from UGC funds. Both the appearance and wearing properties have suffered.'

3.9.2 Key Observations from individual Universities

i Nottingham

In addition to the wide-separation between male and female halls, the teaching areas were also widely separate, with five minutes between science and social science, and between social sciences and arts. Cottrell wrote that 'apart from the science area... the architecture is dull and pompous to a degree, and unredeemed by the interior decoration.'

In discussion with the Vice Chancellor, it was noted that 'conference letting must be taken into account' when designing student residences. The Vice-Chancellor also said she 'saw signs already... of a swing in popularity from student flats back to traditional halls of residences', though Cottrell pointed out that 'she did not discuss a third possibility; of student flats in close association with university restaurants', which is the approach ultimately taken at Stirling.

Traffic and parking was already proving to be a problem at Nottingham, largely because of students having to return to halls for lunch, and the dispersed nature of the site. Parking was limited to 3rd year and postgraduate students, and card had to be registered. Despite there being only 1339 registered cars (including staff), Cottrell quoted a figure from a day in 1966 when there were 1850 parked cars on site in Nottingham. Although including some visitors, it was also a result of unauthorised student usage. Cottrell was clearly interested in the potential impact for Stirling. He noted that in 1965, the ratio of male students with cars to females with cars was 10:1, and that it was likely this would even out in future, resulting in even more cars on campus.

ii Brasenose, Oxford

One feature of Brasenose College that was of particular interest to John Richards was the 'traditional Oxford staircase layout' of the Powell & Moya accommodation blocks ('staircase' being just a reference to a collection of rooms, ie 'flat').

Powell & Moya 'were commissioned "to fit in, squeeze in, as many rooms as you can without being antisocial about it" into a backyard full of bicycles. They showed that a British firm could build an accomplished modern design that also harmonised with its historic surroundings'38. Cottrell mentioned that 'this is the sort of thing he'd like to do for Stirling'.

The complex elevations, and the rich materials (Portland stone and lead cladding) of these building, however well liked by Cottrell and Richards, was not something within reach of the University of Stirling's budget.



Figure 45 Powell and Moya accommodation blocks built at Brasenose College, Oxford. *English Heritage NMR*

The accommodation blocks, completed in 1961, were listed by English Heritage at Grade II* in 1998.

iii Southampton



Figure 46 Arts Building (left) and the Nuffield Theatre at the University of Southampton. *RCAHMS*

^{38 &#}x27;Sir Philip Powell' (Obituary), The Independent, 9-May-2003

At Southampton, 'the Vice-Chancellor stated that the theatre had been of great value in achieving good relations between the university and the town' – exactly what Cottrell was aiming to achieve at Stirling. The Nuffield Theatre was designed by Sir Basil Spence, and opened in 1964 as a key component in the university's new campus³⁹.

iv Sussex

'The suggestion of having visiting painters in the Stirling Arts Centre is one we might usefully consider'

'The social building supplies a range of restaurants, a range of sizes of rooms, and provision for other activities... Incidentally, within the teaching buildings there are small staff-student common rooms... and these are much appreciated. This makes me wonder if the initial Stirling development plan has said enough about social space, and has included enough at the outset.'

The increasing pressure to lower development costs by the UGC was not new to Stirling – at Sussex 'the progression of buildings shows very clearly that the expenditure limits in relation to the cost of building had been much more generous for the initial buildings at Sussex than they later became'.



Figure 47 University of Sussex, with the central meeting hall in the foreground. *RCAHMS*

When referring to Sir Basil Spence's buildings at Sussex, John Richards noted 'that their appearance belongs essentially to a former generation, and that increasingly stringent cost limits would make it impossible to continue building in the same style, or would result in poor quality buildings which copy the Spence mannerisms without having their quality; there are already signs that this is happening'

Furthermore Cottrell stated that 'We came away with a feeling that it would be very nice to be a student at Sussex – much more so than at Nottingham, Warwick or Southampton: but that in terms of its physical organisation and planning, Sussex was perhaps the last of the old universities rather than the first of the new.'



Figure 48 Oblique aerial view of the University of Essex

"There is no doubt that the place looks rather fine: unlike Sussex it is of its age; unlike Kent it is not eccentric."

Figure 48 shows the contrast between the low-rise central buildings and the residential towers.

vi Essex

³⁹ It is now an independent producing theatre.

vii East Anglia

Cottrell was disappointed by what he saw at East Anglia: being 'perhaps in the least satisfactory state of all the universities that we visited'. This was largely as a result of the lateness of completion of the main buildings, with the end result that 'mud, contractors' men, contractors' plant, students, staff, and service deliveries to the occupied buildings were all mixed up. Among other things, this means that it is impossible to keep the buildings clean, and standards of maintenance have dropped to a point at which deterioration is setting in before the buildings are completely occupied'. This was an interesting observation: the University of Stirling was also to experience difficulties with delayed buildings, building works and mud, albeit on a far less critical scale.



Figure 49 University of East Anglia with the distinctive forms of the residential accommodation. *Multimap*

Nevertheless, despite these problems, Cottrell's impression of the residential accommodation 'was favourable'. Furthermore, 'the general impression of the buildings from a distance is good: J.D.R. put it higher than that, but I found the slightly lunar landscape effect of all the concrete unrelieved by landscaping a bit oppressive'.

viii York

'The visual impression of York on approaching it from a distance... is one of amorphous drabness, rather like a council housing estate... On the other hand, close up, the feeling was rather pleasant... To have the buildings finished in time, and the immediately surrounding area tidied up and landscapes, before the buildings are occupied, makes a very important contribution to the well-being of the university... It looked as serene as Sussex'

Cottrell also describes an intriguing system set up at York to counter the perceived remoteness of many teaching departments from the library: CCTV. He describes how 'a member of department telephones the library, giving the exact reference he wishes to consult... The 'reader service' assistant finds the reference and places it under a TV camera so that the book can be read at a TV screen in the department.'



Figure 50 University of York with the central hall in the foreground. Scran

3.9.3 Summary

Cottrell drew four main conclusions from the visits:

- Nothing we saw indicated that the general basis of the Stirling Development Plan was unworkable: on the contrary, it seems to avoid some of the difficulties experiences elsewhere.
- The distribution of social and study space around the university merits more careful consideration than we have so far given it.
- **§** Programming building work to give ample time for completion <u>and landscaping</u> before occupation is of the utmost importance.
- **§** The planned use of works of art can make a very considerable improvement to buildings. It might well be worth earmarking some of the appeal for this purpose."

3.10 Development Planning

It is perhaps surprising that a Development Plan was not at the heart of all the new universities that were constructed in the 1960s and 70s. However Professor Cottrell's visits to other universities in 1967 (see 3.9) highlighted that, as a generalisation, other universities depended on either teaching plans alone, thus building new accommodation as required, or went to the opposite extreme and commissioned great architectural plans that they then fitted the university into. After seeing at first-hand the problems that had arisen from each approach, he was satisfied that Stirling had taken a better approach – perhaps not an altogether surprising conclusion.

The UoS Development Plans were thorough, yet concise and clear in intention. After identifying how the site at Airthrey could be used, and where different types of

building were best located, the development plans then laid out a clear plan to manage the University's growth right through to the end of the 1970s and beyond.

1966 Interim Development Plan

The Development Plan of 1966 is the first document to be considered. This was prepared by RMJM and presented in December 1966. This was a crucial stage in the development of the University and the impact that it would have on the Airthrey Estate. The collaborative nature of this interim plan was stressed early in the report stating that it was "based on an intensive series of discussions between the University and its planning architects over the past year. In this process it was found that architectural, social and educational ideas were developed side by side."

One such discussion was based on density study material produced for a meeting in July 1966. This considered the constraints of the site, zoning, floor-space requirements, and social groupings.



Figure 51 1968 schematic diagram showing how the University should develop around the loch. *UoS*

One of the first clear decisions to be made was that the University would be built around, and centred on Airthrey Loch (figure 51).

A site plan with walking distances then showed the approximate development area (figure 52). Although the centre point of the University campus is in a different location than shown in this diagram

(further west), the principle is clearly demonstrative of what was actually built. This diagram highlights the concern of Cottrell to avoid problems experienced by other universities that had developed on a more piecemeal basis on similar sites. He had found on visits to other universities that there were sometimes great distances to be travelled between residential, dining, teaching and recreation spaces – often resulting in either enormous inconvenience to students and staff, but even traffic problems as car use increased within the campus.

Whilst developing around the loch was practical, and indeed aesthetically pleasing, the 'bowl-shaped' nature of the surrounding land was always going to be more difficult and expensive to build on than flatter land on other parts of the estate. To build on the flat land, although perhaps cheaper, would have rendered the campus ineffective and inconvenient. The 'bowl' also offered the possibility of acting as a natural amphitheatre – an arena where all the various functions of the university would group together, and one which maximised effective use of daylight (figure 53).

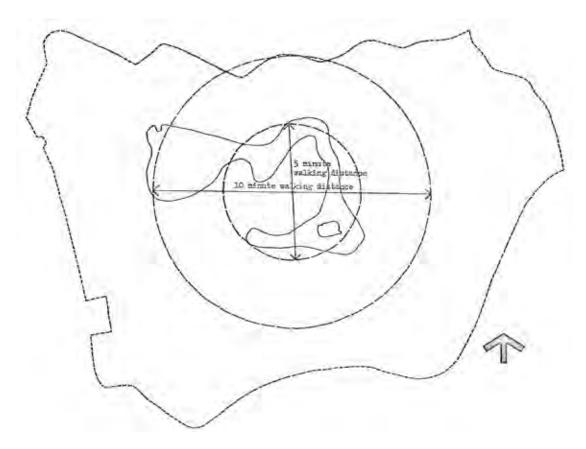


Figure 52 Diagram from 1966 discussion material showing walking distances. UoS

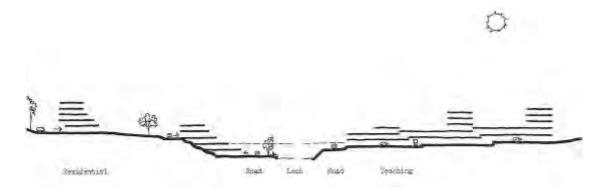


Figure 53 Diagram from the 1966 Interim Development Plan showing north-south section through the site. Note the decision to place the residential buildings on the south-facing slopes, and the teaching buildings on the north-facing slope. *UoS*

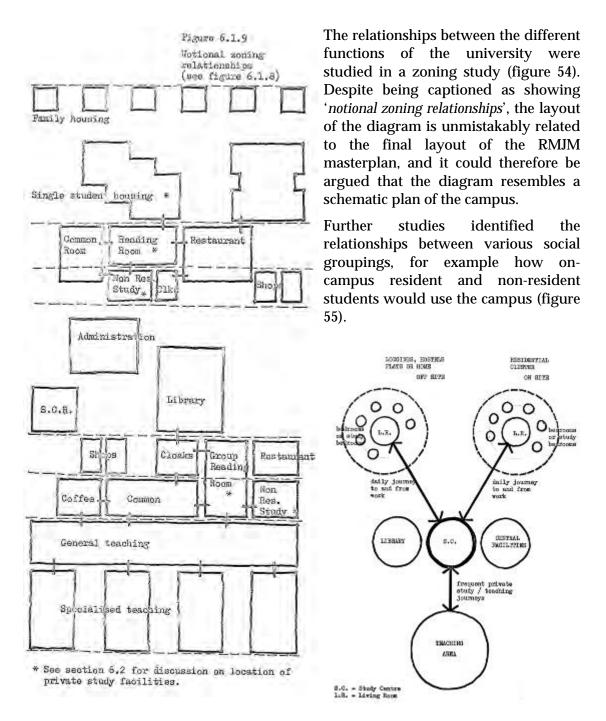


Figure 54 Diagram from 1966 discussion material showing notional zoning relationships. *UoS*

Figure 55 Diagram from 1966 discussion material showing social groupings study. *UoS*

The discussion document from 1966 also shows an early study of the space requirements of the individual components of the University and how this could fit within the constraints of the site. Three diagrams were shown – one showing the site constraints, one showing the space requirements (figure 56) and a final image showing a combination of the two (figure 57).

Coupled with the other diagrams, the final form of the University begins to appear, well in advance of any architectural drawings having been produced.

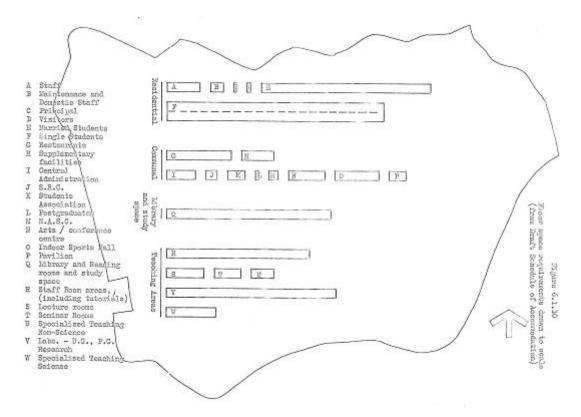


Figure 56 Diagram from 1966 discussion material showing the space required for residential, communal, library and study space, and teaching areas. UoS

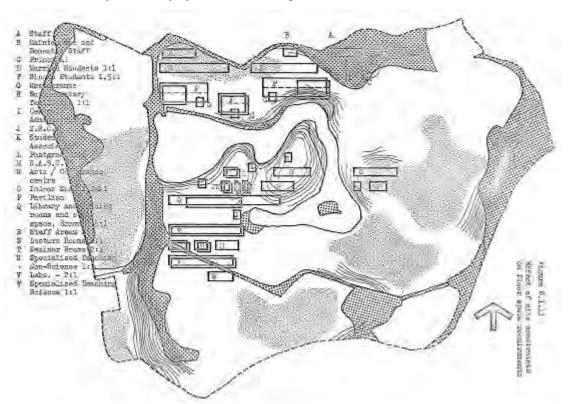


Figure 57 Diagram from 1966 discussion material showing the effect of site constraints on floor space requirements UoS

Note how even at this early stage, most functions are broadly in the locations shown here, with the notable exception of 'O' and 'P' (Sports Hall and Pavilion) which are

shown to the east of Airthrey Loch. Students' Residences ('F'), Library ('Q'), Principal's House ('C') and Staff Housing ('A'), Teaching ('S', 'T', 'U' & 'V') and Arts Centre ('N') were all located where shown. Not also that Airthrey Castle is not shown – at this date it was still a maternity hospital.

1968 Development Plan Report

Of key interest from this report is the phase diagrams showing the development of the University campus. What is of particular note is the buildings that were not completed: primarily the residential area on the east shore of the loch and the student recreation buildings.

1968 is when the first aspirations for post-Phase 2 development begin to appear. A revised population projection showed an intended doubling of undergraduate number by 1980. The final development phase diagram (figure 63), shows the early intentions for how this growth was to be accommodated – a repeat of the main teaching block on higher ground to the south, larger library and extensions to other central area buildings, and a massive expansion of student accommodation to the east. None of these developments were to be realised in the manner first proposed in this report.



Figure 58 1968 development phase diagram showing buildings completed by September 1967. *UoS*



Figure 59 1968 development phase diagram showing buildings to be completed by September 1970. *UoS*

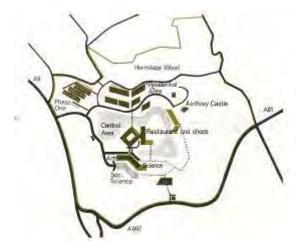


Figure 60 1968 development phase diagram showing buildings to be completed by September 1971. *UoS*



Figure 61 1968 development phase diagram showing buildings to be completed by September 1972. *UoS*

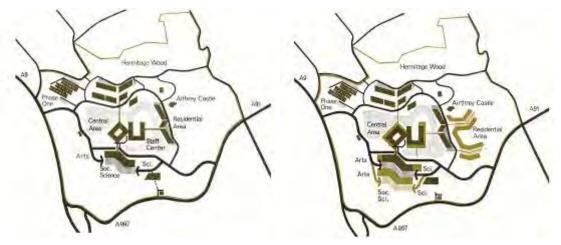


Figure 62 1968 development phase diagram Figure 63 1968 development phase diagram showing buildings to be completed by September 1973. UoS

showing Phase 3 buildings. UoS

The proposed growth of the teaching block (Cottrell) along the principle of the 'spine and rib' model was demonstrated in the 1968 report. More often identified as the ladder-plan layout once completed, the diagrams demonstrated not only the direction of intended growth (i.e. south, east, and west), but the way that this growth was related to the relationship between the different teaching subjects and the gradual movement from the Phase 1 building (Pathfoot).

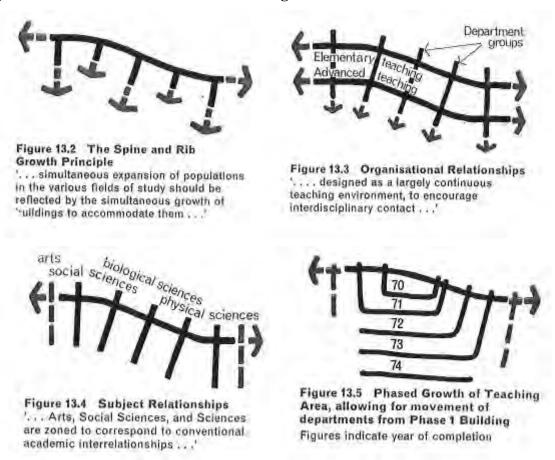
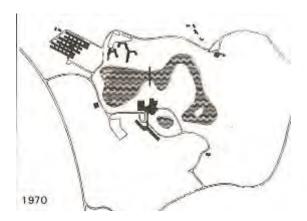


Figure 64 Diagram from 1968 Development Plan Report showing the proposed growth of the main teaching block, now known as the Cottrell building. UoS

1973 Phase 3 Development Plan

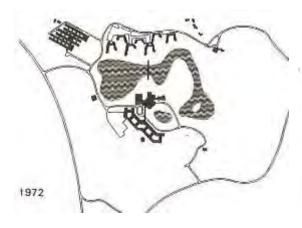
Development plans from January 1973, also published by Architectural Design in March of the same year, show the phases completed to that point, the proposed expansion up until 1975 (considered as completion of Phase 2), and the undated expansion in Phase 3 (figures 65-68). This development plan shows the buildings as we can recognise them today, and charts the actual growth of the University up to this date, as opposed to the theoretical growth demonstrated in the earlier plans. Figure 68 shows what was intended to be built by 1975 - note the additional drive to the east, a residential block east of Airthrey Castle, the student centre projecting north-east from the central buildings, and a link bridge to the south from the Cottrell building.



1971

Figure 65 1973 development phase diagram showing buildings completed by 1970. Architectural Design

Figure 66 1973 development phase diagram showing buildings completed by 1971. Architectural Design



showing buildings completed by 1972. Architectural Design

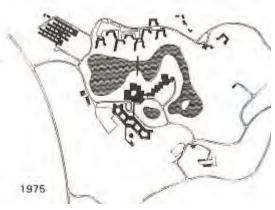


Figure 67 1973 development phase diagram Figure 68 1973 development phase diagram showing buildings intended to be completed by 1975. Architectural Design

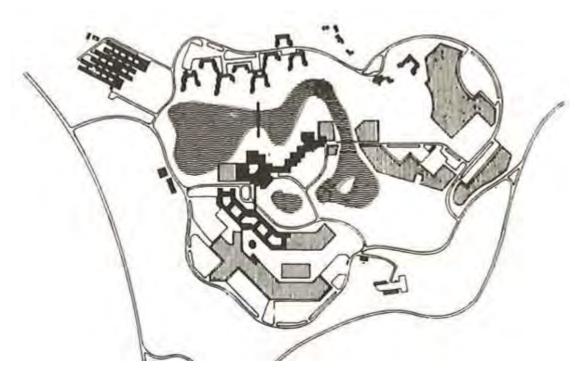


Figure 69 1973 development phase diagram showing Phase 3 buildings. Architectural Design

Figure 69 shows the buildings intended to be completed by 1975 with the addition of the projected Phase 3 buildings. Of particular note is the extension to the west of the library. It appears from the diagram that the west elevation of this extension would be in line with the west elevation of Cottrell building, which would have created a gateway entrance that is almost urban in character. The positioning of the second teaching block to the south of the Cottrell building, and the link bridge between also explains the positioning of the Logie lecture theatre, which seems odd without this block. Further extensions are shown to the student centre, and a second bridge over the loch was proposed, leading to a major expansion of student residences in the east portion of the campus.

Growth in Student Population

The development plans worked to the report of the Academic Planning Board (from December 1965) which had set out the programme of growth in student numbers that could be realistically accommodated: 'a population of 3,000 undergraduates, 500 postgraduate students and about 450 staff, to be reached in ten years or earlier, should be aimed at'.

Undergraduate Population

	Intake at	0	Course	Year	Total	Graduates	
	beginning of academic year	1	2	3	4	121	at end of academic year
3yr ordinary 4yr Honours 1967/68	150	75 75				150	÷
1968/69	150	75 75	75 75			300	-
1969/70	150	75 75	75 75	75 75		450	75
1970/71	850	425 425	75 75	75 75	75	1,225	75 75
1971/72	850	425 425	425 425	75 75	75	1,925	75 75
1972/73	850	425 425	425 425	425 425	75	2,625	425 75
1973/74	850	425 425	425 425	425 425	425	2,975	425 425
1974/75	850	425 425	425 425	425 425	425	2,975	425 425

This chart makes no allowance for wastage. It is assumed that intake will be increased to make up for any wastage keeping the total number of undergraduates unchanged.

Source: University of Stirling - First Estimate (20.3.66) of rate of expansion after Phase I - Principal T. L. Cottrell.

Figure 70 Table from 1966 discussion material showing estimate of undergraduate student population growth. UoS

	Intake at beginning of academic year	Course Year				Total	Graduates at
		1	2	3	4	Total	end of academic year
1967/68							
Three-year General	450	75				160	-
Four-year Honours	150	75				150	-
1968/69	150	75	75			300	
		75	75				-
1969/70	150	75	75	75		450	75
1,50		75	75	75			-
1970/71	750	375	75	75		1125	75
		375	75	75	75		75
1971/72	750	375	375	75		1725	75
277, F-26		375	375	75	75		75
1972/73	850	425	375	375		2425	375
		425	375	375	75		75
1973/74	200	425	425	375		www.	375
	850	425	425	375	375	2825	375
1974/75	850	425	425	425		2925	425
		425	425	425	375		375
1975/76	850	425	425	425		2975	425
		425	425	425	425		425
1980/81	1200	850	850	850		FORC	850
and the same	1700	850	850	850	850	5950	850

Figure 71 Table from 1968 Development Plan showing revised estimate of undergraduate student population growth, and Phase 3 growth to 1980/81. *UoS*

Phase 1 Development

In terms of student numbers, this phase represented the initial three years of student intake, projected at c.150 undergraduate students per year (figure 71). After reviewing other universities, and their initial development strategies, the University decided that a permanent building would be preferable to a temporary one – the building that represented this first phase was Pathfoot (see 4.1). The gradual intake allowed for Pathfoot to be completed in stages: although it opened in September 1967, it was not completed until the following year, in time for the second intake.

Phase 2 Development

From 1970 the student intake was proposed to grow to c.750 per annum, taking the university up to around 3000 undergraduate students. This was to be the design capacity of the Phase 2 buildings.

Phase 2 was constructed from west to east, taking construction works away from the functioning university at Pathfoot. The central area, first part of the Cottrell building (see 4.2) and the first of the residences were to be built in readiness for the increased intake. As it happened, the campus was still a construction site, with students needing to be bussed to alternative accommodation as far away as Callander.

Phase 2 was planned before construction of Phase 1 commenced, as a necessity of the timetable. This also meant that post-Phase 1 use of Pathfoot had to be considered at the same time as Cottrell recognised: 'Paradoxically, at the same time as I can announce

that contracts have been let for Phase 1, we are considering how the transition from Phase 1 to the next phase will be made'40.

Phase 3 Development

Phase 3 was the planned completion phase of the University estate, taking the establishment beyond 3,000 students – with the projected capacity of 6,000.

The Phase 3 extension of the University accommodation was never realised in the form originally conceived. The University now has 7,653 undergraduates and 2,668 postgraduates, the large majority of which are based at the Stirling campus.⁴¹

Finance

In 1966 Tom Cottrell addressed the members of the University of Stirling Ltd, giving an update on progress. He stated that he believed that the cost of the University at the completion of Phase 2, with 3,000 students, would be at least £8million (an equivalent investment today of around £290million⁴²). Of this he expected the UGC grant to be a total of £6.25m, split over approximately six years. This left a clear shortfall to be met by the University's fundraising efforts, and had obvious implications on the construction schedule.

The University Appeal Committee was formed with the onerous task of attracting a significant amount of donations from individuals, industry, and trusts. After a campaign director was appointed, the appeal was officially launched in May 1966. The first subscription list, advertised in the Glasgow Herald in the same month showed considerable early success in attracting just over £1million towards the appeal target of £2million. The largest contributor towards the appeal was the MacRobert Trust with a donation of £250,000 – hence the naming of the Arts Centre. The Gannochy Trust appeared in the third subscription list, advertised in 1968, with the next largest donation of £100,000. This donation was recognised in the naming of the Sports Centre. The three published subscription lists are shown in Appendix X.

'The appeal objectives were met in full as far as residential, cultural, religious, sport and recreational facilities were concerned and in allowed the University's physical development plan to be taken forward in a positive and creative way.⁴³'

Later, in 1972, Cottrell emphasised how important this source of funding had been:

'The response to the University's Foundation Appeal enabled it to make progress at a rate which would have been impossible had it been necessary to rely solely on government finance. The value and importance of an independent income to the University cannot be overestimated as it gives a far greater degree of flexibility both in teaching and research and in physical development.'44

The funding and government crisis of the late 1970s meant that the Phase 3 expansion of the University of Stirling was not viable. Coupled with this, the mood had turned against the new *plate-glass* universities, with calls even being made towards the end of the 1970s to close some of them. The dramatic cut in funding in

⁴⁰ Address of Principal to the Members of the University of Stirling Ltd, on 20th October 1966, University of Stirling Archives

⁴¹ http://www.external.stir.ac.uk/visitor_info/about/facts/index.php, accessed 04-Jun-2009

⁴² http://www.measuringworth.com/ukcompare/result.php# - Calculator used is 'Share of GDP' – measuring the University project in its value to the country as a whole in comparison with other major projects.

⁴³ Bomont, R.G'The University of Stirling, Beginnings and Today', p16

⁴⁴ Cottrell's forward to "University of Stirling: A Survey – 1972" a report by Mr Hugh Hanning

the early years of the Thatcher government affected all universities, but it hit the new ones hardest. In subsequent years the University grew beyond even the 6,000 capacity first foreseen, despite far less additional accommodation being constructed than had been planned for that smaller figure. This was a phenomenon common to most UK universities.

3.11 Landscape Design

The architects' approach to both the natural and the designed landscape of the Airthrey estate was highly sensitive for the time. Two landscape architects were involved: Frank Clark, at Pathfoot, and for the overall landscape, a young designer, Ed Hilliard. Stirling was to be his first project.

Approach to planting 1960s-70s

Unlike the architectural designs for the buildings, which were intended to be developed and expanded, the intentions for the planting was to create an instant effect, using plants with a comparatively short lifespan. This approach was in some ways similar to the late 18th century design, which also called for 'instant' landscaping. Then, the effect had been achieved by moving mature trees from one spot to another, rather than planting fast-growing or smaller species. In other ways, however, the principles followed by Hilliard were in marked contrast to the existing designed landscape, in particular his approach to colour.

The five design principles used by Hilliard have been outlined as follows:45

- 1) to use and reinforce 'the existing natural boundaries of landform, water and tree blocks as elements of continuity threading through the site'
- 2) planting was to progress from west to east, coordinating with the building programme and minimizing disturbance to the existing landscape
- 3) colour was to be provided throughout the year, mainly through trees with seasonal changing leaf colour. Specific design for the flowering season of native cherry and hawthorn
- 4) to achieve a rapid, apparently mature effect through mass planting with strong blocks of colour from low level shrubs and ground-cover, mainly using white and yellow flowering species
- to keep maintenance to a minimum. 'the overall effect was of a parkland with large areas of grass framed by buildings and bold blocks of planting.' Mowing strips adjacent to buildings, with steep slopes planted with ground cover and shrubs, which required intensive short-term maintenance and the shrubs annual pruning 'this demonstrates a frequent problem in planting design: the conflicting demands for immediate impact, low maintenance and floristic interest'

This approach is now considered to be characteristic of the 1960s-70s response to the existing landscape. The response to a significant 18^{th} century landscape by an architect in 2009 would be different.

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⁴⁵ S Filor 'The Process of Landscape Design' 1991

Campus landscape post 1970s

While the achievement of the architects in creating flexible and aesthetically attractive campus buildings was clear over succeeding decades, the individual components of the early 1970s planting schemes were to prove less resilient. Hilliard used fast-growing shrubs, planted very close to buildings, which rapidly led to security problems around the students' residences. The great majority of these were removed. It also became clear that Hilliard's approach to colour in the landscape would compromise the purity of the original designed landscape, which contained only green grass and green-leaved trees.

Like all designed landscapes, the continued appearance of Airthrey's open parkland with scattered mature trees, as laid out in the late 18th century, was the result of a careful maintenance programme.

This involved the planned replacement of parkland trees over a long time period. Because the aim is to have single magnificent specimens, or small groups, planted in 'clumps', a large number of good quality saplings must be planted, and progressively thinned over a period of years to leave only the best quality tree. Thomas White wrote to Lord Stormont that the clumps planted at Scone were mostly intended to 'be singled out into dispersed trees in park-like order'. Similarly, with Sir Henry Stuart at Allanton, White's planting was 'never



Figure 72 Plantation of lime trees to south east of Pathfoot 2008

intended to be permanent ... on the contrary they were meant to act as kindly sheltering masses... and as the only means of protecting and getting up good single trees and loose dispositions of wood'.

An example of this approach being carried out today is the small plantation of lime trees to the south east of Pathfoot (figure 72). The end product of this plantation will be one lime tree. It is possible that during the Maternity Hospital period (1939 – 1969) this continuity of planting had been lost or partially lost. It was not however revived by Hilliard's scheme.

Further problems were caused by the fact that for cost reasons, much of the stock of nursery trees purchased by the university was of lesser quality. Hilliard's chosen planting scheme was essentially decorative, out of harmony with the original 18th century concept, which was to create spaces and define the landscape structure.

The Victorian additions of colour and exotic species to the landscape had been planted within self-contained areas – the arboretum to the north of the castle, and the enlarged island on the loch. The north side of the castle is a 19th century front, and Victorian planting in this context is appropriate. It is notable that this Victorian planting was to form a particularly good context for the Principal's House. In the original scheme, the walled garden would have been the only part of the landscape with colourful planting.

In 1974 the Airthrey Gardens Group was set up, as a collaboration between the university and gardeners from the local area. The original west approach to Airthrey Castle had been lost to vehicle access following the construction of the students'

residences, but was retained as a footpath. This was divided from the residences by shrubbery, and planted with specimen rhododendron and azalea collected by the plant collector George Forrest. Although well-intentioned, this was a plantsman's approach to the landscape, and represents an early departure from an understanding of the character of the 18th century design.

In the early 1990s a similarly self-contained garden addition was made to the south of the walled garden. The Memorial Garden allowed for an expression of a style of gardening not found in the 18th century designed landscape.



Figure 73 Aerial view of campus 1972 UoSA

A Golf Course was laid out to the south of Airthrey Castle, including a large number of coniferous trees and shrubs which were planted without apparent reference to the 18th century style views to and from the castle.

Other areas of the campus were also planted with coniferous and colourful species which have unfortunately blocked important views, both of Airthrey Castle – the original focus of the picturesque designed landscape – and of the main campus buildings, whose original design and layout had been so sensitive to the picturesque aesthetic. An aerial photograph of 1972 (figure 73) shows the relationship between the landform and the buildings. At that date the new campus buildings and the 18th century castle were both set in picturesque open parkland, with long views to and across the loch, uninterrupted by smaller trees.

Views between the loch and the residences to the north had not yet been blocked by tree growth, and the setting of Airthrey Castle in open parkland with mature trees was still the same as it had been in the late 18th century.

The university's policy of adding sculpture to the landscape has taken effect primarily in the area to the east of the Andrew Miller building and these make a positive contribution to an area largely seen from that building. It is advisable that a scheme for locating future works in the landscape should be planned so that a pattern might be established, in the same way that future tree planting should be part of the overall landscape design.



Figure 74 Coniferous shrubs to the north east of Airthrey Castle 2009



Figure 75 Parkland south east of Airthrey Castle, with mature oak tree and open grassland. Smaller trees, including flowering species, blocking views to the castle 2009

Ecological assessment

The original landscape design of the late 18th century consisted of grassland with scattered trees from a relatively narrow range of native species. Policy woodland would have been managed to retain open vistas and views, with undergrowth generally cleared away.

The campus ecology was assessed in November 2007⁴⁶. No statutory designated sites exist in the campus, but there is one non-statutory Wildlife Site, Airthrey Loch. No evidence of protected species was found, although there had been some historical recording of bats in the Cottrell Building. Semi-natural areas within Hermitage Wood were particularly identified as supporting a varied flora and providing a habitat for a range of species.

Current and future management of the woodlands is intended to encourage biodiversity. This leads to a different emphasis on tree growth from the picturesque approach of the original designers, who encouraged single or grouped trees but would have cleared away undergrowth to facilitate open views. Current practice includes allowing fallen trees and branches to lie, and permitting undergrowth. This is generally being followed in specific areas of the campus, including Hermitage Wood and Spittal Wood.

3.12 Archaeology

The Forth Valley has been generally favourable for human habitation, and without knowledge of specific sites, it might be expected that archaeological remains of human activity would be encountered.

⁴⁶ ERM, report authors K Degenaar, P Wright 'University of Stirling Ecological Baseline Report' November 2007

The Standing Stone to the south east of Airthrey Castle is a Scheduled Ancient Monument, and the area around the stone is protected to a diameter of 15m. This is the only existing recorded archaeological remains within the site. Another standing stone in the vicinity has been moved. The place name 'Spittal Hill' suggests the possibility of a medieval hospital site, but this may be a later picturesque fabrication.

Pont and then Blaeu seem not to have mapped this area, however Adair's map of the 1680s shows a structure that appears to be a generic 'tower house and fortalice' type of site, labelled 'Ethra' and it is likely a building of this sort would have existed at the time of Pont if not considerably before. The lands of Airthrey are recorded from the mid 12th century. It is likely that the existing castle site or a point in its vicinity, such as the Airthrey Yards area, was the ancient site. It is possible there are remains within this now largely built-up area, and development within the associated walled garden area should take this into account.

The archaeology of the 18th century landscape may retain points of interest in particular the two surviving 18th century garden buildings – the Hermitage, and the Summer House. These buildings are of considerable inherent gardens archaeology interest, both the standing and buried remains. Investigation would be highly likely to uncover further information about these important buildings.

Assessing the archaeological significance of the site did not form part of this study, however this would be a factor that would be required to be taken into consideration in relation to any proposed development. Significant areas of the site have already been very extensively developed – principally the areas of the existing university buildings and associated access routes. This overlies the 18th layer of extensive landscaping works which will also have disturbed any remains, particularly in the area of the loch, the castle, walled gardens, Airthrey Yards, approaches. It is relatively unlikely that significant archaeological remains will have survived in these areas. Even so, large parts of the campus area have seen relatively little development.

3.13 Summary Chronology

Pre 1146	First recorded mention of 'Atherai' in undated charter of David I pre 1146
1370	Estate granted to Sir John Herice, Keeper of Stirling Castle
1472	Estate granted to Lord Graham of Kincardine, made 1st Earl of Montrose 1504. Remains in ownership of Earls of Montrose
1626	5th Earl of Montrose inherits estate
1645	Manor house of Airthrey burned down by Marquis of Argyll; rebuilt at unknown date
1670	Sir William Stirling in possession of 'villa et terris de Athrie'
1675	Airthrey returned to Marquess of Montrose by Charles II
1678	Estate sold to John Hope of Hopetoun. Western area sold.

1680	'Ethra' shown on manuscript map by John Adair
1706	Ralph Dundas of Manour (nearby estate) buys Airthrey
1717	Ralph Dundas begins to plant trees
1725	Ralph Dundas begins to plant 'the hill', later Hermitage Wood
1747	John Dundas his son builds 'a small snug house' on estate
1759	Robert Haldane of Gleneagles buys Airthrey, moves public road, builds ' $New\ Road$ '
1787	Robert Haldane (great nephew) moves to estate. Extensive planting and moves existing trees, lays out picturesque designed landscape including Loch, Hermitage, Summer House. Probably also walled garden, Cistern, Icehouse, stables (or alterations to form), Ivy and Garden Cottage
1791	Airthrey Castle built to design of Robert Adam
1792	Death of Robert Adam
c1798	Thomas White, landscape designer, employed at Airthrey
1798	Estate sold to Sir Robert Abercrombie. Remains in Abercromby family until 1889
1802	Drawings for plantations near to Airthrey by Alexander Nasmyth seen by JC Loudon
1809	East Lodge and West Lodge by architect William Stirling
1817	Construction of turnpike road (now B998). 'New Road' inside policies dismantled. Road between Logie and Pathfoot opened
1842	JC Loudon visits and comments on excellence of kitchen garden and gardener's house
1885	Estate put up for sale
1889	Donald Graham, CIE, buys estate. David Thomson architect extends castle to fit collection, including Renaissance panelling, Indian and Persian antiques etc. Arboretum planted, boathouse built, island enlarged and replanted. Loch used by Airthrey Castle Curling Club
1901	Death of Donald Graham. Mrs Graham and Trustees remain the proprietors.
1938	Electricity installed by tenants Mr and Mrs Donaldson
1939-45	Castle used as Emergency Maternity Hospital

1944	Estate advertised for sale					
1947	Estate (3,000 acres) sold and divided into four lots. Stirling County Council buys castle and policies (414 acres). Maternity Hospital transferred to NHS					
1952	Sale of 98 acres of estate. Nurses Accommodation block; conservatory rebuilt					
1963	Publication of The Robbins Report, supporting proposal for new university in Scotland.					
17-Jul-1964	Announcement that new university would be at Stirling					
1965	First University offices at Garden Cottage, and adjacent portakabins					
1966	University of Stirling new owners of estate. Airthrey Castle remains in use by NHS.					
Jan 1966	RMJM appointed as architects for Phase 1: Pathfoot and masterplanning of the remainder of the site.					
1966	Construction of Pathfoot building commences. West Lodge demolished at widened entrance					
July 1966	Morris and Steedman appointed as architects for Principal's House and staff housing at the former stables yard.					
Dec 1966	RMJM present Interim Development Plan to the University.					
Jan/Feb 1967	Professor Tom Cottrell leads a committee tour of university campuses in England, accompanied by John Richards, RMJM architect					
Sep 1967	Pathfoot building opened to the first intake of students					
Jan 1968	Storm blows down 40% of trees in Hermitage Wood and elsewhere					
1968	Pathfoot gains Civic Trust Award. Development Plan Report published.					
1969	Airthrey Castle transferred to University. Pathfoot wins RIBA Award for Scotland. Principal's House and 2-3 Airthrey Castle Stables Yard completed.					
1970	Completion of Library building, Gannochy Trust pavilion (architect Alan Reiach), footbridge, link bridge, and three students' residences: Andrew Stewart Hall, H H Donnelly House and Fraser of Allander House.					
1970-1	Nos 4-7 Airthrey Castle Stables Yard completed.					
1970-2	'T70', later renamed Cottrell Building opened in phases.					

1971 Opening of MacRobert Arts Centre and Robbins Centre

1972 Completion of students' residences

12-Oct-1972 The Queen visits the University. Central courtyard named 'Queen's

Court'

Jan 1973 Architectural Design publishes Phase 3 Development Plans.

Jun 1973 Death of Tom Cottrell, aged 49

Sep 1973 Airthrey Castle listed Category B

1973 George Forrest Walk opened. Opening of Studies Building and

Gannochy Sports Centre (swimming pool and squash courts,

architect Alan Reiach)

1976 HS list East Lodge and Garden Cottage Category B

1980 Completion of Sports Hall at Gannochy Sports Centre. Opening of

Golf Course south of Airthrey Castle

1981 Ten chalets at Pendriech Way completed

1983 Sale of c13 hectares of land on eastern boundary of campus to Wang

Laboratories

Sep 1986 Opening of Stirling University Innovation Park

1988 Stirling Management Centre opens.

1990 23 chalets at Spittal Hill completed

1991 Gannochy Tennis Centre

1992 Alexander Court completed

1993 Docomomo place Pathfoot in list of sixty key monuments of the

modern movement in Scotland. Extension block added to south.

1994 Stirling Management Centre extended.

1998 R G Bomont Building and University Court Building (architects Hurd

Rolland). Atrium space completed (architects Ian Burke Associates).

c2000 Addition to Principal's House

2001 Opening of Golf Centre and Sports Pavilion (architects McEachearn

and MacDuff). Driving ranges added 2002.

2002 MacRobert Centre reopened after refurbishment and extension. Iris

Murdoch Building (architects Burnett Pollock) completed. Scottish Institute of Sport relocates to Stirling at extension to 1939 villa (architects Oberlanders). Robertson Trust swimming pool/National

Swimming Academy opens (architects Faulkner Browns).

2003 Opening of Colin Bell Building (architects Burnett Pollock)

Sep 2005 Prospect readers vote Pathfoot into the top-100 modern buildings in

Scotland.

2006 Opening of Scottish National Tennis Centre, a conversion and

extension of earlier Tennis Centre (architects Burnett Pollock).

Gannochy Bar converted to fitness studio

2007-8 Flagreca cladding and fenestration to Cottrell replaced (architects

Burnett Pollock)

2008 Craig Gowans Football Centre (architects McEachern and MacDuff).

Stirling Management Centre extended and refurbished (architects

Burnett Pollock)

2009 Refurbishment of library commences.

15-May-2009 HS list Pathfoot and Principal's House Category A; Airthrey Castle

Yard housing Category B; footbridge Category C(S). Garden Cottage

reduced from Category B to Category C(S).

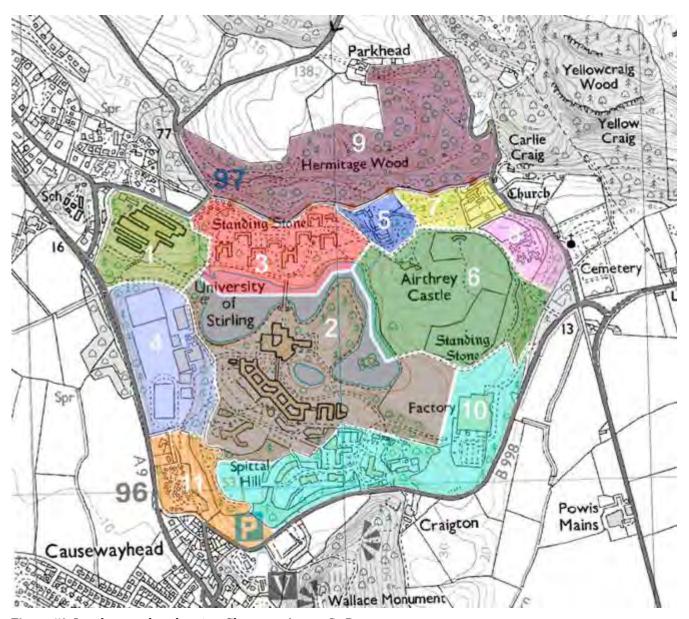


Figure 76 Landscape plan showing Character Areas S&B

Figure 76 shows the Character Areas discussed in the following section. The map uses the latest available OS 1:25000 map, which does not show all the later extensions to buildings. For current 2009 building footprints see Appendix IV.

4.0 CHARACTER AREA ASSESSMENTS

4.1 Character Area 1: Pathfoot and West Entrance

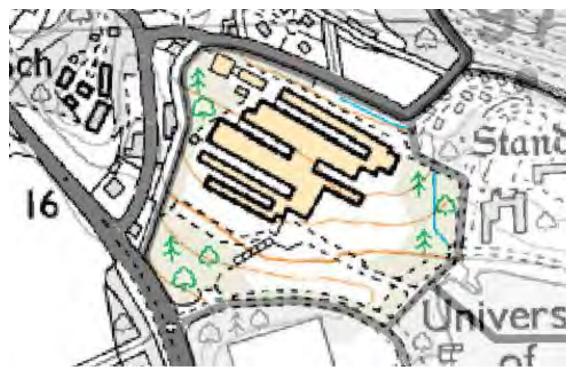


Figure 77 Character Area 1 siteplan

4.1.1 Historical Development

The name is probably derived from the position of the site at the foot of a 'peth', a road up a steep brae⁷⁸. The village was apparently inhabited largely by shoemakers, with their own tannery.

Roy's Survey of 1747-55 (figure 8) shows the village as a row of houses, with one building having a small walled enclosure, and five other buildings, two of which are possibly wings or connected to the larger building. Pathfoot is shown at the foot of the slope of White Hill, to the west of what is clearly Airthrey Castle, although Roy has misnamed it 'Menstry'.



Figure 78 Detail of Roy's Military Survey 1747-55 BL

 $^{^{78}}$ Scots Dictionary. The word is generally confined to southern and central Scotland

A late 18th century map (figure 9) shows Pathfoot as a cluster of houses, but by 1817 Grassom's map shows only two buildings, and the smart new manse built by the owner of the Airthrey estate Sir Robert Abercromby for the minister of Logie Kirk, which he had also rebuilt. An apparently benign clearance of the village was carried out in this period by Sir Robert, and almost all the villagers of both Pathfoot and Logie were rehoused in Causewayhead (or Causeyhead), a village to the south of the estate.



Figure 79 Stobie 1783 NLS

Figure 80 Grassom 1817 NLS

Blairlowan, a two storey house with a dated lintel of 1731, survives and is situated outwith the policies of Airthrey Castle, and to the north of the Pathfoot Building.

The 1st Edition OS of the area 1865 shows the manse, and one farmhouse 'Blawlowan', a late 18th century house. Both are to the north of the site later occupied by the Pathfoot Building. The site itself is shown as open parkland within the policies of Airthrey Castle (figure 11), at its north western edge and bounded by the public road to Sherrifmuir. An estate wall and belts of trees on three sides, concealed the public road, and to the south of the site it was crossed by the western approach to Airthrey Castle to the south.



Figure 81 Site of Pathfoot building 1st Edition OS 1865 NLS

Unlike other areas of parkland within the policies, there is no record of scattered or grouped trees being planted in this area (figure 12 - 13).

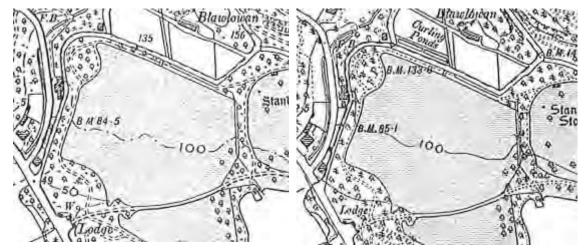


Figure 82 2nd Edition OS, site of Pathfoot Building 1899 *NLS*

Figure 83 Site of Pathfoot Building OS 1923 *NLS*

i Site Selection

According to Gerard Bakker, the choice of location for Pathfoot within the Airthrey Estate was based on three considerations:

• To avoid either inhibiting the design of or getting in the way of the construction of the main campus.

RMJM had also been commissioned to master-plan the whole site over the subsequent years, but it was recognised that there would be no time to include Pathfoot in this design development. It was therefore deemed appropriate to build Pathfoot on a secluded part of the site, allowing the master-planning design stage to be unhindered. Building Pathfoot close to the west entrance allowed the functioning part of the university to operate without excessive disturbance to, and indeed from, the construction of the main buildings.

• To avoid disrupting the maternity hospital still operating at Airthrey Castle.

The maternity hospital, which had been operating in Airthrey Castle since 1939, continued occupation of the building until 1969, at which point the building was purchased by the UoS.

• To present an impressive building close to the entrance and public road, so everyone in the local community could see the new university.

This was of particular importance to Stirling. As it was a campus, or green-field university, its presence was not otherwise obvious in the town with which it was connected. Support for the establishment of the university in the local community was also a key consideration in the UGC selecting Stirling over other towns, and thus it was important to acknowledge this with a significant piece of new architecture.

ii Pathfoot in its landscape setting – 1967-69

The site was also suitable for landscape reasons: it was gently sloping open parkland, slightly elevated above the roads, with plantations of trees around the edge only.

There was no known history of building on the site itself, and nothing had to be cleared away.

This setting was fundamental to the design of the building⁷⁹. Although some groundworks were carried out to create the three level terraces for construction, the layout of the site – its gentle slope and the shape of the tree belts around it – was not altered. Although Pathfoot is a very large building in terms of floor area, it covers less than half of the ground within this area, and was positioned in the north west corner, providing a generous area of open ground to the south and east.

The design of Pathfoot carefully exploits its setting. The intention of the architects was to create an outstanding building, but to avoid imposing an architectural constraint on the appearance of Phase 2 of the University buildings. From the ground, Pathfoot is strikingly discrete – only from the hills, and in particular from the viewpoint of the Wallace Monument, is its scale apparent. Views from the rising ground immediately behind Pathfoot are screened by a narrow belt of mature trees, originally planted to conceal the public road which skirts the policies. At the west the building sits close to a wider belt of trees. Only from the south and the east can any longer views of the building be had at ground level. When first built, Pathfoot could be seen from the south and south east across gently sloping open grassland for some considerable distance (see figure 14).



Figure 84 View of Pathfoot from south east c1968 UoSA

To the east of Pathfoot the three terraces were extended to the east for some distance beyond the edge of the building. The ground then falls away naturally. The relationship between Pathfoot and its surrounding natural, or semi-natural, landscape was of particular concern to the architects.

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⁷⁹ Gerrard Bakker, site visit to Pathfoot, Thursday 13 November, 2008



Figure 85 Aerial view of Pathfoot February 1969 Scotsman

Photographs of the newly finished Pathfoot emphasise its key features in the landscape – its horizontality, its large size in relation to nearby buildings, and its whiteness. These show up against the green and yellow of the surrounding trees and fields, and against the relatively small, vertical and grey buildings of the nearby houses of Bridge of Allan.



Figure 86 Aerial view of Pathfoot in early 1970s UoSA

One key new factor of landscaping in the new universities was the car, and car parking. At Pathfoot there were two approach roads, one running through the trees of the eastern belt and leading to unobtrusive parking at the rear of the building. The approach to the main entrance at the south however is a design statement in itself. A striking straight line crosses the open lawns, and the row of cars parked ostentatiously at the front entrance emphasises the modernity of the new buildings (figure 87).



Figure 87 Pathfoot from the south east c1970 UoSA



Figure 88 View of Pathfoot c1967. Note the terraces extending from the east of the building *UoSA*

The Old Sherrifmuir Road ran north from the A9, parallel to Kenilworth Road. Alterations to the road layout associated with the construction of the new university included taking the first section of the Old Sherrifmuir Road out of public use, and joining it to Kenilworth Road at a point west of Pathfoot. The estate wall was extended over the former entrance to the road at the southern end.



Figure 89 Detail of 2008 OS HS

iii Internal Landscapes

As well as being positioned so that the exterior of the building was in careful relation to its landscape setting, from within Pathfoot the natural landscape was of great importance to the architects. The experience of those using the building was controlled, using a graded system of landscaping for the interior courtyards. The landscape architect responsible for their design was Frank Clark⁸¹. The theoretical framework for the design was that in the inner courtyards of the building the courtyards would be more artificial in appearance, more urban, with hard materials, including whinstone cobbles, sculptures and benches. Courtyards which were closer to the edge of the building were designed in a more naturalistic way, and finally the planting of the outer courtyards, which were bounded by the building on three sides only, was to merge seamlessly into the lawns and trees beyond.

⁸⁰ Gerrard Bakker, site visit to Pathfoot, Thursday 13 November, 2008

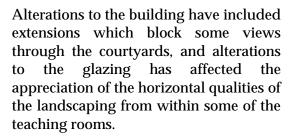
⁸¹ In the time available it has not been possible to consult Frank Clark's archive.



Figure 90 Inner courtyard at Pathfoot, with 'urban' landscaping



Figure 92 View from corridor at rear of Pathfoot, with more naturalistic planting.



The entrance hall has lost its original open quality (see figure 24).

In general the courtyards have been carefully maintained, and the original



Figure 91 Inner courtyard, detail of sculpture and cobble finish

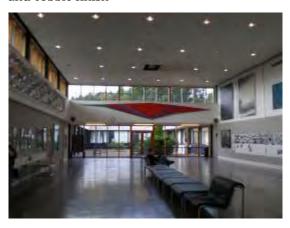


Figure 93 View from Crush Hall. Note how the clerestory windows give a view of the trees to the west.



Figure 94 View of entrance hall c1968 Construction Technology

scheme has been followed. In the early 1990s the Airthrey Gardens Group carried out a programme of works to the courtyard gardens. The Oystercatcher Garden is an example of re-landscaping which is in harmony with the character of the original scheme.⁸² Over the lifetime of the university sculptures have been added to the courtyards, which is also appropriate because the courtyards were envisaged as an extension to the gallery-like spaces of the central corridor. Trees have matured, and can be seen rising above the level of the building.

⁸² Gerrard Bakker, site visit to Pathfoot, Thursday 13 November, 2008



Figure 95 View of Pathfoot from Wallace Monument c1968 UoSA

The separation of Pathfoot from the Phase 2 part of the campus is clear from a photograph of the newly completed building (figure 25), which shows the importance of the mature trees within the landscape acting as a screen around the loch, and around the site of the Phase 2 buildings. It is interesting to note in this early view that Pathfoot would have been much more prominent at this date than the site of the Phase 2 buildings. Later tree planting has considerably obscured the views of Pathfoot from the main entrance road to the campus.

iv Alterations to Landscape Setting

A number of deliberate plantations of trees have obscured the views of the building from the south, south east and the east.

The most significant alteration to the landscape setting has however been the southern extension of the building itself in the 1990s, which has been constructed within the previously expansive area of open grass.

This area has also been altered since 1984 by the building of an extension to the car park at the edge of woodland to the south (figure 96).

Only about a third of the original area now remains as open lawn.



Figure 96 Aerial photograph with yellow colour indicating post 1980s alterations to landscape south of Pathfoot

The construction of the main extension to the south has altered the relationship between Pathfoot and the landscape to the west, which is particularly apparent at the entrance. A photograph taken for the Architects Journal of 1968 shows how the entrance area was visually connected to the open landscape and tree belt to the west (figure 97). This view has been lost.

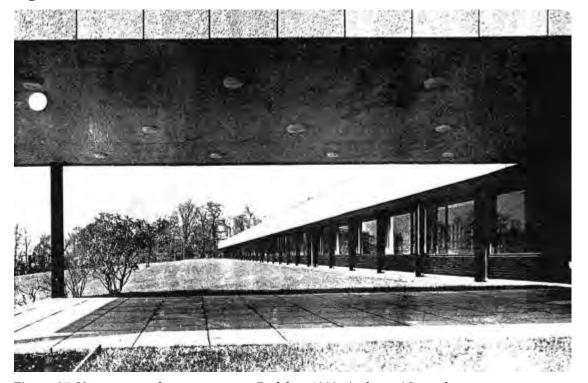


Figure 97 View to west from entrance to Pathfoot 1968 Architects' Journal

The landscape area to the east has also been altered by tree plantations and by extensions to the building. The extension to the west end of the third original block from the south has been built on a landscaped terrace which can be seen in early photographs of the building.

Figure 100 shows the extent of these alterations.



Figure 98 Detail of aerial photograph showing planting of trees to east of Pathfoot 1976 *British Geological Survey*



Figure 99 Aerial view of Pathfoot c2006. RCAHMS

The regular plantation of lime trees to the south east of Pathfoot is one of the groups of trees which have been planted under the current management regime in order to ensure the succession of parkland trees which is a key part of the maintenance of the designed landscape. Over time these trees will be thinned, to leave a single tree.



Figure 100 Aerial view of Pathfoot c2006. Blue colour shows extensions to original building; brown indicates alterations; yellow colour shows trees planted since 1980s. *RCAHMS edited by S&B*

v Pathfoot within the campus landscape, 2009

Pathfoot has remained distinct within the campus. Belts of trees now almost encircle the building, with a gap only at the southern corner. A recent plantation of trees has been added at the south eastern corner, to the south of the approach road. When these mature it will be difficult to see the building from any reasonable distance on the ground.



Figure 101 Aerial photograph of campus, Pathfoot to left 2007 RCAHMS

4.1.2 Architectural Development

i Design Concept

Robert Matthew, Johnson-Marshall & Partners were commissioned by the University of Stirling in January 1966. What is immediately remarkable about this date is that the architects were expected to have a building designed, built and open in time for the first intake of 150 students in September 1967 – only eighteen months away. As succinctly put by Gerard Bakker, one of the architects on the project, this was "a challenge in timing"⁸³.

It was decided very early on that the University would not build temporary accommodation in the interim period between opening and developing the subsequent phases: if anything temporary buildings would not provide accommodation of a suitable standard, or set the tone for the establishment of the university either in the eyes of the first students, or the local communities of Bridge of Allan and Stirling on which the university owed much for their early enthusiasm.

These arguments were key to the securing of three years of funding in advance from the UGC which was crucial to the UoS being able to build Pathfoot: the normal system of annual grants, with subsequent years not guaranteed would normally force a new university to use temporary buildings. The setting-out of Pathfoot over three terraces could be seen to have mirrored the potential funding allocations, but the disruption in not having all the key facilities ready for the first year, coupled with the disruption of near-constant building works would have rendered the building not only inefficient, but unattractive to potential staff and students.

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⁸³ Quoted on a site visit to Pathfoot, Thursday 13 November, 2008



Figure 102 View of Pathfoot from the south-east. UoSA

Intriguingly Stefan Muthesius in his book, *The Postwar University*, states that "*some say*, [Stirling] was an English university transplanted into the Scottish system"⁸⁴. Without clarifying this any further, and with no other source echoing this statement, it can be effectively argued that Stirling was in fact the very apotheosis of the Scottish system, in that even from the very beginning at Pathfoot, the layout of the buildings reflected the inter-disciplinary nature of undergraduate study found at most Scottish universities.

The layout of Pathfoot was driven both by the need to accommodate the entire university from its opening in 1967, and the fact that the subsequent use of the building was not yet decided upon. It was certainly going to be part of the university, function initially at least as a 'balancing reservoir'85, but being separated from the main buildings was seen as a deciding factor in what department or departments would be housed there. It was discussed that the building could house a semi-independent institute, or perhaps house specific sciences. Regardless of the final decision, Pathfoot had to be able to handle small departments expanding, others decanting, and even new ones moving in.

The idea that the university departments would not be housed in distinct buildings or grouped together in colleges was a direct result of the anticipation that students would be able to choose diverse subjects in their first years, only to specialise in their later years of study. This is common amongst Scottish universities, but is often hampered by the physical location of departments, for example the split between the main locations of the University of Edinburgh, with Arts & Social Sciences in the city centre and Science & Engineering based at King's Buildings in the southern suburbs of Edinburgh.

⁸⁴ S Muthesius, The Postwar University, 2000, p174

^{85 &}quot;Building Study", Architects' Journal, 5th June 1968, p1284



Figure 103 Aerial view of Pathfoot 2007 NMRS

One drawback to this system is that the UoS was unable to precisely predict the numbers of students on each course, and thus predict the space requirements of each department. Nevertheless, the architects considered this more of a timetabling problem than an architectural one, as the building they were designing would be flexible enough to accommodate such change.

The aesthetics of the building were very much influenced by contemporary Scandinavian, and specifically Danish design. Gerard Bakker refers to the Louisiana Museum of Modern Art in Humlebæk on the north-east coast of Denmark⁸⁷. The building was commissioned from the architects Jørgen Bo and Wilhelm Wohlert in 1958, and shows a similar generosity in relationship between architecture and landscape as was intended at Pathfoot. In addition to the wide expanse of glazing looking out to the sculpture park, there is a clear structural dialogue between the verticality of the narrow columns with the flat horizontality of the roof they support.

⁸⁶ Site visit to Pathfoot, Thursday 13 November, 2008

⁸⁷ Site visit to Pathfoot, Thursday 13 November, 2008



Figure 104 Exterior of the Louisiana Museum of Modern Art, showing similar arrangement of glazing, roof structure, and clerestory as found at Pathfoot. www.louisiana.dk



Figure 105 Sculpture at the Louisiana Museum Figure 106 Glazed corridor with views to of Modern Art. www.louisiana.dk



external landscape at the Louisiana Museum of Modern Art. www.louisiana.dk

Another key influence was closer to home – with another of RMJM's projects. At the same time as the design and construction of Pathfoot was underway another team in the office were working on the Royal Commonwealth Pool. Although completed after Pathfoot, the project timescales were less tight, and there was a great degree of overlap, with John Richards being the partner in charge of both projects. The budget was also somewhat more generous, not surprising considering the international event for which the pool was built. The use of iroko hardwood for example for both the window frames and the slatted ceiling in the public areas contrasts with the red pine selected for the window frames and standard ridged tiles for the ceiling at Nevertheless, the Royal Commonwealth Pool shared many of the same aesthetics, with the overall design concept showing direct similarities: a strong horizontal emphasis with linear white roof line above a recessed dark window line, all designed to fit into the surrounding landscape. The construction system also employed a high degree of pre-fabrication in order to allow rapid progress on site.

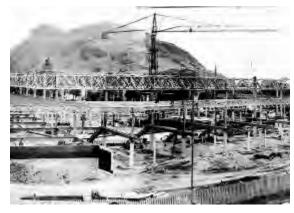


Figure 107 Royal Commonwealth Pool under construction in 1968. *Scran/Scotsman Publications*



Figure 108 Aerial view of the Royal Commonwealth Pool, 1969. *Scran/Scotsman Publications*



Figure 109 Royal Commonwealth Pool in 1970. Henk Snoek/RIBA Library Photograph

ii Original Layout

As Pathfoot was to house the entire university for the first three years, it had to contain all the functions that would be expected by the first intake of students. The plan was thus logically laid out over the three terraces, with each terrace comprising one double-height space with two single-height blocks extending in parallel lines on a roughly north-west/south-east axis. The main entrance was on the south elevation, accessed directly by a path from the west entrance gate, and served by an adjacent car park.



Figure 110 Aerial view of Pathfoot shortly after completion, with later residential blocks behind. *UoSA*

The six blocks running parallel to each other in three pairs were intersected by connecting access corridors running perpendicular on south-west/north-east axis. This generated the gridiron layout of the building, with short blocks of accommodation connected by access corridors and separated by courtyards. John Maule McKean said that "its open links gave the grid an immediate comprehensibility and friendly scale; to students its virtue is still that in Pathfoot 'one can choose where to sit and chat" ⁸⁸.

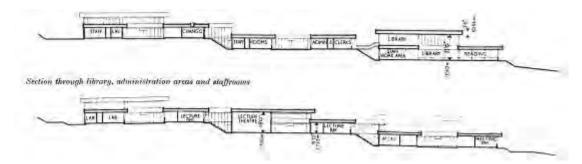


Figure 111 Section through staffrooms, administration offices and library showing layout of building over the three terraces. *Architects' Journal*

Each corridor ran on the level across each terrace, linking to the adjacent terrace via a full storey-height flight of stairs through the courtyard. The main corridor, leading

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⁸⁸ J M McKean, "RMJM at Stirling", Architectural Review, 1973, p360

from the entrance on the south block was widest and connected all the terraces⁸⁹. In each of the subsequent grid bays to the west, a narrow corridor also connected all six blocks, one of which contained hoists between the terraces instead of stairs. As the paired blocks were staggered, further narrow corridors at either extremity of the terraces connected decreasing numbers of blocks and terraces.

The south terrace, the lowest of the three, contained a generous entrance canopy, leading to the entrance hall which opened out around the adjacent sculpture courtyard. The double-height space in the east-most grid bay housed the library, with the projecting single-storey blocks containing staff-rooms.

The centre terrace contained a large lecture theatre and crush hall in the double-height space, sensibly locating the lecture theatre to the west of the main corridor as it need not take advantage of the views offered at the extremity of the terrace. The crush hall was located on the alignment of the courtyards, thus affording it views through to the wider landscape on either side. The blocks at this terrace originally housed research laboratories, administrative offices, and further lecture rooms.

The third terrace, the highest of the three, contained the teaching laboratories and the social facilities, with the lounge area being afforded the best views from the east-most end of the terrace, with the double-height restaurant located directly behind.

⁸⁹ This corridor, known as the Main Concourse, is extremely generous when seen in comparison to the rest of the University. The corridor was built within the cost restraints (derived from the cost of a single bay and single gable multiplied by 570), but the UGC 'had a fit' when they saw it (Gerard Bakker, Pathfoot visit, 13th November, 2008). In subsequent years the grant fell, as it matched the lowest of all the new university buildings being built at the time in the UK. The width of corridors was narrowed accordingly in order to meet these constraints, creating the marked difference between Phase 1 and Phase 2 buildings on the campus.

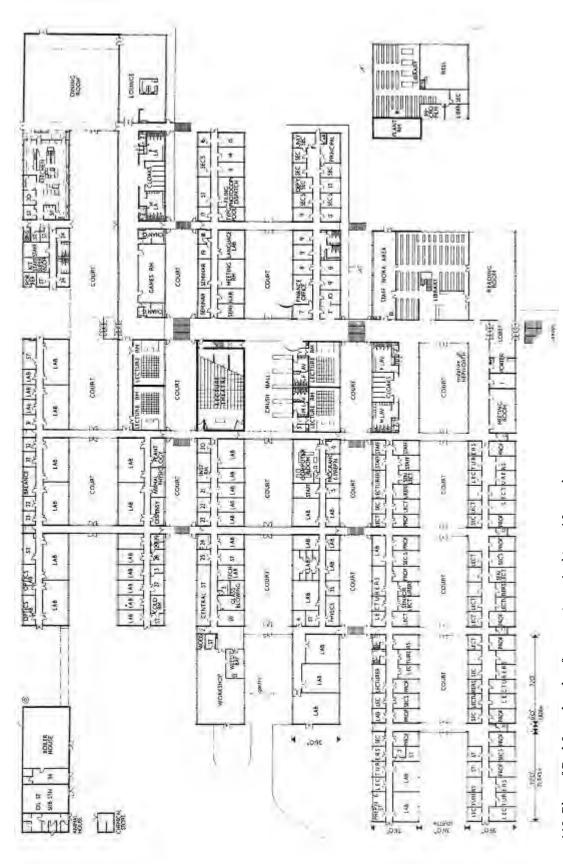


Figure 112 Plan of Pathfoot shortly after opening. Architects' Journal



Figure 113 Pathfoot under construction, c1968. *UoSA*

In order to meet the construction deadline, RMJM conceived a custom-designed prefabrication system. Several other construction systems had been considered, including CLASP, but these were complicated by the fact they were designed to support several stories and so were unsuitable to the single-storey Pathfoot.

The construction process involved the erection of the steel framework first, followed by the roof, with walls following on, and the floor being finished last. As a result, the building was watertight at a very early stage. One subsequent drawback however was that the concrete floors did not have time to mature fully before the building was opened.

The exterior walls consisted of prefabricated panels, of which there were a total of five types, set between structural Ibeams supporting the overhanging roof. These standard panels were repeated throughout the whole building, with a result that 80% of the building was built to this generic standard. In order to maintain a generosity in the elevations, all the windows extended to the full width of each structural bay. Where a window opening was required, a single narrow casement was provided to one side. The remainder of the was horizontal black-stained panel redwood cladding. Some panels were solidly clad in timber, and a further generic type had full-width clerestory lights.



Figure 114 A typical prefabricated panel with full-width window. *UoSA*

The interior walls were constructed with blockwork to ceiling height only, leaving the entire roof space open to allow for unimpeded access for services. Customised demountable partitions were considered to be unnecessary and expensive: it was more economical just to use blockwork which could be easily demolished and rebuilt as necessary. Doorway openings on the interior walls went to the full height, and were filled above door height with timber panels to match the door. The timber used throughout was red pine.

The corridor walls to the external courtyards were all built with full-height windows, with red pine frames. At the changes in level between the terraces, the higher roof line continued over the stair, creating a clerestory above the lower level. Although this was criticised at the time, these windows provide dramatic views at the head of the stairs over the building towards the Wallace Monument.





Figure 115 Pathfoot under construction, showing area between different terrace levels. *UoSA*

Figure 116 View over roof of lower terrace from stair between levels. *UoSA*

All of the services are contained in the roof void, apart from drainage, which was the only fixed service. Although the cost of installing such services when the building was built only for them to be removed when the building changed use was foreseen to be a potential problem by the UoS, in practice this was not critical.

iv Subsequent Additions and Alterations

"The building has got to evolve and change, as that is integral to its design, but this should be done in accordance with the very simple rules of the original design. Then you can't go wrong."91

In general the original architecture of Pathfoot has been treated well, just as the building has served the University well over four decades. Nevertheless the building has undergone a significant number of alterations, and been enlarged by major extensions.

⁹⁰ The Architects' Journal suggested "that a raking line might perhaps have been preferable", "Building Study", Architects' Journal, 5th June 1968, p1290

⁹¹ Gerard Bakker, quoted on a site visit to Pathfoot, Thursday 13 November, 2008

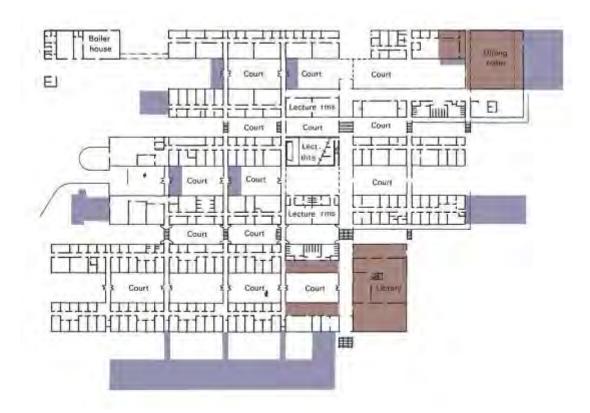


Figure 117 Plan showing additions (blue) and areas which have undergone major alteration (brown). *Architectural Review, edited by S&B*

The most major change that is clearly seen on both the approach to the building, and on the plan, is the addition of a seventh linear block to the south. In effect, this has added a third line to the lower terrace. The extension was added in 1993 and appears to fit well with the original building. The overall dimensions derived from the grid have been followed, and the generosity of the wide windows has been repeated. Although not appearing in the original building, the oriel windows to the new south elevation take the full width of the bay, so work well.

The use of materials on closer inspection begins to reveal the differences between the original building and the extension. The concrete panels with exposed aggregates have been copied but the original panels are much thicker, and appear more substantial, especially at the junction between old and new. The interior construction detail with full-height doorways comprising red pine door and panel above has also not been copied, either here, or in other altered parts of the building.



Figure 118 Aerial view showing additions (blue) and areas which have undergone major alteration (brown). *RCAHMS*, *edited by S&B*

Although the extension follows the expected footprint, by it being at the same level as the original lower terrace it has not followed the pattern of stepping down the site in paired blocks. If it were to follow the original design concept, it perhaps should have been conceived as the beginnings of a fourth terrace, one storey-lower than the existing entrance level. This would have had the added benefit of retaining the views from the windows on the original south elevation. The well-planned earthworks prior to the construction of the original building have also not been repeated, with the natural slope down to the west detracting from the horizontal emphasis.

This extension also forms "an ad hoc corner" ⁹² at the entrance, with the notion of the projection of the canopy from the horizontal façade being lost (although this view of the original elevation would have been obscured by the mature trees anyway). Gerard Bakker points out that had a further block been envisaged in this position, the entrance would have been designed as a corner entrance, not with the arrangement that exists today.

⁹² Gerard Bakker



Figure 119 Pathfoot entrance canopy, projecting from the building as intended UoSA



Figure 120 Pathfoot entrance canopy with 1993 extension to left 2008

Other extensions in the 1990s added a further grid block to the east-end of the first linear block of the central terrace.

Also added at indeterminate dates were additions at the west ends of two blocks, both unfortunate in that they do not attempt to repeat the grid pattern. Several of the courtyards have also had small extensions added, most critically in the courtyards viewed westwards from the crush hall of the lecture theatre, thus blocking the through-view. Originally there was a generous circulation space around the sculpture courtyard near the entrance. The evolving use of the building put pressure on the university to infill this space to form office space. This has been achieved with relatively little visual intrusion due to the inherent flexibility of the design. The replacement of the full height glazing with panels of a similar nature to the original buildings has unfortunate vertical mullions breaking up the horizontal emphasis that should be apparent. Such subdivision of the windows means that the building "loses that generosity" 93.

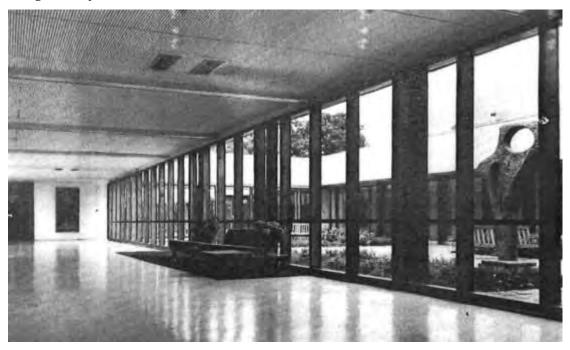


Figure 121 The entrance hall, a generous space repeated on the other side of the sculpture courtyard. Both spaces have now been filled with offices. *Construction Technology*

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⁹³ Gerard Bakker



Figure 122 The same area as in Figure 51 above as viewed from the sculpture courtyard, showing the windows with vertical mullions.

One of the most dramatic changes to the original building has been on the upper terrace around the cafeteria. An extension has been added to the east which has similar materials to the original building, yet does not follow the basic geometric design rules in terms of its massing or horizontal emphasis. An additional wall has been added between the cafeteria and the inner courtyard, and one of the clerestory elevations has been blocked, leading to a considerable change to the aesthetic that was originally intended.

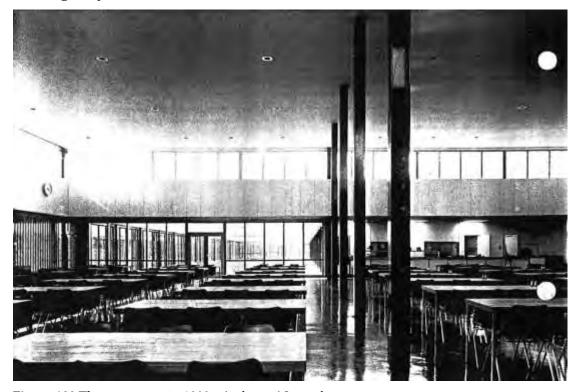


Figure 123 The restaurant in 1968. Architects' Journal

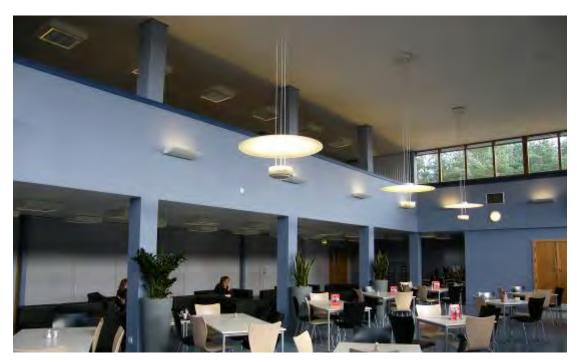


Figure 124 The restaurant in 2008.

Throughout the building doors have been replaced, presumably to upgrade their fire rating, though they have been replaced using a less attractive pale wood, most commonly beech. Ceilings have also been lowered in many placed, sometimes creating awkward junctions with door openings, and generally the use of generic grid pattern ceiling tiles is inappropriate in comparison to the carefully selected original ridged mineral-fibre tiles which are still visible in parts of the building. In the main concourse, the ceiling has also been lowered in order to accommodate recessed picture lighting, changing the nature of the corridor significantly. The simple rules of the building ensured that the ceilings in long corridors were visually shortened with the placing of the lights across the full width of the corridor.



Figure 125 Main corridor of Pathfoot, showing original ceiling arrangement. UoSA

Aside from the awkward nature of the original entrance canopy alongside the southern extension, the replacement entrance doors do not have the same presence as the original full-height doors. The reception desk has also been treated with a green tiled wall with section of rubble wall.

v Critical Acclaim

In 1968, the significance of Pathfoot was recognised with a Civic Trust Award and a RIBA Award for Scotland in the following year. The RIBA Jury reported that the building "is sympathetic to its site and its surroundings. The plan has a simple and comprehensive organisation which can easily adapt to future needs. The relation of internal routes to courtyards, and to view outside is clear and also sensitive in scale and the use of materials and a straightforward structure fit well with the function of the building." 94

Docomomo⁹⁵ placed the Pathfoot building on their list of *Sixty Key Monuments of the Modern Movement* in Scotland, compiled in 1993⁹⁶. The purpose of the list was to draw attention to importance of the Modern Movement in Scotland, and promote the idea that the buildings on this list should be considered as part of Scotland's heritage. The compilation of the list was partly a response to the imminent threat to many of the buildings, and indeed the demolition of some key examples. It was also an attempt to counter the negative popular perception of Modernism. The Pathfoot building is described as a "microcosm of several key Modern values – scientific design, rapid prefabricated construction, and flexibility in use – applied to one of the most characteristic modern building projects: a new university, the first to be established in Scotland since 1583."

Pathfoot is also recorded by Docomomo on their *International Selection of Modern Architecture* (see Appendix X).

Prospect, the Scottish Architectural Journal, published a list of the top-100 modern buildings in Scotland in 2005. The list was voted for by its readers. The University of Stirling campus buildings, including Pathfoot, was placed at number 36, with RMJM's similar work at the Royal Commonwealth Pool at number 19.

The Pathfoot building was listed by Historic Scotland at Category 'A' in May 2009.

4.1.3 Character Assessment

i Building Form

The building takes as its basic form the six original rectangular blocks set onto a south-facing slope. The length of these blocks is their major physical feature. They are placed roughly according to contours and the blocks step down the hillside in pairs. There has been significant landscaping work to create terraces for these blocks to sit on.

These blocks contain classrooms, corridors and service accommodation. They are the dominant form but there are three positions where the buildings depart from this basic arrangement. These points are indicated by increased height. At the south east corner crossing the east end of the lowest pair of blocks is a two storey block which formerly contained a library. At the centre of the plan, crossing the middle blocks is a

⁹⁴ From an extract of the RIBA Jury's Report printed in "RIBA and Civic Awards for Stirling's Pathfoot Building", *Construction Technology*, c1968, p33

 $^{^{95}}$ Docomomo's full title: International Working Party for Documentation and Conservation of Buildings, Sites and Neighbourhoods of the Modern Movement.

⁹⁶ Reproduced in M Glendinning, Rebuilding Scotland, 1997, pp153-182

higher part containing a crush hall and lecture theatres. It is also used for exhibitions. At the north east corner, spanning the east end of the northern blocks is the refectory. Crossing the gaps between the blocks at regular intervals are link corridors, glazed on both sides, running north–south.

The main corridor, known as the main concourse, is much wider. It passes due north through the entire original building from the main entrance near in the south block. It rises up flights of stairs on the lines of each terrace or bank and passes the east end of the crush hall and lecture theatres.

This regular grid of east–west blocks and north–south circulation creates a group of open spaces – courtyards or gardens running in east–west lines throughout the building. These gardens have been treated in some cases as "outdoor rooms" and given formal planting. In other places the planting is natural or just grass. The grid of blocks and gardens creates a very interesting and successful quality of visual permeability throughout the building.

The building had its principal face to the south facing the entrance to the campus. The entrance is to the eastern end of the south block and has a canopy extending about 10m south of the main door. The canopy that marks the entrance is the only major plan form which has its rectangular long axis north–south rather than east—west. It is elegantly designed, extending the concrete roof band out on four I-beams.

An impression of the character of the original south front, before a further block was extended to the south, can be gained from photographs. The original design is an exceptionally pure architecture made of two bands – a band of vertical concrete panels at roof level, a band of windows between structural I-beams, the window frames being stained black. Immediately in front of the block is a grass terrace roughly the same width as the original south block. The effect of this terrace was that, in distant views, the boarding along the foot of the window band is hidden and the architecture looks even simpler with the windows appearing to extend down to the ground. The terraces are very much part of the architecture and have an important part to play in achieving this purity. The landscape in front of the building needs to be as level as the building itself.

If the new south block is extended then consideration should be given to completing the intended grid including the glazed link corridors which pass north – south.

The south and east sides of the building and their landscape setting have greater aesthetic importance than they the north and west sides. The building has been placed close to the western boundary of the campus and there is a band of trees about 20m wide immediately inside of the boundary wall. To the north west this band of trees is much wider than originally intended. This means that the west side of the building is hidden from views. It has a service route along it and has been treated as the back of the building. There are various buildings built of grey brick around the service road. The southern of these independent buildings is unfortunate in that it acts as a view closer for the sequence of gardens between the southern pair of the original blocks. This aquarium building is later than the original Pathfoot building but was constructed very soon after the completion of the building.

The north front of the building has a similar very strong horizontal emphasis as the south block. The block is set into a cutting in the landscape and there is a terrace some distance to the north which coincides with the roof deck level. This terrace was used as a car park from the start. There are views from this terrace over the roof of

the Pathfoot Building towards the other university buildings and the Wallace Monument beyond.

The north side is also less significant than the south or eastern aspect. It is not seen in conjunction with the eastern aspect especially with increased woodland planting near the north east corner of the building over the last ten years. The concrete roof band does not project to the same extent as it does on the south side. This elevation is slightly marred by car parking along its full length. The access to the main north end of the main concourse is not particularly emphasised. There is a gap in the fenestration band and a tank projection immediately above it. At the eastern end the block terminates with an additional storey originally intended as the clerestory of the refectory.

At the far western end of the north block is a detached boiler house with some service buildings. The boiler house is clad with vertical sheeting and looks different to the rest of the building. This seems to have been the original intention. Further to the west of the boiler house is a relatively recent aquarium building with rendered walls and sheeted roof, and asymmetrical north gable.

The most impressive interior space is the main concourse. At the north end there is a gap in the north block and the main porch into the building is on the north face of the fifth block. From here, the corridor passes down a flight of stairs between the fifth and fourth block which is the same height as a full storey. The interest of the corridor is in the way that it inter-relates to the bands of open space between the blocks. They are alternately wild banks planted with evergreen shrubs and flat courtyards or gardens. Between the third and fourth blocks is the crush hall. This space is in line with a band of courtyard gardens and continues the architectural quality of the outside with panels under a clerestory to the south, east and west. The view eastwards through a formal planted court then another glazed corridor towards the grass and trees beyond is particularly successful. The view westwards has blocked by offices extended on the side of a link corridor. Beyond this extension in the same band of gardens is a rather unkempt courtyard space. The view westwards has been blocked by another extension next to a link corridor.

The bank between the second and third of the original blocks survives for its full width. It is generally planted with low lying evergreen shrubs. Some of these might be over mature, particularly to the west. A full width view along this bank is blocked by sheeting next to the lift at the first corridor to the west of the main corridor. This sheeting appears to be part of the original design and matches the sheeting on the ends of the original blocks.

The space between the fifth block and the sixth, north, block is treated differently with fewer of the north-south corridor links glazed in. The positions of the corridor links are indicated by the roof band bridging over between the doors as a shelter.

To the south of the crush hall a further flight of stairs passes down to the south entrance level. The two storey block to the south east was the original library but was not needed when the new library was built and has been converted into offices and classrooms currently accommodating the institute of education. Since a library building on another site was always part of the masterplan, this conversion of the temporary library must have been anticipated by the designers originally. The successful subdivision of the library demonstrates the flexibility inherent in the design of the building.

Towards the southern end of the main corridor there is an important view westwards between the southern and second of the original blocks. At the far end, this view is blocked by an aquarium building. The courtyard is particularly successfully landscaped here with fine modern sculptures. Originally, the spaces to the north and south of this courtyard were open and formed the entrance hall.

The subsidiary corridors running east–west within the main blocks mainly retain their block work finish and full height apertures containing doors with panels above. Some of the doors with vertical glazed panels also survive.

The refectory has been extended and the original intention of being able to see to north, east and south has been changed so that only a south view is available. The block originally was intended to have a clerestory on all sides. This has also been altered.

The Pathfoot Building was designed and built with the expectation that it would be altered internally and extended. There have been several additions. They have varied in quality but all have obscured the simplicity and purity of the original design to some extent. The addition of a further block to the south has been carefully designed with detailing derived from the original building. In many ways it matches the original Pathfoot blocks and the differences are quite subtle. The concrete panels in the roof band are face fixed but the fixings are only evident when the building is seen obliquely in sunlight.

The new building departs from the original design because it includes bay window projections which fill the gap between the fenestration band and the roof band. This is an interesting departure from the original arrangement. In the opinion of one of the original designers, Gerard Bakker, it is not how he would have done it but it looks in keeping with the rest of the architecture of the building. Another departure in the design of this block is its different relationship to the landscaping. Unlike the original south block, this block does not face onto a level terrace. The ground slopes away to the west. A small amount of plinth brickwork to the east becomes a full storey height to the west. As an individual piece of architecture, this divergence between ground line and roofline is interesting and attractive but it is different to the original architectural sensibility of horizontal blocks sitting on a terrace with terrace being a third horizontal band of the original building. The disharmony of the sloping ground has possibly been recognised in the planting of dense evergreen shrubs along the south front of this building as if to disguise the change of level.

The south block is at its least in keeping with the original building at its eastern end where it stops short of the original entrance canopy. The original entrance canopy no longer acts as a single projection south from a long line of the front of the building.

The ends of the original block have sheeted ends where they have not been extended.

An extension at the eastern end of the third original block is a careful match to the original but has a different end with dark painted vertical timber.

Two blocks built at the west ends of the original blocks are less successful. These buildings have been constructed near to, but not attached to, the original end of the third and fifth blocks. In both cases there has been a failure to understand, or afford, the original aesthetic and constructional system of the building. These blocks are only superficially similar to the original building in that they have a concrete roof band. Otherwise, the boarding is horizontal and the constructional system and windows bears little resemblance to the original. The critical point about an

extension westwards is that it should maintain the north and south lines of each block and that the views along the gaps between the blocks should be maintained, however long the blocks. With these later building being at the western edge, the visual damage is relatively minimal.

The gap between the fifth and sixth blocks at the North West corner is a service yard and is full of sheds.

The refectory has been extended to the east to form an additional kitchen and service accommodation. Unfortunately, this building does not follow the rules either of unbroken east – west horizontal lines of the concrete roof band or the constructional system and proportions of the fenestration band.

ii Material

The materials externally on the original building are vertical concrete panels forming a band around the roof. Below this at regular intervals governed by the constructional grid are I-section columns. These columns give depth to the fenestration band which, on the south-facing sides, is well behind (about 1m) of the front edge of the roof band and with the wall of the building a further 200mm or so behind the back of the I column. The walls are formed with timber horizontal ship lapped boarding below window panels. Typically a bay contains two windows, a broad fixed sheet of glass with a narrower opening panel and thicker frame to one or other side.

On the south front of the original block, the ends of timber and the plinth are covered with metal sheeting. There are also metal sheeted covers behind the I columns. The boarding, window frames and I-beams with the fenestration band are all painted black although the metal facings across the heads of the windows and behind the I columns are left self finished. These are not particularly noticeable because they are in shadow. The north faces of the blocks do not have the 1m projection of the roof band used on the south and east ends.

The ends of the original blocks are covered with vertical profiled sheeting. These sheeted ends are the strongest physical expression of the potential of the building for extension.

Grey brick has been used for a storage and service building at the western end of the gap between the first and second original blocks. The service buildings to the North West are generally constructed of grey brick with sheeted walls and roofs.

Considerable care has been taken to repeat the use of these materials over the south and east extensions. The south block repeats the materials but makes a variation by using grey brick at the plinth level, rather than metal sheeting. The recesses behind the columns are also painted black on this block and there is a smaller gap between the columns and the wall face.

The end of the eastern extension to the third block has been finished more elegantly than the original, with black painted horizontal boarding and a recessed doorway at the centre.

Although the general palette of materials has been retained in the various western alterations and extensions, and in the extension to the refectory, the steel frame has been omitted which means that the building has not repeated the particular rhythm of its original design.

The extensions use grey brick as the plinth material, something which has been avoided in the original blocks.

The condition of the materials seems generally fair considering that this building was constructed from components at great speed. The buildings have been carefully maintained. At some places the soffit below the roof is peeling away or has broken. This is also the case in the newer south block. In some places there is a slight discontinuity in the roof band. This is notable particularly on the south face of the third block where it projects eastwards beyond the north wall of the former library block. The external joinery needs to be overhauled and repainted, including sills. The relatively lightweight joinery of the glazed link corridors also needs to be repaired in places. The materials used on the link corridors and on other parts of the building have not proven to be particularly long lasting. The building was built remarkably quickly and according to tight financial controls. The university has had to spend a significant amount in like for like replacement of fabric and, in some cases, the replacement fabric is starting to decay due to poor detailing. On some blocks, the metal sheeting at the base of the wall has been lost exposing stock brick behind.

On the north side, the roof band is disfigured by a single projecting sign. The tank projection over the north main entrance is also clad in vertical sheeting which may not be the original material.

iii Character and Setting

The overall character of the Pathfoot area is of long predominantly black and white blocks sitting on terraces within a natural landscape. Although the buildings are dominant within this area, the way that the landscape has been allowed to pass through in between the main east-west block is an unusually successful example of integration of a building with its landscape. The building is surrounded by trees and the low height of the building allows views from the south and south east to include the rocky hill to the north. From the north car park it is possible to see over the building towards the profile of Stirling, Stirling Castle and the Wallace Monument.

The building is set fairly close to the northern boundary. At the northern boundary is a beautifully constructed 19th century rubble wall with triangular copes. Beyond it is a heavily wooded steep hill with an attractive 18th century house, Blairlowan, sitting in its own garden at the foot.

The character to the west is also constrained by the short distance from it to the boundary of the campus site. There are trees and a service road on this side but this is the least viewed part of the area.

The main aspects which give an attractive setting for the Pathfoot Building are to the east and south. There are extensive areas of maintained grass with trees and with banks sloping down to the south and east. To the east are bands of coniferous trees. To the south is the main entrance to the university which is covered with tarmac and has a gatekeeper's booth. The access road up to the south entrance is as the original designer imagined, including the car parking. A further car park has been created to the south of the west part of the Pathfoot Building.

The setting contains a considerably greater amount of woodland and tree cover than had been intended at the time the building was designed.

iv Views

Some of the best views from the site are obtained from the south part of the refectory. There has been a significant amount of change in the refectory area but alterations have sought to maintain the main view southwards. This was very much the intention when the building was designed with the refectory in this position. From the refectory there are views of evergreen trees which rise to roughly the height of the horizon behind them. The skyline behind is Abbey Craig which is surmounted by the spectacular profile of the Wallace Monument. Closer views are towards sports pitches in the middle distance and the grassy bank in the foreground. These views are similar but broader in the view from the south front, particularly towards the east. In this view the horizon is formed by the Campsie Hills with the profile of Stirling Castle rising to about the same sky line.

Views to the west are restricted and less designed. In the winter there are views through the branches of deciduous trees towards the backs of Victorian and later villas. To the south west of the building is a substantial car park. More distant views towards the Forth valley are blocked by the closely spaced trunks of evergreen trees.

The most important views towards the building are generally from the south and south east. The view towards the original building from the south west has been blocked by the newer south block extension.

In the view from the south the porch has lost some of its prominence due to the construction of the block to the south west but the arrangement of porch canopy against the long original block can still be imagined. The building is approached from the south and south east. The views towards the building from the south east are the least altered with the ends of the blocks staggered and set within an informal and sloping landscape. There is a minimum of shrub and tree planting so that the blocks are seen to sit directly onto their landscape terrace base.

In the views from the south east the band of trees on the hillside behind are not particularly prominent but does form a backdrop for the northern blocks.

The views towards the western ends of the blocks are not significant.

The view towards the north side was probably not intended to be seen in pure elevation. The north side of the building is most often viewed obliquely, where the very strong line of the roof band forms the main feature. In the view from the north east the boiler house and boiler house chimney are visible, possibly unfortunately, at the far end of this wall. The aquarium building beyond is slightly intrusive.

4.1.4 Assessment of Significance

It is clear that the building is significant both architecturally and historically. The history of the building is as part of the new university provision within Britain. When the building was being designed its relationship to other projects at other universities was understood and the designers were aware of how the building fitted into both this type of building and departed from it.

The building is also significant as an example of 20th century construction. Speed was an important factor. It is a testament to the ability of the designers that the speed of building was turned into a very elegant piece of modular construction.

Aesthetically, the building is significant. It is a variation on a particular theme which was being explored in the RMJM office at the time. The detailing of the original blocks is particularly elegant. It is well sited within its landscape although its

proximity to the west and north boundaries of the campus site mean that the south and east aspects are considerably more important than the north and west. The building is cleverly planned with landscape filtering through the buildings on the east–west bands of courtyards, gardens and banks. It is possibly this part of the design – the use of the use of the bands of outside space between the blocks – that gives the building its individual character and continues to make the building valued by students, staff and visitors.

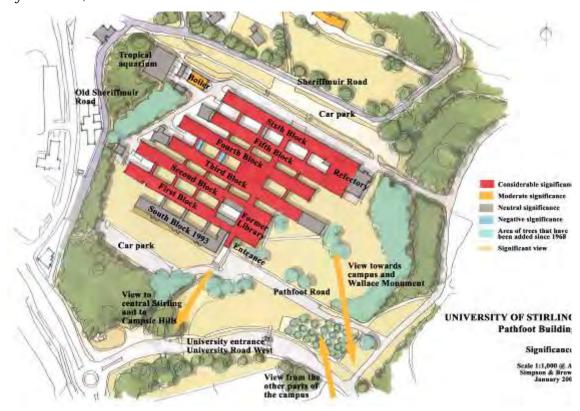


Figure 126 Plan of Pathfoot showing significance S&B

Any building which has been in continuous use for education over the last 40 years must have had an important affect on the lives of the people who studied, taught and worked there. The fact that the building has remained in the same use, with adaptations, is a tribute to a clear vision for the building when it was commissioned and designed.

One of the criteria to be considered in listing is that the building should be 'little altered'. The Pathfoot building cannot be considered to be 'little altered'. Any building which has a 70m x 10m extension built in front of its principal entrance front must have had its character changed, however carefully the new building has been designed to match the original.

In addition to the new block to the south, there have been a number of additions including:

- § An extension to the refectory block
- **§** An extension within the courtyard to the west of the refectory block
- § A new block built next to the western end of the third original block
- § An extension on the eastern end of the third original block

- § A new block built next to the western end of the fifth original block
- § New offices built across north-south link corridors in the band of courtyards to the west of the crush hall
- **§** New offices built across north-south connecting link corridor between the fourth and fifth block
- **§** Alterations to the clerestory level of the refectory
- **§** New buildings constructed close to the western side of the building
- **§** Filling in of the entrance hall to provide offices
- **§** Conversion of the library to form offices and classrooms

In addition to these alterations there are a large number of minor changes to internal doors, circulation, ceiling finishes and the entrance lobby.

Although part of the original design of the building, the boiler house was detailed as an ancillary and utilitarian building. It did not form part of the arrangement of three pairs of blocks. The boiler house should be considered to have less significance than the rest of the Pathfoot Building. It has no aesthetic significance. What significance it does have is historical – as part of the original design and construction.

4.1.5 Recommendations

The Pathfoot Building will continue to be a key part of the academic estate of the university. In this study it is assumed that some further extension and alteration is possible in conservation terms. Indeed, it is highly desirable that the building should continue in its existing use and so some pressure to adapt the building to suit changing needs in teaching and administration is inevitable. The building is unusual for a building considered to have heritage value, in two respects; the building was designed with the expectation that it would be altered and extended, and it has been possible to consult architects who were involved in the design and construction of the buildings.

The following recommendations are in the form of guidelines and parameters for the nature of future alterations and extensions.

i Physical Evidence and Recording

The building has a great deal of social significance for its continuing use as a University. A project to record the social history of the building is ongoing. The project does not form part of this report.

When a part of the building is to be altered it should be recorded in photographs before and during alteration.

ii Condition

The university buildings have been very carefully maintained and the condition of the Pathfoot Building is generally good. However there are areas which require repair work, including;

- § Some damage to soffit panels to be repaired
- **§** Some flaking of external paint finishes
- § Rotten timber at windows and sills, particularly at link corridors

iii Retention of Significance

The Pathfoot Building is recognised as having considerable significance. The boiler house and extensions have less significance. The overall significance of the site would be not be altered particularly if they were removed. The alterations which block the views along the east-west courtyard bands have negative significance.

The original parts of the Pathfoot Building should be retained in good repair. Alteration and extension is possible to the building without damaging its overall significance. This is justified by the original designer's intention that the buildings should be capable of alteration and extension.

Some of the extensions detract from the overall significance of the building. They were carried out during a time when pressure to expand was great but resources were limited. It is probably not practical to reverse the alterations and extensions but if further major proposals are made for any of these areas in the future then greater consideration should be given to the original aesthetic of the design.

Possibly the part of the design which is most individual to the original design, and most characteristic of the period that it was built, is the relationship between the main interior spaces and the bands of open space which pass through the building on the east–west axis. This is also the quality of the original design which is most vulnerable to loss through alteration.

Whilst it would be desirable to reverse some previous alterations, it is recognised that it is unlikely to be practical. The amount of building that has negative significance is small compared to the total area of the plan. The way that these negative elements affect the total significance of the building is also relatively minor. Future changes that would be similar to the parts of the building that have negative significance should be avoided.

There would be no benefit in terms of significance in removing partitions to recover the library space. The fact of the temporary library becoming classrooms and offices following the completion of the permanent library is an interesting fact in the history of the campus.

iv Conservation and Adaption for Continued Use

The main aim of the conservation work on the building should be to retain the parts of the building that we value. Despite the pressure to change and extend, the building has retained its fundamental interest and character and this is a tribute to the robust quality of the original design and its inbuilt flexibility.

Over time, the qualities that make the building special will become more accepted by the general public. The aesthetic qualities of the building are already more obvious that they are in many buildings from the late 1960s.

The significant surviving interiors of Pathfoot Building should be repaired. In the long term, it is desirable that the wall and ceiling treatment in the main concourse crush halls and the main corridor are restored.

Since the building will remain in its existing use for the foreseeable future, it is possibly less important for these works, where there is no active decay, to be undertaken in a short timescale than it would be for a building where a change of use or owner is imminent. The University should undertake to carry out works of conservation, such as the ceiling treatment of the main concourse, within its overall strategy for the building. It is the recommendation of this conservation plan that,

when internal renewals become necessary in the main concourse and crush hall, the original design intention for the finishes should be reinstated as far as practically possible.

The repair and restoration of missing elements should be based on detailed examination of the relevant parts of the existing structure or feature. The specification of materials in building repair and conservation should match the existing in terms of quality, materials, colour, and finishes. Interventions should be carefully considered to be in sympathy with the existing structure or feature in their design and materials. An intervention or extension should generally replicate elements of the existing structure. The materials used in interventions should be of appropriate quality and as long lasting as the original. Generally, new materials should match existing materials.

In matching materials both for the interiors and exterior, it is the surface appearance that matters. The external concrete panels, for instance, should have the same colour, surface texture, height and width as the panels on the original blocks. There is no significance and no conservation benefit in matching the materials or fixing methods of parts that are unseen, such as fixing details or roof construction. Indeed, requirements for energy conservation and the wish to build sustainably mean that an attempt to match a 1968 fixing method would be not practical besides being pointlessly expensive. Some requirements in planning, such as disabled access, have also developed, to considerable public benefit, over the 40 years since the building was built.

A quality which was not as successful in the original design was the selection of materials and detailing. This is a common problem with buildings built to a fast timescale on a limited budget and is not a criticism of the original design but it has caused the university a considerable cost in renewing materials over the lifespan of the building so far. The most expensive repairs have been to the rotten timbers at the glazed link corridors. The university has carried out significant repairs in these areas in the past and further work is required both to the original and replacement fabric. The main problem is that the original detail does not shed water sufficiently. It makes no sense to reinstate an exact detail where it has been demonstrated not to work and so modification to original detailing is recommended. The modification should involve the minimal visual alteration needed to achieve adequate protection of the timber from the excessive damp that will cause rot.

Within the main blocks the interior walls form classrooms, offices and secondary corridors. These parts of the interior were designed to be easily adapted to suit changing needs. The wall materials were kept simple so that they could be changed without altering the overall aesthetic quality of the building. This means that it is appropriate to continue to alter the office and classroom areas. The alterations should follow the pattern of the original with painted blockwork walls and door openings extending to the ceiling with a timber panel above the door.

v Landscape

The landscape around the buildings forms an important context. During the construction of the building, the area was laid out with terraces and access roads. Some access roads have been widened and car parks have been added during the life of the building.

The landscape is considered to be the main constraint in the possibilities for extending the building to the east and south.

The relationship between the buildings and the terraces is an important part of the design. Each block was intended to sit on a terrace. The departure from this principle in the design of the south extension is unfortunate. If a further extension of the 1993 south block is intended, then the opportunity should be taken to extend the landscape terrace across its base. The important design consideration is that the block should appear to be sitting on a terrace in middle distance views from the south west, for instance from the car park. It would be possible to include further accommodation – for instance service or storage – within the terrace.

The amount of trees around the buildings is now considerably more than intended when the building was designed. It would be desirable to remove some trees to improve views towards the building from the rest of the campus. To the west of the building, neither the trees planted since the construction of the building nor the line of the service road are significant and both could be altered without affecting the significance of the building.

vi Possible Development

In the opinion of one of the original architects, the building is capable of extension but extensions are more constrained by the landscape setting than they are by the building itself. Often, when considering development near to historic buildings, there is a virtue in building separate structures that are recognisably different from the original. In the unusual case of the Pathfoot Building, extensions which match the original are preferable to separate and distinct buildings. This is because the building was designed with the expectation of extension. It is possible to argue that the sensibility of the design is still 'current' in a way that would not be the case to a designer asked to alter or extend a Medieval or Victorian building. It is still possible to copy the original materials and proportions.

Gerard Bakker has commented that the building can be extended as long as the 'simple rules' of the original design conception are followed. The simple rules referred to are not written but they are an indication that the original design was considered to be simple and easy to copy. The continuation of the concrete band at roof level has been copied in the extensions as has the dark fenestration band. The 'rules' of the design of the fenestration band are that the steel structure is exposed at regular centres which creates a series of regular rectangles with a particular proportion of height to width. The sill height, boarding pattern and proportions of the windows are according to a single system throughout the original blocks. They create an overall horizontal emphasis to the fenestration band. A difference between the successful integration of the 1993 south block and the extension to the refectory, which is less successful in visual terms, is that the concrete band looks best if the block is a simple rectangle in plan at roof level and does not advance and recede in line with a more complex plan form below.

The building has already received a considerable extension to the south side. However, the south and east aspects remain the most important sides of the building. It is considered that further extension to the south is possible particularly in the westwards extension of the 1993 south block. The view of the south elevation of the first original block has been lost so there can be no further damage to the character of the building if there is another extension in this area. The main drawback in the design of an extension to this block is that the ground slopes away to the south west. Although care has been taken to match the original design in the extension, it is clear that the original aesthetic was of long blocks sitting on terraces.

A further extension of the south block should include some terracing so that the original aesthetic is maintained.

On the east side there has been one extension already. The fact that the original blocks were finished with profiled sheeting may be an indication that these blocks were thought capable of extension in the original design. The third block has been extended with a different but more permanent design using vertical boarding and a recessed door at the end of the corridor. Although not original, this is an appropriate termination to a block where the landscape prevents further extension. This existing extension forms a good precedent to be matched in the extension of the forth block.

The end of the fourth block is now the only one that is clad with vertical sheeting on the east side of the building. It could be considered to be the only 'unfinished' end to a block on this side of the building. The refectory was located in order to make the best of the views towards the Wallace Monument and the centre of Stirling to the south and south east. It should not have a building blocking these views. This suggests that an extension to the fourth block should extend no further than the extension that has been built onto the end of the third block. The third and fourth block were originally conceived as the central pair of the six blocks and it would be appropriate for them to have their east ends in line as was the case when the building was first built. If this block is extended then consideration should be given to building the glazed link corridors.

The northern aspect of the building is different and less significant than the south or eastern aspect. It is not seen in conjunction with the eastern aspect. The constraints on a northwards extension of the building – a new north block in the same manner as the 1993 south block – would be the access road, the slope, the car parking and the views from the houses in Bridge of Allan to the north of the campus boundary.

All of the western ends of the original blocks have sheeted ends and may well have been intended for extension. In two cases, extensions have been constructed near to, but not attached to, the original end of the block. In both cases there has been a failure to understand, or afford, the original aesthetic and constructional system of the building. These buildings stand in the way of more meaningful extension. The tree planting to the North West was not intended when the building was first built and is not significant. It is understood that extensions to the west would have a lower priority for the university due to their remoteness from the central concourse and the ground conditions on this side of the building.

The critical point about any extension westwards is that it should maintain the north and south lines of each block and that the views along the gaps between blocks should be maintained however long the blocks. The height of the blocks is possibly less important than the width. Blocks which are a storey higher at the west end would not affect the character of the main views towards the building from the south and south east. It might be possible to design two storey blocks towards the western end following the precedent and detailing of the former library block at the south east corner of the original building.

vii The Design of New Buildings

The design of buildings in close association with existing work of quality always requires particular architectural knowledge, judgement, skill and care. In this unusual case, the building was designed to accommodate alterations internal and extensions on the outside.

New buildings should be of appropriate quality and should complement the existing significant buildings on the site. New buildings should be carefully matched and blended with the existing buildings. They should combine to form a composite building or group of buildings of overall architectural and visual integrity. Even when a particular approach is judged to satisfy all the relevant criteria, the visual success of the development as a whole will depend on the fine detail, and on the skill and aesthetic sensitivity with which it is carried out.

The design of new buildings should not be perceived as an end in itself, to be regarded in isolation. The composite of original and extension should be of appropriate quality throughout and should have architectural integrity as a whole and in its setting. The component parts should be maintainable and should be expected to age and weather together.

The designer of an extension is fortunate in having detailed design drawings available from the original design.

Development should not obscure or intrude upon significant views within the site, such as the views towards the Pathfoot building from the rest of the campus to the south east.

viii Key Summary Points

- **§** The building takes its form from the six original blocks set into a south facing slope. The relationship between the original blocks and the landscape terraces is an important part of the design.
- **§** The original building is significant in terms of its architecture and historically as part of the story of expanding university provision in 20th century. It has social significance as a place of education.
- § One of the most interesting, characteristic and successful aspects of the design is the way that the landscape has been brought through the building on the eastwest axis. It forms a series of formal and natural courtyard gardens and gave views to the east and west from the main and link corridors.
- § The south and east sides of the building are more significant in terms of landscape, architectural design and views. The west and north sides are considered to be the back of the building.
- § More trees and areas of woodland have been planted around the building than was intended when the building was first designed.
- § The building was designed and built with the expectation that it would be extended externally and altered internally. The materials of the internal partitions were specifically selected so that it would be easy to change the position of walls and doors.
- **§** The building is in good condition generally but the specification of materials and some of the detailing has caused deterioration.
- **§** The building continues to be fully used for its original purpose.
- **§** Changes in the exact use of the building have led to internal alterations and extensions. It is inevitable that pressure to change and adapt to suit the needs of the university will continue.

- There have been several alterations which have obscured the purity of the original design. The new block to the south and the eastwards extension of the third original block are the most successful of these extensions in terms of their aesthetic relationship to the original design.
- The alterations which most damage the aesthetic appreciation of the building are where offices have been built against glazed link corridors blocking views along the bands of gardens.
- Further external extensions and internal alterations are possible without detracting from the significance of the building.
- The main constraint for south and east extensions is the landscape.
- It would be possible to add an extension to the east end of the fourth block without detracting from the significance of the building.
- It would be possible to add an extension to the south of the building without detracting from the significance of the building.
- Westwards extensions could be higher but they should be aligned with the original blocks. They would be constrained by the form of the ground.

4.2 **Character Area 2: Central Area**

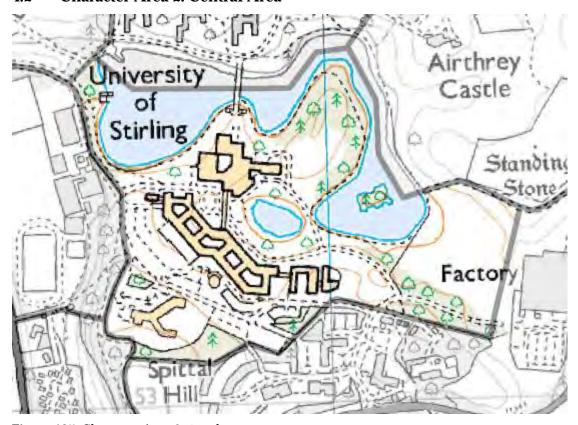


Figure 127 Character Area 2 site plan

4.2.1 Historical Development

This area was central to the aesthetic intentions of the landscape design of the late 18th century. Water was an essential feature of the picturesque landscape as conceived by 'Capability' Brown and his school, and if it was not naturally found within an estate, an artificial lake or loch would be constructed. The serpentine shape of the loch is also typical of its date – earlier landscapes within a Scottish estate would also have included water, but in formal, rectangular canals or reflecting pools.

The 25 acre loch was dug out for Robert Haldane in 1787, and stocked with fish. An island is shown on the OS map of 1865 (figure 128), with a straight path leading to the water's edge from the castle. A boathouse was built by Donald Graham in the 1890s, together with a footbridge which crossed the loch from north to south (on the site of the present bridge). Graham also had trees planted on the fringes of the loch.



Figure 128 1st Edition OS 1865 NLS

This area contained the key viewing point for the castle, from the south west, across the loch (figure 129).



Figure 129 View across the loch to Airthrey Castle 1904 StAU

In 1968 the loch was divided at its south eastern extremity to form a pond, allowing road access to the new buildings of the University.



Figure 130 Construction of new road, dividing pond from loch c1968 UoSA



Figure 131 Oblique aerial view from 2007 showing the central area buildings. RCAHMS



Figure 132 Oblique aerial view from 1970s showing the central area buildings $\it RMJM$



Figure 133 Oblique aerial view from 1970s showing the central area buildings. *RMJM*



Figure 134 The north elevation of the first phase of the Cottrell Building nearing completion c1970. Note the start of construction of one of the 'rib' blocks in the background. *UoSA*

The largest of the building on the Airthrey campus was named after Tom Cottrell, the first Principal and Vice-Chancellor of the University who died in 1973. The building was originally referred to as 'T70' in the development plans, a name methodically derived from the fact that it was the main teaching block, to be completed in 1970.

The form of the building roughly follows the contour of the site, with ladder-plan of long parallel blocks connected at regular intervals by distinct linking 'rib' blocks forming generous internal courtyards. The north block ('A') was built first, with the link buildings following on after and the south block ('B') finished in time for the University student population reaching 3,000.

The inspiration for the plan of the Cottrell block can be clearly seen in Denys Lasdun's iconic campus for

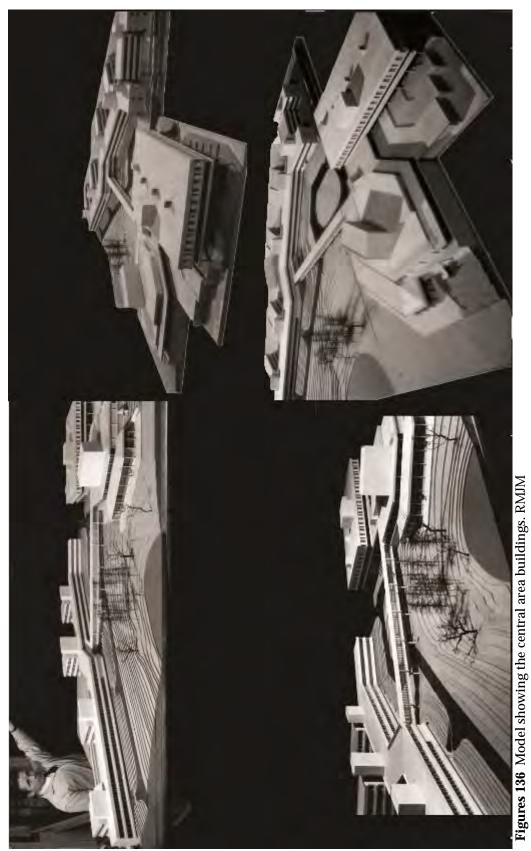


Figure 135 Model of Denys Lasdun's University of East Anglia. Note the ladder plan of the teaching blocks (not completed as shown).

the University of East Anglia (1962-8), where again the same model of expansion was suggested, though not executed as planned (the north range was not built). Nevertheless the concept of a continuous teaching block is one that rapidly gained momentum from the early 1960s and can be seen at East Anglia and Leeds, and concurrently in developments in North America⁵³.

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 $^{^{53}}$ Listing text for the University of East Anglia, English Heritage, http://www.heritagegateway.org.uk, accessed 30-Apr-2009



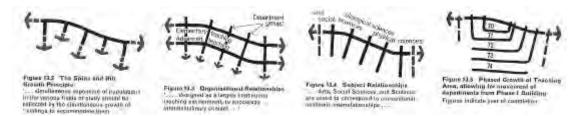


Figure 137 Diagram demonstrating the 'Spine and Rib' growth principle. UoSA

The main ground floor corridors of the Cottrell block run the length of each block and face in towards the courtyards. Although not as wide as the main corridor of Pathfoot, they are similarly generously lit by the full-height windows to one side. The architects placed lecture rooms at the 45-degree angles in the plan: such rooms were ideally suited to the otherwise awkward splay of the triangular spaces. This also lends cohesiveness to the plan, and appropriate emphasis to these spaces.





Figure 138 A typical corridor

Figure 139 Interior view of a typical lecture theatre.

On the exterior, the clean horizontal lines that gave Pathfoot its strong identity reappeared in a similar theme, retaining "something of the same flavour"⁵⁴. On both elevations, the aluminium windows were recessed behind the overhanging slabs, to provide some shade, enliven the façade, and emphasise the horizontality of the building.

The Flagreca cladding panels and around 2,000 windows were replaced in 2007-08 with a major project to overhaul the Cottrell Building. This had been prompted by the deterioration of the panel fixings at a number of different points, which was noted after a panel had fallen to the ground, and by a general desire to improve the environmental performance of the building. The clear black-and-white colour scheme that tied Cottrell to the whole University campus was deviated from and the re-cladding and re-fenestration were carried out with varying shades of grey aluminium, with colour highlights to some window frames. As a result of the requirement to avoid decanting the building during these works, the replacement fenestration was added outside the line of the existing fenestration which remained in-situ until the replacements were complete⁵⁵. Although this was beneficial for the functionality of the University, this further detracted from the original design intention that the fenestration was recessed behind the cladding. The cladding is

⁵⁴ R G Bomont, p53

⁵⁵ http://www.burnettpollock.co.uk/cottrellclad.html, accessed 30-Mar-2009

now effectively flush with the windows, particularly on the lower floors, though the windows are still distinguished by a darker grey (figure 141).

Parts of the building were not included in the re-cladding project – namely the ground floor corridors and link corridors between the stair towers and 'rib' buildings between 'A' block and 'B' block (see figure 140).



Figure 140 Original replacement cladding fenestration

Figure 141 South elevation of Cottrell showing the replacement cladding and fenestration

ii Andrew Miller Building, 1970-73

and

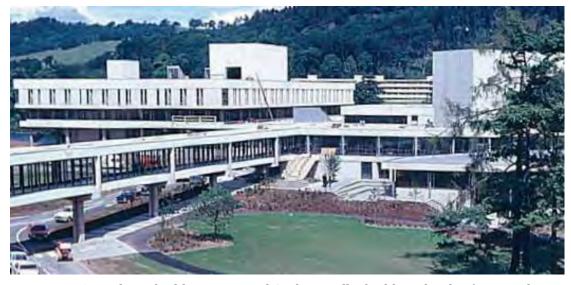


Figure 142 Central area buildings, renamed Andrew Miller building shortly after completion. The library and link bridge on the left, with the MacRobert Arts Centre on the right. *UoSA*

The Andrew Miller Building remains, as intended, the main student focal point for the university, and includes the atrium space, Robbins Centre, Chaplaincy, shops and the University Library. It was named after the former principal and vice chancellor of the University in a ceremony on the 1st October 2003.⁵⁶

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⁵⁶ News Archive, www.stir.ac.uk, accessed 22-Apr-09

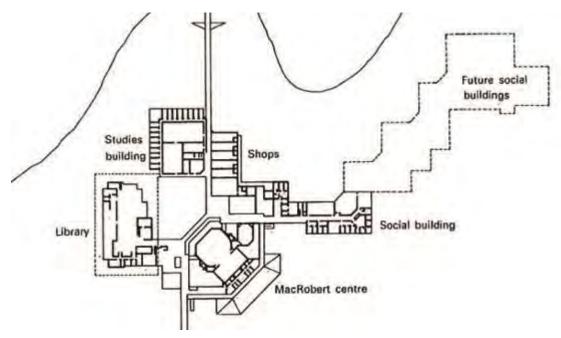


Figure 143 Concourse-level plan of Andrew Miller building as originally constructed. Note the stepped-back plan of the library (with the upper level shown in dotted lines) which opens to an open courtyard (now enclosed as the atrium) and the 'Future Social Buildings' which were intended as part of Phase 2, but were not built. *Architectural Design*

iii The University Library, 1970



Figure 144 2008 view of the University Library

Although both appearing as a distinct building from the exterior, and being structurally separate, the University of Stirling Library was always designed to be closely interlinked with the other central area buildings and largely indistinguishable from the user's point of view. Entered from the concourse level of the Andrew Miller building, RMJM deliberately avoided the option of a grand separate entrance – meaning teaching, research and recreation could all take place, in theory, without ever having to go out of doors.

The library is arranged as an upside-down ziggurat over four storeys: the first floor projects out from the basement and ground levels and is supported by concrete columns equally spaced around the perimeter of the building. The second floor projects out further again. Gerrard Bakker, who worked on the Library recalled being influenced by the design for the Royal Northern College of Music in

Manchester that he had worked on (compare figures 145 and 146). Overall the plan of the building is arranged on a squared-grid of eight structural bays by five.





Figure 145 The 1968 Royal Northern College of Music by Bickerdike, Allen, Rich & Partners. *Google*

Figure 146 University of Stirling Library

The different uses of the building are clearly expressed on its exterior. The basement level has intermittent windows, with large areas of wall denoting the archival storage and administrative nature of this lower floor. Both the ground and first floors have continuous bands of black-stained timber windows with vertical glazing bars that light the large open plan reading rooms and book stacks on both these floors. On each of these floors, two aluminium vertically-sliding windows per structural bay create a welcome rhythm to the long facades. The second floor is treated quite differently from the other floors, and indeed any of the other buildings on campus: narrow strips of full-height glazing irregularly grouped in pairs or singly, with varying widths of Flagreca cladding comprising the bulk of the façade at this level. These narrow windows light individual study carrels.



Figure 147 Individual study carrel on the second floor (level 4).of library



Figure 148 General view of second floor (level 4). Note original desks and replacement lighting on the underside of the coffered ceiling.

The top-heavy composition is emphasised by the horizontal band of cladding above the second floor which is the deepest band on the elevation, contrasting with the thinner band between ground and first level which sits above the thin exposed concrete columns that rise from ground level. These columns are then hidden behind the façade on the first floor meaning the continuous band of windows gives the impression that the heavy top floor is floating - a lighter composition than the Royal Northern College of Music.

The entrance to the library is at concourse level - ie the first floor, or level 2. Interestingly, there was no link between the Library and the Study Centre when built - the plan of Level 2 of the Library stepped back underneath the upper levels. The ceilings on the interior were deliberately heavily engineered with deep coffering this was designed to shade the lights and avoid glare. With the improved anti-glare designs of modern lighting, this is no longer required, and indeed some replacement lighting has been fixed to the surface of the ceiling (figure 148).



Figure 149 Sketch impression of new library entrance on Level 2. UoSA

The library is currently undergoing a major redevelopment project by the architects Lewis and Hickey. The project will radically alter the interior of the building in particular with the insertion of a central lightwell occupying one square of the building's grid which will bring daylight into the centre of all the main floors. The main entrance will also be shifted north, to join with the north-west corner of the atrium, cutting across the remnants of the open courtyard. The individual study carrels on the second-floor will be removed.

iv MacRobert Arts Centre, 1971

The MacRobert Arts Centre was designed to be a prominent building at the heart of the university campus - the fly tower of the theatre rises above all of the buildings in the immediate surroundings, yet being without fenestration or other distinctive elements means that the Flagreca clad form of the fly tower is less distracting than its otherwise bold form would suggest. It also neatly mimics the stair towers of the library and Cottrell building. The oblique angle that the Centre sits at in provides adequate distinction from the other central area buildings. The positioning allows for the awkward shape of the auditorium to sit well in the overall composition - in the same way that the lecture rooms of Cottrell sit at the angles of that building - and allows the restaurant space to fully take advantage of the view over the MacRobert pond.



Figure 150 MacRobert Arts Centre with double-height dining space at the lower level and flytower behind.



Figure 151 Main auditorium at the MacRobert after the 2002 refurbishment. Buro Happold

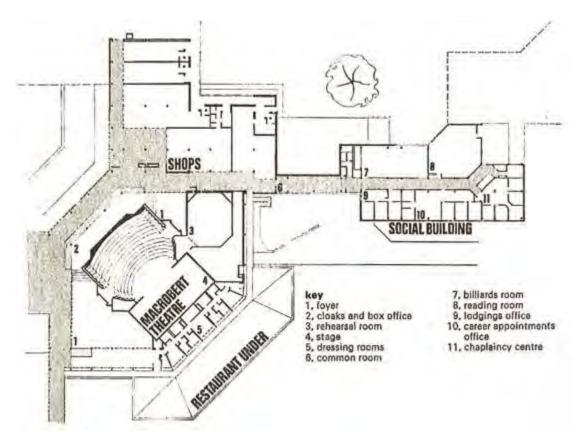


Figure 152 1973 plan, at concourse level, showing the MacRobert Arts Centre, Shops and Social Building. *Architectural Review*

Like the Library, the MacRobert was built with main entrance being accessed directly from the concourse, marked as '2' in figure 152. Steps sank down from this concourse level underneath the rake of the theatre to the reception space with box office ticket booths, and led to foyer space on either side ('1'). The foyer to the left of the ticket booths also led to a smaller rehearsal, or studio, theatre. To the right, the larger foyer (overlooked from concourse level) led to the café and bar, and then from there down to the restaurant.



Figure 153 The art gallery, underneath the concourse. The large MacRobert foyer is on the other side of the glazed partition. *UoSA*



Figure 154 The art gallery, now converted into the main entrance and box office area. The stair leading up to the concourse is on the right. *UoSA*

The Art Gallery was situated underneath the concourse, wrapping around the large foyer space - this was later converted into the bar, and more recently, the main entrance and box office area.

The MacRobert, with its capacity of 500, was always deliberately intended to be the public face of the University, fostering a positive 'town and gown' relationship. Indeed, J M McKean is somewhat more emphatic as to its purpose in his opinion piece in the Architectural Review of June 1973:

'Some universities plan to have a rough, cheap, adaptable workshop 'theatre' even if they end up with one much more finished... [At Stirling] is the direct opposite; it is a superior theatre – with superior architectural design and finish – intended to stimulate passive student awareness rather than active participation. Surprised by such riches, students are often both self-conscious about and suspicious of the 'middle-class cultural indoctrination' offered.'57

When the MacRobert opened in the autumn of 1971, The Guardian stated that "The MacRobert Centre is a marvellously impressive arts complex that aims to inject cultural lifeblood into Scotland's newest and most idyllic University campus at Stirling."58



Figure 155 The foyer of the MacRobert, with the concourse level on the left (now the The ticket booths (centre) were under the rake of the theatre above. The columns mark the line of the wall shown on the right of **figure 156**. Architectural Review



Figure 156 The same space after conversion (photograph taken from the other end at the lower level). The atrium is on the right, with borrowed light for the exhibition space coming from the glass bricks in the new wall. Buro Happold



Figure 157 The larger MacRobert foyer in the 1970s. Note the half-stair to the reception area, up to the main concourse beyond. Architectural Design



Figure 158 The same area today. Note the removal of the stair and the lowering of the floor to the space at the back, now used as exhibition space. Buro Happold

⁵⁷ J M McKean, 'University of Stirling: Criticism', Architectural Review, June 1973, p361

⁵⁸ Quote on p7, *University of Stirling: A Survey – 1972*

The MacRobert underwent extensive refurbishment before its reopening in October 2002. This work, by the architects Appleton Partnership, included the refocusing of the MacRobert to its separate entrance adjacent to the Andrew Miller building entrance at the ground level of Queen's Court. The ticket booths were moved to the bar area, just inside the Queen's Court entrance. The original reception area was separated from the atrium space, a wall built up, steps removed and the floor lowered in order to create an exhibition space ('arthouse'). This deliberately separated the university function and the more public function of the MacRobert – even though the integration of the two had been a key design aspiration of RMJM and Tom Cottrell. Nevertheless, the accessibility of the MacRobert was greatly improved. The main theatre ('mainhouse') and the studio theatre were also refurbished, with the smaller of the two was specifically redesigned for use as a children's theatre ('playhouse').



Figure 159 The MacRobert Extension. Buro Happold

As well as the internal alterations, a large extension was also built, providing a new workshop and rehearsal space ('workhouse') and cinema ('filmhouse'). The new extension is a rather complex four-storey building (see figure 159) which despite being attractive in its own



Figure 160 The MacRobert Extension adjacent to the link bridge

right detracts from the simplicity of the original design concept. The way that the extension abuts the link bridge was deliberately designed to maintain the original structural integrity of the bridge, but has in the process created an unattractive void along two bays of the bridge (see figure 160), and an awkward juxtaposition of materials.



Figure 161 Architectural 'clutter' created with the refurbishment of the MacRobert Centre highlighted in blue.

The additions and alterations to the entrance from Queen's Court also have drawbacks. Whilst enabling a higher profile for the MacRobert, it has achieved this only at the expense of the entrance to the Andrew Miller building.

Details such as the pitchedroof form of the rooflight, the mesh-panel sign, and the multi-faceted arrangement are particularly out of keeping. In the words of Dr Douglas Robertson these additions have 'seriously compromised the original design concept' 59

v Robbins Centre, 1971

This is the home of the Stirling University Students' Association and was named after the first Chancellor of the University, Lord Robbins. The building was designed as the first stage of what was always intended to be a far more substantial building stretching out eastwards to the loch (see figure 143). Although intended as part of Phase 2, it was not completed.

As well as containing offices for the Students' Association, the Robbins Centre incorporates two bars, the Studio and Long Bar. An external deck area was added in 2002.

vi Studies Building, 1973



Figure 162 View showing the low-profile of the studies building, with the library rising behind. *UoSA*

This part of the Andrew Miller building was the last to be completed to the original development plan. Comprising of two tiered storeys, it was built to provide study space for the students who lived off-campus.

The roofline of the building was kept deliberately in line with the low level of the roof of the shops – this kept the entrance elevation from the bridge low-key, with the

focal points remaining on the MacRobert fly tower and the library.

An oddity of the study centre was that it was not originally connected to the library, being separated at concourse level by the courtyard space breaking out through towards the loch. The stepping back of the plan of the library at level 2 created a gap between the two buildings – this gap was closed when a narrow glazed link corridor was constructed. The somewhat awkward arrangement is to be further rationalised with the redevelopment of the library, with student access to both buildings being provided in the north-west corner of the atrium. The narrow corridor will revert to staff use.

 $^{^{\}rm 59}$ Dr Douglas Robertson, Department of Applied Social Science, Speaking at a conference at the University of Stirling, 24-Nov-2007



Figure 163 View of the footbridge looking towards the students' residences.

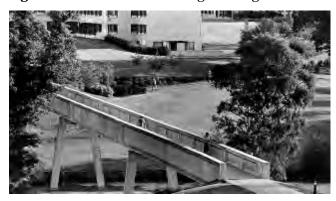


Figure 164 View showing the simplicity of the structure of the footbridge. UoSA

The footbridge over Airthrey Loch replaced an earlier bridge at the same narrow point of the loch. It was designed in order to facilitate the large volume of pedestrian traffic between the central area buildings and the students' residences on the north banks of Airthrey Loch. The height of the bridge above the water level of



Figure 165 Oblique aerial view of the footbridge over Airthrey Loch. **RCAHMS**

the loch reflects both the requirement to provide level access into the central area buildings, but was the specific requirement that sailing boats on the loch should be able to pass underneath.

Constructed as a u-section reinforced concrete box, the deck comprised concrete slabs laid without a mortar bed to facilitate drainage. This has been covered with red-coloured Tarmacadam at a later date, with the pattern of the concrete slabs showing through.

The key attraction of the footbridge is its stark contrast, in material, colour and form, with the picturesque and naturalistic forms of Airthrey Loch, lending the bridge a strong sculptural quality. When viewed from due east or west, the ends of the bridge are hidden by vegetation, highlighting the central section. For the many users of the bridge, the elevated views of the surrounding landscape provided turn this otherwise functional structure into a dramatic keystone in the composition of the campus.

The footbridge was listed by Historic Scotland at Category 'C(S)' in May 2009.

viii Link Bridge, 1970

The link bridge connects the concourse level of the Andrew Miller building and the ground level of the Cottrell building.



Figure 166 External view of the link bridge

The key purpose of the bridge was to allow uninterrupted communication between the teaching, research, recreation and dining facilities of the University. A typical day in the life of a student or member of staff could thus be contained completely indoors, without any inconvenience of dealing with traffic or the weather. The bridge carries pedestrians over the inner loop road.

Although the interior has the same simplicity as the corridors of Cottrell (and formerly of the concourse of the Andrew Miller building), the external structure of the bridge has an elegant structural form. The bridge stands on forked structural piers that split from a single column to wrap around the walkway to meet with the roof.



Figure 167 Internal view of the link bridge

ix Queen's Court, 1972

Although completed at with the opening of the Phase 2 buildings, the open courtyard area between Cottrell, the Link Bridge and the Andrew Miller building was named to commemorate the formal opening of the University by The Queen in 1972.

The plaque acknowledging this was 'cast and generously donated by the Carron Company, Falkirk' – a nice link to a company that was once the biggest ironworks in Europe.

Queen's Court acts as the main vehicular hub of the campus with a frequent bus service from Stirling and beyond using the court as a terminus.



Figure 168 Oblique aerial view of Queen's Court. *RCAHMS*



Figure 169 Plaque unveiled in October 1972

x The Stirling Management Centre, 1988



Figure 170 The Stirling Management Centre

The Stirling Management Centre was opened in 1988 and is a predominately twostorey building forming an open U-shape with single-storey projection to the west at intermediary level. It contrasts with the main university buildings by being built in brick with a concrete tiled roof. It was extended and refurbished in 1994, and again in 2008 in a £5.5m project by Burnett Pollock Associates.

xi The Atrium, 1998



Figure 171 1970s oblique aerial view showing the open courtyard. *RMJM*



Figure 172 2007 Oblique aerial view from south-east with covered atrium highlighted in blue. *RCAHMS edited by S&B*

What is now referred to as the atrium was created in 1998 by Ian Burke Associates⁶⁰, and involved the covering over of what was originally designed as an open courtyard, with the concourse running around the perimeter. A large glazed tetrahedron roof provides light to this space which is used for a variety of social purposes. A slim courtyard between the atrium and the library building was retained, with access to the open area adjacent to the loch maintained.



Figure 173 The atrium

xii University Court Building, 1998



Figure 174 University Court



Figure 175 University Court from west 2009

 $^{^{60}}$ Planning Application reference 97/00614/DET (1997), $\,$ www.stirling.gov.uk

The University Court building, an extension of the Cottrell building was completed in 1998. It was designed by Alan Clyde of the Hurd Rolland Partnership⁶¹. Parts of the building, although modern, have possibly been influenced by 1950s domestic style, somewhat incongruous against the 1970s Cottrell. Since the re-cladding of Cottrell, the contrast has been exaggerated.

Although not regarded as being of the same architectural quality as other parts of the university⁶², the prominent position of the University Court building at the main entrance to Queen's Court means in many ways it acts at the public face of the University buildings and has successfully resolved the previously awkward and abrupt end of Cottrell, providing a more welcoming reception to visitors. Nevertheless it can be seen that the detailing of the building has led to premature ageing, in particular with the staining of the façade under the projecting window surrounds.

xiii R G Bomont Building, 1998



Figure 176 R G Bomont building 2008

Like the University Court building, the Hurd Rolland Partnership-designed R G Bomont building appears to have been designed in a deliberately anachronistic 1950s style. It is difficult to believe it is little more than a decade old, not helped again by the premature ageing. The interaction of the building and Cottrell is interesting – the R G Bomont building takes on the same massing and overall depth as Cottrell but the loose connection (a narrow single-storey corridor at low level) and distance between the two means that any sense of cohesion is difficult to find. This is further confirmed by the fact that the main elevation has been turned to face the end of Cottrell. The building houses the Department of Nursing and Midwifery.

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⁶¹ CV of Alan Clyde, http://www.hurdrolland.co.uk/, accessed 12-May-2009

 $^{^{62}}$ Dr Douglas Robertson, Department of Applied Social Science, Speaking at a conference at the University of Stirling, 24-Nov-2007, described it as 'a missed opportunity'



Figure 177 Iris Murdoch building 2009

This building, designed by Burnett Pollock Associates, houses the Dementia Services Development Centre. The plan of the building was deliberately set out to demonstrate good practice in accommodating users with dementia in a public building by maximising clarity in order to aide orientation and avoid confusion. Presentations demonstrating these aspects are regularly given at the centre.

The overall plan of the building is designed as the end point of the teaching block – the L-plan is enclosed by the garden wall that wraps around it in a parabolic curve.

As well as a mix of open-plan and cellular office space, seminar and meeting rooms, the building includes residential accommodation for visiting academics. The garden, also designed to cater for people with dementia, was by the landscape architect Annie Pollock.

Built at a cost of £1.5m it was completed in March 2002.



Figure 178 The Colin Bell and Iris Murdoch buildings. 2009

XVColin Bell Building, 2003

Designed by Burnett Pollock Architects the Colin Bell building was built to house the Department of Applied Social Science. Being masterplanned at the same time as the adjacent Iris Murdoch building, the architectural treatment is very similar with white render ground storey, aluminium-clad upper storey, and a variety of sizing and placing of fenestration. The two buildings are, in plan, completely separate yet are tied together visually by a simple screen across the entrance pend which leads to a porch for both buildings.



Figure 179 The post-1997 extensions to Cottrell

This group of post-1997 buildings demonstrate an interesting academic and architectural move away from flexible teaching space and a return to custom buildings for stand-alone departments. As a group they act as an effective 'full-stop' to Cottrell, providing the satisfying conclusion that was always intended but not built for more than two decades. Whilst taking on a completely different format in both layout and materiality, they remain closely connected to Cottrell in terms of their massing, footprint and building line. The Colin Bell and Iris Murdoch buildings are particularly well liked – even being referred to as 'Pathfoot Mark II' by staff who work in them⁶³.

Proposed Central Area Expansion: Phase 3 xvi

The ladder-plan of Cottrell was designed to be easily extended, as shown in the development plans (see 3.10). Further extension was anticipated in Phase 3, both continuing T70 to the east, and with an additional building T70 to the south. Whilst most diagrams suggested a similar block to Cottrell, a model prepared to demonstrate Phase 3 growth (figure 180) suggests a quite different building reflecting the proposals in the development plans that Cottrell would be reserved for general teaching, and the block to the south designed for specialist teaching.

It can be presumed that the link corridor shown on the proposed layout plans would have been a link bridge similar to that between T70 and what is now referred to as the Andrew Miller building - a model prepared by the architects to demonstrate Phase 3 growth shows a similar arrangement as on the north side of Cottrell ground floor entrance lobby (as built) with the bridge adjoining at first floor level.

⁶³ Dr Douglas Robertson, Department of Applied Social Science, Speaking at a conference at the University of Stirling, 24-Nov-2007

As a result of the rise of the site, this bridge would have joined the Phase 3 buildings at ground level, thus creating an extremely large area under continuous cover.



Figure 180 The Phase 3 model prepared by RMJM. Note the extended library projecting over the edge of the loch, the distinct nature of the Phase 3 teaching block south of Cottrell, and the residences to the east of Airthrey Loch, accessed via the extended social buildings and second bridge over the loch. *RMJM*

The Phase 3 growth was also intended to include an expansion of the library – the photograph of the model shows the suggested doubling of the building with an additional five-by-eight bay block connected with two-bay wide links with a large open courtyard. The north-west corner of the additional block would have been cantilevered over the edge of the loch.

The model also shows the intended completion of the social buildings stretching out to the north-east to meet the east portion of Airthrey Loch, as well as a further extension northwards, presumably for further shops. A second bridge is shown providing access to the Phase 3 residential blocks.

4.2.2 Character Assessment

The Cottrell Building dominates this area. It is an irregular shape, generally in line with the contour which curves form the south east round to the north. This building encloses the MacRobert Centre, the Library and the Andrew Miller building to the north. The general quality of this area is dominated by buildings and car parking. It has the character of the hub of the built part of the university and is far busier with cars and people than the other character areas. The main part of the Cottrell Building is three storeys high and clad with metal sheets. The cladding has

disguised the original architectural relationship with the Pathfoot building. Unlike the Pathfoot Building, there is no clear point of entrance. The strongest route into the building is from the north on the axis of the bridge through the Andrew Miller building. To some extent the west and south sides of the Cottrell building are the back. Alterations to these sides would not particularly affect the character of the campus. Close to the south west part of the Cottrell building is the Logie Lecture Theatre. This is a separate building faced with high aggregate concrete blocks and built into the landscape to take advantage of a bank rising upwards to the south west.

The Stirling Management Centre is raised on the highest part of this character area. The conference centre is prominent in views from the car park but not in views from outside the university area because it is screened by a bank and some trees. The building forms an open U plan with its open side facing east. It is built of brown brick with concrete tiled roof. To the north east is a hall building with a segmental sheeted roof. The southern arm has been extended eastwards in an imitation of the same style. The area enclosed by the conference centre is surprisingly unkempt. There is an opportunity for a garden here or further development. To the south the land rises to a belt of relatively young trees with a field at the brow of the hill edged by more mature trees. There are some remnants of ornamental ditches and paths within this woodland. The banks slope down to the chalets and form part of that character area.

At the end of the car park to the east of the Management Centre between the Cottrell Building and the RG Bomont Building is a view of Airthrey Castle in its landscape. The contrast between old building and university building in this view is a strong and positive one. It is one of the few views in which the tower on the north side of the castle makes an effective contribution to the landscape.

To the east of the south east corner of the Cottrell building are two further university buildings. They are connected to the Cottrell Building by corridors along the northern edge. First is the RG Bomont building. This building is clad with high aggregate concrete block, quite similar to the block used on the Cottrell building. This is a relatively small building. Its length is about the same as the Cottrell building and in line with it but it is quite narrow east to west. Beyond this, and with its architecture forming a termination to the built development is a group formed by the Colin Bell building and the Iris Murdoch building. The construction materials are the massing and detailing which is carefully considered and together these buildings provide the best post 1970s architecture on the campus. The rounded end of the Iris Murdoch building is like a prow of a ship. It contains an attractive garden.

This end suggests the limit of development in this direction. There are some mature trees further east. The buildings are in good condition although the garden walls of the Iris Murdoch building are disfigured by staining and some cracking under the copes. There is also some staining on the circular entrance tower of the Iris Murdoch building.

The north east facing side of the Cottrell building is also clad. The architecture is more lively, however, because the roofline has the ends of blocks which run across the building and also service towers projecting about two storeys above the general roof line. The complex of buildings curves around the MacRobert pond which is surrounded by trees. This pond is separate from the loch. The particular part of the loch which is closest to this side of the building does not make a particularly

prominent impression but there are very good views across it towards Airthrey Castle and its entrance tower. There are some sculptures on the grounds to the north of the pond. Around the loch is a walkway with seats.

The buildings around the pond give the impression of being the backs of buildings. The east and south face of the Andrew Miller block does have some reflection of the original palette of materials of high aggregate concrete block and black frames to windows. The south eastern face of the MacRobert Centre is also a strong architectural statement with a café facing the pond, a sculpture next to the pond and the high fly tower faced with concrete block behind it. The newer block to the south of the fly tower is rather more fussy in appearance.

The Cottrell building has been extended at the north west corner to provide offices.

The bridge between the library block and the Cottrell building is another strong statement from the 1970s and, again, uses the characteristic materials. Its strength as a statement is reduced to some extent by the extension to the north west.

The library is a strong statement of the architecture of the 1970s university. It projects from the bank towards the western part of the loch. At the north west corner it rises to about two storeys on concrete columns before supporting the main two bands at the top of the building. At least from the north and west, this building can be read as an independent structure from the adjoining buildings.

The single storey block to the north east of the library forms part of the architectural context on the approach across the foot bridge from the students' residences. This approach which counts as the main architectural entrance to the complex of buildings is kept very low key with planting and cherry trees disguising most of the buildings. The library block rises to the west. To the east is the service wing of the Robbins Block which does look like the back of a building with service sheds, parking, bins and sheets of concrete. Some screening is certainly desirable in this area.

This low key entrance at the north end of the Andrew Miller building is an architectural set piece which should be maintained.

Inside the library relatively little remains. The detailing around the carrels – the student study rooms on the top floor – is of interest and the minimal shadow gap square handrail detailing on the stairs has been carefully considered.

The most attractive quality about the Cottrell Building are the inward facing courtyards. In each case they have a mix of formal and informal planting. The central courtyard has a paving design which reflects the 45 degree diagonals of the

Cottrell building in a design of concrete paving and bands of sets. The garden between blocks X and Y is less formal. The courtyard between Y and Z is a service courtyard with parking. The courtyard between blocks X and W and between U and V is also informal with tree planting but less intense and with a greater area of gravel. The latter courtyard has some beautiful trees.



Figure 181 Courtyard within Cottrell 2009

4.2.3 Assessment of Significance

The footbridge, Andrew Miller Building (including the Library and MacRobert), the link bridge and the Logie Lecture Theatre are of considerable significance. The Cottrell building has been reclad and is now of moderate significance. Elements of this Character Area are of neutral significance: Stirling Management Centre, University Court building, RG Bomont building. The landscape setting of these buildings is generally of considerable significance, including Airthrey Loch, which forms perhaps the most important single landscape feature of the campus.

There are important views within this area, including perhaps the most important views of the campus buildings. From the west shore of the loch the visitor sees a panorama of the university, taking in the residences in Character Area 3, the footbridge, the Library and the western end of the Cotterell building. The planting of brightly colourful azaleas and shrubs at the west of the loch is not in accordance with the 18th century landscape design, nor is it considered to be in the best visual interests of the 20th century buildings.

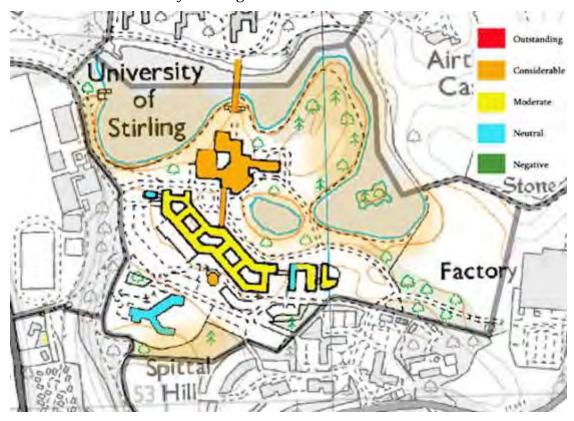


Figure 182 Character Area 2 showing significance BLA

From the south eastern shores of the loch (to the east of the pond) the view of Airthrey Castle in its designed landscape setting of water, parkland and mature trees should be an expression of the picturesque ideal, however this particular view is partly obscured by overgrown trees and inappropriate shrubbery, reducing its significance.



Figure 183 Coniferous shrubs and small border of colourful azaleas on shores of loch 2009

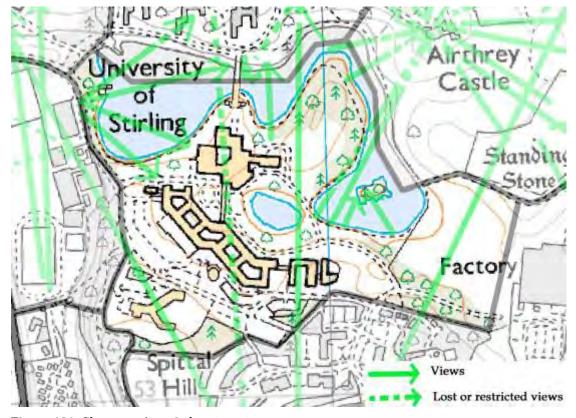


Figure 184 Character Area 2 showing views

4.2.4 Recommendations

Maintenance

The buildings in this character area are generally well maintained.

Recording

The library building should be recorded in photographs prior to the planned redevelopment.

The library interior was carefully designed, including furniture, carpets and curtains. Surviving pieces of the original library furniture should be recognised and retained.

Development

The model for future development on this site should be the existing buildings. Development would be possible following the RMJM Phase 3 layout.

Landscape

This area contains two of the most significant viewing points within the campus, of the students' residences from the west shore of the loch, and of Airthrey Castle, also from the loch shore. Both sites should be improved:

- Removal of colourful flowering shrubs on shores of loch
- Thinning and progressive removal of saplings and small trees on shores of loch
- A strategy should be drawn up for the future siting of sculpture within the landscape.
- Commemorative trees should not be planted in this area, but instead in dedicated areas such as the Memorial Garden.



Figure 185 View towards Airthrey Castle from CA2, with shrubs and smaller trees 2009



Figure 186 Colourful plants at western shores of loch, with monochrome library beyond 2009



Figure 187 View of residences from south with mature parkland trees and self-seeded smaller trees and shrubs which are obscuring views 2009

4.3 Character Area 3: Students Residences



Figure 188 Character Area 3 site plan

4.3.1 Historical Development

This area of landscape was parkland prior to the construction of the students' residences, and a relatively defined area within the picturesque design, as it is now. The principal approach from the west ran through this area, skirting the loch and then following the rising ground to the north east before curving round to the castle, giving typically picturesque views across water to the house. To the west a drive led north along a belt of trees to skirt a band of trees to the north, which disguised the boundary wall and the road to Logie Old Kirk. Across the open area between this and the loch were scattered parkland trees, with one clump of trees, which would have provided periodic interruptions to the view of the house from the approach, a typically picturesque feature.



Figure 189 1865 OS *NLS*

In the 1890s Donald Graham had a footbridge built across the loch, together with a pier, and further to the east a boathouse. It is marked on the 2^{nd} Edition OS 1899 (figure 191) and survived until the mid 20^{th} century. He is also reported as having planted trees along the lochside.



Figure 190 Undated mid 20th century photograph of footbridge and Character Area 11 UoSA

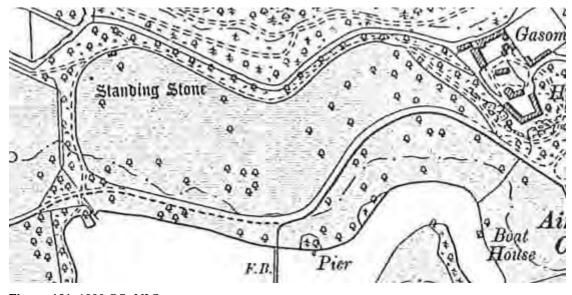


Figure 191 1899 OS *NLS*

The area maintained its parkland character during the hospital period, and the principal approach to the castle continued to be from the West Lodges. In 1947 the West Avenue (as it was known – it was never lined with trees however) was lighted with electric street lights.

The construction of the students' residences involved a partial loss of the West Approach, but the majority was preserved as a footpath. The western end of this was planted as the George Forest Walk by the Airthrey Gardens Group, and contains a number of species introduced by the renowned plant collector.



Figure 192 Aerial photograph showing construction of students' residences UoSA

i RMJM's Residences



Figure 193 Oblique aerial view from 2007 of the Students' Residences, annotated with the building names. RCAHMS edited by S&B



Figure 194 Early 1970 view of the first three residential buildings under construction. *UoSA*

The initial phase of eight buildings on the north side of Airthrey Loch was designed by RMJM, and completed between 1970 and 1973, broadly in order from west-east in accordance with the rest of the Phase 2 Development Plan.

The first three buildings to be completed were Andrew Stewart Hall, H H Donnelly House and Fraser of

Allander House. The residences were to be completed in time for the first increased intake of students in September of 1970, but students were not able to move in until Christmas of that year.

The plan, as described by *Architectural Design* in 1973 was that "there should be a variety of patterns of accommodation... and that the University should proceed thereafter in the direction of greatest demand". Despite a clear preference for flats appearing by the time of the Architectural Design article, four of the eight blocks (namely Alexander Kerr Davidson Hall, Andrew Stewart Hall, Geddes Court and Murray Hall) were built in the traditional halls of residences format, with study-bedrooms accessed directly off long corridors. These are now primarily used for 1st year undergraduates?

The other four buildings (Donnelly House, Fraser of Allander House, Muirhead House & Polwarth House) were built as cluster flats, each comprising bedrooms with a shared bathroom facilities and a kitchen/living room. The flats were built in a variety of sizes from two to seven bedrooms, with either a bathroom and WC or two bathrooms & two WCs. The cluster flats are relatively easy to distinguish from the halls of residences as a result of the larger fenestration to the communal living spaces and the slightly more complex plan.

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⁷⁸ Estate Strategy, p65



Figure 195 East elevation of A.K. Davidson Hall, looking towards the Wallace Monument.

The construction of the student residences at Stirling was completely dependent on external funding. By the late 1950s the University Grants Committee had decided that it was not its concern to provide monies, as a general rule, for accommodation, even on campus universities like Stirling. This was despite earlier recognition that on-campus accommodation was of great importance to the success of the university. However, the time of expansion of the tertiary education sector in the UK saw a rapid change in views on how to provide accommodation for students – indeed, even "as early as 1966 it was asked why the university should be dealing with student residences at all" 79. In the end, the Appeals Committee raised generous funding which when used in conjunction with commercial loans, enabled the University to build the crucial residences.

The monies raised for the residences did not allow for generous architectural treatments, and the finishes were even more pared back than at Cottrell which itself was heavily constrained by the University Grants Committee. The competition between the glass-plate universities was such that if one university achieved a new low in \pounds/m^2 , this was then applied to other buildings projects. Although this did not directly affect the residences at Stirling, other economical projects had shown what could be achieved.

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⁷⁹ S Muthesius, p83



Figure 196 Typical arcade, showing exposed concrete blockwork and services on the underside of the ceiling. *UoSA*

The concrete block work of the exterior is repeated on the exterior – much to the chagrin of the residents themselves. Many services are left exposed – as can easily be seen on the underside of the arcade ceilings. What is remarkable is that the architects achieved such picturesque composition – albeit using a very limited palate of much repeated parts.

Although conceived as individual buildings, covered walkways allow for sheltered communication between most. These walkways start as arcades beneath the blocks, stretching out to connect at corner points where paths leading to other parts of the campus lead off.



Figure 197 General view of Geddes Court.



Figure 198 General view of Muirhead House, with the original fenestration.

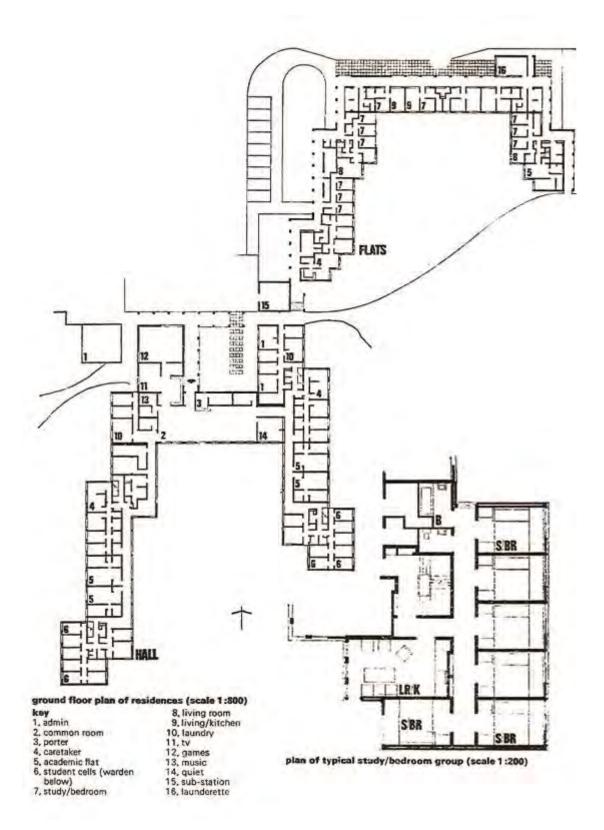


Figure 199 Plans showing typical layout of a Halls of Residence and Cluster Flats, with a plan of a typical flat. Note the slightly more complex footprint of the wings of the Cluster Flats – reflecting the wider variety of spaces. Each of the buildings splays out towards the south, maximising the exposure to sunlight. *Architectural Review*

Ongoing refurbishment of the Students Residences has had two main effects on the fabric of the buildings – the replacement of the original single-glazed fenestration and the insertion of en-suite facilities to cater for increased expectations of current students and vacation letting. The insertion of en-suite facilities in general involves the conversion of alternate bedrooms into two bathrooms – resulting in the loss of approximately one-third of the total number of bedrooms. Even the less ambitious refurbishment projects have resulted in the loss of bedrooms as improved communal facilities require more space.



Figure 200 General view of replacement fenestration – note the bold black frames and the top-hung hinged opening.

The replacement of the windows has had a surprising effect on the elevations. The replacement double-glazed top-hung windows in dark black-stained timber create a bolder colour scheme than the original aluminium frames – something that is rather successful. Although efforts were made by the university to source sliding windows, it was not possible to do so, and the new top-hung windows have introduced a measure of 'movement' to the elevations when compared to the sliding mechanism of the original fenestration.

A summary of the accommodation provided at the University of Stirling is shown in Appendix II.

ii Pendriech Way Chalets



Figure 201 General view of chalets at Pendriech Way 2009

In 1981, additional student accommodation was supplied in the form of ten chalets at Pendriech Way. The chalets are all single storey Scandinavian-style timber constructions of the type more normally found in holiday parks, but are ideally suited to the woodland setting east of Pathfoot. They are popular with the returning undergraduates who live in them and as holiday accommodation in vacation periods. Each chalet accommodates five students, or up to six as a holiday-let.

iii Airthrey Park Medical Centre



Figure 202 Airthrey Park Medical Centre 2008

A small area of land immediately east of the students' residences is leased to the Airthrey Park Medical Centre. The building is a fairly nondescript single-storey L-shape with matching later extension that ties in with the colouring and materiality of the students' residences. This practice is aimed primarily at staff and students at the University but is also open to patients from the local area.

iv Vacation letting

The University of Stirling, in line with many other universities, makes full use of the residential estate in the weeks when students are not in residence. In fact, the University of Stirling was one of the first Universities to fully develop this concept, no doubt in part to the need to service the loans taken out to cover construction costs. The flatted accommodation has proven particularly popular for the group travel market – whilst individual conference delegates require private facilities, those in groups often prefer self-contained flats with shared facilities. The same is true of the chalets at Pendriech Way and Spittal Hill, which are in any case a popular holiday-let accommodation type.

The University has stated that the Halls of Residences are best suited for conference use when bedrooms have en-suite facilities – at the time of writing this report only Andrew Stewart Hall and Muirhead provided such facilities. At the end of 2007/8, the total number of en-suite study bedrooms was 207^{80} – far below the largest conference capacity of 460 (MacRobert Centre)⁸¹. There is therefore a balance to be made between the pressure to refurbish further Halls to provide similar accommodation, and yet maintain provision of adequate low-cost (ie non en-suite) accommodation for students who require it. There is a further conflict in that when en-suite provision is added, there is a resulting loss of capacity.

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⁸⁰ Estate Strategy, p57

⁸¹ http://www.external.stir.ac.uk/business/conferences/conf-lec.php, 10-Feb-2009

v Other accommodation off-campus

The University of Stirling also owns a number of residential buildings campus. The first of these is Alangrange in Bridge of Allan, a Victorian villa previously used as a guest house, which was purchased by the University for use as a staff and student club from 1967 until the main buildings were completed. It later converted student was to accommodation, and has since been extended significantly. A further villa called Friarscroft, is located just outside



Figure 203 Alangrange and extension

the campus boundary. John Forty's Court in Stirling is a large purpose-built apartment block that opened in 1994.

Further buildings in Stirling are leased by the University for directly-managed student accommodation. These are the Thistle Chambers on Murray Place in Stirling, built in 1978; Lyon Crescent in Bridge of Allan completed in 1991; and Union Street in Stirling which was completed in 1993. Thistle Chambers and Union Street are flats, predominantly for returning undergraduates, whilst Lyon Crescent comprises houses with study bedrooms for postgraduate students.

4.3.2 Character Assessment

This area comprises of a series of blocks, generally with their long axis running north - south. They are placed along the northern side of Airthrey Loch. The buildings are surrounded by a parkland landscape with paths and ornamental planting. Many of the trees are well established and pre-date the buildings. The buildings are built of aggregate faced concrete block with concrete bands at sill and, continuously, at lintel level which probably corresponds with the floor levels. The architecture of these buildings is clearly of a similar approach to both Pathfoot and the other original university buildings. The windows are in bands with frameworks painted black. There is a distinction made between corridors and bedrooms. The blocks climb up the hill to some extent. The whole area has the same happy combination of modernist buildings and a 19th century landscape setting as seen in the Airthrey Castle Yards area although the scale of the buildings is obviously enormously greater. The concrete still looks fairly good against the backdrop of trees and with the surrounding grass although the concrete has not stained or weathered particularly well since there is no weathering course at the head of the walls. Near the central north - south axis of this character area is the head of the bridge over Airthrey Loch to the Cottrell building.

This bridge is an audacious piece of architecture and engineering. The elevated and level line running through a natural landscape has been important to the designers, as has the intention to bring the two pairs of supporting pillars directly into the loch. As exposed and unprotected concrete, the bridge is now much more stained and covered with moss than originally intended. It would have looked very white and fresh when it was first built. The inner faces of the parapets have been painted white.

An assessment of the condition of the students' residence building is too detailed to be part of the scope of this report. Some points were falling off the concrete bands was noted, particularly at the corners and this seems to be associated with rusting reinforcement.





Figure 204 View to west 2008

Figure 205 Footbridge from east 2008



Figure 206 View to west 2008



Figure 207 View east towards Principal's House

Possibly as a reaction to the slightly dispiriting nature of the concrete on such large buildings, some climbing plants have been allowed to grown on the gables of these buildings but these have now been cleared away. The common blind colour in some of these buildings does help add life and interest to the elevations.

The original arrangement was black timbers with metal frame windows and then frosted sheets of glass in between. This has survived more towards the eastern part of the halls of residence rather than the west.

To the north east is the Medical Centre which has no particular architectural distinction and pays only nominal regard to the architecture of the other buildings within the character area.

A building has been added into the courtyard of Geddes Court in a style which is oddly 80s post modern and traditional compared to the elegant modern architecture which surrounds it.

At the northern edge of the character area is the estate wall at the foot of the main northern bank. This appears to be in good condition although some rebedding of copes and some repointing is inevitable.

Views within this site are mainly towards the south and there are set piece views towards the Wallace Monument, for instance between Murray Hall and Polwarth House. The most important view towards the character area is from the south, over Airthrey Loch from the central area. This is one of the signature views of Stirling University.

Towards the western end of the north side boundary, to the north of Andrew Stuart Hall, the wall has been given large buttresses. These buttresses are now in poorer condition than the wall and it is unclear if they are achieving very much. Some of the buttresses have quite large gaps between them and the wall which shows that the wall is not depending on them for support. There is little point in restoring or repairing the buttresses but this area of wall should be examined by a structural engineer to establish why buttresses were felt to be needed in the first place and if any other structural tying is needed at the moment.

To the north west is an area of chalets. These are more closely spaced than the chalets in Character Area 8 and they make a better use of their woodland setting. The buildings are in fair condition. There is a heavy build up of moss on the roofs but this is not unattractive and, since the gutters are all UPVC, there is no problem about acidic run off from these surfaces.



Figure 208 Parkland trees at lochside



Figure 209 Mature oak with residences behind



trees



Figure 210 Mature and younger parkland Figure 211 Younger parkland trees 2009

The view across Character Area 11 is of modern rectilinear buildings against a backdrop of cliffs and trees. In the foreground is the loch. There is a well planted and mature edge to the loch with trees rising up higher than the students' residence buildings and breaking the mass of the buildings up with trunks and foliage.

In views along the east - west axis of the loch, the bridge stands out as an audacious introduction of a strong horizontal grey bar on an otherwise entirely romantic landscape. The bridge is a sculptural introduction which could be said to emphasise the natural and romantic qualities of the landscape by contrast.

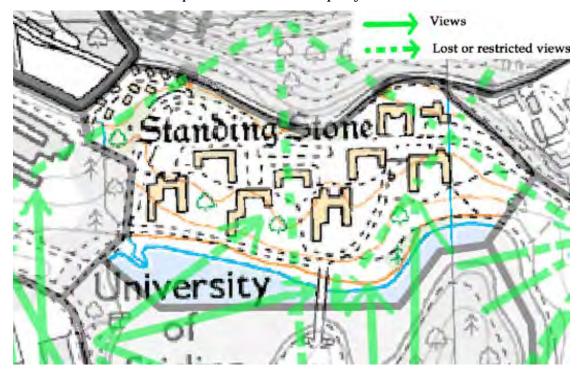


Figure 212 CA3 site plan showing views

4.3.3 Assessment of Significance

This character area is of considerable architectural and social significance. The original architecture of the RMJM student residences remains explicit, largely as a result of its simplicity in form, materiality and functionality, however abrupt that may be. Later alterations and enhancements have not been to the detriment of the overall appreciation of these buildings within the Airthrey designed landscape, and have improved both the external appearance and functionality of the buildings.

The construction of these residences was crucial to the success of the University in its early days, and the provision of such accommodation on-campus is a key character of the plate-glass universities. The Medical Centre is a later addition and is of neutral significance.

Overall the landscape is of considerable significance as an 18th century picturesque design, with surviving mature parkland trees, however there are aspects which intrude onto the character area. These are: shrubs and flowering plants throughout, which distract from the 'green' aesthetic of the designed landscape, (grass, and mature trees); excessive growth of self-seeded smaller trees and shrubs along the north shore of the loch, which block views to the south;

The George Forrest Walk is of some historical and social significance as the creation of the Airthrey Gardens Group, and contains specimen rhododendron plants, many of which are in poor condition. However, it largely follows the route of the 18th century western approach to Airthrey Castle, and historically was intended to give the approaching visitor picturesque views across the loch, and towards buildings. This function could be restored, with a gradual resiting of the remaining rhododendrons to areas identified in this report which do not have an adverse impact on the designed landscape. Plantations of colourful azaleas and

rhododendrons in the east of this area, together with memorial trees, coniferous species and others which are alien to the concept of the designed landscape, are also of negative significance. The surviving parkland trees which were carefully preserved during the construction of the buildings remain of outstanding significance in the context of the campus.

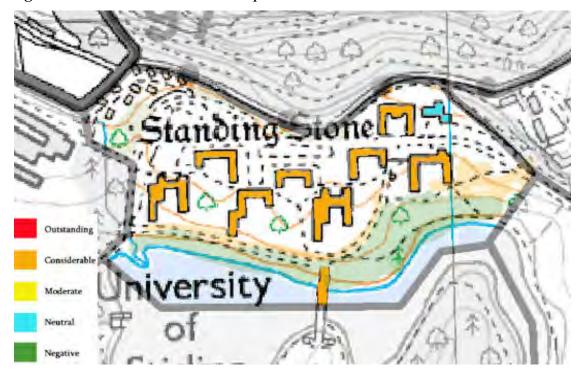


Figure 213 CA3 site plan showing significance

4.3.4 Recommendations

Further alterations and extensions to the RMJM student residences should be continued in the same manner as the enhancement projects already carried out in order to maintain uniformity of appearance.

New build projects in this character area should respect the massing and materiality of the RMJM student residences. Outright duplication would be inappropriate, as well as possibly unpopular, but a suitable harmony between the architecture of the existing buildings and any new build should be sought – the high quality architecture of the Colin Bell and Iris Murdoch Buildings and the relationship of these buildings to the Cottrell Building would be a suitable exemplar for development in this area.

Landscape

Improvements to the landscape of this area could be carried out by:

- Management to remove self-seeded shrubs and small trees along shores of loch
- Maintenance of stock of mature parkland trees
- Progressive removal of colourful species to other parts of campus including walled garden, arboretum and memorial garden
- · Removal of coniferous trees along shores of loch and elsewhere

4.4 Character Area 4: Sports Area

4.4.1 Historical Development

The Sports Area was part of the parkland of the estate, bounded to the west by the late 18^{th} /early 19^{th} century stone boundary wall.

Historic OS maps show woodland on the same site as the present trees.

The area was among the earliest to be developed by the new university.



Figure 214 Character Area 4, site plan



Figure 215 Aerial view of the sports area c1967, prior to construction of central area UoSA



Figure 216 Aerial view of sports area 1972 *UoSA*

The sports facilities are promoted by the university. This identifies how important such facilities are in attracting students. However the sports facilities are not merely for recreational purposes: sport is one of the five key academic subject areas and 'The Department of Sports Studies was ranked 1st in Scotland and 5th in the UK in the 2008 Research Assessment Exercise with 85% of our research outputs classed as of international standard'82. Stirling was also the first university in Scotland to make its facilities available to the general public, further enhancing integration with the local area - in 2004, two-thirds of users were from the wider community83.

In 2008, the First Minister, Alex Salmond announced that 'the University of Stirling will become Scotland's University for Sporting Excellence [which] will act as the hub of a national network of universities and colleges providing training and support for Scotland's best athletes.'84

The University has produced an impressive list of competitors in a variety of sports: 85 junior and senior internationalists and 35 national champions⁸⁵.

i Gannochy Trust Pavilion, 1970



Figure 217 East elevation of Gannochy Trust Pavilion. Note the closed blinds on the upper level, the car parking and the fenced off tennis courts in front.

⁸² http://www.sports.stir.ac.uk, accessed 22-Apr-09

⁸³ UoS Press Release, 19-Oct-2004

⁸⁴ Speech to the Scottish Parliament, 14-May-2008, http://www.scotland.gov.uk, accessed 22-Apr-09

⁸⁵ Sports Studies Factsheet, http://www.sports.stir.ac.uk, accessed 22-Apr-09

This sports pavilion, named after the Gannochy Trust that donated £100,000 towards the University Appeal, was designed by the architects Reiach and Hall. Alan Reiach was a close contemporary of Robert Matthew, and although not quite so prolific, created a practice that was renowned for its contribution to modernism in Scotland (see 3.11). The practice continues today. The pavilion was opened in 1970, concurrent with the first of the student residences, central area and teaching block that catered for the Phase 2 expansion.

The Pavilion as originally built provided limited, but crucial, facilities – changing rooms for outdoor sports on the lower level, with a recreation and bar space above opening out on to a terrace with panoramic views of the playing fields.

The materials used on the building include Flagreca cladding panels on the overhanging roof slab and black-stained timber windows, neatly tying the building into the rest of the campus. A red brick was used for the lower level which highlighted the prominence of



Figure 218 Cricket being played in front of the pavilion *UoSA*

the elegant upper level. The changing rooms at the lower level were lit by a narrow band of clerestory windows, with larger windows at either end which provided a pleasing balance to the composition of the façade. The pavilion was an exceptionally well designed and well thought through building.

Further expansion was always expected once funds allowed, as shown in drawings of the anticipated centre from 1968/69 (figure 220). However, the nature of this expansion was not clearly set out from the start, with the further phases of the Sport Centre development undergoing a number of schematic alternatives. Despite its smaller size, the pavilion was clearly intended to be the focal point for the sports area: the various proposals for further expansion, and the buildings as built by Reiach and Hall, were subservient to and clearly distinct from the pavilion.



Figure 219 Gannochy Trust Pavilion with phase 2 swimming pool behind, and separate squash courts block on the right. Note the busy terrace of the pavilion. *UoSA*

The pavilion continues to be used for sporting use. However in 2006 the recreation and bar space on the upper level was converted for use as a multi-purpose studio⁸⁶.

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⁸⁶ Stirling Minds, Issue 16, Autumn 2006, p3

The area in front of the pavilion is used for car parking and the outdoor tennis courts built in front of this have been fenced off with full-height wire mesh, meaning the pavilion building is no longer related to the space it overlooks. Coupled with the fact that the previously thriving terrace is no longer used, and the unfortunate appearance of the closed blinds on the studio windows (presumably for privacy) the use of the pavilion appears to be different from the original intention.

ii Gannochy Sports Centre, 1973-80



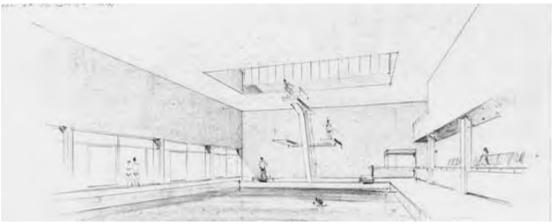


Figure 220 Sketch perspectives of proposed phase 2 and phase 3 buildings of the Sports Centre by Alan Reiach. Note the pavilion shown top-left. The final design had a simpler swimming pool, without the diving board shown, built to the rear, with the games hall in front *RCAHMS*

The drawings from 1968 show a straightforward proposal for the Sport Centre – a broadly symmetrical north-south composition with equal sized swimming pool area and games hall to the east and west respectively, with a smaller hall adjoining at the south. The swimming pool was clearly marked at this early stage as the second phase, with the games hall to follow after.

By May 1969, Alan Reiach had reworked the scheme with the swimming pool relocated to the playing fields side, and the games hall behind. A sub-dividable 'activity room' was located at the south end. The slope of the ground meant that the floor level around the swimming pool was at the same height as the games hall – with the central reception area planned to connect to the upper level of the Pavilion. Sketch perspectives by Alan Reiach show a colonnaded front to the playing fields for the swimming pool with a large mono-pitch rooflight raised above the main roofline to allow for a diving board (figure 220). The elaborate appearance and detailing of this scheme was scaled back by the following year as budget constraints became more apparent: all the designs from April 1970 were considerably plainer.

In the April 1970 designs the proposed swimming pool was relocated to the rear of the site, with the games hall on the lower playing fields side. The inclusion of squash courts is first seen in the plans from May of the same year, with plans showing options of three squash courts on the north side of the games hall, or four to the south. All the plans from these dates show the changing rooms at the higher level to the north of the swimming pool, with one set of plans even including a small caretaker's flat at the south end.

It appears that there was a request to reduce the size of the project with drawings produced in August 1970 showing two alternatives: one with only a swimming pool on the site, and one with large hall, small hall and squash courts. Neither of these options was pursued, but in May a variant of these schemes was developed.

These more detailed drawings clearly delineate the phasing of the proposed centre - the phase 1 Pavilion was by then phase comprised complete. 2 administrative offices, reception and a weights room on the lower (ground) level, with changing rooms, small studio and the swimming pool on the upper level. The 1st floor walkway connecting to the Pavilion was included in this phase. Also included was the squash courts block containing three courts. This phase was completed in 1973.



Figure 221 Gannochy Sports Centre swimming pool, since converted for use as a fitness suite. *UoSA*





Figure 222 Oblique aerial views showing the development of the Gannochy Sports Centre. The image on the left is post-1973 showing the swimming pool and squash courts building. The image on the right, post-1980, shows the addition of the games hall. *UoSA*

The subsequent phase with the large and small halls in front of the phase 2 buildings was not completed until 1980. The planned incorporation of the squash courts into the main body of the building by adding a further five courts and a connecting corridor at first floor level was not built, and the three phase 2 squash courts remained separate.

iii Gannochy Tennis Centre, 1991



Figure 223 Gannochy Tennis Centre 2009

The Gannochy Tennis Centre was opened in 1991 by HRH, Princess of Wales. The building is a straight-forward industrial-style building in two-tone brick with metal cladding and roof in dark green. It houses four indoor tennis courts.

iv Robertson Trust Swimming Pool/National Swimming Academy, 2002



Figure 224 North elevation of the National Swimming Academy building.

In 2002 the University opened the new £6.4m six-lane 50 metre Robertson Trust Swimming Pool, housed in a new building immediately north of the Gannochy Trust Pavilion. The 1973 swimming pool was subsequently floored and converted into a fitness centre. The building, which houses the Scottish National Swimming Academy, was designed by Faulkner Browns Architects in 200087. Faulkner Browns have designed a number of similar buildings including the Aquatics Centre for the Manchester Commonwealth Games in 2002, and the refurbishment and extension of the University of Edinburgh's sports buildings at St Leonards Land88. The form of the building is dominated by the roof that sweeps up over the building in a single pitch before curving round on the rear elevation.

⁸⁷ Planning application submitted to Stirling Council in May 2000

⁸⁸ www.faulknerbrowns.co.uk & www.edinburgharchitecture.co.uk, both accessed 31-Mar-2009

v Scottish National Tennis Centre, 2006

This project was a conversion and extension of the 1991 Tennis Centre. The architects Faulkner Browns, who had designed the National Swimming Academy building submitted proposals for the Tennis Centre for planning in 2003, but the project was ultimately carried out by Burnett Pollock Associates who submitted their own application a year later. The project involved an extension largely similar in massing to the 1991 Tennis Centre, but with a more streamlined and modern appearance with cladding materials in a similar colour to that used by the same architects on the recladding of the Cottrell Building. Two additional outdoor clay courts were also added, bringing the total number of tennis courts to 10. The £1.3m project attracted a grant of £500,000 from the National Lottery⁸⁹, awarded by SportScotland.

vi Craig Gowans Football Centre, 2008



Figure 225 Craig Gowans Football Centre with both Tennis Centre buildings behind 2009

Built on the site of the former outdoor tennis courts, the football centre is the training facility for Falkirk Football Club. The £900,000 building was designed by McEachern and MacDuff as a two-storey asymmetrical block immediately to the south of the indoor tennis centre extension of 2006. This south block, white-rendered with a grey metal roof that matches that of the tennis centre and houses offices, changing rooms, physiotherapy space and a players' lounge.

4.4.2 Character Assessment

This is a flat area to the south of the main entrance and the Pathfoot building. The pitches for football and rugby are along the west side of the site with a running track at the south west corner. The sports buildings are along the eastern edge of this area tucked in under a bank rising towards the car parks to the west of the Cottrell Building. The first building on the site was the sports pavilion. This small building was originally intended to be the first part of a three phase building but has been extended massively beyond its original extent.

The buildings are grouped fairly tightly together to allow the maximum space for the outdoor pitches in the western part. The original building is slightly to the north of

⁸⁹ http://www.lotterygoodcauses.org.uk, accessed 22-Apr-09

the centre of this linear group. It is a sports pavilion very much derived in style from the architecture of Pathfoot. The design of the overhanging concrete band is very similar to Pathfoot and this is an interesting instance of the initial Stirling University house style developed by RMJM at Pathfoot being interpreted by another architect for other Stirling University buildings. The architecture is developed slightly from the Pathfoot arrangement with curtain wall glazed corners to the south west and north west. The pavilion was originally intended to have views surveying the whole area of the sports pitches. The original design of this pavilion is very elegant with a symmetrical front facing east around the central door. The symmetry was not exact. It was interrupted to form bays underneath the eastern two thirds of the north side where the glazing has been brought out to just behind the plane of the concrete cornice band. The curtain wall glazing is recessed at the north west corner so that the main face westwards towards the sports pitch is also symmetrically arranged. The door and division of glazing is slightly irregular.

The condition of this building is not particularly good. There is timber decay in the structural framework at first floor level and some cracks are visible in the joints at the cornice band. Various repairs have been made in bitumen or by fixing on additional timber but these have been done in a rather ad hoc manner. It seems that the earlier colour of the joinery at first floor level was black which also fits in with the house style established for the Pathfoot building. Some glazed panels have now been covered with board and other sheets of glass have been damaged and filled up behind with block work. The brick parapets to the east and west have either been extended upwards or had to be rebuilt. The concrete parapets to the stair near the north west corner are in quite poor condition with some concrete spalling and moss at the head of the wall.



Figure 226 View north to Pathfoot from Character Area 4 2009

At the plinth level, the architecture is again at its most elegant facing west with a clerestory band immediately under the band of concrete which imitates the style established at Pathfoot. The material of the lower part is a light orange brickwork. At the north west corner is a concrete stair which was probably intended to be freestanding and would be an elegant design, but its impact has been reduced by the

store which has been fitted beneath it. A service building to the north east also detracts from the purity of the arrangement. Around the first floor pavilion level there is paving which might not be the original paving and which is in fairly poor condition and is ponding in many places.

The subsequent phases of building were built to the south of the original pavilion. At least in the entrance link block between the original pavilion and department of sports studies building, the original architecture of concrete cornice bands was continued. The main building to the south has less architectural distinction, even though the colour of brick and extended narrow clerestory bands have been repeated. The eastern side of this building is screened by bank and trees. The main sports hall block does have considerable architectural ambition with a long band of metal framed glazing underneath a concrete cornice band. The western side of this original building has been extended massively beyond its original footprint. In the later buildings function and cost has been more important than appearance. Roughly the same colour of brick has been used but the block has been designed with considerably less architectural ambition than the original pavilion.

There are further blocks containing squash and tennis courts to the west and to the south west. These are functional sheds. The southernmost building is the football centre. This is a contemporary building built with render with a sheeted front edge, apparently to refer to the larger sheeted shed to the north which contains tennis courts.



Figure 227 Gannochy Pavilion and tennis courts 2009

The Scottish National Tennis Centre at the north of this western run of buildings is the least attractive and least architecturally distinguished of any of the buildings in this character area. It presents a blank face to the pitches with the token patterning in the brickwork and a sheeted band near the roof which has a number of dents and bashes in it. Water is overflowing from the northern end of the western gutter.

The relationship between the Alan Reiach Pavilion and the sports pitches has been reduced by clay court, tennis courts and parking. To some extent this is an understandable and reasonable development of the land around the original

building but the hedge between the clay courts and the original pavilion does work in the opposite way in landscape terms to the original intention of the pavilion.

To the north of the original Pavilion is the National Swimming Academy. This is a building of considerably greater architectural ambition than the tennis and squash courts. The care taken with this design is fortunate given the prominence of this building on the route from the main vehicular entrance to the campus. The architecture is white painted render with grey around the windows and boarded panels on the side facing westwards. To the east part is the pool area which is enclosed within an elegant shape formed by a curving sheeted roof. The building is a skilful design in that it produces an elegant shape which is very suitable for its function but uses inexpensive materials. The purity of this design should be respected. It may be difficult to extend in a satisfactory manner to the north, south or east. A westwards extension is possible but the designer should be careful to follow the original architectural aesthetic of the building.

The character of this group of buildings is functional rather than aesthetic. In the area in general, the wide flat area of sports pitches with beech hedges and bank of trees to east and west provides an effective buffer between the campus buildings and the area beyond. The original intention was a much more open area with most sports being outside. The original pavilion would have been a much more prominent focus on the eastern side of the sports pitches but this context has largely been lost in development, particularly to the south west. There is no point in trying or expecting to reclaim this lost prominence for the original pavilion.

The National Swimming Academy is a good building and indicative of the university's commitment to architectural quality.

The trees are important to this character area. There are mature trees to the western boundary and to the southern half of the eastern boundary. To the south eastern part of the site is attractive woodland which contains some remnants of estate paths.





Figure 228 Woodland and boundary wall to **Figure 229** Woodland above CA4 2009 west of CA4 2009

Views from the site are relatively restricted by these banks of trees. To the south, the villa which now forms the Scottish Institute of Sport is visible through the trees and fences around the football pitches. To the north are views of the Pathfoot building with fields and trees behind. Views towards Pathfoot are restricted by the fences around the artificial football pitches and by some semi-mature trees. However, the Pathfoot building does look well in its setting when seen from the centre of this character area.

4.4.3 Assessment of Significance

The Alan Reiach Gannochy Trust Pavilion has significance aesthetically. The National Swimming Academy is possibly too new to make a judgement on aesthetic and historical significance but could be regarded to have moderate significance, not least a result of its prominence at the entrance to the university campus. The other buildings are neutral in aesthetic terms although clearly very important and practical education buildings, and therefore they have social significance.

The belt of planting to the west of this area and the boundary wall are both of considerable landscape significance and provide an attractive buffer between this area and the main public road. The woodland to the east of this area is also of considerable significance as surviving policy woodland.

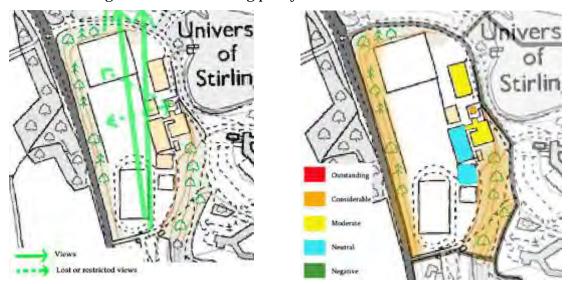


Figure 230 Character Area 4, site plan **Figure 231** showing views showing sign

Figure 231 Character Area 4, site plan showing significance

4.4.4 Recommendations

Whilst it would be ideal if the fabric of the Gannochy Trust Pavilion could repaired it is recognised that there is pressure to redevelop this plot in order to further the University's role as a centre of sporting excellence. It is also recognised that the building has been altered and a suitable use has not been found - as a result the Estate Strategy has earmarked the building for demolition and replacement.

In designing a replacement building for this location, care should be taken to use the quality of Alan Reiach's design as a benchmark, and recognise the potential of the existing design to influence that of the replacement in its function as a high-quality 'hub' at the heart of the sports area. Mitigative measures prior to the demolition of the building should include a full recording exercise of the building (photographic and measured survey). Contact with a member of the original design team might also be possible, which would assist in recording the original design intentions.

Further development in this character area would be best placed to the west of the 1991 tennis centre, allowing continued use of the playing fields to the north and the running track to the south. Development in this location would also disguise the inappropriately blank elevation of the tennis centre, and offer the potential to improve upon the currently limited, and architecturally detrimental, parking facilities.

4.5 Character Area 5: Former Airthrey Castle Yard



Figure 232 Character Area 5, site plan

4.5.1 Historical Development

Adam's design for the new house included no stables or offices, suggesting that the stables and offices at Airthrey were already in existence. They may have been constructed for the previous house on the estate, which had been built in 1747. Alternatively, the Haldanes may have converted the 'small snug house' of 1747 into a stables and offices after their new house was built in 1791. It is possible that the offices had been built as part of Robert Haldane I's improvements of the 1750s and 60s. The character of the surviving masonry suggests a mid 18th century date, and a viewpoint like this would have been a typical site for a house of this date.

The earliest map which definitely shows the offices is Grassom's map of 1817 (figure 283). Grassom's map shows the east-west route from Logie Kirk to Pathfoot, with a spur from this leading to the offices, due north of the house. The private approach to the house runs south of this.



Figure 233 Grassom 1817 NLS

A report of 1827 mentions 'the Old Orchard', at this site, which might have been the 'kitchen garden' laid out in 1747. This south facing slope would have been an excellent garden site.

No description or images of the buildings are known prior to the 1960s, by which time the courtyard buildings were mostly ruinous.

The architect William Stirling, who designed the East and West Lodges, was employed by the Abercrombie family to build a steading for £764 in 1807, but it is not clear whether this was for Airthrey or their other property at Tullibody⁴⁷.



Figure 234 Quoins on former wall of steading



Figure 235 Photograph of steading c1960s *UoSA*



Figure 236 Clock tower on stable block, 1960s *UoSA*

The earliest map showing the buildings in detail is the 1st Edition OS 1865 (figure 237). The 'Home Farm' area, together with the walled garden to the north east, covered a fairly large, approximately L-shaped area. It was bounded to the south and west by a steep fall in the ground, and to the north by the boundary wall, forming the north wall of the walled garden, leaning against which were various small buildings, possibly kennels. At the north west the wall was a gated entrance.



Figure 237 1st Edition OS 1865 BLA



Figure 238 Estate Plan 1885 UoSA

 $^{^{47}}$ David Walker 'The Stirlings of Dunblane and Falkirk' Bulletin of the Scottish Georgian Society vol 1 1972

The stables and offices were described in the 1885 Sales Particulars as 'commodious and suitable. There are 4 Coach-houses, 2 Harness-rooms, 24 Stalls and 2 Looseboxes, and ample accommodation for Coachmen and Grooms.' Kennels are also shown on the 1865 OS and the 1885 estate plan (figure 238). Little alteration to the footprint of the buildings is shown on later OS maps (figure 239-240).

The single storey Airthrey Cottage was a part of the complex, built in the south west corner of the walled garden and possibly intended as a gardener's house or sheds. It is shown as an L-shaped corner building, with further buildings to the east. A second storey was added to the eastmost part of the cottage in the later 20th century.



Figure 239 OS map 1899 *NLS*

Figure 240 OS map 1923 *NLS*

An aerial photograph taken in 1963 (figure 241) shows that many of the buildings had fallen into roofless ruin by that date.

The walled garden appeared to be under at least some cultivation, and Airthrey Cottage was still roofed. At some point after the 1960s, the adjacent buildings to the east of the cottage fell into disrepair and were demolished.



Figure 241 Aerial photograph June 1963 **NMRS**



Figure 242 Aerial view of Principal's House and Airthrey Castle Yards February 1969 *Scotsman*

The buildings were in a poor condition by the 1960s and the walls were carefully demolished down to levels that related to the design of the new Principal's House. Stone from the demolitions was re-used to build bases for two of the Nuffield Houses closest to the Principal's House on the west side (figure 244). The walls of the central farm building were taken down to a level relating to the new houses and retained. A part of the curved wall from the demolished horse gin was also retained (figure 243).



Figure 243 Curved wall of former horse gin, with walls of former farm building and roof of Principal's House beyond 2009



Figure 244 Re-used stone forming bases for Nuffield Houses 2009



Former walled garden at Figure 245 Airthrey Yard 2008



Figure 246 North wall of former walled garden with indications of former lean-to buildings 2008

Icehouse

The Icehouse is a late 18th century structure, part of the complement of estate buildings of an improved estate. It is likely to have been added to the estate after the digging of the loch, which would have provided a good supply of ice. The laurel tree on its roof was probably deliberately planted there in the 19th century to create a romantic character.





Figure 247 Icehouse, with laurel on roof 2009 Figure 248 Icehouse, blocked door 2009

The Principal's House and Nos 2-7 Airthrey Castle Yard



Figure 249 Satellite image showing Nos 1-7 Airthrey Castle Yard, and the relationship with Airthrey Castle. Multimap edited by S&B





RCAHMS

Figure 250 1968 vertical aerial photograph Figure 251 1969 oblique aerial photograph showing Principal's House and Nos 2-3 showing the completed Principal's House and Airthrey Castle Yard under construction. Nos 2-3 Airthrey Castle Yard in context. Scotsman

i Principal's House, 1966-9

The architects Morris & Steedman (see Appendix I) were commissioned by the University to design the Principal's House in July 196648. The site selected was the former stable yard of Airthrey Castle, which by that date was largely ruinous. The Principal's House is shown as being under construction in an aerial photograph from March 1968 and was completed the following year.



Figure 252 Undated 1960s-70s photograph of Principal's House with original entrance and white rendered water tank and chimney Robert Steedman

⁴⁸ Bomont, R.G 'The University of Stirling, Beginnings and Today' p31



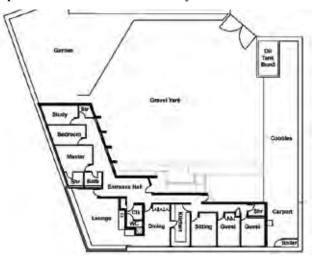
Figure 253 Restricted view of the Principal's House from the access drive, ensuring privacy, but also adding drama on arrival into the generous courtyard, with the Wallace Monument in the distance providing a hint of the views provided within. 2009



Figure 254 Entrance elevation of the Principal's House. *RCAHMS edited by S&B*

Although the modernist design is striking, perhaps even more so than any other building on the campus, it sits on the same floor plate of the building it replaced, and the south and west elevations incorporate remains of the stone walls into the design.

Not only does this clever piece of contextual design ensure a degree of harmony *with* the site, and a link to its immediate past, the non-orthogonal layout of the building and its dimensions are derived *from* the site, as shown in figure 255.



from the site, as shown in figure Figure 255 Plan of the Principal's House as existing 2009 UoSA



Figure 256 View of the Principal's House from road level showing the both the dramatic nature of the hill-top site and the integration with the surrounding landscaping 2009

The careful interpretation of site and architecture was a key trait of the Morris & Steedman practice (as discussed in Appendix I). Of course, the most notable relationship that the Principal's House has, from the user's point of view, is not with the immediate context at all, but almost the entire University campus. The views from the main reception space span more than 180 degrees. Although in summer much of the view is hidden by rich vegetation (much more so than when the building was completed), the view is still impressive. Winter views are still contained by the bare trees which provide a perception of privacy, even though that is not an issue being on top of a very steep hill. One of the most notable views is of Airthrey Loch – something perhaps not accidental given Tom Cottrell's passion for boating.



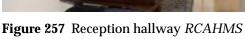




Figure 258 Main reception room *RCAHMS*

After entering the house into the large reception hallway from the sheltered courtyard (figure 257), the plan of the house focuses on the main reception room at the corner of the site (figure 258). Borrowed light floods into the reception hallway from this room, and from the clerestory that surrounds both spaces, clearly linking them together. This belies the additional function of the building as an 'official residence', not necessarily merely the home of the principal. The house was designed, and consistently used for entertaining guests. The large dining room, with seating for far more than be accommodated in the bedrooms, also alludes to this.





Figure 259 The Queen visiting in 1972, with Professor Cottrell on the left and John Richards of RMJM on the right. They are viewing a scale model of the campus. *UoSA*

Figure 260 Main reception room with view of Airthrey Castle to south *Robert Steedman*

Although primarily a house for entertaining, adequate space for family accommodation was by no means excluded: there are three bedrooms in the 'family wing' to the north-west. An additional two guest bedrooms are in the east wing, along with an informal sitting-room for family and guests. The privacy of both wings and the separation from the reception hall is maintained by the dog-leg in the guest-wing corridor, and the positioning of the family bedroom doors out of view from the entrance.

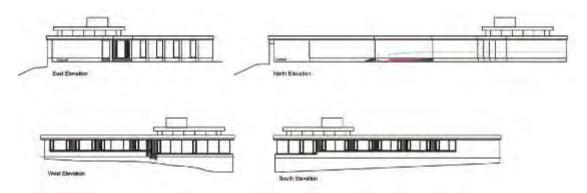


Figure 261 Elevations of the Principal's House 2009. Note how all the windows face south or west, and the highlighting of the reception area with the clerestory windows breaking above the roofline. *UoSA*

Attention to detail, a hallmark of the Morris and Steedman office, is seen throughout the building. Apart from the close control of lighting, and the careful arrangement of bedrooms out of view from the main reception hallway, other details are more subtle. The joinery throughout, still intact, is excellent: a fitted drinks cabinet between the main reception room and dining room, the black beading detail around all the door surrounds are just two of the most pleasing examples.

Apart from cosmetic work, including new kitchen and bathrooms and redecorating, the house has been little altered. One exception is the small closet, or study, off the main reception room that has been blocked and converted into an en-suite for the adjacent bedroom. Blinds have also replaced the curtains on the picture windows of

the main reception room 'which are bound to sit off the horizontal' ⁴⁹. Robert Steedman also mentioned that the original curtains (red in the corridors, mustard yellow in the main reception room) had been deliberately designed to soften the otherwise hard-edged architecture – a nice touch is that all the curtain rails were set flush into the ceilings. All the window openings have been enclosed on the exterior with metal cages to prevent birds and squirrels gaining access – perhaps an indicator of the success of the integration of the house with the surrounding landscape. Another recent addition to the exterior of the building is the red-tiled wheelchair ramp added at the main entrance, which Steedman suggested would be better placed at the side entrance.

The chimney and water tank block on top of the roof was originally white render in finish. This has been reclad in a dark grey roofing felt (figures 252-253 above).



Figure 262 Undated photograph of family bedroom corridor 1960-70s *Robert Steedman*



Figure 263 Undated photograph of main reception room 1960s-70s *Robert Steedman*

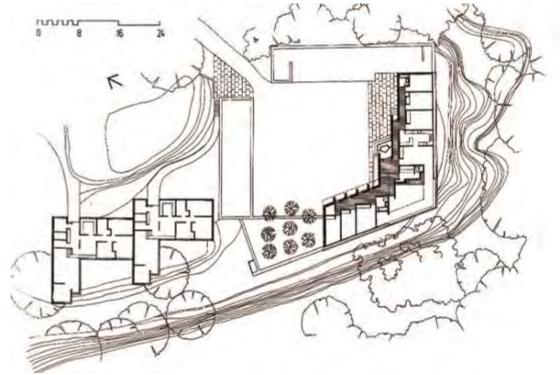


Figure 264 Undated site plan showing the layout of the Nuffield Houses in relation to the Principal's House. Note original arrangement of the study space off the main reception room in the Principal's House, and steps to the main entrance 1960s-70s. *Robert Steedman*

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⁴⁹ Discussion with Robert Steedman at the Principal's House, 13-Nov-08

Not all University principals have used the house as their main residence, perhaps out of practicalities or the financial security in maintaining a private home in preference to a tied house. However the house is currently lived in and enjoyed by the current principal, who 'recognises that the house is a prized asset of the University' 50.

The Principal's House was listed by Historic Scotland at Category 'A' in May 2009.

ii Nos 2-3 Airthrey Castle Yard/Nuffield Housing, 1966-9



Figure 265 View of Nos 2-3 Airthrey Castle Yard from road level. Robert Steedman

Taking the name of the Nuffield Foundation, that donated £50,000 to the University Appeal, a group of single-storey homes were developed to the north of the Principal's House. A total of six single-storey paired houses were developed, the first being two identical L-plan houses immediately to the north of the Principal's house, and built at the same time (see figure 265).

In the same way that the staggered L-plan of the Hunt/Steedman houses in Edinburgh provide privacy and separation, the split-level plan of these two houses allows each home to have the main living space facing the south and west.

The entrance hall of both houses leads both straight ahead into the living room and via a side door to lead through the dining room to the kitchen and bedroom corridor. The door to the living room leads directly to a junction between the dining room on the left, or down the broad steps on the right to the living room. In a similar manner to the progression found in the Principal's House, the open vista afforded at this junction point over the Airthrey Estate is a contrast to the low-key entrance. Built-in low-level cupboards also run the width of the dining room and into the living room space tying the two reception rooms together. Beyond the living room is a further room marked bedroom on the plan in figure 266, which is divided by sliding partitions, allowing flexible open-plan use of this space – perhaps influenced by the boudoirs of Corbusian villas.

The generosity of the split-level plan clearly delineates these pair of houses as being intended for senior staff.

These houses were listed by Historic Scotland at Category 'B' in May 2009.

⁵⁰ p83, Historic Scotland, Scotland: Building for the Future,

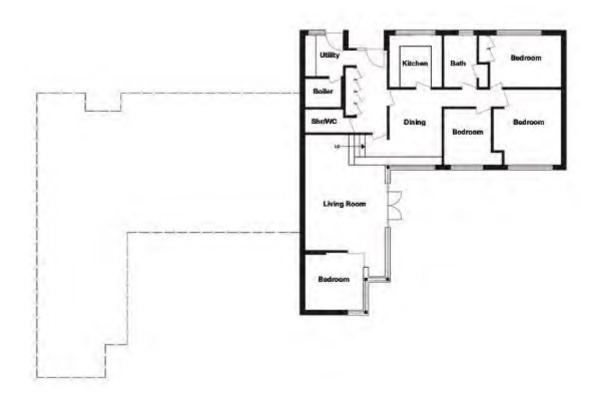


Figure 266 Current plan of Nos 2-3 Airthrey Castle Yard. Multimap edited by S&B



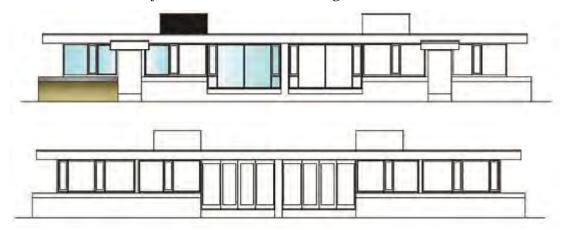


Figure 267 Elevations of Nos 4-5 Airthrey Castle Yard (rear, or entrance elevation top, front, or garden elevation bottom). The principal elevations of Nos 6-7 are very similar. *UoSA*



Figure 268 Entrance to No 7 seen from the footpath to the north of Airthrey Estate boundary wall 2009

Although also designed by Morris and Steedman, it is not clear if Nos 4-7 Airthrey Castle Yard were designed at the same time as Nos 1-3, but they were completed not long after and are shown on a vertical aerial photograph of 1971.



Figure 267 Plan of No 4, with part of No 5 in dotted lines. *UoSA*

Figure 268 Plan of No 6, with part of No 7 in dotted lines. Note the slightly shallower plan, with the reduction of storage space, and box room instead of bedroom *UoSA*

These two pairs of houses are very similar, with the latter pair, Nos 6-7, being slightly smaller. Nos 4-5 are mirrors of the same plan, each with three bedrooms and living, kitchen and dining spaces all very conventionally arranged. Although the main living spaces look out from the garden elevation, with the entrances neatly arranged on the rear elevations, the direct views are of the gardens only, and none of these four houses share quite the same spectacular views afforded to Nos 1-3. Nos 6-7, being slightly shallower, comprise a similar layout but with two bedrooms and a box room. Although also mirror-plans, Nos 6-7 are slightly staggered.

All four of these houses were listed by Historic Scotland at Category 'B' in May 2009.

iv Airthrey Cottage

At some point after the 1970s, a single storey extension was added at the eastern end of this building.



Figure 269 Plan of Airthrey Cottage 2009 **Figure 270** Elevations of Airthrey Cottage UoS 2009 UoS

4.5.3 Character Assessment

This is a former stable yard of Airthrey Castle. It is set at a higher level than the castle some distance up the bank to the north of the entrance hall. It is approached by a road running up the hill from the east. The road is flanked by rubble stone walls with triangular rubble copes. Near to the head of this road due north of the castle is Airthrey Cottage. The rubble walls at ground floor level have been extended upwards with a slate hung wall to form a small office, currently occupied by 'Grounds for Learning'. The finishing on the masonry of this cottage is very attractive with the lime mortar brought forward at a sneck harl.

At the head of the road is the Principal's House – 1 Airthrey Castle Yard. This is a flat roofed, white painted building. It presents an open aspect to the south where it is set at the head of a steep bank. The northern entrance front is quite different where walls dominate windows.

The Principal's House is a superbly designed modern house. It is single storey with a clerestory at the south west corner. The house makes a remarkable use of its site. It is built on top of the foundations of an earlier building at the top of a steep bank which has remnants of Victorian garden planting, such as rhododendrons and conifers. At the north the architects have used the rubble walls of the former service yard to form a walled garden. The rubble character is taken across the plinth of the new house which binds it in, to some extent, to the existing. There is also an important relationship between the level horizontal lines of the heads of the walls and the horizontal lines of the black painted eaves course of the Principal's House.

On the east side of the yard are the remains of one inwards facing wall of former service buildings, including the raised margin and quoins for a doorway. This has been retained in order to hide the fuel tanks. The concrete floor of this range of buildings has also been retained even though these roofs and walls have been taken away. The eastern end of the new house tucks into the corner of the yard. It is an open garage.





Principal's House 2009

Figure 271 Planting on steep slope south of Figure 272 Planting to south of Principal's **House 2009**

The roof of the Principal's House is not seen other than from the access to no.2 Airthrey Castle Yard. It is covered with green felt. Over this roof there are extensive views down the Forth Valley and towards the hills to the south west of Stirling, together with a prominent view towards the Wallace Monument. The water tank on the roof is covered with felt. The felt looks fairly rough. An undated photograph from the 1960s-70s taken by the architect (figure 252 above) shows that this water tank and chimney were originally finished in white render, matching the finish of the walls rather than the roof.

To the north of the walled enclosure is a further enclosure which has been covered with timber and polycarbonate sheeting to form a car port and beyond this is a timber fence with timber shed beyond. Again, the flooring materials have survived from when this building was a stable block and roofed over, although the ceramic block can not cope with the amount of frost and water in an unroofed building. The decay on this surface is attractive and can be sustained for a period.

The building is in good condition having been repaired fairly recently. A ramp and steps have been fitted (figure 273), unfortunately using materials which do not respond to the original materials on the building. Rubble walls and stone paving, although more expensive, could have been made to be much more in keeping with the architecture of the building. The handrails are also of inappropriate appearance.



Figure 273 Ramp and steps 2008

Generally the rubble walls around the courtyard are in fair condition. There is a considerable amount of open joints and vegetation growing from them but this can continue for some years without significant deterioration. All of the walls have been capped with cement. This sheer wall profile without copes is part of the aesthetic of the new house.

2 and 3 Airthrey Castle Yard form a pair. These houses are immediately to the north of the Principal's House enclosure. The architecture is not precisely the same as the Principal's House but it is similar.

The main windows face south west towards Stirling Castle and the hills beyond. There are bands of windows with louvered panels. The same fascia and flat roof detail has been used. The walls are a mixture of rubble and render. The rubble appears to have been reused from demolished buildings around the yards. The condition of these buildings is not as good as the Principal's House and there are many signs of decay and rot in the joinery and sills around windows, and in the fascia.



Figure 274 Flaking paint on fascia 2009

Beyond these houses to the north are two further pairs of houses. The architecture of these houses is different again, there are continuous bands of glazing on the west and south elevation supporting a horizontal black painted fascia. The plinth, rather than being rubble, is render with a broad concrete sill band.

The character of this area is a beautiful and carefully considered balance between modern movement architecture and the previous garden and courtyard character of a country house stable yard and gardens. Even before the modern buildings were introduced, this was an attractive area due to its steep rocky banks, gardens and buildings set close together with rubble walls on an interesting and varied cartography. The area could no longer be said to have a full stable yard quality because the original buildings have had their roofs removed and the horizontal character of the walls has been emphasised. This has been part of the design to form a context for the new building. New houses have been fitted very carefully within the existing walls and rocks. The original walls have been used to provide an appropriate amount of privacy from the access road and between the buildings, and also to make the best of views southwards and westwards. In some places the difference between old and new is deliberately stark, for instance where a panel of white painted render meets an original rubble wall. In other places the junction between old and new is not entirely obvious and the new architecture seems to grow out of the new walls seamlessly. This is particularly the case on the western side of the Principal's House, which is its most prominent side due to recent cutting back of vegetation. On this side there is a fully glazed band but with two sill levels and the change of height between the sills is partly disguised and partly emphasised by some detached louvers.





Figure 275 Vegetation on rubble walls, Principal's House 2009

A large part of the character of this area is in the contrast between the very pure modern architecture and the informal character of the existing walls and landscape. The character of this area would not be as good if all of the original walls were pointed and had vegetation removed or if the paths around the buildings were absolutely pristine. However, walls can not remain forever with vegetation, damaged capping and open joints. Considerable care is needed to carry out repairs without damaging the character of the area. This might be done by carrying out small scale repairs as they are needed according to regular inspection and marking up a set of drawings of the original walls. Another way in which this work can retain the character is to ensure that good quality and original materials are used, for instance lime mortar in the walls brought flush according to the precedent of Airthrey Cottage.

The area is given additional character by its setting against the steeply wooded bank to the north and the views over trees, loch and towards the Cottrell building to the south west.



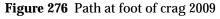




Figure 277 Principal's House from south 2009

Icehouse

At the foot of the route up to Airthrey Castle yard is a circular icehouse building with a rubble stone roof. It is built of rubble walls and has an earth bund around it. The entrance was from the west with a rock cutting to one side and a stone wall built to a batter to the south. The entrance has been blocked with engineering bricks. It is in fair condition although it has a substantial laurel tree growing on its roof. The laurel

roots are possibly contributing to the structural stability of the roof. The tree was possibly planted there to form a romantic composition.

Victorian Well and former waterfall

Beside the footpath at the foot of the crag is a white marble well with a trough at the base, set into the natural rock. Beside it are indications of a waterfall, artificially arranged, which may have been a Victorian addition to this part of the policies. The waterfall used to run from close to the Principal's House at the top of the crag. It is fed by a spring to the north, which also supplies nearby housing, and is generally kept dry by the university to avoid loss of supply to housing.



Figure 278 Former path of waterfall, foot of crag



Figure 279 Victorian Well 2009



Figure 280 Former waterfall, at top of crag 2009

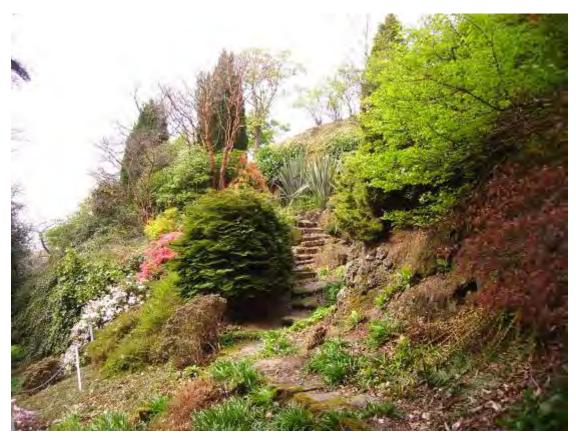


Figure 281 Path leading up to Principal's House 2009

4.5.3 Assessment of Significance

The significance of this character area is very high. It is significant because this area contains very important buildings, most notably the Principal's House which is one of the most important buildings of its date in Britain. The accompanying buildings by the same architect are of lesser significance, but as a result of their appropriate design treatment by the same architect, the group respond well to their site and to the Principal's House.

The area has historical significance as the service area of Airthrey Castle from the late 18th century up until the mid 20th century. It is also likely that the earliest surviving house on the estate – the 'small snug house' of 1747 with its kitchen garden – was built here, and later adapted to form service buildings. It is possible that it was also the site of the earlier houses known to have existed on the estate, but this is conjectural.

The late 18th century icehouse has moderate significance as part of the service buildings for a late 18th century country house but is in a poor condition. The eastern part of this area forms part of the arboretum continued in Character Area 7, which is of moderate significance as a self-contained addition to the planting scheme of the policies. The flowering and colourful plants on the slopes of the crag are attractive and appropriate in this area, as they are concealed from wider views within the landscape by trees. The Victorian addition of a marble well at the foot of the crag is of moderate significance. Overall, the landscape and associated planting in this area is of considerable significance.

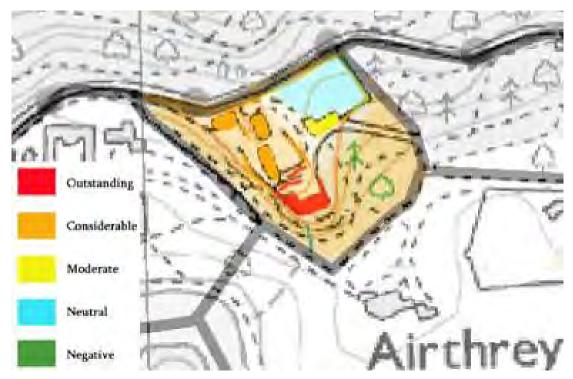


Figure 282 Character Area 5 site plan showing significance

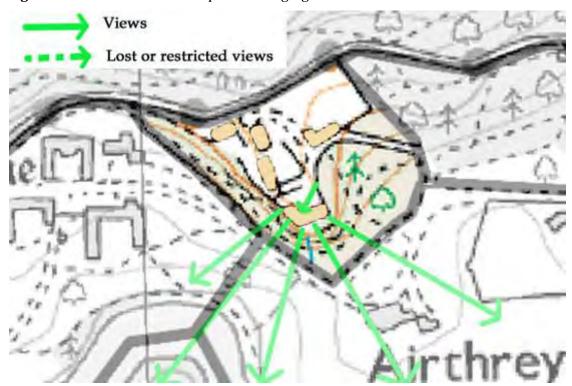


Figure 283 CA5 site plan showing views

4.5.4 Recommendations

The buildings are generally in fair condition although some repair is needed overall. The walls should also be repaired. However, the character of the area appears to be very much what the designer of the Principal's House and other houses intended and it could be said to have matured with vegetation and slight decay of the original walls to the point where it looks its best now, almost 40 years after the Principal's

House was constructed. The threats to this special character are decay of the buildings and decay of the walls. Repairs must be made without damaging the mature quality that has developed in this area.

At some point in the future it will be necessary to overhaul the cement cappings to the wall surrounding the Principal's House by raking out vegetation and packing up joints and cracks. In some places, such as adjacent to the path to house no.2, the capping has failed and should be remade fairly soon. Some parts of this wall need to be rebuilt because the stones have fallen out exposing the clay core.

Whilst it would be desirable to move the access ramp to the side door, using materials that are sympathetic to the original design such as rubble walling and/or white-rendered surfaces, it is recognised that it would be more practical if the existing ramp could be altered, with the replacement of the red tiles and rendering of the brickwork.

The water tank and chimney should be re-rendered and painted white to match the original design intention.

Were it to be required, it would be possible to extend the Principal's House using the same architectural language into the garage and along the eastern side of the yard without reducing the significance of the building. It would also be possible to extend from the northern end of the bedroom block without compromising the significance of the building, as long as the original architectural language, materials and detailing were replicated exactly.

At the northern limits of the yard area are stone walls enclosing a walled kitchen garden set at the base of woodland. These walls are in poorer condition than the walls close to the Principal's House. Significant pointing and repair is required, together with removal of vegetation and the resetting of copes. In the part of the wall to the east there are no copes. There are a number of places where young trees are growing out of the wall. These should be removed urgently before their roots cause more damage. To the north east corner are bee hives. On the east wall there is a heavy build up of ivy which should be cut back. A tree has fallen onto the wall and this should be cut away so that it cannot damage the wall any further.

Airthrey Cottage, the cottage and office on the route up to the castle yards, could look better. Its stained modern windows are not entirely appropriate in appearance and would look better if replaced with painted windows which are more in keeping with the architecture of the cottage. Some cables disfigure the elevations and plastic rhones and pipes are bent out of shape and full of moss and grass.





Figure 284 Airthrey Cottage, west block 2009 Figure 285 Airthrey Cottage, east block 2009

At the icehouse, some maintenance in the form of repointing is needed. It would be better to break out the door and have a metal gate in place which would allow ventilation of the interior. The retaining wall against the bund to the south of the cutting appears in poor condition and is beginning to collapse. It should be thoroughly raked out, the moss removed and repointed, possibly with a tie back into the bund behind.

Development

It would be possible to develop the former walled garden without compromising the significance of the site.

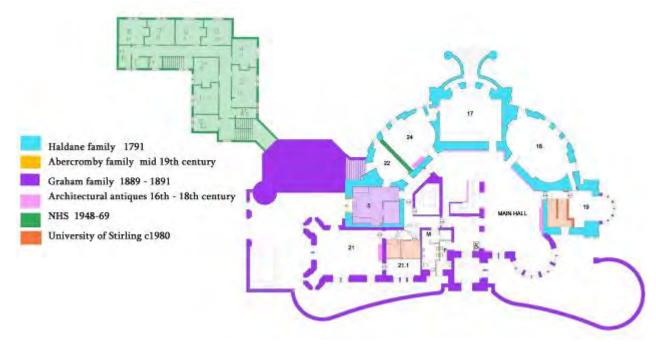


Figure 286 Ground floor plan of Airthrey Castle with historical analysis of existing fabric 2009 S&B

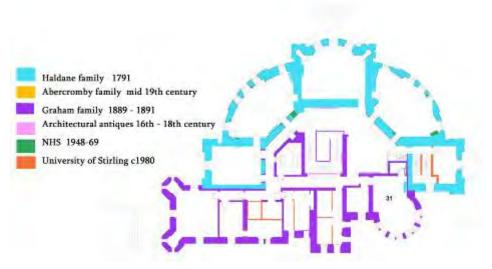


Figure 287 First floor plan of Airthrey Castle with historical analysis of existing fabric 2009 S&B

4.6 Character Area 6: Airthrey Castle, Golf Course, East Playing Fields, East Lodge, East Drive



Figure 288 Character Area 6 site plan

4.6.1 Historical Development

A substantial standing stone situated to the south east of this area indicates its prehistoric importance. In 1819 the skeleton of a whale – 'the Airthrey Whale' was dug up in 'a field to the east of the eastern porter's lodge of Airthrey... With it were found two pieces of stag's horn, one perforated, obviously a human implement'⁴⁷

Before the later 18th century at least three other houses were built within the estate, possibly in the vicinity of the present castle although this is not known. It is possible that the house known to have been built in 1747 was later adapted as stables at Airthrey Yards (see below CA5). A map of 1769 shows some formal avenues of trees in this area, and Roy's map of the mid 18th century also shows a simple formal design of a square plantation with two allées and a central building. No trace of this earlier formality survives anywhere in the estate (with the exception of a section of a mid 18th century road – see CA10 below), partly because Robert Haldane is known to have had several mature trees dug up and repositioned to fit the picturesque ideal of a scattered, naturalistic appearance.

Airthrey Castle was built in 1791 to the designs of the architect Robert Adam. A picturesque landscape was laid out in the surrounding parkland from 1787 onwards, including the digging of the 25 acre loch. The position of the castle was carefully considered.

⁴⁷ RM Ferguson '*Logie a Parish History*' 1905. It was one of fourteen whale skeletons found in the Forth Valley.



Figure 289 Pencil sketch of Airthrey Castle by Arthur Forbes, 1835 NMRS

A sketch of the building in its landscape setting in the early 19th century indicates that the view from the south west, across the loch, was considered particularly important (figure 289). The sketch shows a bench with two figures admiring the prospect of the hills, and a small boat at the edge of the loch. Open grassland runs down to the shores of the loch, and mature parkland trees are naturalistically scattered in small groups.

The East Drive, which curves gently across the parkland, is characteristic of the work of the landscape designer Thomas White, a pupil of Lancelot 'Capability' Brown, who was employed at Airthrey in 1798. Originally the drive would not have been closely tree-lined as at present. The Lodge, set just within in the 1790s stone boundary wall, was designed by the architect William Stirling in 1809. The style of the building is partly Gothic, partly castellated in the manner of the castle. The remains of Gothic gatepiers indicate it was part of a larger composition.

After passing the lodge and ascending the drive, the visitor would have emerged from the dense woodland around the lodge into the open parkland to the north, with gradually increasing views of the castle to the north west, interrupted by naturalistically grouped and single trees.

The parkland setting of the castle is also characteristic of White's designs. The principle of open lawns up to the walls of the house, scattered with single, mature trees of a few species which grow to a large size, mainly oak, elm, beech and chestnut, was central to the picturesque setting of an 18th or early 19th century country house. Flower borders, smaller trees and shrubs were not part of this vision, and would have been confined to a walled garden.

Airthrey Castle 1791-1889

Robert Adam was in Scotland in the summer of 1790 on his annual visit from London, and was commissioned by Robert Haldane to design a new house at Airthrey. The first designs, dated July 1790, were for a classical building (figures 290-292) with wings. The plan consists of a central block with Hall, Drawing Room, Dining Room, oval Dressing Room and Bedroom. In the west wing was a Nursery, Bedroom, Dressing Room and closets, and the east wing held a Library and Mr Haldane's Dressing Room. Upstairs were bedrooms.

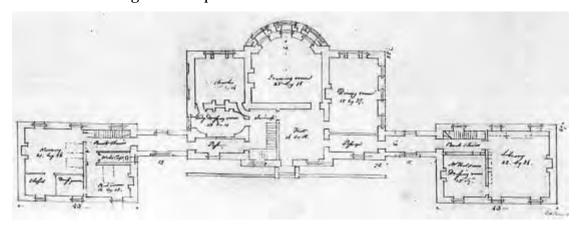


Figure 290 Proposed plan of principal floor Robert Adam July 1790 SJSM

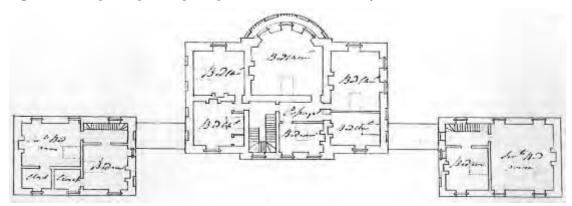


Figure 291 Proposed plan of bedroom floor Robert Adam July 1790 SJSM



Figure 292 Proposed rear elevation Robert Adam July 1790 SJSM

A drawing for a classical gatelodge also survives (figure 293), which could have been either round or square in plan, according to the sketch. This was presumably designed for entrance gates at either the West or East Approach.

Haldane was a near contemporary of the young Alexander Mackenzie (1767-96) who had commissioned Seton Castle from Adam (figure 294). The exterior of Seton was completed by the end of 1790, the interior finished by summer 1791.

Its castle style may have inspired Haldane to request a castle-style house instead of the earlier classical version.

Adam's drawings for the second version of Airthrey Castle (figure 295-299) are undated⁴⁸, but the client had seen and approved them by 2nd March 1791, when Adam's agent John Paterson in Edinburgh reported to Adam in London that Haldane was delighted with the plans. However before the end of the month Adam had written to Paterson instructing him to bill Haldane for the

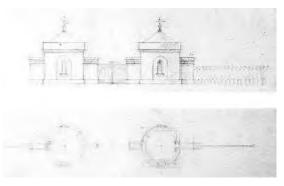


Figure 293 Sketch for a gatelodge at Airthrey, Robert Adam c1790 *SJSM*

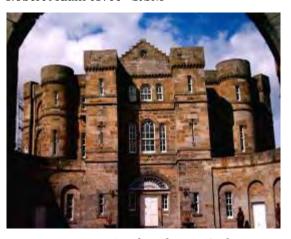


Figure 294 Seton Castle Glasgow Architecture

cost of the drawings and expenses, and to withdraw from the project. Haldane had undertaken to bypass the architect's services in overseeing construction, and to employ Thomas Russell, who had built Seton Castle, directly, thereby saving 7% of the costs. The reason for this seems to have been economy, rather than poverty: in October 1791 Haldane spent £8,900 on the lands of Pendreich, extending the estate to the north west.

Haldane used the money saved from the architect's fees on more expensive masonry, having the castle finished in stugged stone rather than rubble masonry. Seton was slightly smaller than Airthrey, with a floor area of 4026 square feet, and had cost £3,400. The estimate for Airthrey was £3,755.13s, with a floor area of 4330 square feet⁴⁹.

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⁴⁸ Two sets of drawings for the castle style house by Robert Adam survive. A set in the Soane Museum differ slightly in the internal arrangements from a set of plans kept at Gleneagles House in the Haldane family.

⁴⁹ Alastair Rowan 'Designs for Castles and Country Villas by Robert & James Adam' 1985.

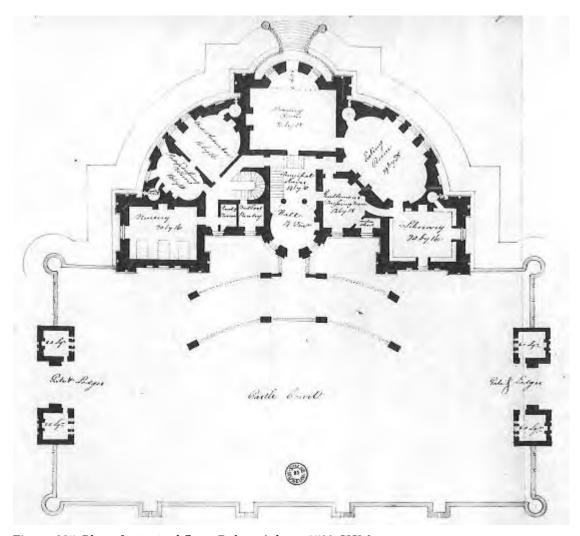


Figure 295 Plan of principal floor Robert Adam c1790 SJSM

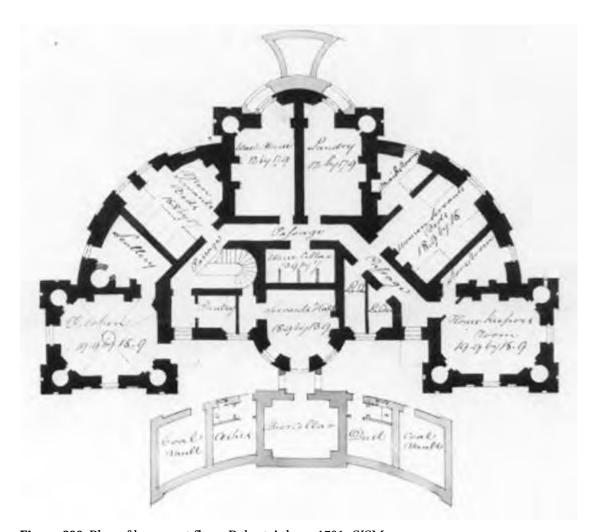


Figure 296 Plan of basement floor, Robert Adam c1791 SJSM

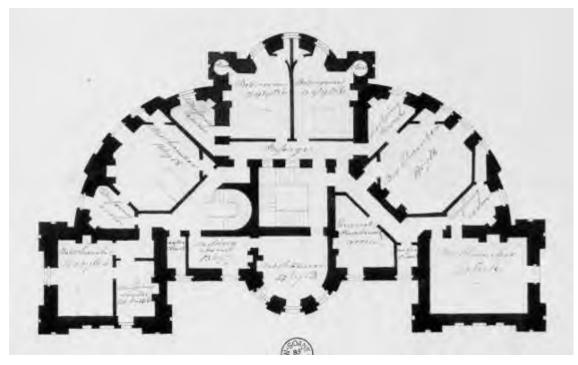


Figure 297 Plan of bedroom floor, Robert Adam c1791 SJSM

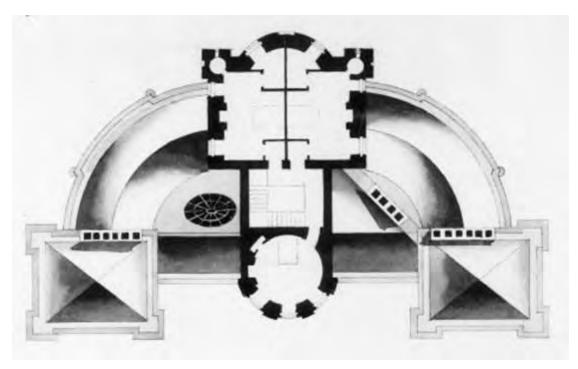


Figure 298 Plan of attic and roof, Robert Adam c1791 SJSM

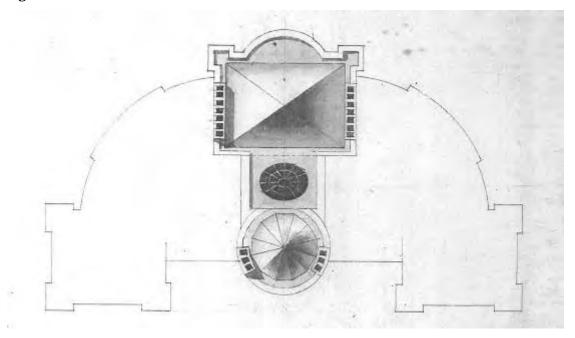


Figure 299 Plan of roof SJSM

Airthrey was built using the designs of Robert Adam, but as he did not oversee the building works they were not precisely adhered to. It is also likely that some alterations would have been made by the architect during construction.

No historic survey of the building exists, only Adam's design drawings, and early 21st century drawings belonging to the University Estates Office. No drawings of the David Thomson 1891 extensions are known to survive, which would perhaps have provided more detail on the 18th century building. An overlay of the Adam plans with the current plans indicates some alterations to Adam's plan (figure 300), with thicker or thinner walls at various points, and a fractionally shallower curve on the overall shape as built compared to Adam's plan.

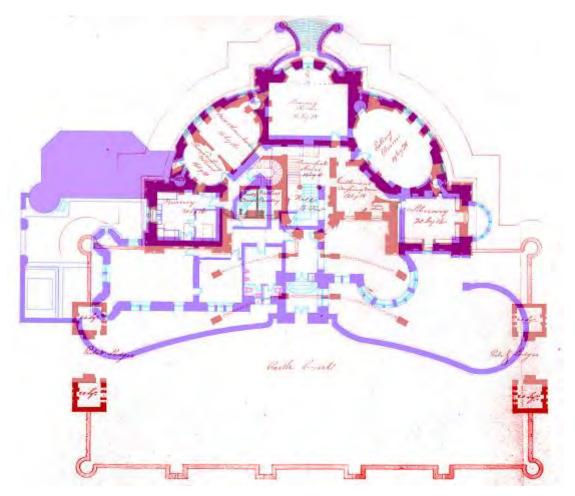


Figure 300 Principal floor. Current plan in purple, 1790 Adam plan in red. UoSA, SJSM, S&B

The curved carriage ramp to the front door with balustrade was finished as intended but the forecourt with its castellated towers was not built. The four small buildings shown on Adam's drawings are marked '*Gatelodges*' – purely decorative and therefore easy to leave out of the finished building on cost grounds. Gatelodges were built at the ends of the approaches in 1809, after Robert Haldane had sold the estate (see below).

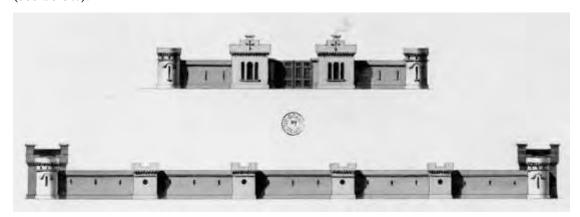


Figure 301 Elevation of proposed forecourt and gatelodges for Airthrey, Robert Adam c1790 *SJSM*

The elevation (figure 301) includes a sketched plume of smoke, indicating how the chimneys of these small rooms were to be disguised within the roofline. This may

have been Adam's intention for the chimneys of the castle itself, which are not shown on the elevations drawings (figure 302), although they do cast a shadow on the plans of the roof.

Exterior

19th century images of Airthrey as it was presumably originally built show two significant differences from the Adam elevations of 1790. As built, the chimneys project above the parapet line, lessening the castle's monumental quality and emphasising instead its domesticity. Secondly, the ground slopes up to the raised drive, so that Adam's arched opening below the front door was not needed, again making the house seem more approachable, and less imposing. Both the entrance tower and the south tower were built higher than Adam's designs.





Figure 302 North elevation, Robert Adam Figure 303 North elevation 1880 StAU 1791 SJSM





Figure 304 1791 SJSM

South elevation, Robert Adam Figure 305 South elevation 1880 StAU

Interior

The historical use of the rooms as originally built is not known for certain. Both sets of Adam's drawings show the principal floor having Hall, Principal Stairs, Drawing Room, Eating Room, Library, and three or four private rooms - bedrooms or dressing rooms. On the bedroom floor above, seven bedrooms are marked on the 1791 plan, one 'small', and a nursery at the north east. On the 1790 plan this room is on the ground floor in the same position.

The appearance of the 18th century interior is unknown, apart from the survival of some 18th century joinery, and a number of chimneypieces (figures 306-310), several of which are not in their original locations. Several chimneypieces were replaced in the 1890s but the 18th century firegrates were in some cases retained (see below).



Figure 306 Fireplace on bedroom floor



Figure 307 Painted fireplace now in room 31



Figure 308 18th century door and lock, Room



Figure 308 Marble fireplace, Room 26 (principal bedroom in 18th century)



Figure 309 Painted fireplace now in Room 36



Figure 310 1954 photograph of 18th century chimneypiece, (since removed) *NMRS*

It is possible that Adam had supplied drawings for an interior scheme at Airthrey. About twenty percent of the nine thousand drawings by Robert Adam kept in the Soane Museum are unattributed, and it is possible that further research might uncover drawings for Airthrey. This might be done by matching the surviving chimneypieces to drawings for whole rooms.



Figure 311 18th century joinery, Room 7



Figure 312 18th century joinery, Room 28



Figure 313 Fine 18th century painted pine and gesso chimneypiece, now in Room 36





Figure 314 Detail of chimneypiece, Room 36

Figure 315 Detail of chimneypiece, Room 36

Robert Adam's Castle Style

Adam's castle style buildings were consistently linked with a consciousness of the Numerous drawings by Adam of imaginary castles in dramatic mountainous landscapes testify to his sense of what he called 'movement', with the

shapes of the buildings echoing and being echoed by the landscape. His castle-style buildings are highly unusual and have been little imitated.

'These designs rank amongst the most original creations of $18^{
m th}$ century European architecture. Though eclectic and synthetic in character, the houses that were built are structures of an extraordinary evocative power. An Adam castle is immediately recognisable as such, with a vocabulary and syntax of its own, rendering precedents irrelevant⁵⁰.

Instead, it is possible to find 'associations with Roman military architecture' in particular Diocletian's Palace at Split, together with a range of Continental, English and Scottish influences, particularly the architect Vanbrugh.

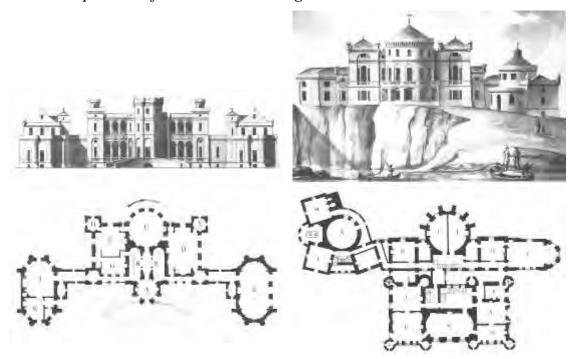
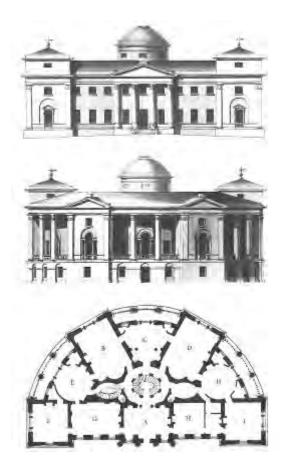


Figure 316 Design for The Oaks, Surrey, first Figure 317 Culzean Castle, sketch and plan. scheme Robert Adam 1776 SJSM

Robert Adam 1785 SJSM

Adam's design for The Oaks (figure 316) includes an entrance ramp similar to Airthrey, but this is otherwise relatively rare in his schemes. The D plan is also unusual, with only one known similar design, for Great Saxham (figure 318).

⁵⁰ A Rowan 'Designs for Castles and Country Villas by Robert and James Adam' 1985



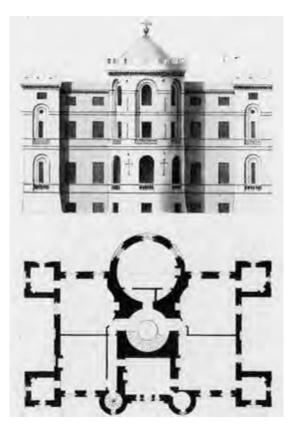


Figure 318 Design for Great Saxham, 1780s Robert Adam *SJSM*

Figure 319 Design for Dalquharran, Robert Adam, 1785 *SJSM*

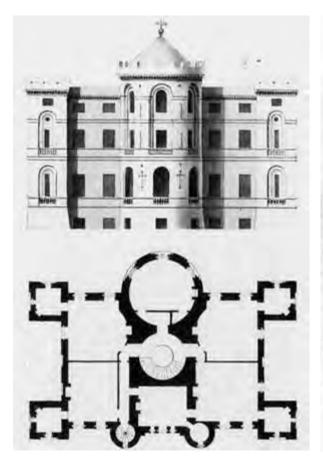
The D-shaped plan of Airthrey was used to a different effect in the design for Great Saxham (figure 318), where the projection to the rear of the building is divided into two pedimented obtrusions, and a pillared gallery gives depth to this aspect. At Airthrey, as at several of the castle designs, 'movement' was achieved by a projecting curved bay, each time with an arcade over the upper windows and each time rising above the parapet line, generally to the saloon, but at Airthrey it was the entrance tower.

Few of Adam's castle style houses were built - only seven of the fifteen known schemes for houses in this style⁵¹. They were: Caldwell, The Oaks, Dalquharran, Culzean, Seton, Airthrey and Maudslie.

Of these, only Seton, Culzean and Caldwell survive more or less complete. Dalquharran was extended in the 19th century and is now a roofless ruin; The Oaks was demolished in 1956; and Maudslie in 1959. Airthrey was later extended and the interior has been altered, nonetheless the southern portion of the exterior of the building is largely as Robert Adam designed it.

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⁵¹ Some smaller structures in Adam's castle style survive, including garden buildings.



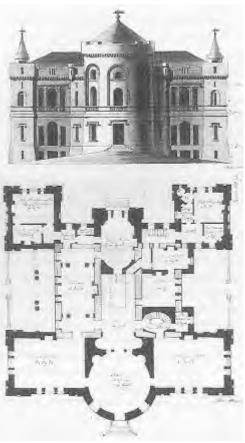


Figure 320 Design for Dalquharran Castle 1785 Robert Adam SISM

Figure 321 Design for Semple Castle 1791 Robert Adam SJSM

The earliest available image of the castle dates from 1830 (figure 322). The view has been taken from the south west, which continued to be the key angle from which the castle was drawn or photographed.



Figure 322 Engraving of Airthrey Castle, JP Neale 1830, detail

A comparison between this and a later 19th century photograph from the same angle (figure 323) shows the windows of the central bow on the principal floor level had been replaced with plate glass. Inside the rooms, blinds appear to have been fixed at the top of the arches, so that from within the rooms the arched shape of the windows would have been partly disguised.



Figure 323 Airthrey from the south west 1880 *StAU*

The finials of the balustrade leading to the garden appear to be urn or acorn shaped at this date.

Alterations and additions to Airthrey Castle 1889-1939

Airthrey was extended in 1889-91 by the architect David Thomson. He had been commissioned by the new owner of the estate, Donald Graham, a merchant and collector, who had lived for several years in India. The northern part of the castle was rebuilt, and a service court and conservatory were added to the east. The key south western aspect of the castle, however, remained less altered, although the north tower was added to its silhouette. It seems probable that part of the reason for the extensions was the Grahams' extensive collection of architectural antiques, which may have required more wall space than was available in the 18th century castle.

The Grahams did not alter the parkland setting of the castle with flower borders, shrubberies or smaller trees, which would have been a fashionable approach at the time, instead confining these to the area of pleasure grounds north of the castle. Here an arboretum was planted, with an ornamental well and waterfall.

No historic plans of the castle are known from this period. A conjectural reconstruction of the principal floor and bedroom floor has been made, based on current plans, Adam's plans and historic inventories (figure 324-325).

The additions provided on the principal floor an unusually large reception hall, a billiard room, an office or business room, and a conservatory to the east. This was reached through double doors from the dining room.

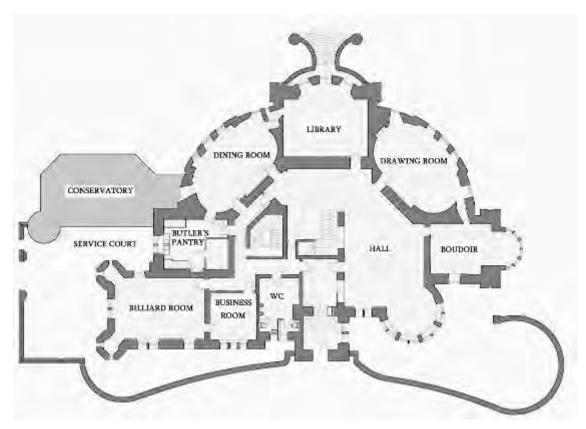


Figure 324 Conjectural plan of principal floor Airthrey Castle after 1891 alterations S&B

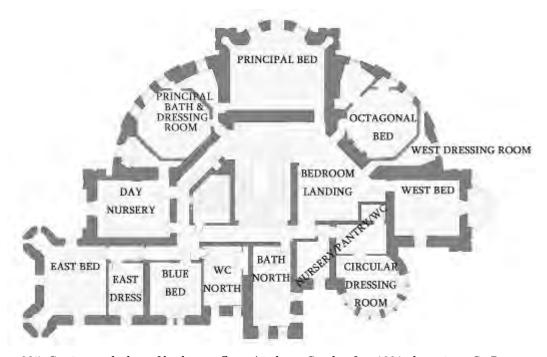


Figure 325 Conjectural plan of bedroom floor Airthrey Castle after 1891 alterations S&B

Exterior

The aesthetic principle behind the alterations was a romantic view of the Scottish castle, asymmetrical, turreted, and possessing a tower. The asymmetry extended even to making the new parapetted approach smaller on the service side of the house, which is discernible on the plan. Another reason for the extensions may have

been to provide a more discrete service entrance within its own walled court. In the 18th century design the only separate entrance to the basement service quarters is on the north elevation, the same as the principal entrance. Although the front elevation was asymmetrical, the position of the front door remained central.

The earliest known image of the alterations is a photograph from 1904, taken from the key viewpoint from across the loch from the south west, shows the new silhouette of the house (figure 326). Thomsons's design echoes aspects of the Adam design in the shape of the crenellations, and the conical roof over the hall bay at the north, however from this angle Adam's castellated elevations almost appear as a screen wall protecting the turreted tower beyond. On the north elevation (see figure 325), Thomson continued the crenellations as a string-course across the square centre tower.

The symmetry of the 18th century design is least obvious from this viewpoint, as the three storey block to the south rises above the two storeys to the west.

The 1904 photograph shows the top of the three arched windows of the drawing room on the south west had been replaced with flat-topped plate-glass windows. The string course running below these windows had been removed and the sills lowered, perhaps to match the level of the boudoir windows on the new extension to the west.

The three windows of the library on the central south front were also replaced with plate glass, and the arched tops appear to have been partly filled. On the 1937 photograph below (figure 328)



Figure 326 Airthrey from south west 1904 StAU

they are entirely filled in. At this date the exterior joinery of the castle was painted a dark colour.

The earliest photograph to show the north front of the new building dates from 1937 (figure 327), however no further alterations are known to have been made to the building prior to that date, so it is taken to represent the appearance of the building in 1891. The Wallace Monument was built between 1861 and 1869. It is prominent in views from all over the estate.

The acorn finials on the southern outside stair balustrades were probably replaced in this period by the large conch shells which remain.



Figure 327 North front 1937 StAU



Figure 328 View from south west 1937 StAU

A conservatory was added to the east (figures 329, 330), which is shown indistinctly on the 1904 photograph and more clearly on the 1937 photographs.



Figure 329 Conservatory from north 1937 StAU



Figure 330 Conservatory from south 1937 StAU

Interior

Although the plan and exterior of the northern half and centre of Airthrey Castle was radically altered, the southern half of the building remained relatively unaltered. The Grahams were prolific and discerning collectors, particularly of architectural antiques. It seems possible that the shape of the new hall, which involved scooping out a number of the 18th century divisions, and extending into a circular window bay was designed specifically to fit a set of Italian Renaissance panels, dating from 1525-30 (figure 331). Antique pieces were fitted together in an eclectic, typically Victorian way, with Flemish term figures of the later 16th century fitted among the Italian panels, and again Flemish fragments used to construct the magnificent hall chimneypiece.

Antiques from India, Persia and the Far East were also added, some of remarkable quality. A sale of a small selection of the Grahams' collection in 1937 included the 'Airthrey Treasure', which was a Renaissance Gold Globe Cup of 1555-65. Sotheby's described it as 'probably the finest and most beautiful example of 16th century secular gold work in existence today'. Also in the sale, was an exceptional 16th century mother of pearl dish with silver mounts; an 18th century French Agate Casket 'of outstanding quality' and a unique 'Tigerware Jug' of c1570 'the only known example' to incorporate a hunting frieze⁵². An inventory of the Grahams' possessions in 1922 in the UoSA lists hundreds of items.



Figure 331 Antique panelling reused to form chimneypiece in Billiard Room. Probably Persian, of outstanding quality.

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 $^{^{52}}$ Sotheby's 'The Airthrey Treasure' Sales Catalogue 1937 $N\!L\!S$



Figure 332 Persian tiles from Billiard Room fireplace, probably from Kashan, 17^{th} or 18^{th} century, with 18^{th} century cast iron firegrate below.





Figure 333 Early 17th century Flemish **Figure 334** Early 17th century Flemish carving carving of Adoration, inset into door in of Annunciation, inset into door in Library Library

While several of the existing chimneypieces were replaced, particularly in the public rooms, upstairs in the bedrooms some of the 18^{th} century chimneypieces were retained.



Figure 335 Term figure of later 16th century, Flemish, with panelling of c1525-30, Italian or French, exceptional quality.



Figure 336 Detail of panelling around fireplace, hall. Includes Flemish and Italian carving of earlymid $17^{\rm th}$ century



Figure 337 Former Dining Room, Italian Renaissance carved limestone chimneypiece, with inset pictorial Majolica tiles, and late 19th century oak setting and wrought iron chimney grate

In 1924 the estate was let to a Mr and Mrs Donaldson, who installed electricity. An inventory from 1922 lists the following rooms in the castle:

-		_	
attic	South Attic Bedroom	South Single Bedroom	South Bathroom
	Passage	East Angle Bedroom	Red Room
	East Attic Bedroom	North Attic Bedroom	Passage
	North Bedroom	WC	Bathroom in Attic
	Housemaid's Pantry		
first floor	East Bedroom	East Dressing Room	Blue Room
	WC north	Passage	Bathroom North
	Nursery Pantry	Bedroom Landing	Housemaid's Pantry
	Blue Bathroom	WC	Short Passage
	Circular Dressing Room	West Room	West Dressing Room
	Octagonal Room	Mrs Graham's Room	Mrs Graham's Bathroom
	Passage	Day Nursery	Octagonal Dressing Room
	Staircase and Landing		
ground floor	Library	Drawing Room	Boudoir
	Front Hall	Business Room	Billiard Room
	Dining Room	Cloak Room	WC
	Passage	Entrance Hall	Housemaid's Pantry
basement	Kitchen and Lift	Scullery	Dairy
	Pantry	Game Larder	Passage
	Store room	Beer Cellar	Servants' Hall Scullery
	Servants' Hall	Gun Room	Servants' Bathroom
	Housekeeper's Room	Cook's Room	Housemaids' Room
	Kitchen Maid's Room	Table Maid's Room	

Airthrey Maternity Hospital 1939-69

After wartime service as an Emergency Maternity Hospital, the Airthrey estate was divided and sold, and the house and parkland (essentially the current university estate) was bought by Stirling County Council and continued as a Maternity Hospital until 1969. During this period alterations were made to the house, including in 1952 the replacement of the conservatory (on the same stone base as the Victorian building), and the addition of a Nurses Accommodation Block, also to the east. Alterations to the interior in this period may have included the removal of a number of the 18th century internal walls and chimneypieces.

A condition report was carried out on the building in 1941⁵³. This gives useful detail about features which were subsequently removed. A partial transcript describing the principal rooms is included below, with their current room numbers indicated in brackets. Further information from this report is at Appendix III.

1941 description of Ground Floor rooms:

Library [room 17], marble mantelpiece; oak carved bookcases on two walls and at the sides of the windows, with glass doors in the lower portions, except at the left of the window, which had carved oak doors. 'One box containing papers of historical interest' Plaster walls, with a frieze covered in painted leather work in panels fixed to the walls with studs. A few worn and loose joints on this.

Staff Dining Room [rooms 22 and 24], fireplace with marble surround and three picture tiles in wood lintel. Hearth tiles chipped and cracked. Wallpaper and silk fringed pendant lights.

Butler's Pantry (off Staff Dining Room) wood-lined walls with fitted cupboards

Billiard Room [room 21], fireplace with ornamental surround, picture tiles in mantelshelf 'six ornamental heads unscrewed from pillars and stored', wooden dado, plaster panelled ceiling

Matron's Office [room 21.1, lift] fireplace with wooden surround

Cloakroom (next Matron's Office) terrazzo floor all whole

Hall and Lounge, panelled and carved walls, panelled ceiling, picture tiles at sides and top of borrowed lights. Painted leather frieze in panels. Fireplace with tiled surround and hearth, carved figures and pillars, tiled screen with opening part at end of Lounge to Dining Room. Tapestry panel in frieze opposite main staircase.

Main Staircase, oak carved ornamental balustrade with carved dog at end of handrail (loose)

Wards 1 and 2 [rooms 18, 19] with parquet floors and marble fire surrounds

Corridor with terrazzo floor

Vestibule with terrazzo floor and panelled wooden dado

After 1947, when the castle was in use as an NHS hospital, a number of alterations were made to the building. Two octagonal rooms, and the circular dressing room were lost together with a number of chimneypieces, but in general in the interior it is notable that the remarkable architectural antiques of a Victorian mansion were not found to be incompatible with modern maternity care. The only surviving addition to the interior from this period is one characteristically 1950s tiled fireplace in what is now Room 28.

The exterior was more significantly altered with plate glass replacing the original windows, and a large number of drainpipes disfiguring the south elevation in particular (figure 339-342). A carved decorative stone over the main entrance, shown on a photograph of 1937 (figure 327) was removed in the late 1940s at the request of one of the sons of Donald Graham, who had settled at Logie Cottage. It was replaced with a plain stone. According to Health Board archives, Mr Graham later removed

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⁵³ NAS NHS Archive

the sundial from the front lawn, 'under cover of night' which was then placed in his own front garden. ⁵⁴ It is quite unusual to find personal comments of this kind in hospital records. The comments are at odds with the understanding of the history of Airthrey by members of the Graham family. Recent research by the Graham family⁵⁵, suggests that the Health Board notes are not correct. Mr Graham had every right to the Graham family coat of arms as this was specifically excluded from the agreement when the building was requisitioned by the National Health Service. The coat of arms is now used as Mr Graham's gravestone.

The comment about the removal of the sundial, under cover of night, and the taking of asparagus, is also disputed. The point being that the sundial was rather too big to remove in this fashion. And the family have a record that the gardener of Airthrey continued to bring produce to the Graham family. One might speculate about why there should be different versions. It is possible that the comments in the Health Board record were not written in criticism. The author might have felt that the Grahams had every right to a stone plaque with their coat of arms, a sundial, for which they had no use, and asparagus. Perhaps the comments were written with affection. The phrase 'under cover of night' suggests a humorous tone. Perhaps it represents a certain reluctance on the part of the Graham family to give up their relationship with the house in which they had invested so much care and money which would have held many family memories for them.

In 1952 a new nurses accommodation block was built to the east of the conservatory, which was also replaced, forming 'a passage' to the new block. The marble statues which had been in the old conservatory were removed. The boathouse was also taken down, as it had fallen into disrepair. Other estate buildings seem to have been well maintained by the NHS, and some were used for staff accommodation.



Figure 338 Nurses accommodation block 2008



Figure 339 View from south west, with new conservatory and edge of nurses block just visible to right 1954 *NMRS*

⁵⁴ Correspondence held in the NHS archive indicates a indicates a slightly strained relationship between Mr Graham and the new owners of the estate. Having acquired the carved stone he was then unwilling to pay for a replacement. He was also found to be taking asparagus from the glasshouses.

⁵⁵ Christina Graham, personal communication, February 2015



Figure 340 South elevation 1960 *NMRS*



Figure 341 View from north east, 1964 *NMRS*



Figure 342 South elevation 1964 NMRS

The university carried out alterations to the building in the 1980s, including the insertion of an emergency escape stair.

The East Lodge was inhabited in 1964 by a Miss MacMillan, although without electricity or running water. Thereafter, the building fell into disrepair. The interior was stripped and the windows were boarded up by the University in the 1990s. The gatepiers also fell into disrepair. No historic images of the gates themselves are known.

The parkland suffered like the rest of the landscape from devastating winds in January 1968, which destroyed a number of the mature trees (figure 343).



Figure 343 Aerial view of parkland showing fallen trees. March 1968 NMRS

Other than this, the parkland setting of the castle remained almost undisturbed until the 1980s (figure 344), apart from the levelling of the ground further south to create playing fields. Trees had been densely planted along the East Drive to create an avenue, probably in the early 20th century, and these were replanted after the storms. This avenue partly screened a development of student housing to the east (see below).



Figure 344 Aerial view of Airthrey Castle setting, 1974 NMRS

Since the 1980s, the area to the south, south west, and south east of the castle has been planted with smaller trees, in groups or singly. Species include rowan and birch, which are short-life trees and will not reach the size appropriate to a parkland setting. Other trees are spruces and firs, which would be appropriate in other parts of the estate (such as the Arboretum), but bear no relation to the historic character of The cherry trees, maples and others which have been planted as commemorative trees to the west of the golf course are also inappropriate in this location.

This alteration was partly planned, as part of the golf course development, and partly haphazard, with the planting of 'commemoration' trees.

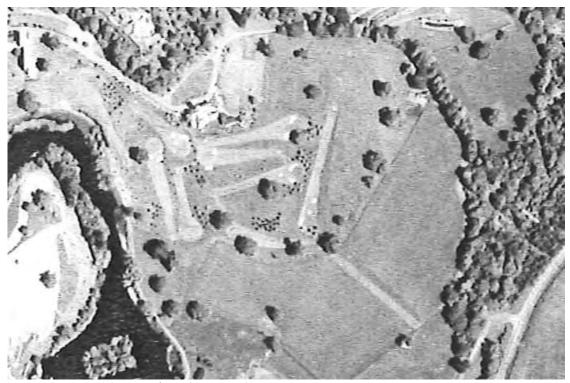


Figure 345 Aerial view of Airthrey Castle setting, 1988 NMRS

Dense hedges of coniferous species were added as part of the golf course, which interrupt views of the castle.



Castle blocked by small trees



Figure 346 View of Airthrey Figure 347 View of Airthrey Castle blocked by small trees



Figure 348 Aerial view of Airthrey Castle and recent planting to south 2007. The large white building is a temporary marquee. *NMRS*

Golf Centre and Sports Pavilion



Figure 349 Sports Pavilion with Airthrey Castle in the background 2009

This is a small single-storey white-rendered pavilion building with monopitch roofs covering the driving ranges opening to the golf course to the south. The University of Stirling was the first university in the UK to build a golf course on campus⁵⁵. Loosely conceived as a paired-group of cottage-sized buildings, the building houses the golf centre (which is open to the public) and sports pavilion. It was designed by

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⁵⁵ http://www.scotland.org, accessed 22-Apr-2009

McEachern MacDuff Architects and was completed in 2001, with the driving ranges being added in 2002⁵⁶.

4.6.2 Airthrey Castle in 2009

Exterior

South elevation: central bay

This is the earlier part of the building built according to Robert Adam's design. The central pavilion is typical Adam castle style design with battlements and corner turrets with blind windows. The central section is bowed outwards. There are three storeys above a balustraded balcony and a further basement floor below. The windows apparently had astragals originally but most have been removed and replaced with plate glass, particularly at the first floor level. The condition is fair although there are some points of open joints requiring pointing and a structural easing in the eastern bay of the south bow which has involved slipped keystone at first floor level and splits through sills and dentils above. There is further missing pointing at ground floor level. The central staircase is in fair condition but requires repointing throughout. Tiles and bitumen have been placed on the face of the balcony. There is a further split lintel on central bow at basement level facing south west.





Figure 350 Detail of balustrade 2009

Figure 351 Slipped keystone first floor 2009

On the outside of the balustrade is a rather intriguing motif where the ovals cut into the balustrade are repeated by cutting into the face of the bow wall. Due to the curvature the ovals in the wall at the bow are narrower. They do not appear to line up.

South elevation

West curved wall. Five bays with the central three bays brought forward. The windows on these advanced bays have with curved heads. There are solid turrets at the wall head marking the offsets. There are many open joints requiring repointing and some structural movement which should be packed and pointed at the central bay. There are previous indents probably marking split stones, particularly rising from the basement to the first floor. The first floor windows have been extended downwards and the moulding which runs across its sill level on the southern turrets has been cut off and dressed to match the stone above and below.

⁵⁶ Stirling Council Building Control Warrant data online, accessed 22-Apr-2009

External pipes disfigure this elevation, particularly since some appear to be overflowing. These pipes should be repainted at least and it would be preferable to remove them and repair the stone behind. There are many fixings for climbing plants at basement level which should be raked out and the joints repointed. At the northern edge next to the original north west turret is an area of advanced water staining, apparently associated with the overflow from the roof. This has saturated the wall below which contains some ferns. There is a risk of dry rot in timbers close to this wall.

In the northern bay there is further cracking running between sills and lintels of the full height of the wall.



Figure 352 Leaking pipe 2009

These cracks pass through stones and some indenting might be required and general packing and repointing to open joints.

South elevation: curved wall

This wall has the same design as that to the west. The string course has been cut off and the first floor window has been extended downwards. External pipes should be removed where possible. One corbel has been cut through for an overflow. The pipes should be repainted if they are not to be removed and climbing plants should also be removed. There is some evidence of structural movement to be repointed in the west bay. In the western of the three central bays there is further structural movement. Paint has been spilled on the surface of the stone which should be removed. At basement level there is one blind window with broken glass which should be reglazed. The sill at this window has been split away by rust heave from the bars which are redundant and could be removed anyway. A fair number of joints are open and should be repointed and all of the metal fixings for climbing plants should be raked out and the joints repointed.

Conservatory

To the east is the link block for the conservatory. This is a stone base which dates from the 19^{th} century conservatory. The 19^{th} century conservatory has been replaced by a conservatory dating from the mid 20^{th} century. This building has a slated roof. The slates are heavily covered with lichen, some slates have slipped and are missing. The general condition of this roof is poor.

The ridges and hips are covered with zinc which is a relatively short life material and has been nailed through from above. The link block to the original building is covered with felt. The base is ashlar stone, it is in fair About 50% repointing is condition. required to open joints. Iron fixings, especially around metal mesh guards should be removed or replaced with stainless steel or non-ferrous fixings. Iron fixings for climbing plants should be removed and the joints repointed.



Figure 353 South elevation of conservatory 2009

Nurses Accommodation Block

Joined to the south east of the conservatory is the 1950s nurses accommodation block. This is in fair condition although there are some splits in the cast stone mullions and some damage to the render. This building, however, is of poor appearance generally and blocks appreciation of the original country house in the round. Although the nurses building does reflect the period of the hospital occupancy of the castle of 30 years, it should be considered to have negative significance within the overall ensemble.

The north side of the conservatory has a nicely detailed stone circular stair rising to a door in its north east corner. The stone plinth passes across the north side and includes three garage openings. The original doors have been removed and replaced with shutters or with walls covered in cement. There is a lot of cabling on this wall, most of which looks redundant. The north side of the conservatory has boards with applied surface fillers.



Figure 354 Conservatory and former nurses block 2009



Figure 355 Stair to conservatory 2009

North block: east side

The east wall of the north block next to the conservatory is the wall of the original north east pavilion in the Adam design. Astragals have been removed from the top

two windows, a stepped gable has been added at the top of the wall. At the ground and first floor, windows have been inserted. The character of the stone on the ground and first floor is different. The ground floor alteration may predate the 1889 extension since this has a mid Victorian quality. The first floor mouldings match the mouldings on the extension and so appear to be part of the 1889 work.

At the head of the wall a small tree is growing out at parapet level and should be raked out and repointed. Cables and pipes are untidy and should be removed if redundant. The pipes to be retained should be repainted. There is one vent which should either be removed and a stone indent fitted or have a new vent board fitted over it.

The north block projects eastwards of the original north east pavilion. It is built of ashlar sandstone with string courses and a machiculated parapet at the head. The mouldings are characteristically late Scots Baronial. The condition of this part of the building is considerably better than the south block. Repointing has been carried out to open joints and original stone seems to be better in quality. Some brackets and cables could be removed. The lightning conductor passes down on the south facing side of the north east block.

The east side faces a service court. Because the service court is screened by a wall the ground floor has a random arrangement of windows and doors. This becomes regular and symmetrical at first floor level and above where the wall can be seen from a distance. The condition of the masonry is fair apart from one stone which has been smeared over with cement. There has been general repointing of open joints on this block. The roofs of the two octagonal corner turrets are made of stone. They have some moss. The interior should be monitored as there is likely to be some water percolating through this stone.

The courtyard wall contains one wide segmental arch with exceptionally large voussoir stones. There is some damage from vehicles having knocked off the mouldings around the arch but this should be left in its existing state as a restoration would be more intrusive. Some joints on the screen wall are open and should be repointed.

North front

The eastern part of the north front is the same machiculated parapet design as the eastern end. The slated roof is visible. It seems generally in fair condition. There are two dormers which are apparently contemporary with the elevation below. The wall face is in fair condition. There is some damage to the stone from previous wetting near to the north east corner and the arrangement of the pipe at the head is probably an alteration from the original line and has poor appearance. There is some moss on the string course rubble. The original colour of the widow joinery should be checked. It was not white as it is now. When first built, the colour of these windows was dark rather than white.

In the recessed wall next to the porch there are holes for numerous overflows, some of which are now redundant. At the head of this panelled masonry is some saturated masonry supporting ferns.

The central porch and tower above rises through four storeys. The tymphanum above the front door is dated 1891. There is a panel missing and filled in with masonry immediately above the door. This was removed for Mr Graham (son of the last owner) around 1952. Some indents have been carried out at first floor level to

the eastern of the two windows. There are extensive areas of open joints requiring repointing, particularly near the north east corner of the tower. At the head of the tower is an unsightly light fitting.

On the west side of the entrance tower is stained and leaded glass apparently in fair condition. It has external protective glass. To the west of the entrance porch and tower is a flat bay and then the broad circular corner bay to the main hall. Windows are brought together to form a single architectural set piece across ground and first floor suggesting architecturally that the main hall is taller than it is. The panels at floor level have been left raised for future carving which has not been carried out but two limestone roundels depicting cherubs have been inserted.

This part of the building has a conical roof, the finial is missing from the head of this column. The parapet has substantial open joints which require repointing but the condition of the masonry below is better.

The north west pavilion survives from the Adam designed building although windows have been inserted at the 1889-91 period. On the west side there is a half round bay window also dating from the 1889 alterations but continuing some of the Adam style features, particularly at the cornice and battlement of the parapet. The condition of this block is fair but requires some repointing of open joints and removal of the metal fixings.

Roof

On the roof of Airthrey Castle the general condition is good, although there are some points where the roof of the corridor which has been introduced to the west of the main stair has temporary flashband repair on it. The roof could not be fully inspected. Periodic inspection is desirable and continued maintenance essential.

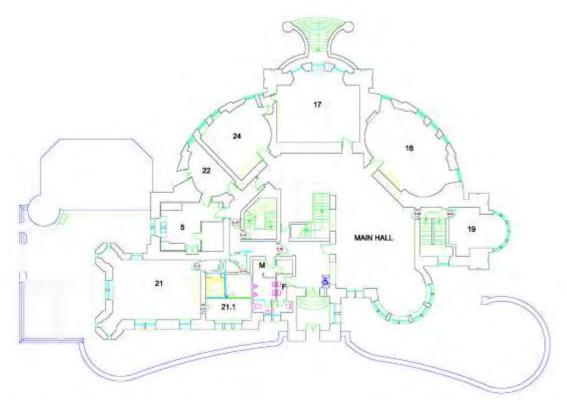


Figure 355a Ground floor plan of Airthrey Castle 2009 UoS

Airthrey Castle, Interior

Ground floor

The interior has the rooms of the late 18th century house to the south but with the north block cut away with the 1889 building fabric introduced. Part of the north west pavilion survives. The new block being asymmetrical with masonry in Romantic fashion but with the door still in the same place.

Porch

This small room has a stained glass window with armorial panels and a design perhaps inspired by Celtic carvings, a coffered plaster ceiling, and three steps up to the entrance lobby.

Entrance Lobby

The entrance is to a small and rather unprepossessing entrance hall with a panelled ceiling, 19th century cornice, a high picture rail all painted and with oak panelling to the lower part of the walls around the doors. There is a borrowed light into the main hall to the west. On the south wall is an Italian stone tabernacle, quite crudely carved and partly damaged at the hinges. This is one example of many of the use of antique fabric built into the castle interior. On the floor is a fixed carpet over a mosaic floor which has a slightly Aesthetic Movement style border. There is some damage to the tesserae to the east. In the front hall a carved panel with three angels set above the tabernacle stone.



Figure 356 Stained glass in the Porch 2009



Figure 357 Panelling and inset carved reliefs in Lobby, with opening to Hall

Hall

The hall is the main artistic creation of the 1889-91 works to Airthrey Castle. It is an oddly irregular room. There has been no attempt to make the room regular and, in fact, the informality has been increased by the large circular bay at the north west corner and by borrowed lights through to the entrance lobby and stair through the wall which divides the room north – south. Almost no walls are symmetrically arranged. The room is used as a backdrop for some very remarkable antique panelling from several different dates. The room has the character of a collectors room, rather than particularly well worked out architectural ensemble.

There is particularly robust joinery above the fireplace, parts of which are salvaged early 17th Flemish pieces. The frieze is embossed and coloured leather. There are tiles in the fireplace and also oriental ceramic tiles set into the surrounds to borrowed lights. The ceiling is panelled. The north west corner bay has been brought to a full circle.

There is some splitting of timbers in the ceiling. Lighting has been introduced into this ceiling and various times. The light at the centre of the north west bay is



Figure 358 Hall fireplace 2009

oddly not centered and probably replaces a pendant boss. Some elements detract from this room, including signs, some light fittings, the white panel heaters in the north west bay, the curtain rails and pelmets. The floor is in strips of timber with an inlaid timber border. Its character is later than the general character of the interior. This may be because it has been cleaned or altered in some way.

The stair balustrade also has the character of a reused salvaged material. The panel across the gallery of the stair landing looks to have been a gallery front from a Baroque church. At the lobby at the foot of the stair on the south wall is a salvaged Baroque panel made of leather and painted in a naïve character. To either side there are slits and damage in the finish of the leather with some of the substrate timber showing through. This will require careful conservation. There are further splits in the leather to the west of this above a door to Room 17 and also above the door to the office of the Head of Department of the School of Law (Room 18). The condition of the leather work has further splits, particularly along the mid-horizontal line of the larger and lower of the two frieze panels. There are further splits in leather above the door to the lobby.





Figure 359 Panelling with inset Oriental Figure 360 Painted and gilded panel in frieze tiles and salvaged antique stair balustrade beyond

above panelling.

In the panelling there are numerous minor defects and missing mouldings. Few of these affect the overall character of significance of the room although missing mouldings, for instance at the eastern corner of the north west bay, should be repaired. The use of chairs at the base of the wall has caused some surface damage to

joinery which should be repaired by French polishing. There is some staining under the windows, probably from condensation. The windows retain their curved glass. The carved dog at the foot of the stair balustrade mentioned in the 1941 condition report is now missing.

Escape Stair

In the north west pavilion is an escape stair, added in the 1980s. This has neutral significance.

The tiled screen to the east of the entrance to the dining room has been lost.

Room 22

Room 22 is the northern part of the room which was originally two rooms in the Robert Adam design. It appears to have been opened out to a single oval room in the 1889 design but then subsequently partitioned off with a lightweight mid 20th century partition. In the 1941 Inventory it was a single oval room – the Staff Dining Room. The ceiling has ribs with enrichment on the ribs forming a complex pattern of triangles and vessica shapes. The cornice has thistles and anthemions as well as a band of laurel wreaths. There is undecorated frieze and a picture rail. The walls are blank, 19th century door to the corridor to the west and double doors to a window, possibly a garden door to the east. This is now the stair down to the refectory. There is other 19th century joinery around the remaining window on the east side. The floor has narrow strips of oak. This room could have considerably more potential visually if opened up and a partition in general reduces its significance. There is a modern door on the north wall. This would be better removed if possible and may have originally been a jib door in the Adam or 1889 design.

This room has moderate significance but would have considerable significance if restored to its original form.

Butler's Pantry (not numbered on UoS plan)

To the north of this is the butlers pantry substantially recorded in 1941. There is 19th century stop chamfered joinery to cupboards on the north wall, a safe, presumably for silver on the west wall. Above this west wall is a gallery which may be for storage. Most of the finishes are v-jointed boarding. The survival of this space from the 1890s country house is of interest and this room has moderate significance.

Service Stair

This 19th century stair is approximately the position of Adam's secondary stair, but is a replacement service stair added during the alterations of 1890-91. The balustrade is rectangular section iron standards with a twist at the centre. These support a beautifully constructed timber handrail. A handrail has a bracket attachment in brass at the principal floor level. This stair has moderate significance.

Room 21

At the north east corner of the ground floor is the original Billiard Room, now an office. The ceiling is panelled with octagons and down stand beams. Around each major panel the grounds of flowers may have originally been intended to be picked out in colours, now painted white. The walls are plain down to panelled dado. The dado architraves and door all are lined with oak. The most spectacular component of this room by far is the fireplace which is an chimneypiece composed of pieces of extraordinary antique Persian carving. The lintel panel has dogs, elephants and deer

within a foliage pattern and a central panel depicting an eagle. There is further foliage in the panels to either side. Twisted columns to ether side with heavily carved bases and capitals. The capitals have brass fixings which originally had carved decorative heads attached. These were removed in 1941. Around the fireplace proper is a black marble inset, probably 1880s or later but with superb quality antique Persian tiles of the 17th or 18th century depicting horsemen. There are further polychrome painted tiles and timber border up at the over mantle which are of later date. The hearth has dark red tiles. The floor is boarded.

A door to the right of the fireplace leads to a room which has been subdivided into three, with a disabled wc and lift accessed from the corridor. This was described in 1922 as the Business Room, and in 1941 as the Matron's Office.

A 1954 photograph shows an 18th century firesurround apparently in this room at that date (figure 361). This has been removed.



Figure 361 Photograph of fireplace, Matron's Room 1954 *NMRS*

Room 24

The larger part of the former oval room, in use in 1941 as the Staff Dining Room. The ceiling has been lowered with roof tiles, but at the window a gap shows similar decorative ceiling to Room 22. is 19th century character, varnished dark brown. Carpetted floor, three windows looking onto the golf former course and the nurses accommodation block (figure 362).



Figure 362 View from Room 24, looking east

The main feature of this room is a fine limestone carved chimneypiece, Renaissance or a good copy, with three hand-painted pictorial tiles, in a 19th century oak setting. The tiles depict, from left to right: a woman – possibly Venus - at her toilet, with attendants; a classically dressed hero slaying a dragon with a bow and arrow; a young woman with a basket in a landscape with classical ruins. The central tile is signed 'Il Sevperife Pitore'. The tiles are Mediterranean, possibly Majolica. The firegrate is exuberant wrought iron.

Room 17

Now the Douglas Vick Moot Court Room, described in 1941 as the Library and then having stamped and gilded leather wall decorations, probably similar to those in the hall. The room now has plain painted walls, carpetted floor with oak picture rail and surprisingly small egg and dart cornice, painted plaster or possibly carved oak, with gilding and red painted highlights, and quite a low picture rail. The door to a cupboard in the south east corner is oak. The upper part is inset with four antique

panels. The upper panels show a pair of cherubs' heads, mid 17th century or possibly later. The lower early 17th century Flemish pair are two detailed carved scenes, worn and darkened, depicting on the left the Annunciation, and on the right the Adoration. This door is the most important item in the room.

19th century joinery to skirtings and around doors. The joinery to the three bay windows in the south bow is also 19th century. The large plain black marble chimneypiece appears to be 19th century, with a Tudor head, and with brightly coloured flower pattern tiles lining the insets, possibly Spanish or Portuguese.

The firegrate appears to be late 18th century and is in the same position as that shown on the Adam drawing. This room is almost the same layout as the presumed 18th century layout, the only alterations being in the position of the entrance door, and the blocking of a connecting door to the next room to the west (room 24). Joinery around windows has been painted white, but was probably previously dark to match the doors and cornice. There are French windows to the outside stair.

Views from this room are compromised by the planting of coniferous hedges associated with the golf course and small cherry trees too near to the castle, which block longer views.

Room 18

An oval room, marked 'Eating Room' on the Adam plan, and either Ward 1 or 2 on the 1941 Inventory. Parquet flooring, as mentioned in the 1941 inventory.

The back of the entrance door to this room consists of six Renaissance carved wooden antique panels with roundels framing warriors on horseback, with putti and mythical creatures. These are Italian or French, c1525-30. The panels are set in a door framework which may be associated rather than original to them. The entire door is varnished in an inappropriately thick and shiny modern varnish. It is cracking due to excessive heating and dryness in the atmosphere.

This room contains a spectacular white marble chimneypiece, in the position shown on the Adam drawings, but of High Victorian taste. It is probably 19th century Italian, carved for the export market. The chimneypiece has a disproportionately massive carved frieze carved in a naïve style, depicting six cherub-like figures wearing flower garlands, within a vineyard, with a central carved urn having goat's feet. The substantial cornice supports two further marble corbels, carved with deep relief cherubs carrying jugs. These may have supported vases. The frieze is cracked across the centre. There are further cherub-like figures in the uprights, also with grapes and vines.

There is an Assyrian style beaten brass firehood, depicting a pair of griffins with a grape border at the bottom. Tiled hearth, with original hand-glazed brick tiles in blue and green at the back, and modern mass-produced blue brick tiles in front. A brass lining to the fire, decorated with a relief of grape vines, with wrought iron fire grate edged in brass with decorative integrated firedogs depicting grotesque heads. The cast iron fireback has more delicate decoration and could be 18th century.



Figure 363 Chimneypiece and early 16th century door, Room 18

The three central window openings are angled to increase views to the south, as is the case in Rooms 22 and 24 (originally one room). The views from this room are compromised by small species trees planted close to the building.

At the south west end of the room is a fitted glazed cupboard, inset into the wall, with a Renaissance style surround. At the west end of the room is a cupboard door, set into the window surround. The joinery has a dark varnished finish, the door to the cupboard is a narrow Moorish door, with bronze and carved wood regular decoration. It leads through a narrow curved passage to an identical door which gives access to Room 19.

Wcs

W.Cs have been partitioned into spaces to east and west. Some mosaic floor survives although this has been damaged by pipes, etc. one cubicle, apparently 19th century or early 20th century survive in French polished timber.

Beyond the partitions from the ladies' toilets to the north west again there is a cubicle to the north with the same cornice passing around although damaged to the west wall at the south west corner of this toilet area is an area of ceiling which has been boxed off and this shows earlier paint colours.

It seems that the main door to the corridor to the south of the toilets has been moved from its original position next to the entrance hall westwards. This has involved cutting through the cornice at this point. To the east of this the disabled person's toilet and lift are both neutral.

First floor

On the first floor towards the north east corner the corridor has a bracketed cornice. Otherwise joinery is substantially altered.

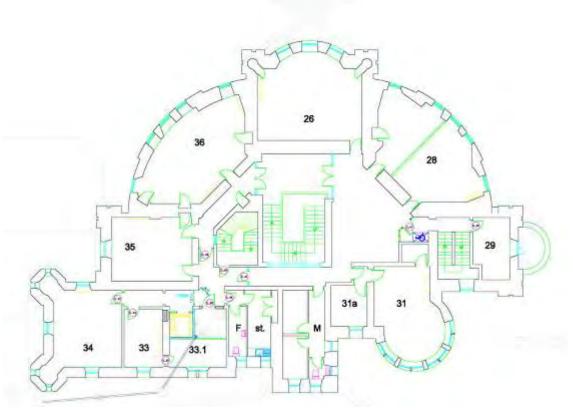


Figure 363a First floor plan of Airthrey Castle 2009 UoS

Room 34

The north east corner room and other rooms in the level, generally have 19th century finishes. Oddly placed fireplace directly under the window with mirrors set into the shutters and into the red marble mantle shelf. A mirror is also set into the soffit. There is a turret to the south east corner with fitted joinery in it. The cornice is heavily clogged with paint but it is built up against plasterwork. There is other general 19th century joinery around openings. The nurses block extension affects the quality of views across the landscape to the south east. This room is of moderate significance.

Room 33

Similar built up cornice to Room 34. The fireplace may be a survival from the earlier house which has been relocated to this position. It is white marble and earlier 19th century in quality.

There have been various alterations in cornices across the north front. The condition is generally fair. There are very few cracks in the plasterwork, etc.

Room 35

This part of the building is in the 1791 Block and the joinery of the doors and fireplace is late 18th century in character. Although not an opulent room, this room can be considered to have moderate significance due to its apparent survival from the Adam-designed building. The cupboard to the south west has a door with raised and fielded panels facing into the cupboard. The same applies to the cupboard door to the north. Some original ironmongery survives, including brass rimlocks.

The room was divided in the Adam plan into three - a bedroom and separate dressing rooms with a corridor or lobby at the south west corner.

Room 36

This room contains two late 18th century Adam style chimneypieces, heavily painted. On the north west wall the pattern relates to the sea, with shells and a nymph. The pattern on the west wall chimneypiece is floral. The cornice in this room is broken in several places, perhaps because the room was previously subdivided. On the Adam plan this room is divided into three – an octagonal bedchamber with a triangular dressing room off it to the north east, and the corresponding triangular dressing room to the south west attached to the next bedchamber, now room 26. The windows do not match the Adam drawings, nor do the positions of the chimneypieces. An octagonal dressing room and a bathroom seems to have survived until 1922 at least.

Stairhead

The stair head has large rooflights with large mid-Victorian brackets, possibly made of timber, supporting beams around the rooflight. On the walls are further antique joinery and a portrait. The panel to the corridor to the north appears to have lost columns which may have been missing from the salvaged antique joinery. To the west is a remarkable salvaged Islamic window surround. There is some minor damage to the cornice of this piece. At the head of this stair is a further Baroque gallery with some minor missing joinery in the carving and swifts in the panels at the centre. The panel depicts Mary in the market place. This space was overheated on the day of the inspection and this is causing damage to this important joinery. Careful environmental control is required to provide the right environmental conditions these antiques. Below this is a Renaissance rondo depicting Mary and child with angels surrounding. Renaissance in style. A couple of demons appear in the blocks to either side of Mary's robe. This may be a late 19th century copy.

The walls are painted white. It is very unlikely to be the original colour and with an interior of this complexity, particularly on the ground floor, it is likely that these walls were stencilled at least and certainly had a richer colour scheme than the present one. Quite a lot of the white paint has been allowed to splash over the edge of joinery. On the west wall there is some flaking of paint, possibly indicating a minor leak from a pipe, etc.

This stair head has been screened off from the stair using modern screens which are probably 1960s. These screens look a little bit tired now and would be better for the overall character of the building either to be removed, which is unlikely for fire separation, or to be replaced with frameless glazing which would be sufficiently different in character from the original.

In the lobby to the west is a further spectacularly carved antique Indian doorway which depicts flowers and birds. This is one of the finest pieces of joinery in the building, and was possibly originally part of a Maharaja's palace.



Figure 364 Detail of panelling on Indian doorway

The Arabic screen has been boarded over but was probably originally intended to have its doors fully hinged and opening to provide a view into the stair hall.

Room 28

In the rooms to the south around the bay some of the original joinery survives in shutters but the room shapes have changed and cornice, etc. is later. To the west is a 1930s Art Deco tiled fireplace. A partition has been removed from this centre of this room relatively recently. Some doors and rimlocks survive from the 18th century house. This room is shown on the Adam plan as the mirror to Room 36, with an octagonal bedroom flanked by triangular dressing rooms.

Room 26

The central south room has an egg and dart cornice. It was originally divided into two but has been made into one by continuing the cornice across the point of the previous partition. There appear to have been lobbies to the north east and north west cornice at some point in the past and the loss of cornice in these positions is later. The 18th century doors to the turrets survive, complete with ironmongery and bead jointed lining within. The joinery of the windows and the fireplace to the east in white marble all appear to survive from the late 18th century period.

Room 29

Subdivision of bedroom in late 18th century house, with French windows to balcony over the bay window to ground floor room below. 19th century joinery around the window.

Rooms 31, 31a

Across the north part of the first floor are 1890s rooms with characteristic coved cornice. There is an timber Adam style fireplace in the western of the north rooms which may well have been resited from the Adam period castle. In these rooms there has been some recycling of earlier joinery, particularly doors.

Second Floor

The second floor (level four) has some surviving 1890s cornice but generally this area has been significantly altered. These are generally attic rooms. On the top floor to the south is a corridor with apparently minor 18th century doors and joinery. There is severe cracking in one cupboard to the west. It seems that at least some of this joinery was grained originally. A gallery has been introduced for a fire escape across the western side. There is access to various levels of the roof from here.

Basement

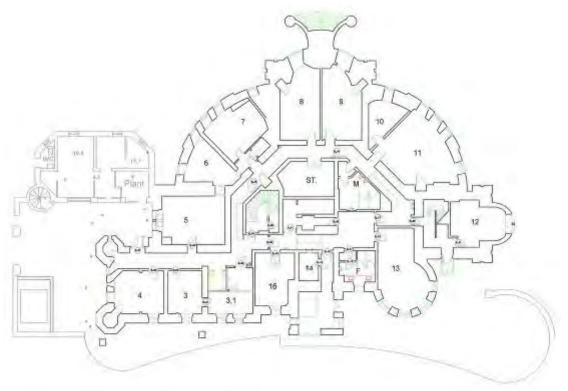


Figure 364a Basement floor plan 2009 UoS

Room 12

At the north west corner, room 12, there is some surviving cornice and original joinery finishes. This has the character of a 19th century estate office. Across the north side there are mainly modern finishes although lowered suspended ceilings may conceal older finishes above. A small amount of the joinery and wall finishes are 19th century but most is new. This room has been partitioned.

Room 5

At the east side facing the yard is a room with some 19th century joinery surviving, also later-looking vertical over lath and panelling. This was the kitchen in the 19th century. The food lift survives in the north east corner. This room has probably been

subdivided. The later panelling might cover an original material, such as tiles or glazed bricks.

In the south part, the joinery looks generally 19th century rather than late 18th century but the corridor form seems to match the Adam plan which might mean that the basement survived the cutting away to form the north block.

Across the south side is an 18th century dado but later joinery as well.



Figure 365 19th century boarding and service lift in former kitchen 2009

Room 8.9

The central south west room has an 18^{th} century cornice. There is no dado as there is in the room to the east, but the original fielded glazed panel shutters survive in the window facing south together with the original 18^{th} century window. The small cupboard at south west corner also has its original door. To the west some 18^{th} century finishes survive.

Conservatory

The mid 20th century conservatory survives. It is fairly poorly designed building with metal brackets which have been covered. The roof space was not inspected. This building replaces a late 19th century conservatory in the same place.

Annexe

Built as nurses accommodation in 1950s. Due to its external appearance the block has a negative significance. Inside, there is some minor 1950s style in the tiled window sills and stepped handrail. The wall finishes, floor finishes, door surrounds and flush doors are all characteristic of the 1950s. Some doors are remarkably narrow. The building interior is characteristic of its date. If demolition is threatened, then the building should be recorded in photographs before work starts.

4.6.3 Character Assessment

The dominant building in this area is Airthrey Castle. The character in this area is still that of a designed landscape associated with a country house. Airthrey Castle has its entrance front at the north which addresses a relatively enclosed area between the north front of the house and the wooded bank to the north. The main open landscape associated with Airthrey Castle is to the south. Robert Adam's design was a D shape with a semi-circular block addressing the south landscape in a panorama ranging from the loch and woodland to the west and the entrance driveway to the east. Due south of the house the ground slopes downwards fairly gently before rising on a steeper bank to a hill. The upper surface of this hill now has playing fields on it and is about the same level as the ground floor of the house. This original country house landscape is also preserved in the driveway to the East Lodge.



Figure 366 View of CA1 from Wallace Monument, with Hermitage Wood behind. 2008





Figure 367 View from CA1 towards **Figure 368** View from CA1 to south 2009 accommodation blocks 2008

This character area contains only three buildings. Airthrey Castle and the East Lodge are both buildings listed (B) and are significant survivals from the estate in its country house form. The golf course pavilion is a recent addition to the landscape.

Airthrey Castle

The Robert Adam design for Airthrey was in his castle style. Although it used a romantic outline of crenulations and turrets, it is essentially a symmetrically arranged building. In its original form there was a regular arrangement of openings and windows which would have formed a neat and uniform block sitting on a raised position within its landscape. The centrepiece on the south side is a bold front flanked by thin towers. This is a clever composition with a vertically emphasised central block in an otherwise horizontal building elevation.



Figure 369 South front c1880 NMRS



Figure 370 North front c1880 NMRS



Figure 371 Photograph of a model of Robert Adam's design for Airthrey Castle (slightly different from building as constructed) *Professor David King, UoS*

The regularity and orderliness of any symmetrical front is key to its appearance. Airthrey Castle has lost this regularity in four ways:

The regular pattern of glazing bars has been compromised by an insertion of larger panes of glass to the windows during the late 19th century. Only some windows on the upper floors and at the basement retain their 6 over 6 sash windows. In almost all other windows the astragals have been removed. This regular pattern of small panes of glass was a necessity at the time of the first phase of Airthrey Castle was constructed but it was also a considered part of the architecture. The pattern of glazing has been emphasised by the use of white paint on the joinery.

White is a relatively modern colour generally associated with the appearance of buildings from the Edwardian period onwards. The original colour to the first phase of the building might have been grained to look like timber, as was the case on other Robert Adam buildings. The 19th century colour might have been a stronger colour such as dark green, although by the 1880s the joinery appear to have been painted a pale colour. There is a similar disruption to the harmony of the windows in the agglomeration of pipes to the curving walls to the south east and south west of the south elevation.

The extension to the north front has a completely different architectural sensibility to the Robert Adam designed first phase. In the design of the extension the building has been made to be as asymmetrical as possible. This is romantic massing which derived its character from historic buildings which have been built over many periods. The design rises to a central tower. Although this romantic architecture looks good where it can be seen in isolation on the northern side, it seriously compromises the appearance on the south side. It means that the regular and symmetrical silhouette of the

Adam design is disrupted by the south face of the tower, a massive chimney to the east, and the south face of the north east block.

- A conservatory has been built to the east. This is a relatively lightweight
 addition and if it were not for the changes to the fenestration and the north
 additions, the Adam-designed Airthrey Castle would still be legible as a
 single object within the landscape. It has relatively little effect although it
 does disrupt the symmetry of the original composition.
- A nurses' accommodation block has been built to the south east of the original house. This is at sufficient distance not to affect the composition of Airthrey Castle from the south but it does obstruct views from the eastern part of this character area. The extensions are also in a different colour of stone to the original block which emphasises the impression of two different buildings with different characters jammed together.

The nurses' home is a two storey block with pebble cast render and a flat roof. This is a relatively utilitarian building which was built for a particular purpose when Airthrey Castle was used as a hospital. Its appearance is unfortunate because it introduces a different, lesser quality material into the context of the castle which is otherwise ashlar sandstone. The flat roof is also an unfortunate contrast with the turrets and slated pitches on the original and second phases of Airthrey Castle.

On Airthrey Castle the slate roofs with lead flashings are visible. The impact of the roofs in views towards the castle from the south are restricted in the Adam design by a relatively low pitch roof and use of parapets. In the later, more romantic phase to the north the roofs are fully expressed as part of the architecture of the building.

East Lodge

The other building in this area is the lodge which is also constructed in ashlar sandstone. The lodge has a flat roof hidden by parapets.

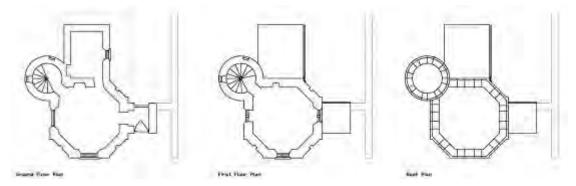


Figure 372 Plan of East Lodge UoS

The whole of the interior of the East Lodge has been stripped out, including all plaster and internal joinery. Timber lintels have been replaced with concrete. The head of the tower roof is a new timber roof with a flat deck. There is advanced staining and some evidence of rot to the eastern edge of this and also a vent which is allowing water to run into the building. There are large holding down straps which lead into the masonry. The masonry is in good condition. All timber safe lintels have been replaced. The inner face of the windows have been blocked with concrete bricks. The interior of the first floor has always been stripped out, together with the floor structure itself. The roof structure is new. There is minor staining, particularly

towards the eastern side which probably relate to small holes in the roof. All internal joinery has been removed and structural joinery has been replaced with concrete.

The ground floor has been filled with concrete, possibly before the internal wall lining and joinery was stripped out, given the band around the edge. Some salvaged stones are retained in the front ground floor. The fireplaces for the main rooms are in the north wall.

The worst staining of the ceiling is at the south eastern corner. To the north of the main room is a single storey block. This may be an addition because the character of the masonry of the internal wall changes. There is a much greater use of flatter stone. As with the rest of the building, all interior joinery has been removed. The new roof structure is decaying, particularly on the western side at the junction with the stair panel and at the centre around an open vent.

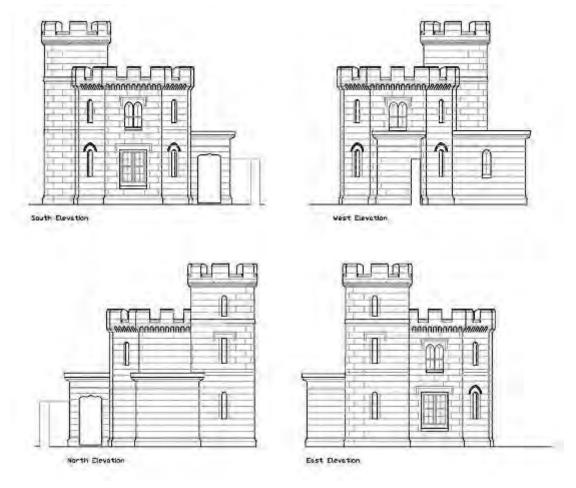


Figure 373 Elevations of East Lodge 2009 UoS



Figure 374 Staining on ceiling of East Lodge 2009

The stairs are in good condition with only some wear in the treads. This is a generously proportioned stair.



Figure 375 Spiral staircase in East Lodge 2009

The porch has a door to the north which runs through to the yard. Again, the ceiling is new and there is advanced staining around an open vent. The interior of the porch has also been stripped out. The roofs have been set higher than the original roofs.

Sports Pavilion

At the north of the driving range area is the University of Stirling Sports Pavilion. This is a practical and functional building opened in 2004. Despite its use of practical and inexpensive materials, it is well composed and considerable care has been taken with its composition and detail, particularly in views from the golf course and putting green to the south. It presents a rather blank face to the north. Although this is a careful design, the main way which it does not harmonise with the other buildings is in the light colour of its render. There are many ways in which the nurses' block to the east of Airthrey Castle can be criticised for the inappropriateness of its building form but it does attempt to respond to the colour of the stone on Airthrey Castle in the choice of render in a way which this sports pavilion does not. McEachern and MacDuff were the architects.



Figure 376 View to south from steps of castle, Wallace Monument on skyline 2008

The character of the landscape was originally open, after the manner of Capability Brown, with grassed areas running up to the house. This parkland contained widely spaced individual trees – species such as oaks or elms which have a long lifespan and grow to a large size. As originally designed this was probably a pure and simple arrangement which continued, with some additional tree planting, through the period when Airthrey Castle was a private house and a hospital. The alterations to the landscape have occurred during the university period and although well meant and practical, depart from the original intention.



Figure 377 View of castle from south west, concealed behind small trees 2009



Figure 378 View of castle from south behind memorial trees 2009

In the land to the south, Airthrey Castle is intended to be the focal point and dominant building. It is seen against the background of woodland on the bank to the north. With the planting of groups of smaller trees such as rowans and birches and also well established coniferous trees, the character of the castle as the focal point within this landscape has diminished. The use of the land as golf course does not particularly detract from the landscape. Although tees and bunkers are alien features, they have a relatively minor effect on the character of the setting of the house compared with the overplanting of this area. Immediately to the south of the house is a tall evergreen hedge which is, again, counter to the original design intention of the landscape. Other smaller trees which are attractive in themselves, but inappropriate in this setting include a number of memorial trees of various species including maples and cherries.



Figure 379 View east from Room memorial trees and other smaller species



View east from Room 19, Figure 380 View to west from Room 46 and other smaller species

Further south of the golf course the land is much more open. The character of this area was originally a continuation of the southern landscape around Airthrey Castle but the hill was flattened and trees cleared away for sports pitches in the 1990s. Again, there is no particular visual impact on the significance of the landscape other than rugby and football goalposts. The impact of the fences is relatively small. Possibly the least satisfactory element is that the area of the golf course and football pitches is that the two areas look different from one another because they have been treated differently. This could be countered by clearing some trees in the golf course area and by planting others to the west and south of the sports pitches.

The golf driving range is probably closer to the character of the original landscape setting of Airthrey Castle than either the overplanted golf course or treeless sports pitches.





24: former nurses block and conifers 2009

Figure 381 View to south west from Room Figure 382 View south from Room 17, 2009

The standing stone in the sports pitches is significant. The legibility of the visual relationship between this stone and Airthrey Castle is diminished by the planting of evergreen trees and the position of the former nurses block.

Towards the southern edge of the sports pitches there are good views towards the other university buildings to the west, up to Abbey Craig and the Wallace Monument, and distant views to the east and south east across the plane of Clackmannanshire towards Alloa.

Along the eastern boundary is a steep and wooded bank which runs down to the B998, or Hillfoots Road. This woodland formed a protective buffer between the parkland quality of the university ground and the road and farmland beyond. It forms the same role for the university grounds now. There are some paths within this woodland.

The East Approach is no longer in use for vehicles, and between the exit from the B998 and the lodge itself, the driveway no longer has the character of the approach to an important country house. This has been diminished by alterations and some simple works might be carried out to improve this character.

The setting of the East Lodge would be improved by new gravel surface to the entrance way and a better gate than the farm gate near to the main road. A culverted stream to the east of the lodge has been covered with a metal plate, presumably to protect it from collapse. The rubble stone boundary walls are an important part of the composition of the lodge. To the north, next to the lodge, the wall is in fair condition requiring pointing and some rebedding and removal of vegetation at the copes. The burn is part of this setting. The planting of woodland to either side of the approach road to the lodge is a welcome development. The driveway was flanked by yew hedges between the lodge and the main road. Much of the yew hedge to the north survives and should be allowed to regrow and fill in. The hedge to the south has been interrupted by a flat and landscaped area. As far as possible this hedge should be reinstated.





2008

Figure 383 Lodge and gatepier from south Figure 384 Estate wall to west of lodge 2008

The gate pillars are in poor condition and have lost their finials. It would be of considerable advantage to the appearance and conservation of the East Lodge if these gate piers were restored. Ivy should be removed from the north gate pier. The tarmac on the roadway is in poor condition and badly drained. The appropriate context for the lodge would be a country house driveway of packed stones and rolled gravel with soft edges where the grass and mosses encroach. It might be possible to provide the appropriate character using a bitumen bound gravel. This is admittedly expensive and would only really be effective in views from the east in the same treatment continued up the curving driveway and out of site.

The original arrangement of the gate piers should be investigated. Some metalwork is missing and it is possible that the piers have been relocated to allow wider vehicle access.

Further along the drive from the lodge, as it climbs between wooded banks, the original country house feeling is still legible and attractive. In the 19th century this was 'the avenue leading from the east gate of Airthrey to the centre of the park, [which] gradually reveals a spectacle of romantic beauty and grandeur rarely surpassed in any landscape scenery of this country'57. At the head of the steep curve up from the lodge the castle is revealed across the landscape. This is a carefully considered and designed view, characteristic of the designs of the landscape gardener Thomas White, who was employed at Airthrey in 1798. It should be respected in future development. The driveway leaves woodland but continues as an avenue of tall mature trees which runs northwards before curving around towards the entrance front of the house. The golf driving range does not affect the impression of Airthrey Castle within the landscape but the back of the nurses block does. The part of the drive due east of Airthrey Castle also provides very good views towards the Wallace The view across the parkland with its large mature oak trees Monument. occasionally interrupting the view to the castle, which is gradually revealed, is also characteristic of Thomas White. As originally designed, the approach would not have been closely lined with trees, which were a later 19th century addition.

This character of a country house driveway and avenue is marred by Alexander Court, the extensive halls of residence block which have been built to the east. These buildings have been described in Character Area 8. The driveway passes to the south of the walled garden

⁵⁷ Charles Rogers 'A Week in Bridge of Allan' 1853

and meets with the woodland at the base of the Castle Yards area. Some tall evergreen planting to the north east is possibly unfortunate, particularly since this is at a place where the avenue trees have been lost.





Figure 385 Shrubbery to north of castle 2008

Figure 386 Castle from north west

To the north of Airthrey Castle is the entrance area. There is a tarmac road which follows the original line of the drive. The character of this area is broadly similar to the character it would have had when it was a Victorian country house. The architecture of the north front of Airthrey Castle is not particularly highly regarded in terms of its architectural history, particularly in relation to the lost Adam designed north front, but it does give an appropriately romantic destination for the driveway with the main door expressed underneath the entrance tower. The evergreen planting is more appropriate to this romantic elevation than it is in the parkland to the south. It screens enclosed areas to the east and also hides the nurses' block. The putting green is also an appropriate context for Airthrey Castle but it could be considered to provide a municipal character, with seats backed with paving slabs and dwarf walls built of setts, and a concrete litter bin surrounded by redbrick paving. The gravel edging with timber guard rail, tarmac roads and concrete kerbs are all more intrusive to the character of this area than the putting green itself. In the views eastwards from this area, the strong line which is developing between the grassed area and golf practice area is unfortunate because it introduces a rigid line with a fence into the landscape. The golf practice area itself has been very carefully designed so that it does not affect the overall character of the landscape.

The Victorian garden quality along the north edge is at the boundary to the Airthrey Yards character area. There are rhododendrons with brightly coloured flowers and some moss covered steps and path. All of this is very attractive and appropriate to the space between a country house and its service yard. The way that this Victorian garden has been used to form the context of the Principal's House is masterful and one of the best elements of the Stirling University landscape. Importantly, this Victorian addition to the picturesque designed landscape was contained within a distinct area. It addresses the north of the building, which is where the Victorian alterations to the exterior were made, but this sort of colourful planting was not historically allowed to intrude into the 'green' landscape of the original design, which consisted solely of grass with isolated or grouped mature parkland trees, which have green leaves.

4.6.4 Significance



Figure 387 Character Area 6 site plan showing significance

The significance of the character area is as a designed landscape. It was the landscape setting for an important late 18th century design. It became the setting for a more romantically designed country house. Subsequent alterations – to the house and to the landscape for sports use – have reduced but not disguised the significance of the landscape. The use of the landscape for golf, as a driving range and as sports pitches does not significantly diminish the significance of the landscape setting of Airthrey Castle itself. There are some elements in the landscape associated with the sports use, such as fences, the prominence of the sports pavilion, kerbs, signs and the planting of evergreens and groups of small trees to the south of Airthrey Castle, which work against the original open parkland quality of this area. Trees and hedges have also been planted too close to the castle.

The southern elevations of Airthrey Castle have outstanding significance as part of one of only four surviving houses designed by the architect Robert Adam in his castle style. The northern elevation was rebuilt and has lesser significance. The interior was also altered in the late 19th century but contains architectural antiques of outstanding quality.

To the east of the castle is a former nurses accommodation block which has negative significance. The site would be enhanced if it did not exist. The 1950s replacment of the Victorian conservatory also has negative significance, although the stone base of the conservatory could be retained without compromising this aspect of the building.

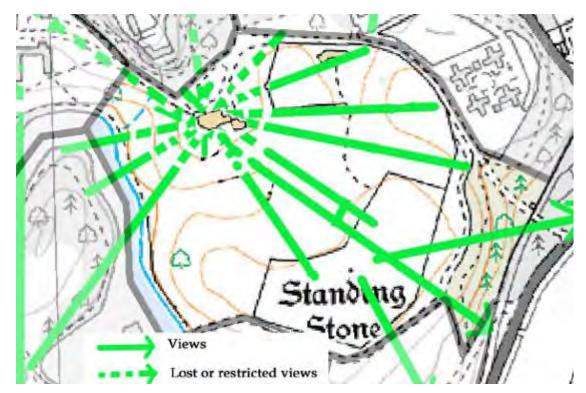


Figure 388 Character Area 6 site plan showing views

4.6.4 Recommendations

Airthrey Castle - setting and views

Airthrey Castle is one of the most important buildings in the campus and the entire designed landscape was originally laid out to provide views to and from this building, in particular from the south, south east and south west. The most important part of the castle exterior is its southern elevation which is largely as designed by Robert Adam. The significance of this aspect would be considerably enhanced were the building clearly visible in any nearby or distant view from the south, south east or south west. At present it is concealed by trees. The golf course itself need not adversely affect the setting of the castle, however its present design takes too little account of the building. The following recommendations would enhance the setting of Airthrey Castle and are listed in order of priority, on a scale of urgent, necessary & desirable:

'Urgent' works are items which are causing actual harm to the building fabric which require attention now to prevent further damage. Work in this category should be put in hand within one year of the date of the inspection.

'Necessary' works while not causing actual damage will become "urgent" within ten years.

'Desirable' works are repairs of a long term nature and works concerned with the restoration of the original appearance of the building.

Desirable:

- Continue policy of progressive removal of smaller trees to south west
- Continue long-term policy of planned replacement of existing mature parkland trees

- Re-examine design of golf course and alter it to take account of its impact on view of Airthrey Castle. Hedges should be removed, and inappropriate species of trees: smaller species, trees with red or yellow coloured leaves, and coniferous species in particular must not be planted in this area.
- Create area elsewhere in policies, eg Memorial Garden or arboretum where commemorative trees can be planted without damaging the designed landscape. Although attractive in themselves, the small and short-life species which have been added to the south west of the castle detract from its significance, blocking the historically important view from the south west across the loch.
- Putting green to north of castle could be enhanced to provide a more attractive setting – removal of wooden fence boundary, improvement to seating area.

Airthrey Castle – exterior

The southern elevation is of greater significance than the north, however both would be enhanced by the demolition of the former nurses accommodation block and the 1950s conservatory to the east, and by the removal of all coniferous trees, smaller trees and shrubs to the west, east and south.

Recommendations are listed in order of priority, on a scale of immediate, urgent, necessary & desirable:

Necessary:

Repair and repointing of masonry

Desirable:

- Removal of unnecessary downpipes and wastepipes
- Restoration of original design of windows
- · Repainting of exterior joinery in original colour, after paint analysis
- Demolition of former nurses accommodation block and first floor level of conservatory wing.

Airthrey Castle interior

The castle is in use by the university law department and it is recognised that the use of the building precludes its restoration to the appearance of a country house, however the outstanding significance of some of its contents could be enhanced and protected.

Recommendations are listed in order of priority, on a scale of immediate, urgent, necessary & desirable:

Necessary:

• Alterations to central heating control which is currently set too high. The excess heating is damaging the antique joinery and embossed leather frieze

Desirable:

 A professional assessment of the antique joinery, tiles etc, condition and recommendations for maintenance. Assessment of artefacts as antiques, including their value.

- Removal of dividing wall between Rooms 24 and 22 to restore the original Adam designed oval shape
- Paint analysis to establish original or Victorian colours, which are likely to be darker than present finishes. Consideration should be given to some restoration of the colour schemes of principal rooms especially Rooms 21 (former Billiard Room), 17 (former Library) and Room 18 (former Drawing Room), as well as Rooms 22 and 24 (formerly one room, Dining room). The paint finish of the main stair and first floor landing are also inappropriately pale in colour.



Figure 389 View from east approach towards Airthrey Castle, with parkland and mature trees 2009



Figure 390 East elevation of Airthrey Castle, including former nurses accommodation block with colourful trees and conifers 2009

4.7 Character Area 7: Walled Garden, Cottages, Arboretum



Figure 391 Character Area 7

4.7.1 Historical Development

Walled Garden, Garden Cottage

A walled garden was a customary feature within the policies of a gentleman's estate, supplying fruit, vegetables, flowers and exotic hothouse produce for the family. Ideally, as at Airthrey, it was south-facing, slightly sloping, with high stone walls lined with bricks, perhaps including a heated wall for encouraging fruit to ripen, and a range of lean-to glass-houses. The brick-lined garden walls at Airthrey date from the late 18th or early 19th century, and it was probably added as part of Robert Haldane's improvements. The north and east boundaries were formed by the boundary walls of the policies.

The Gardeners' Magazine of 1842 reported as follows:

'What we were most struck with was the excellence of everything pertaining to the kitchen garden, even to the gardener's house, which was not only well-situated with reference to the kitchen-garden, and placed in an airy, healthful situation, but had a proper water-closet within the house, a circumstance of rare occurrence in Scotland even in the houses of the wealthy farmers. In most kitchen-gardens that we visited in Scotland this year we found very little fruit on the walls, but here, there was a good crop, and the grapes which we saw in the graperies obtained afterwards the first prize at the Caledonian horticultural show in September. The floors of the vineries are covered with large pebbles, we suppose to reflect heat and retain moisture, and the plants are frequently watered with liquid manure... The only deficiency which we saw about the place was, a want of gravel in the walks of the pleasure grounds, in consequence of which their edges were too deep and raw.'

The 1st Edition OS map of 1865 (figure 392) shows the garden planted with orchard trees, a long range of glasshouses on the north wall with an area of potting sheds behind the north wall, and both Garden Cottage with its porch, and Ivy Cottage.



Figure 392 1st Edition OS 1865 NLS

The numerous paths in the area to the west around the Bowling Green indicate this was part of the pleasure grounds. The paths lead around the west and southern walls of the garden, and an entrance at the north west corner allowed the visitor to stroll past the glasshouses, and to admire the gardener's house. The way that the wall to the east of the glasshouses was constructed on a curve specifically increases the view of the gardener's model house.

The 1885 estate plan (figure 393) shows a less coherent arrangement around the cottage, with further buildings to the west, potting sheds or perhaps another cottage.



Figure 393 1885 Estate Plan UoSA

The 1941 condition report described Garden Cottage as having a sitting room with wooden floor, kitchen with flagged floor, scullery and wc on ground floor, with two bedrooms in the attic. In the adjoining bothy there was one bedroom, with access from the attic. The house had stone walls, with roughcast which was falling off, and a slate roof in sound condition. Although without electricity, the house had hot water from the range. This house had been let 1934-41. At this date the vineries and

glasshouses were still in excellent condition. It is assumed that they fell into disrepair and have been replaced by modern examples.

Garden Cottage is of considerable historical significance as it housed the very first offices for the new University, together with adjacent portacabins (figure 397).

The portico had been filled in by 1966 (figure 394).





Figure 394 Tom Cottrell and staff at **Figure 395** Garden Cottage 1966 Garden Cottage February 1966

At some point after 1966 the wall to the east of the cottage, which was both the wall of the walled garden and the boundary wall at this part of the policies, was taken down to provide a large opening. This allowed the cottage to be seen from the public road.





Figure 396 Works to landscape at Garden Cottage, undated c1966 *UoSA*

Figure 397 Portacabins in vicinity of Garden Cottage c1966 *UoSA*

Other small buildings between Garden Cottage and Ivy Cottage have been demolished, as have the potting sheds.

Bowling Green, Ivy Cottage

To the west of the walled garden was an area within easy walking distance of Airthrey Castle which contained more amenities, all of which were probably built as part of Robert Haldane's commission. These were a bowling green (a fashionable necessity in the late 18th and early 19th century), an icehouse, and a cottage (Ivy Cottage) which may have been the washhouse, as it has an adjoining bleaching green. This cottage is almost due south of the 18th century water cistern (CA3), so could have had access to running water.

Like the gardener's house, this cottage would have been both a practical part of the estate, and an example of the sort of improved housing to be shown off to visitors, hence its prominent position in views from the Bowling Green.

The cottage was altered in the later 19th century with the addition of halfdormers on the front elevation and a wooden porch. The proportions of the rear elevation were left unaltered, although a bathroom extension was added. A lean-to building was added to the north.

At some point in the late 20th century the building was boarded up and has since suffered from vandalism.



Figure 398 Elevations and plan of Ivy Cottage 2009 UoS



Figure 399a Ivy Cottage 2008



Figure 399b Conjectural appearance of Ivy Cottage c1800 S&B

Arboretum

Victorian alterations to the landscape were largely confined to this area, and included planting a number of then fashionable conifers.



Figure 400 Undated mid 20th century view of Figure 401 Arboretum 2009 arboretum UoSA



Planting by the University, including the Airthrey Gardens Group, has reinforced the mixed and exotic character, and the 'Joyce Cairns Walk' through this area now includes a number of magnolias and rhododendrons.

4.7.2 Character Assessment

This character area comprises the Walled Garden and some cottages associated with the Airthrey Castle estate in its use as an 18th century and Victorian country house. To the west is an area of mixed woodland with rhododendrons and other flowering plants. The area has woodland on the steep banks to the north, even steeper hillside to the east with some rock outcrops and the designed landscape of Airthrey Castle to the south west. To the northern edge of this character area are the remains of the village of Logie, including a ruined late Medieval church which is outside the university area.



Figure 402 Arboretum to west of walled garden



Figure 403 View north within walled garden, Ivy Cottage among trees 2008

Walled Garden

The general character of the eastern part of the area is dominated by the walled garden. Unusually for a large country house garden the walled garden is very much in its original use as a working garden with rectangular areas surrounding planting, service buildings, greenhouses and polytunnels. This character of a working garden area is very appropriate and valuable. It sets an appropriate character for Ivy Cottage and Garden Cottage to the north.

The wall itself is brick faced towards the garden. The outer face is rubble sandstone but with significant areas patched or rebuilt with brick. The wall occupies two sides of the former walled area – to the west and the north. Some 19th century estate fencing survives close to the south west corner. The west wall is generally in fair condition although some raking out of trees and weeds is needed.

Copes need to be rebedded, particularly at the south end where trees have been established under them. On the west side a tree has started growing in the



Figure 404 Lime pointing in walled garden wall 2009

wall itself and should be removed urgently. Facing the garden, there are some other places where trees should be removed and where copes need to be rebedded, particularly near to the portacabin which has been placed about midlength along this wall. The wall has been pointed with lime but then with lines struck into it and colour in each joint line (figure 404). Near the north west corner is a door with stone lintel and stone quoins. It appears to have been designed for a steeper wall since the lintel appears to overcompensate for the slope of the ground.

On the inner face of the north wall there has been some repointing at the upper edge. It appears that this wall was not intended to be seen and may have been plastered behind the green houses. The pointing and the quality of brick is quite different to the inner face of the west wall. Some copes need to be rebedded at the western end. A tree growing immediately to the west of the greenhouses is very close to the wall but does not appear to be causing significant structural movement.

Between the tree and greenhouses is another door with stone surround. The stones appear to be face bedded and are delaminating but do not need any repair other than pointing and brushing.

The greenhouse structures themselves have been built during the period of ownership of the university. They are attractive as useful garden buildings but they have no particular aesthetic or historical significance. Their main benefit, in addition to their function, is that they provide an appropriate context for area within the Walled Garden.



Figure 405 View north within walled garden from right: Old Logie Kirk, Garden Cottage, polytunnels, with north wall of garden above. 2008

At the centre of the north wall is a stone projecting up from the copes which carries a monogram of a 'B' (possibly) with a crown above. This seems to have aligned with the central axis of the walled garden and marks the centre of earlier, taller greenhouses which are evident in iron straps about ¾ of brick below the copes and in paint and plaster marks on the inner face of the wall. The length of previous greenhouses is probably also indicated by the bitumen cover which has been applied to the copes. Further east on this wall the cope stones become narrower. There are two places where trees have established themselves in the copes and should be removed. At the east end of this wall the wall bends northwards to meet the south

west corner of Garden Cottage. This section of wall has a lower cope height. A wide gateway has been cut through it.

The wall survives on the east side. This is lower than the other garden walls and has a serpentine shape because it follows the line of the public road at the eastern boundary of the estate. This wall is generally in fair condition. It has been built in various stages, possibly as a perimeter wall and then extended up in brick. Unlike the other brick walls the finish is a kind of sneck harl where mortar is brought over the face of the brick to produce a generally mortar finish. This is likely to be the original and historic finish and should be repeated in any repairs. There is some ivy is on this wall but it does not appear to be causing any serious damage so far. Repointing has been carried out on this wall towards the south eastern corner of the character area.

There is a gateway which faces into the approach to Alexander Court. This is a 19th century gateway which appears to have been cut into the original boundary wall of the Airthrey Castle estate. The gate piers themselves are in good condition but possibly requiring some pointing. To the north of the gateway is a structural crack in the wall running full height.

Garden Cottage

Garden Cottage now has more influence on the character of the adjacent buildings than it does on the former Airthrey Castle estate. Its relationship to the other buildings of similar size nearby is important, although relatively recent since the demolition of the north east part of the garden wall in the 1960s. Each building is a dominant colour, in the case of Garden Cottage it is pink.

Interior

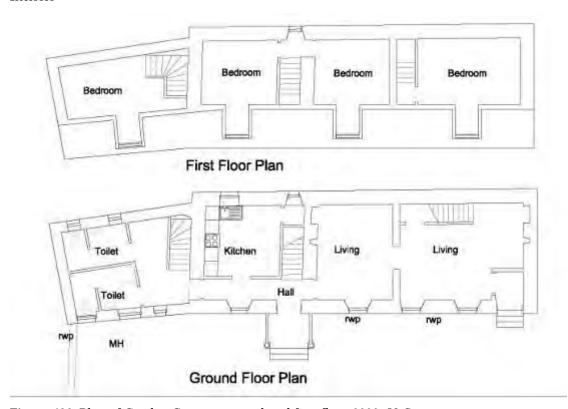


Figure 406 Plan of Garden Cottage ground and first floor 2009 UoS

The rooms inside appear to be basically 18th century proportion rooms. The front door leads directly to a steep stair and the front door itself is a pair of doors painted green. Panels have been introduced onto the outer surface within the 19th century doors.

The porch has solid sides, apparently built of timber frame with harl to the outside, and 18th century columns with pronounced entasis. To the west of the central stair is a room with simple 18th century cornice, 19th century joinery to skirting and windows and window surrounds. The fireplace, however, is 18th century with a 19th century inset and a mid 20th century hearth. The eastern room is a less formal room. There is no cornice and joinery around the windows is 20th century but the window frames themselves appear to be late 18th century. Some of the doors may be late 18th and 19th century but all have been covered with hardboard.

The cupboard at the south east corner was a porch originally although the inner face of the door has been blocked over. There is a 19th century stair with good quality joinery and vertical boarding passes up towards the north west corner of this eastern room.

To the west of the central stair there is a corridor with a late 18th century style window surround. The north face of the corridor is formed by a mid 20th century screen with vertical reeded glazing to both the screen and the door. There is a mid to late 20th century kitchen with pine boarded ceiling, all with no significance. To the east of this are two larders on the stair. The northern of these two larders retains historic character with a broad 18th century casement window and early shelves. The ground level to the north of this building is much higher than the internal floor level.

Further west is the lobby which passes into the bothy area. There is a further 19th century stair rising in the north east corner of the bothy. At the lower level is a shower room with toilet cubicle beyond. The windows to these spaces look 20th century. There is a further toilet and wash room in the north part of the ground floor of the bothy. All of the finishes in the ground floor of the bothy are 20th century and have no significance. There is one area of very advanced wet rot below the partition wall to the west of the bothy stairs. Some staining above this suggests that there are leaks through the roof.

The first floor of the bothy has no particular finishes of interest. Generally 19th century but with a mid 20th century window frame. Some of the plaster to the east of the dormer is decaying with advanced staining from mould and leaks. This suggests that there are slates missing to the east of the dormer or a defective flashing. The first floor of the remainder of the building is connected together even though there are two stair cases. The central stair is the steeper of the two and rises in a straight flight. At the head of the stair is a small 6 over 6 pane sash window, apparently 18th century with much of its original glass and early shutters which have lost their knobs.

To the west of the stair a coomed bedroom with 18^{th} century fire surround and overmantle with a 19^{th} century cast iron inset. Most of the joinery looks to be 19^{th} century with all the window sashes. The dormer is possibly early 20^{th} century. There is considerable damp staining in the west wall of this bedroom with part of the ceiling collapsing and staining in the gable wall.

The room to the east of the head of the stair also has an 18th century fireplace and overmantle, and a 19th century inset. The remainder of the joinery is probably 19th century except for the joinery at the dormer window which looks to be early 20th

century. Beyond this is the head of the stair rising from the eastern part of the building and a further attic bedroom at the east end. The detail of the joinery at the windows is the same as others although one shutter knob survives. The door handles to this room are Art Deco and this suggests significant work has been carried out in the 1920s or 1930s.





Figure 407 garden in foreground

Garden Cottage with walled Figure 408 View to east from in front of Garden Cottage 2009

Garden Cottage and Logie Cottage (the remaining building from the demolished Logie Village) both have their long axis and ridgeline lined with the contours running east - west. Garden Cottage now has a particularly strong relationship with the ruin of Logie Kirk and the kirkyard. This has a beautiful and characteristically Scots relationship which should be an asset. The main assets are its colour, its innate attractiveness and the character of its porch. Where it does not look so good is in the area of parking in front where a garden would look better.

If there is an opportunity to develop the land between Garden Cottage and Ivy Cottage then the access is likely to be across the front of Garden Cottage. This could be placed across the southern edge of the car park so that a garden can be formed in front of Garden Cottage. Site lines at the northern end of the east wall might be a planning issue but the end of this wall has been rebuilt in the past and could be curved back to form an access way.

On the north side of the north garden wall there have been buildings, presumably potting sheds, but these are now demolished. The north face of the wall to the west of the site of the potting sheds is heavily overgrown and some clearance is recommended.

Ivy Cottage

The exterior of Ivy Cottage has been altered in the 19th century. It has been harled, and the general character of the masonry is late 18th century.

The interior is generally 19th century in finishes. The fire surround in the southern room has been removed although the cast iron 19th century inset survives. Most other joinery has been lost generally through rot and collapse. There is some remaining vertically boarded shutters, etc on the east wall. The door is also lost and some of the joinery is severely affected. The lobby retains 19th century joinery at the stair and balustrade but this is soaking due to an open rooflight. At the entrance door two 19th century doors survive although they have had glazing cut into them. Above the door the safe lintels are completely rotten and would have to be replaced with concrete lintels. The porch is missing with only fragments surviving on the ground.

The room to the north has a 19th century 6 panelled door, some 19th century beaded joinery surviving around the windows although most of this is badly affected by rot and could not be salvaged. This room appears to have been the kitchen room. The timber floor has been lost entirely. There is a tiled mid 20th century fireplace on the north wall and a door through to the lean-to to the north. There is also access to this space underneath the stairs. The lobby appears to have had a solid floor made in stone originally and replaced with concrete. On the stair there are dry rot fruiting bodies and there are clearly dry rot spores throughout the building. There is a bathroom offshot which is entered at landing level. It is in poor condition with leaks evident through the roof.

The interior of the south ground floor room has exposed joists and a series of beams on the ceiling.

Running northwards from the north wall up to Ivy Cottage is a rubble wall with triangular copes. This wall is in fairly good condition. Some of the copes are being pushed off by trees but could easily be rebedded. The general wall masonry is fair. At about mid length there is a gateway which has been formed in stugged dressed stones, possibly recycled from another position. The original gate is also here but is off its hinges. It would be worthwhile overhauling this gate and reinstating it in position. This gate is at the end of a walkway through ornamental planting which passes around the north west corner of the walled garden.

To the south of the walled garden is an area of evergreen shrubs which is bounded by the route to Alexander Court halls of residence to the south.

The setting of this area is a very important part of its character. There is a rocky outcrop to the east and wooded bank to the north. The area is more enclosed in terms of views than the character areas to the south, west and north. This is mainly due to tree cover in Character Area 8 which is due south.

Arboretum and Bowling Green

The fabric of the walled garden and of Garden Cottage is largely late 18th and early 19th century, although the arrangement within the garden is 20th century. In contrast, to the west is an area where a Victorian arboretum happily coexists with more modern planting. From this area the walled garden is concealed by trees.



Figure 409 pleasure grounds 2009



Mixed woodland in former Figure 410 Mature yew trees to west of walled garden 2009

The mixed species include mature conifers and specimen trees which were probably planted as part of the improvements to the estate carried out in the late 19th century. This area has the character of a Victorian arboretum, with a mixture of large conifers and a group of yew trees to the west of the walled garden, together with more recently planted magnolias and rhododendrons. There are also natural rock cliffs, similar to those at the foot of Airthrey Yards, which fit in with this colourful, romantic aesthetic.

To the north of this area is the former bowling green, which has remained a cleared site until recently. Around the edge of the bowling green beech trees have been planted, probably in the 20th century. Beech mast has fallen to the ground and will prevent other species growing there. The historic appearance of the bowling green would have been a smooth lawn, possibly on a different level from the surrounding ground. It might originally have been surrounded by yew trees, or a hedge. The space has recently been planted with saplings, and appears to be under the same management scheme as Hermitage Wood, with piles of logs to encourage wildlife.

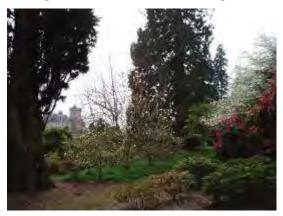




Figure 411 View of Airthrey Castle from Figure 412 Conifers in arboretum 2008 arboretum 2009

The conifers in this area provide a view of a characteristically Victorian landscape from the north side of Airthrey Castle, reflecting the architecture of that side of the building. The north elevation of the castle can be seen from within this area (figure 411).

4.7.3 Assessment of Significance

The historic significance of this area is in the walls of the walled garden which survive from Airthrey Castle estate and also provide part of the context for a ruin of a Medieval church. The main aesthetic significance is in the south face of Garden Cottage. Ivy Cottage could also look attractive if restored. Garden Cottage is of some historical significance as the first office of the new university's first Principal, Tom Cotterell. Ivy and Garden Cottage are also of some significance as part of the complement of estate buildings built at the same time as Airthrey Castle.

The arboretum represents the principal Victorian addition to the designed landscape, probably added by the Graham family in the late 19th century. The collection of conifers and exotic species in this one area to the north of the caste was a sensitive approach to the landscape, which did not interfere with the overall 'green' picturesque landscape of lawns and scattered mature trees.

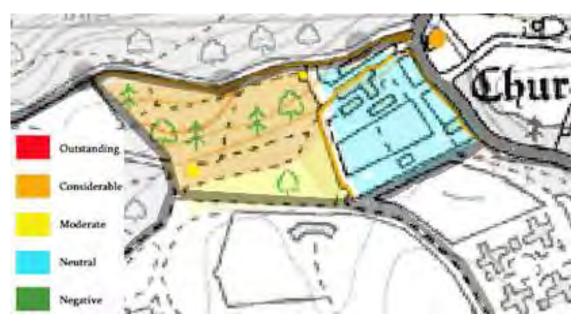


Figure 413 Character Area 7 site plan showing significance *S&B*

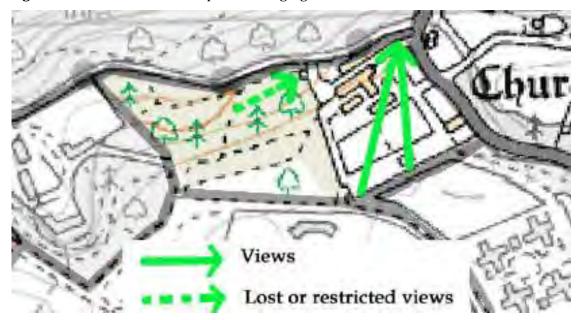


Figure 414 Character Area 7 site plan showing views

4.7.4 Recommendations

Maintenance and repairs

Garden Cottage should be repaired, particularly to prevent further roof decay, and this attractive building should be brought back into use as a matter of urgency. The surviving historic fittings including fireplaces and joinery should be preserved, however adaptations to provide accommodation or for office use would be possible. A front garden could be formed to the south of this building.

Ivy Cottage could be restored to its original appearance, and would form an attractive building which could be used as holiday letting or as accommodation for the university. Similar properties have been successfully managed by the Landmark Trust and the Vivat Trust. Basic repairs to the roof should be carried out to prevent further decay and the building should be ventilated to allow the fabric to dry out.

The area of planting to the west of the walled garden should maintain its present character of a Victorian arboretum. This is an ideal place for rhododendrons, azaleas, magnolias and other colourful flowering plants, as they can be enjoyed in a confined area, without interfering with the character of the designed landscape as a whole.

The area to the north of the arboretum forms a visual extension to Hermitage Woods in views, however it could include some extension of the ornamental planting, or it could be managed to encourage biodiversity.

Consideration could be given to restoring the historic character of the Bowling Green, which has recently been planted with young trees. It could form an attractive foreground to a restored Ivy Cottage. The former green is surrounded by beech trees which were probably planted in the 20th century. Beech mast (the seeds of the beech tree) is inimical to the growth of grass and in the long term, these trees could be replaced with other species which permit the growth of grass in order to allow the historic appearance of the bowling green to be reinstated.



Figure 415 Conjectural appearance of restored Ivy Cottage seen across the former bowling green S&B

Repairs to walled garden walls

At the north west corner of the walled garden, on the outside face of the west wall, is a structural crack running up diagonally. This crack should be repointed. At the southern end of the west face of the west wall is a buttress which might be a reaction to previous structural movement in this very tall garden wall. To the north of the gateway on the south wall is a structural crack in the wall running full height which should be packed and pointed.

Development

The area between Garden and Ivy Cottage could be developed without undermining the significance of these buildings. An access road could be formed running to the south of Garden Cottage, which should be sited to leave room for a front garden.

4.8 Character Area 8: Alexander Court Residences, Memorial Garden



Figure 416 CA8, site plan BLA

4.8.1 Historical Development

This area was historically of aesthetic importance in views from the east approach to Airthrey Castle. Like the majority of the policies, it contained open grassland with scattered mature trees, similar to the area to the west (figure 417). One tree at least from this period remains (figure 419). The network of footpaths within the policy included a walk through the woodland bordering this area to the east and south (figure 418).



Figure 417 Undated mid 20th century view of CA8 UoSA

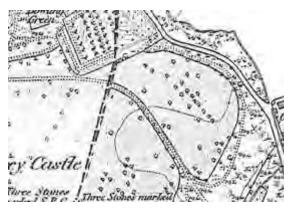




Figure 418 OS 1865 *NLS*

Figure 419 Mature lime tree south of buildings

In the early 1990s a Memorial Garden was laid out in the north of this area by the university. Between this garden and the walled garden an area of conifers has been planted, which has expanded the character of the arboretum (see Character Area 7) outwith its original boundaries.



Figure 420 View towards Alexander Court from east approach 2009



Figure 421 Conifers north of memorial garden 2009



Figure 422 General view of Alexander Court 2009

In 1992, a group of four apartment blocks was built near the former east entrance to the estate – known as Alexander Court. The site area is approximately 2.5 hectares (6 acres). Each of the blocks is arranged with 4 apartments in an off-set cruciform plan on each of three storeys. The four blocks together house a total of 322 students in cluster flats of six or seven bedrooms. There is a single-storey laundry building between the two north blocks. Alexander Court is largely for the use of fourth-year students as a result of the location in a more secluded and quiet part of the campus than the other student residences.

The architectural treatment of Alexander Court is a rather drastic juxtaposition with the rest of the University campus. The striated two-tone brick, green window frames and mock-Tudor gablets, whilst certainly typical of many UK-wide urban housing developments of the 1980s and early 1990s, makes it clear that the designer of Alexander Court had no brief that the building should relate to the original RMJM masterplan.

4.8.2 Character Assessment

This area is to the east of the original east approach avenue for Airthrey Castle. It contains students' residences at Alexander Court to the southern part and a memorial garden to the north. The vehicle approach to the students' residences is around the north and east sides of the memorial garden. The memorial garden has a stone at the entrance with the following inscription;

'This memorial garden was established by Anthony Lord Cochrane of Cults 1922 – 1990 to commemorate the work of gardeners throughout the world in creating areas of beauty and repose.'

The approach to the garden is through a utilitarian, metal horizontal bar gate. The garden is completely screened from views to the south west by tall growing evergreen hedge. The garden itself is a fairly attractive space surrounding areas of fenced planting and a pond.



Figure 423 Memorial garden, general view to north 2009



Figure 424 Commemorative trees in memorial garden 2009

There is a further evergreen hedge to the south. Beyond the hedge to the eastern corner of the garden a labyrinth was being laid at the time of the inspection for this conservation plan. The garden is suburban in feel compared to the original character of the setting. The use of screening is rather odd. The screen hedge to the west dominates the western part of the garden to its detriment and shade. It blocks some of the most interesting views towards Airthrey Castle and the Wallace Monument. The garden is less well screened to the south where screening might be more

desirable to break up the dominance of the students' residence buildings at Alexander Court. The uniform hedges of the garden are its least successful feature, although the beech hedges to north and east form an appropriate transition towards the walled garden and Logie Old Kirk to the north.





Figure 425 Hedge between Alexander Court Figure 426 Beech hedges between memorial and memorial garden 2009

garden and walled garden to north 2009

Around the eastern edge of this area is a track immediately inside the boundary wall. The boundary wall is largely a retaining wall for this length. The track passes down towards a brick cottage and the new Logie Parish Church and graveyard which is to the east of the Alexander Court buildings. The track opens out to an open area which is used for tipping earth and storage of some building materials. This area is surrounded by trees but has good views to the south west. It is a potential area for development which would not affect the character of the rest of the estate. Some of this area may be filled with material which might restrict development potential.

There are well established woodland paths between this area and the Alexander Court buildings.

Alexander Court comprises four cruciform blocks roughly at four corners of a square. The buildings themselves are rectilinear blocks built of pink brick with areas of white render and projecting dormer features with applied timber strips. The ground floor of each block is given character by stripes of red and pink brick. The roof material is concrete tile. The buildings do not carry the same architectural ambition of other buildings on the estate, either as a country house estate or since the establishment of the university. They are functional and in fair condition but intrusive on the landscape setting in general. The blocks are too prominent in views eastwards from Airthrey Castle and spoil the character of the original approach running up from the East Lodge towards Airthrey Castle. Some further planting between the East Approach and the Alexander Court blocks should be carried out in order to lessen the abrupt contrast between parkland and the halls of residence blocks.

4.8.3 Assessment of Significance

The significance of this area is mainly as a backdrop of tree cover for the character area to the west. It also forms the context for the original approach from the east. The Alexander Court buildings are too prominent in this respect. The views from the Alexander Court buildings are relatively restricted.

To the south west views are limited by the rising ground but the Wallace Monument is prominent on the sky line. Views to the south east over the plane of the Forth Valley are also restricted by dense tree cover. Views to the north and north east are of the wooded and craggy hillside of the Ochil Hills.



Figure 427 CA8 site plan showing significance

4.8.4 Recommendations

Maintenance

The Memorial Garden, like the arboretum in Character Area 7, is a self-contained area and as such is a suitable location for growing colourful flowering plants and exotic trees, as well as trees with yellow or red leaves. It already contains a number of commemorative trees, and would be a good place to plant these in the future.

Within the routine maintenance of Alexander Court it might be possible to lessen the visual impact somewhat by replacing the colourful external joinery with black or white coloured paint.

Alterations

Further planting to the west of Alexander Court would help lessen its visual impact in views from the East Approach.

The garden is presently quite separate from Alexander Court, the nearest student accommodation. Consideration might be given to creating an access from the student residences to the garden through a gate or entrance in the hedge which surrounds the garden.

Hedges around the garden could be managed to improved views from the garden to Airthrey Castle, while still preserving the feeling of seclusion. The evergreen hedge which borders the west of the garden should be trimmed to a lower height.

The open area within the woodland which is used for tipping earth and storage of building materials is a potential area for development, with good views to the south west. Some of this area may be filled with material which might restrict development potential.

4.9 Character Area 9: Hermitage Wood



Figure 428 Character Area 9, site plan

4.9.1 Historical Development

Hermitage Wood was historically, and remains, one of the key components of the picturesque designed landscape. In distant and nearer views it offered a backdrop to the castle, and within it serpentine walks were laid out with viewing points, across the Forth Valley and beyond. This was done by Robert Haldane between 1787 and 1791, including building the Hermitage and the Summer House. The late 18th century cistern was also sited here, and later extended, possibly contemporary with the late 19th century extensions to the castle. The cistern is almost identical in character to the cistern at the Dolphin House at Culzean of c1800.

Hermitage

The picturesque landscape demanded landscape buildings and at Airthrey a late 18th century Hermitage and Summer House are documented and the remains of both survive.

Both structures are essentially viewing points, set high above the landscape below of smooth parkland and peaceful loch, reached by fairly steep paths among the woods,. The immediate approach to each is deliberately concealed by a dark yew tree, increasing the sense of surprise and delight in the visitor as they emerged from its gloom.

The Hermitage is one of a handful of similar buildings which survive in Scotland of this date, albeit now ruined. In conception and decorative detail it can be compared to the Newhailes Shell House (1778-80), the shell house at Dunottar House (c1790), Ossian's Hall and the Grotto beneath it (a hermitage since the 1750s, rebuilt as Ossian's Hall 1782-3; the Grotto 1750s also, with a combination of natural cliff and man-made imitation similar to Airthrey). The Bonnington Viewhouse, a classical design giving views of the Falls of Clyde, is an earlier 18th century example. Thomas White's book 'Six Original Designs of Grottos' of 1767 may have been another inspiration. In the grounds of Dunkeld House is an oval viewing house, similarly encrusted with pebble rockwork (c.late 18th century).





Figure 429 Possibly the Hermit's Cell

Figure 430 Steps up to viewing platform

The Hermitage was described as 'ruined' on the 1st Edition of 1865, but is well documented, although unfortunately no historic images of the building are known. The full text of Oliver Goldsmith's sentimental poem of 1765 'The Hermit'⁴⁷ is included at Appendix III. According to Haldane's biographer it was the direct inspiration for the building, which was:

'constructed after the model of the woodland retreat to which Goldsmith's Angelina is led by the 'taper's hospitable ray' and discovers her slighted lover, who had sought for consolation in a hermit's life away from the haunts of men. "The wicket opening with a latch," "the rushy couch," "the scrip with herbs and fruits supplied," all the other sylvan articles of furniture described by the poet, were there, whilst on the sides of the adjacent rock, or within the hut itself, the lines of Goldsmith were painted at proper intervals, - the invitation to "the houseless child of want to accept the guiltless feast, and the blessing and repose," concluding at last with the sentimental moral, -

"Then, pilgrim, turn, thy cares forego,-All earth-born cares are wrong,-Man wants but little here below, Nor wants that little long" 48

Surviving elements show that the building had an arched entrance, with a narrow passage to a main room containing a brick-built fireplace, a sunken room off this with a window, which seems to have been reached from above, and steps up to viewing platform, which was probably open to the air. The lower portion of the steps has fallen away, but a metal post remains in the wall where there would have been a handrail. Two seats were cut into the rock of the viewing platform, allowing two visitors to sit facing one another. According to the poem, the roof would have been thatched, which may be why it lasted for a comparatively short time.

The natural stone of the area is Quaternary deposits of boulder clay and raised beach deposits, and this was mimicked in the lining of the Hermitage by encrusting mortar

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⁴⁷ Oliver Goldsmith (1730-1774), Anglo-Irish writer and friend of Dr Johnson, author of the play 'She Stoops to Conquer' and 'The Vicar of Wakefield'

⁴⁸ Alexander Haldane 'Memoirs of the Lives of Robert Haldane of Airthrey and of his Brother' 1852. Haldane's whimsical humour inspired him to advertise the post of resident Hermit. He received at least one serious application, which was withdrawn when it became apparent Haldane required the Hermit not only to live on vegetables alone, but never to leave the wood.

with pebbles. This was a typical finish for buildings of this sort, which could also include shells, semi-precious stones, and fragments of glass and mirrors. Judging both by the poem and by surviving fragments it seems a more restrained approach was taken at Airthrey. Archaeological investigation would reveal more about this structure.



Figure 431 Brick arch 2008



Figure 432 Brick chimney under artificial stone



Figure 433 Natural stone on Hermitage walls



Figure 434 Artificial stone finish 2008



Figure 435 View from moss covered viewing platform 2008



Figure 436 Lower portion of steps to platform 2008



Figure 437 Post hole for wooden gate at entrance arch 2008

Figure 428 Entrance arch from within Hermitage 2008

Summer House

The Summer House was also built by Robert Haldane, who was possibly responsible for its design. Despite being a more substantial structure than the Hermitage it was seemingly so well constructed as a 'surprise' viewing point that it does not appear on any map until the OS 1923, where the building is marked, but not named. It is not mentioned in the 1885 sales particulars nor in any inventory of the estate, although it was described by Charles Rogers in 1853 (see below).

The summer house is a simplified miniature version of the castle itself – a D-shaped masonry building, with the flat wall at the north side, pressed against a cliff. Three arched windows look south, south east, and south west, and immediately to the west, south and south east the ground drops sharply. The top of the wall is castellated with five merlons. The original roof structure is not known. A downpipe survives at the south western side. The door is on the east wall, directly opposite a recess. On the west wall was a fireplace. The chimney was concealed in one of the upstands (similar to Robert Adam's design for the gatehouses at Airthrey Castle). Surviving fragments of paint on the remains of lime plaster finish walls suggest the interior was painted green, a common colour for 18th century garden buildings.

The appearance of the interior is unknown, but it is possible that the Hermitage and the Summer House were conceived as contrasting Gothic and Classical buildings. The flat wall at the back of the Summer House would have been lined with timber on fixing battens (the recesses for these survive). At the Shell House at Newhailes the timber lining was then elaborately decorated with shells and other encrustations. Archaeological investigation would reveal more about the internal finishes at the Summer House.

Views from the Summer House were spectacular.

'The summer house, perched on the margin of a crag near the top of the mountain, and directly overlooking the park of Airthrey, affords a view which can only be represented, in the grandeur of its poetry, by the pencil of the artist. Below is Airthrey Castle, castellated and venerable, rising upon the deep greensward of the lawn, interspersed with the fairest trees; while the silvery surface of the winding lake, glittering in harmonious combination with the wider foldings of the Forth, spred out beyond in the spacious plain...and varied accompaniments of scenery in crag, castle, and cluster, tend to excite no longing feeling for a close to the inspection'49

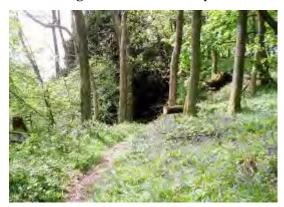


Figure 439 Approach to the Summer House



Figure 441 North wall, interior



Figure 443 Windows to south east and south 2008



Figure 440 Summer House from above



Figure 442 East wall, interior



Figure 444 Windows to south and south west with crenellations

⁴⁹ Charles Rogers 'A Week at Bridge of Allan' 1853



Figure 445 Traces of green paint on interior wall 2008



Figure 446 West wall with recess and remains of fireplace and chimney

Hermitage Wood

The wood is a clearly defined area, bounded to the south and north by a late 18th century stone boundary wall. Its original character when planted in the 18th century, was as a 'policy woodland', that is, it was intended to be an aesthetically pleasing place to wander through, with open views, footpaths, and seats.

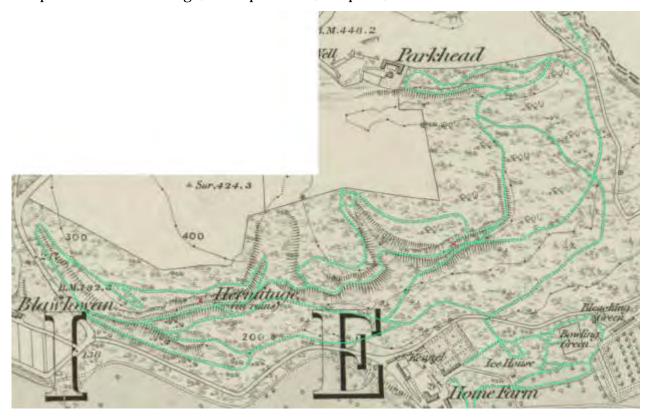


Figure 447 1st Edition OS showing Hermitage Wood. Path network highlighted in green. Hermitage highlighted in red. Summer House indicated by red X (not marked on this map) 1865 *NLS/S&B eds*

Management was required to achieve this effect, including clearing undergrowth, thinning out self-seeded saplings, maintaining paths, and planting some exotic or non-native species for effect, or carefully siting certain trees. At the entrances to the Hermitage and to the Summer House a yew tree was deliberately planted to conceal and darken the visitor's approach. Vistas would have been kept clear from these viewpoints and others.

It is not clear whether the network of woodland paths were constructed with foundations or laid with gravel. This might be revealed if a cross-section were dug across one or two of the paths.

19th century maps indicate that the paths were maintained, although the Hermitage was allowed to fall into ruin.

The wood was extensively damaged by the storms of January 1968 (figure 448).

The wood was not part of the original purchase of the estate made by Stirling Council. The architect Robert Matthew persuaded the new university to purchase the wood in order to safeguard the backdrop for the new buildings.



Figure 448 Aerial photograph March 1968 NMRS

Naturally, management of the woodland has changed since its early 18th century planting. The current Estates Strategy document describes this:

Previously Hermitage Wood and other major woodlands have been managed on a semi-commercial basis. Following an appraisal of the management for Hermitage Wood the management prescriptions have been altered in favour of the long-term creation of a semi-natural mainly deciduous woodland with a range of native trees species and age classes. Rhododendron, invasive and weed species are being reduced and controlled⁵⁰.

Areas of the woodland have been replanted with native species.

4.9.3 Character Assessment

This is the woodland on the bank to the north of Airthrey Castle Yards. It is a very important area to the context of both Airthrey Castle and also the Principal's House and associated buildings. It forms the backdrop in views from the south.

Stirling University Campus Conservation Plan

⁵⁰ Iain White Associates 'University of Stirling Estates Strategy - The Campus Landscape (Draft)' 2009



Figure 449 View of Hermitage Wood from Wallace Monument 2008



Figure 450 Hermitage Wood 2008



Figure 451 Entrance steps to Hermitage Wood at southern edge, behind Airthrey Yards

Along its southern edge is a wall and a track, once the main public road to Logie. This wall requires some general maintenance. It has collapsed in places, particularly next to the footpath route running north-south from the castle.

The trees are deciduous but with some rhododendrons which may be self seeded rather than planted. A path runs up north eastwards from the break in the wall. There are spectacular views down the Forth Valley towards Kincardine power station through trees to the south west.

The path passes a brick vaulted cistern building. This is faced with stone and brick, and built into the ground to the hillside at the north west. This building is not maintained and the masonry and vaults are under threat from the roots of trees which have grown up from under the moss-covered roof.



Figure 452 Cistern, with 19th century extension to left 2008



Figure 453 Late 18th century part of cistern 2008



Figure 454 Interior of Summer House 2009



Figure 455 Steps to viewing platform in Hermitage

The Summer House is a rubble building with a D shaped southern edge and straight wall to the back. It is built of sandstone rubble with pointing to the outside. It has clearly been finished as a rustic rubble building without harling. It is intended to appear to grow out of the rocky outcrop that it was built on. A spectacular site has been chosen with views at 180 degrees all the way down the Forth Valley and Stirling. It is clear that the interior was finished with timber and plaster, and that the building was roofed. Some parts of the parapet remain and it is possible that the parapet was crenulated. There are three large arch headed windows facing south, south east and south west. The horizontal checks in the wall for billgates which supported the timber strapping for plaster are still evident. Some repairs have been carried out recently including temporary timber lintels at the blocked western doorway, over the south east window and over the eastern door. Trees are growing out of the structure and will eventually cause the masonry to fall. There has been a fireplace on the western wall. The flue remains in the masonry but otherwise the fireplace is lost and a hole has formed at the thinner masonry behind the fireplace.

4.9.3 Assessment of Significance

Hermitage Wood is of outstanding landscape significance within the campus. Its importance as a wooded backdrop to the university buildings was clear to Robert Matthew, who persuaded the university to buy the wood and protect it from development.



Figure 456 Character Area 9 site plan showing significance

The cistern building has moderate historic significance as part of the late 18th and 19th century service buildings for Airthrey Castle.

The Hermitage is of considerable significance as a relatively well-documented late 18th century landscape structure. However, it has relatively minimal significance as a ruin. It might have had some landscape significance when complete in terms of the history of ornamental buildings within Scottish designed landscapes but any such significance is now lost, apart from archaeological recording.

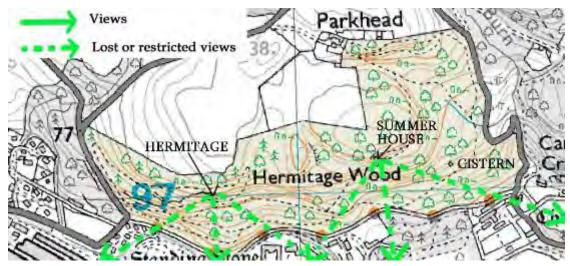


Figure 457 Character Area 9 site plan showing views

The Summer House is a significant building and its preservation is important. It is significant as a landscape feature and also as a view point. It should also be significant as a visible feature in views up towards the woodland but it is now almost entirely obscured by vegetation and trees.

4.9.4 Recommendations

The cistern building is not of high significance and could be allowed to decay naturally into the woodland. It should be recorded photographically and in drawings before it decays much further. The removal of the large tree growing on the western end of the roof would lessen the speed of decay.

The Hermitage is ruinous and is too far decayed to be worth conserving. Its site could be recorded. There might be an opportunity for a local conservation group or a group within the university to clear out some of the undergrowth and accumulated rubbish at the Hermitage. It appears to be regularly visited, and it would be relatively easy to make some improvements to it.

Repairs have been made to the Summer House to keep it from further collapse but more repairs will be needed in the relatively short term. Some clearance of bushes and vegetation is needed and some work to wallheads to prevent further collapse. It is likely that people will continue to seek out the building and so the bank which forms the path to the east door should be consolidated. At the moment it is falling away and should be strengthened in some way. It might be appropriate to reward people for having reached the building by allowing access. If the building and ruin can be made safe then metal screens can be built across each arch so that visitors can appreciate the view.

The building was intended to be seen as a feature within the landscape as well as a view point. Some clearance of trees below the Summer House would be appropriate in order to provide views upwards towards it.

Spittal Spittal Craigton

4.10 Character Area 10: Factory, Maintenance Depot, Innovation Park

Figure 458 Character Area 10, site plan

4.10.1 Historical Development

This area contains the remains of Robert Haldane's 'New Road' of the 1750s, which caused local controversy and a court case⁵¹. The road was very well built, at Haldane's own expense, and is a typical example of the then fairly new tendency of

⁵¹ KJH Mackay, D Angus 'Airthrey Roads, Captain Haldane's Magic Roundabout' Forth Naturalist and Historian, vol 9

Scottish landowners to wish to distance themselves from their tenants and the passing public. The road was made redundant, ending the local controversy, in 1817, with the opening of the turnpike road to the south (now the B998). The stone walls lining the '*New Road*' were taken down, but the trees lining it were left, and the structure of the road remains in part as a ha-ha. The line of the former road is still partly discernible, in the car park area north of Logie Court.

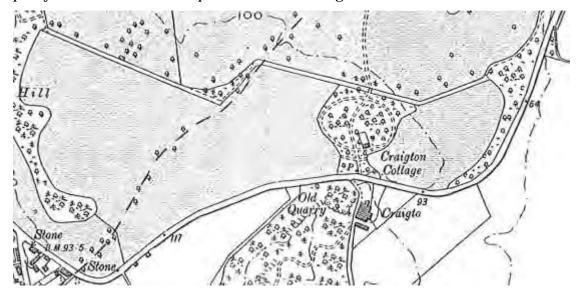


Figure 459 2nd Edition OS 1899 NLS



Figure 460 Character Area 6 shown on an aerial photograph of 1960 NMRS

This is the only feature within the picturesque landscape which is straight, and one of only two visible indications of the long occupation of the estate prior to Robert Haldane's alterations of 1787-98⁵². The eastern part of the road has been covered over by buildings and landscaping. This area of the policies seems to have been used as grassland, and few trees are shown on historic maps or aerial photographs (figures 459-460).

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 $^{^{52}}$ The other being the 18^{th} century walls within Airthrey Yards, which may be the walls of the 'small snug house' of 1747

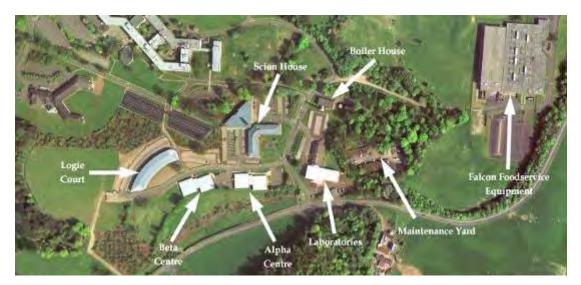


Figure 461 Stirling University Innovation Park and neighbouring buildings. *Google edited by S&B*

In 1983 the University sold approximately 13 hectares (32 acres) of land on the eastern boundary of the site to Wang Laboratories who built a computer assembly facility. The factory, which has a floor plate alone of more is than 3 acres, is roughly-square in plan and comprises an industrial unit with office accommodation. Approximately 260 are employed on the site⁵³.



Figure 462 West elevation of the Falcon Foodservice Equipment building 2008

The building is low-lying and appears similar to the University accommodation of a decade earlier. As is the fast changing nature of such industrial units, the factory passed through successive ownership in subsequent years, and the factory is currently in the ownership of Falcon Foodservice Equipment. About 2.82 hectares (6.95 acres) of this site, known as Wallace View is now in the ownership of Scottish Enterprise Forth Valley.

To the west of the factory towards the central area of the University is the Phase 2 boiler house and maintenance depot. These buildings were designed to be well secluded amidst mature woodland, yet with easy vehicular access.

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⁵³ Environmental Policy (Jan-08), http://www.falconfoodservice.com, accessed 23-Apr-09



Figure 463 Wallace Monument with boiler house chimney below

The buildings are contemporary with the main central area buildings, being opened in time for the Phase 2 expansion in 1970. When viewed from the central area of the campus, the chimney is a rather pleasing contrast to the Wallace Monument that otherwise dominates the skyline – the black cap to the chimney suggests that this was deliberate. It could be said that the relationship between these two vertical structures reflects that of the relationship between the University and the Airthrey Estate.

The SUIP, officially opened in September 1986, is a partnership between the University, Stirling Council and Scottish Enterprise. The park comprises 14 acres (5.6 hectares) on the south boundary of the site and is leased from the University. The park "aims to stimulate innovation, product and process development and technology transfer within firms in Scotland" 54. Prior to the development of the SUIP, the area was open landscaped parkland.



Figure 464 Scion House, with recent extension in the foreground

The first buildings to be completed were the single storey industrial units Alpha Centre and Beta Centre. Further buildings include Scion House, opened in 1993, which houses the Innovation Centre. This is a two-storey brick building, originally L-shaped but since extended to the rear with a large triangular construction. The most recent addition, Logie Court, is a curving two-storey glass and steel terrace. Also on site is a laboratory building, which was recently expanded.

Such is the success of the park, future expansion is proposed to the east of the current SUIP site on to land currently occupied by the Phase 2 boiler house and maintenance

 $^{^{54}\} http://www.suip.co.uk/AboutUs.aspx, 10-Feb-2009$

yard of the University. This proposal has been planned for in Stirling Council's updated local plan⁵⁵.

4.10.2 Character Assessment

This is an area of former parkland. It is still surrounded by woodland and now contains substantial office buildings.

The buildings vary in style and appearance but are generally bound together by the landscaping of mown grass and beach hedges surrounding the car parks. The area is carefully landscaped so that car parking does not dominate. The architectural ambition of the buildings does vary between the curving building to the west occupied by RFL Group, ETV Interactive and Trett Consulting, also Cascade Technologies and Emerson - which is a well detailed contemporary building, to the much simpler and lower cost Alpha and Beta which are brick with vertical panelled windows and sheeted roofs. The character of the area is of a particularly high standard of business park surrounded by and containing mature trees. It would be possible to develop further in the field to the west although this field is slightly more prominent than the areas that have been developed so far.

The setting of the area is dominated by the Abbey Craig and the Wallace Monument to the south. Views in and out of the area are relatively restricted, mainly by trees. The business park is at the least intrusive possible position within the campus and the siting has been a careful decision. The site has relatively little historic or aesthetic significance.

To the north east is the boiler house. The boiler house is a sheeted building. Its paint finish is not in particularly good condition and the colour of the building – white – is rather more prominent than it needs to be. At the south of the boiler house is a concrete chimney.

To the east of the business park is the maintenance yard. This is formed by low level blocks built of concrete block. The buildings have no significance architecturally.

In the business centre the buildings of Alpha and Beta Centre are a possible location for further development. The buildings on this site could be taller without affecting the significance of the overall site. The central building is called Scion House and is dated 1993.

The wall to the south is built of metamorphic rock with a projecting course below triangular copes. Generally it is in fair condition but needs to be checked over to remove weeds and other growth, and to note where trees and ivy are growing which might need to be cut back.

To the eastern end of this site is Falcon Food Service equipment building. It is hidden in most views from the campus by the raised ground with sports fields on it. This is a building not dissimilar to the architecture of the early university buildings. There are good views to the south west towards Abbey Craig and from the site south eastwards over the Forth Valley. The area is fenced off from the remainder of the campus and has a separate entrance. Although a large building, it is remarkable that this building has almost no effect on the overall character of the campus.

 $^{^{55}}$ Stirling Council Local Plan, 1999 (Alteration 1A, 2007)

4.10.3 Assessment of Significance



Figure 465 Character Area 10 site plan showing significance

The dominant features in this part of the campus are the views towards the Wallace Monument and Abbey Craig – the chimney of the boiler house mimics this in an attractive manner, and is a well designed part of the RMJM-designed campus. As a piece of the original 70s campus, this is of moderate significance.

The factory building, innovation park and maintenance buildings are not of any particular architectural or historical significance. The woodland and boundary wall to the south and east of the area are of considerable significance.

4.10.4 Recommendations

It is recommended that consideration be made to retaining the boiler house and chimney in any future redevelopment of this area.

The current regime of woodland maintenance and expansion at Spittal Woods should be continued.

4.11 Character Area 11: Spittal Hill



Figure 466 Character Area 11 site plan

4.11.1 Historical Development

The entrance drive to the Scottish Institute of Sport is the only surviving part of Captain Haldane's 'New Road' of 1767 which is still in use as a road. Much of the rest of it remains within the estate as paths and a ha-ha. As a road it was made redundant in 1817 with the construction of a turnpike road, the present B988. (See above section 4.2.1 for an explanation of the history of the New Road.) The present drive is shown on the 1865 OS as an oddly redundant road, blocked from the main road to Bridge of Allan, and leading nowhere. It remains the same on the 1899 and 1923 OS maps.

Causewayhead was expanded by Sir Robert Abercromby in the early 19th century with new houses built to provide alternative accommodation for tenants from the villages of Logie and Pathfoot, which he had demolished.

This area is shown on the 1865 OS (figure 467) as open ground with an irregular shaped plantation with footpaths, within the policy walls. To the south of the turnpike road (now the B988) was a farmhouse and steading marked 'Spittal', with a Doocot, and a villa, 'Craigview'. Other buildings were added in the late 19th and early 20th centuries, including a short terrace of housing, and a second, 'Abbeyview substantial villa, Park' (figure 467-469).



Figure 467 1865 OS *NLS*



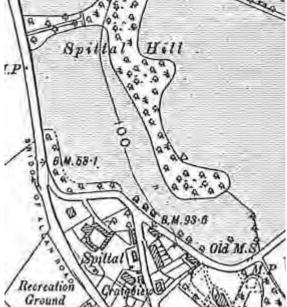


Figure 468 1899 OS *NLS*

Figure 469 1923 OS *NLS*

An attractive villa was built in 1939, just to the south of the short access drive, at last giving some meaning to the road: what was to become the Scottish Institute of Sport.

i Spittal Hill Residences, 1990

Spittal Hill comprises a total of 23 Scandinavian-style single-storey timber chalets, moderately picturesquely arranged at the extreme south-west corner of the former Airthrey Estate. Lightweight buildings were necessary as a result of the main sewer and other services that run under the site. Used as accommodation for returning undergraduates during the semesters, they are rented as holiday accommodation during the summer vacation period.



Figure 470 Spittal Hill Chalets 2009

Each chalet comprises five individual study-bedrooms, a compact open-plan kitchen and living area and bathroom facilities. The chalets are largely identical, varying only in different colour treatments of fascia panels, and mirror-images of the one layout.

ii Scottish Institute of Sport, 2002



Figure 471 Main entrance to Scottish Institute of Sport within extension to villa



Figure 472 Villa from south with front garden



Figure 473 Villa and extension from north east

The Scottish Institute of Sport, which was created in 1998 moved to Stirling in 2002. The building designed for them incorporated the existing 1939 Arts and Crafts style villa, which had been in use for student accommodation. Oberlanders Architects extended this at the rear, creating a new entrance and open plan office area. The Institute is a collaboration between the University of Stirling and SportScotland, and is appropriate located adjacent to the sports facilities of the University.

4.11.2 Character Assessment

This character area is a band along the south west boundary of the campus. This comprises a Scots Arts & Crafts style villa dated 1939 in a monogrammed gable facing south. The architect's initial is JWT. The style is roughly that of Robert Lorimer but the materials are cast stone around the openings rather than natural stone. The render has been painted white. To the east side is the entrance front although the entrance door itself is not in use anymore. There is a blank panel above the entrance door. The new entrance is in a circular building that connects to the original villa through a glazed link.

The original villa seems in fair condition although quite a few slates are missing from the upper part of the main pitch and on the bowed end facing south. There is a network of lightning conductor tapes on the building which look to be far in excess of what is needed, although it might comply with the current, British Standard. Some weeds should be cleared out from gutters.

One of the most significant elements about this villa was its views over the flat ground to the north of Stirling. To the south west is the profile of Stirling Castle. The building has been extended in two directions. To the north is a relatively low key extension with white rendered walls, a grey sheeted roof and plastic gutters. To the south east is a much more architecturally ambitious block which consists of four blocks with sheeted roofs running across the block to create four half gables. There is a circular entrance pavilion at the junction between the new block and the existing house. The detailing on the new blocks is crisp and interesting – a mix of metal and timber framing. The extension has been carefully considered to be in sympathy with the existing building without copying any elements other than the colour of the render.

The garden is now rather untended. This type of villa was intended to be seen in a much more intense garden surroundings than now exist. At the bank above the road there is a rubble wall which divides the garden in two. This rubble requires some repair. The southern of the rubble piers at the opening within this wall is at the point of collapse and should be repaired urgently.

The interior of the villa has been almost entirely altered. The original stair survives with an octagonal newel post but this is of very minimal significance. To the north of the Scottish Institute for Sport is a small building with overhanging eaves.

The villa and a probably later villa immediately to the south appear to have been the first two houses on an incomplete road development which might have been intended to stretch across the full length of the bank next to the A9. This development was not completed and a group of much more recent chalets has been built on the university grounds. The chalets are separated from the rest of the university by a high bank running up to the hill next to the Stirling Management Centre. The chalets are vertically clad timber buildings of a standard design built to a rectilinear arrangement. The roofs are concrete tiles and there are plastic gutters. The landscaping is relatively minimal – mown grass with low beech hedges around

the parking areas. There are some concrete paved paths. The buildings have been maintained but must be considered to be relatively short life construction. There are some trees near the entrance to this site but relatively few around and between the chalet buildings.

The main asset of this site is a view to the south west. This area could be significantly altered without affecting the significance of the campus or the area around. However, the neighbouring properties to the south are a group of fully fledged Scots Arts & Crafts villas. They are generally two and a half storey with steep roofs which gives them a high ridge line. Any new development on this site might not exceed this ridge line. The north chalet style building made of matching materials exactly is as a laundry rather than as accommodation.

This character area is completed at the northern end against the sports pitches by a road up from the main road which has some rubble retaining walls. The road next to the main road is a cutting. There are attractive trees on the north side and bushes, including rhododendrons to the south.

Along the full length of the east side of this area is a densely wooded bank which contains some paths. There is a storage shed at the north east corner of the character area.

The walls around the western and southern edge of this area are rubble stone. To the western side they mainly act as retaining walls with the ground on the university side being much higher. These walls are well maintained and are in good condition.

4.11.3 Assessment of Significance

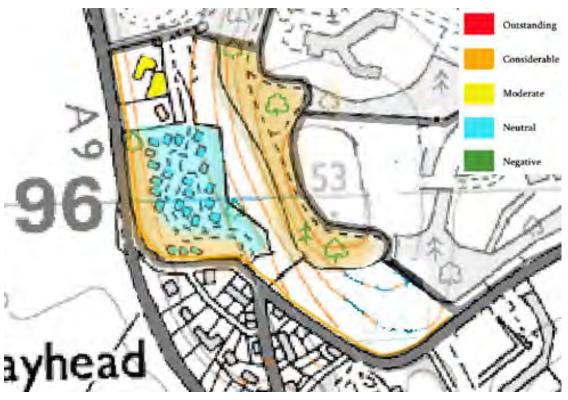


Figure 474 Character Area 11 site plan showing significance

The student accommodation chalet buildings and their landscape setting are of neutral significance. At the north end of the area is the Scottish Institute of Sport, which is of moderate significance. The boundary wall to the south and west of the area is of considerable significance, as is the policy woodland around Spittal Hill.

4.11.4 Recommendations

Maintenance

The Scottish Institute of Sport building, including the extension, is generally well maintained. Some missing slates on the roof of the villa should be replaced, and gutters should be cleaned out.

Repairs are required to one of the piers in the garden wall, which is in danger of collapse

Consideration should be given to improving the appearance of the villa garden, which would be a suitable site for colourful flowering plants.

Development

The chalets are built on an area of ground which is crossed by various water and sewage pipes. Although in other respects this area could be advantageously redeveloped, the below-ground water pipes place considerable restrictions on development of the site.

5.0 OVERALL ASSESSMENT OF SIGNIFICANCE

5.1 Introduction

The Burra Charter provides the following definition of cultural significance:

Cultural Significance means aesthetic, historic, scientific, social or spiritual value for past, present or future generations. Cultural significance is embodied in the place itself, its fabric, setting, use, associations, meanings, records, related places and related objects.

The following assessment of the heritage value of Stirling University campus is based upon an analysis and understanding of the historical development of the site, including the tangible documentary and physical evidence, as well as intangible historical, and social associations.

The assessment of significance establishes the importance of Stirling University campus as a place of cultural heritage. In order to establish parameters for appropriate and sensitive ongoing use of the site, whilst respecting the historic fabric, the grading of significance will help identify key elements of the place, as well as those which may be of an intrusive nature, that is, those that adversely impact upon the appreciation of elements of greater significance.

This information will then inform policies, or guidelines, which would have to be met in order to ensure appropriate conservation of the site and all of its components.

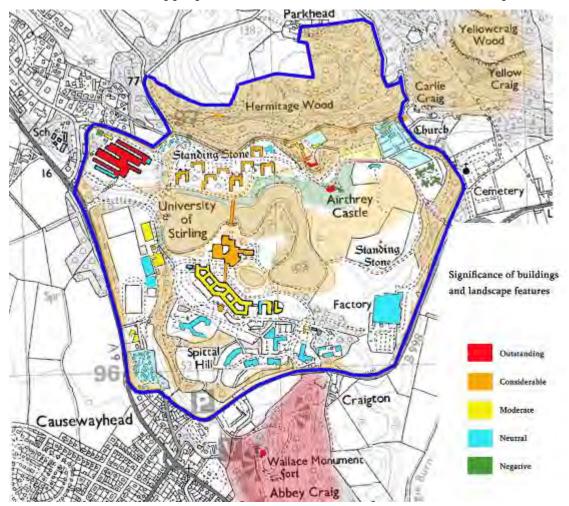


Figure 475 Site plan of campus showing significance of buildings and landscape areas S&B

5.2 Historical Significance

Historical significance encompasses the importance of the relationship of a site to the evolving pattern of our cultural or natural history, or has a strong or special association with the life or works of a person, or group of persons, of importance in our cultural or natural history.

A site may have historical value because it has influenced, or has been influenced by, a historical figure, event, phase or activity, or as the site of an important event. For any given place the significance will be greater where evidence of the association or event survives in situ, or where the setting is substantially intact, than where it has been changed or evidence does not survive. However, some events or associations may be so important that the place retains significance regardless of subsequent treatment.

The campus as a whole has considerable historical importance. It is associated with the following 18th century figures: its owner, Robert Haldane, who sold the estate in order to take up missionary work and was an important figure in the development of Congregationalism; Robert Adam, Britain's most important architect of the period; and Thomas White, the influential landscape designer.

Stirling University campus is of considerable historical importance not only as the first completely new university established in Scotland since the University of Edinburgh in 1582, but as one of the post-Robbins' Report establishments collectively known as the *plate-glass* group universities.

The Airthrey estate has a long recorded history, being documented in the 12^{th} century. There is evidence of the prehistoric importance of the area including the site, which contains a substantial standing stone. A buried whale skeleton and other finds were dug up to the immediate south of the site in the 19^{th} century.

5.3 Architectural and Aesthetic Significance

The importance of the site in terms of its contribution to an understanding of the architectural development of the site and broader context locally, regionally, nationally or internationally. Aesthetic value includes aspects of sensory perception such as consideration of the form, scale, colour, texture and material of the fabric; the smells and sounds associated with the character of the place and its use.

The campus is of outstanding aesthetic importance. Its combination of a late 18th century picturesque landscape containing a Robert Adam designed country house with high quality modernist university buildings is unique.

Of the buildings themselves, the Category A listed Principal's House is of outstanding importance, and is one of the most important buildings of its date in Britain. Pathfoot is also of outstanding significance overall, although it has extensions which are of neutral significance.

Airthrey Castle is one of only four surviving houses in Adam's castle style and is of outstanding significance. The interior of the building contains elements of outstanding importance, including a number of fine Renaissance carved panels which are built into the fabric. A few of the 18th century fire surrounds and some contemporary joinery elements survive and these together with other interior furnishings are of considerable significance. Some elements of the building reduce its significance: the 1950s conservatory and former nurses accommodation block; pipes on the south elevation. The setting of the castle now undermines its

significance, as inappropriate species of trees and shrubs and planting associated with the golf course development obscure it from view.

The Students' Residences, footbridge and Andrew Miller building are of considerable architectural significance, together with the remaining houses at Airthrey Yards, and the Gannochy Sports Pavilion. Other buildings within the sports area are of moderate to neutral importance. The main block of the Cottrell building has been reclad and this has reduced its architectural importance to moderate. Other buildings associated with the university, and buildings which have been constructed within the campus within the Stirling University Innovation Park are generally of neutral importance. The only development which is of negative significance to the campus is Alexander Court, which intrudes into views from the outstandingly important East Approach laid out by Thomas White as part of the original designed landscape.

5.4 Landscape Significance

The designed landscape is of outstanding aesthetic significance both for its own sake and as a unique example of modernist buildings designed in harmony with a 250 year old picturesque landscape.

The surviving elements of the historic layout are characteristic of the picturesque landscape designs of mid-late 18th century Britain, popularised by 'Capability' Brown and here designed by his pupil Thomas White. From the drive between the East Lodge and Airthrey Castle it is still possible to see the view across parkland through scattered mature trees towards a distant country house which was the ideal of the picturesque school. This is of outstanding importance. Further to the west this view is impaired by recent plantings of conifers and shrubs.

The man-made serpentine loch, Hermitage Wood and the boundary woodlands, and the parkland setting of the castle to the east are of considerable significance. The Victorian addition of an arboretum to the north of the castle is of moderate significance in terms of the designed landscape. It was a sensitive addition of exotic and flowering species within a discrete, and unobtrusive area. it is now one of the least altered and most attractive historic landscape features. The memorial garden south of the walled garden is a modern example of this approach. In general, flowering plants, shrubs, coniferous and colourful trees within other parts of the designed landscape are of negative significance as they disturb the picturesque aesthetic of an essentially 'green' landscape.

Views within and from the landscape are of considerable importance, and the campus is prominent in views from the Wallace Monument, although otherwise relatively concealed from outside views. A number of views could be improved by the removal of colourful plants or by selective felling of overgrown trees and shrubs.

Hermitage Wood is of considerable landscape significance to the setting of the campus buildings. The Hermitage and Summer House, although ruined, are of considerable importance as relatively rare examples of Scottish garden buildings of the late 18th century.

5.5 Ecological Significance

An ecological assessment of the campus identified no particular ecological significance, however the site overall could be considered to have moderate significance. There is a large area of semi-natural woodland at Hermitage Wood, together with aquatic habitat at Airthrey Loch. Current management of Hermitage Wood and other woodlands may increase the campus's significance in this respect.

5.6 Social and Spiritual Significance

Spiritual and social value represents the strong or special association of the site with a recognisable community or cultural group for social, spiritual or cultural reasons.

The campus is of considerable social importance to both present and past generations of students and local people as a place of education, and recreation. Airthrey Castle is of particular local importance as the main maternity hospital for the area from 1939-1969, since a large number of people were born there.

Stirling University was designed with the expressed aim of fostering good relations between 'town and gown' and the campus landscape has always provided recreational space for walkers and families, while the MacRobert Arts Centre provides a publicly accessible, and popular performance space. Classes and sports activities are held in university buildings which are open to all, and the golf course is also open to the public. Hermitage Wood is used by walkers, cyclists and riders from a nearby riding school.

5.7 Archaeological Significance

Overall, the campus is of moderate archaeological significance. Many areas have been extensively developed and landscaped however there are areas which have not been developed which may contain archaeological remains. The Forth Valley has been generally favourable for human habitation, and without knowledge of specific sites, it might be expected that archaeological remains of human activity would be encountered when areas are developed.

The estate has a recorded history from the 12th century and probably contained a dwelling from the medieval period. The location of buildings demolished before the late 18th century (such as a tower house shown on a 17th century map) is however unknown. It is possible there are remains within the now largely built-up Airthrey Yards area.

Two particularly interesting ruins survive from the late 18th century: the Hermitage, and the Summer House. These buildings are of considerable inherent gardens archaeology interest, both the standing and buried remains. Investigation would be highly likely to uncover further information about these important buildings.

5.8 Summary Statement of Significance

The harmonious and aesthetically satisfactory combination of a large concentration of 1960s-70s institutional buildings and a late 18th century designed landscape makes Stirling University campus uniquely important.

The Principal's House is one of the most important buildings of its date in the country. Pathfoot is also of outstanding significance. Airthrey Castle is one of only four surviving castle style houses designed by Robert Adam, despite its 19th century alterations. The campus layout by the architects RMJM is an outstanding example of 1960s planning. Its inherent flexibility has allowed the buildings to be adapted and extended for modern use with minimal disruption. The students' residences and the Andrew Miller building (including the Library and MacRobert Centre), linked by the footbridge and the link bridge, are all of considerable significance, with the reclad Cottrell building now of moderate significance. Later buildings within the campus have generally been well sited and have not undermined the designed landscape. The exception to this is Alexander Court, which has a negative impact on the eastern part of the campus.

The designed landscape is of outstanding aesthetic importance, and is characteristic of the work of Thomas White, a pupil of Lancelot 'Capability' Brown. A number of parkland trees survive from this period, and the current landscape regime will ensure that the future stock is maintained. The ruined Hermitage and Summer House are of considerable importance as well documented surviving landscape buildings of the late 18th century. The significance of some parts of the landscape has been impaired by inappropriate plantings, and their removal would enhance the appearance of the landscape including important views.

As well as housing the University of Stirling, the campus as a whole is an important local resource. The woods and footpaths are widely used by walkers and horse-riders; the golf course is open to the public; sports and other classes are held in the campus; and the MacRobert Arts Centre provides the principal performance space for the local area.

6.0 SUMMARY OF RECOMMENDATIONS

With only a few exceptions, this very extensive stock of large complex buildings is well maintained. The landscape is also well tended and maintained. The pre-1960s buildings in the campus are in need of repair as a result of the necessity placed upon the University to focus resources on the buildings in academic use. There are significant opportunities for repair and reuse at Garden Cottage, Ivy Cottage, and the East Lodge. Airthrey Cottage could also be improved in appearance.

Airthrey Castle is of outstanding significance, both for the architecture of its exterior and its remarkable contents. There are a number of ways in which the management of this building could be improved. There are opportunities to enhance the setting of the building by demolishing the 1950s former nurses accommodation block, and by removing the trees and shrubs which have been planted to the east, south and west of the building since the 1970s.

The picturesque landscape designed in the late 18th century is regarded as one of the most important components. It has the same high level of significance as Airthrey Castle and the best of the 20th century buildings. The overall recommendation for landscape management is to continue to protect and enhance this environment. There are several opportunities for enhancing the designed landscape setting of Airthrey Castle and the university buildings by removing inappropriate species of trees and shrubs or by replanting flowering or colourful plants in areas which do not intrude visually on the campus. The walled garden, memorial garden, and arboretum area are recommended as areas suitable for growing colourful or exotic species. The landscape setting of the buildings in Airthrey Castle Yards is a carefully considered part of the design of the Principal's House. It has reached maturity and needs careful repair to retain its character.

It is recognised that there is a difference of emphasis between the historic appearance of the designed landscape and present day policies for encouraging biodiversity and wildlife habitat. It is recommended that the late 19th century approach to adding flowering shrubs and exotic trees be followed, that is, that areas of the landscape should be set aside for specific sorts of planting, but that these should be distinct from the parkland of the 18th century picturesque design. Hermitage Wood, for example, is currently managed to encourage natural habitats by permitting undergrowth and leaving fallen branches to rot – this approach could be followed in other designated woodland areas where it would not block views or disrupt the aesthetics of the designed landscape. The shores of Airthrey Loch, for instance, are not suitable for this approach.

6.1 Retention of Significance

The site contains Category A listed buildings. The Principal's House and Pathfoot building are recognised as having outstanding significance. Airthrey Castle, although altered in the 19th century, is considered to have outstanding significance. The arrangement of the campus buildings in general is a highly significant example of the work of the important 20th century architects RMJM.

• The buildings of outstanding significance should be repaired and retained in good repair. The parts which are either missing or have damage to the original fabric should be restored to their original condition or appearance. Alteration, other than repair, to the exterior of these buildings should be kept to a minimum. Original external colours on joinery and external metalwork should be restored.

- Flexibility and extensions were allowed for in the original design of the university and additions should continue the aesthetic of the original building
- Buildings of considerable significance should be retained and repaired. Alteration is possible in these areas of considerable significance. This is justified particularly where an alteration is intended to protect an element of outstanding significance.

Elements of neutral significance could be demolished or altered to provide a new use for the site. Elements considered to have negative significance should be altered or screened for the overall benefit of the site. The building which it is most practical to demolish is the 1950s former nurses accommodation block and conservatory at Airthrey Castle. Other negative areas include Alexander Court and the flowering plants, shrubs, exotic, coniferous or colourful species of trees (other than those within the Arboretum area, the island, and the Memorial Garden). The removal of elements of negative significance and, in some cases, their sensitive replacement, will be a benefit to the significance of the site overall.

6.2 Further Research

Basic archive research and consultation has been carried out for this study. More detailed study might reveal more about the history of Airthrey Castle. In particular, the collection of Robert Adam drawings in the Soane Museum may contain significantly more information. Further research in the RMJM archive and the University of Stirling Archive might reveal more about the university buildings and about the later history of Airthrey Castle. Further research into the history of the landscape could also be undertaken.

6.3 Physical Evidence and Recording

The inspection carried out for this survey did not involve any opening up. Within Airthrey Castle it is almost certain that more evidence of the original interior form and decorative finishes is preserved underneath later, less significant finishes. It is possible that significant evidence will be revealed for the character and colouring of original internal wall surfaces. Care must be taken to avoid the loss of this evidence. The assessment and recording should be carried out by an experienced archaeologist or buildings historian. The results should be made publicly available ie by inclusion in the National Monuments Record for Scotland.

Where buildings are to be altered, they should be recorded in drawings and photographs before and during alteration or demolition.

6.4 Repairs

The buildings have been well maintained and the condition of most of the buildings is good. The condition of the interior of Ivy Cottage is poor. There are areas which require repair work, which are: East Lodge, Garden Cottage, Ivy Cottage. These buildings require extensive repairs, particularly to their roofs.

6.4.1 Ivy Cottage

Ivy Cottage is the building in the poorest condition on the estate. Its significance is as a characteristic and pleasant stone built 18th century cottage. It is not exceptional and contains no remaining interior features of significance. However, it would be a pity, in conservation terms as well as in terms of the potential asset of a habitable building, to let this building decay further.

The part of the building to the east, which is an extension, is in poorer condition than the original three bay block facing towards the bowling green to the west. This part of the building is not worth retaining and should be demolished. The single storey lean-to to the north is also in poor condition and is unlikely to be economically viable for repair. This part could also be demolished.

The original core of the building will need a careful conservation led strategy for its protection, drying and eventual repair and conversion. If the extensions are removed then further openings should be protected. The method of protecting these openings should allow air movement through the building. If there is no ventilation then the existing timber decay will continue unchecked. The rotten timber within the original core of the building should be stripped out. This probably amounts to stripping out all of the finishing timber and plaster, with the possible exception of structural floor joists. Floor joists should be left in place, even if they are rotten, since they have some tying function between the front and back walls. As part of the same campaign the roof should be fully repaired to stop water ingress and the valleys, slates and gutters kept maintained. It might be sensible to monitor drying at three or six month intervals for a period of years until the building walls are no longer saturated and interior finishes can be reinstated without risk of fungal decay.

In the longer term Ivy Cottage could be restored to its original appearance with lime harled walls, sash and case windows, and a traditional vertically boarded door (figure 476).

The character of reinstatement of the interior is not a conservation issue. The building is capable of sensitive extension to the east and north. Such extensions might be necessary to provide a



Figure 476 Conjectural appearance of restored Ivy Cottage *S&B*

sufficiently large house to make repair financially feasible. An extension on the east side of the building could be larger than the footprint of the existing extension without compromising the character of this building or area.

6.4.2 Garden Cottage

Garden Cottage is an attractive building which is nearly in inhabitable condition. There are a few points on the roof where slates need to be overhauled. A judgement would need to be made about what the future for Garden Cottage is to be. Overhauling the building for holiday letting, for instance, or offices, would involve a different scope of works than overhauling for permanent residence or for sale.

The main significance of Garden Cottage is in its south elevation and its relationship to the walled garden. Garden Cottage should not be separated visually from the walled garden, but the immediate context in front of the cottage could be changed to provide a more appropriate and attractive setting. This could be done by a strip of

maintained garden in front of Garden Cottage. It might be necessary to provide an access road across the north edge boundary of the walled garden to allow any future development in the area between Garden Cottage and Ivy Cottage. The external appearance of Garden Cottage should be retained rather than altered.

The interior should be retained where possible. The interior fitting of Garden Cottage is not particularly significant but it does contain simple joinery detailing from various periods which is appropriate and indicates the various dates that the building was altered. New joinery with historic detailing would not have the same pleasant historic character however well it was designed or made. Some parts of the interior, such as the kitchen, bathroom and shower room are clearly not up to the standards expected for contemporary use but neither kitchen nor bathroom has any significance and could easily be changed without affecting the overall character of the house.

6.4.3 East Lodge

The East Lodge is an important remnant from the Airthrey Castle and designed landscape phase. With the decay and obscurity of the Hermitage and the Summer House, and the loss of the West Lodge, it is now the best preserved and most prominent of the estate buildings that were intended to decorate or articulate the picturesque designed landscape. The lodge is also an important point in an understanding of the eastern approach to Airthrey Castle. This eastern approach is one of the points where the full quality of the landscape and Airthrey Castle's position within it can be appreciated. The drive rises from the lodge up to the point where Airthrey Castle can be seen through avenue trees to the west. These views are further enlivened by the Wallace Monument. The combination of original entrance, lodge, drive and avenue should be appreciated as an aesthetic set piece. One of the main compromises in this set piece is the appearance of Alexander Court to the east of the drive and this conservation plan recommends further screening of Alexander Court so that it is not prominent either from the drive or in views associated with Airthrey Castle.

The lodge is an important part of this set piece. It indicated the entrance to an estate at its boundary and introduced the romantic castellated character of the architecture of Airthrey Castle. Work has been carried out to the lodge to prevent or slow down decay whilst retaining it as an unoccupied building. This work has been successful in preserving the lodge. Although its appearance is better than a derelict building, the lodge does not present a particularly good aspect at the eastern edge of the estate. Its current condition does not make the best of what could be an attractive listed building which could have a use which earns its keep. In terms of condition, the interior of the lodge is basically dry. The best use for the lodge would be as a single house although it is conceivable that office use would also be appropriate. There are specialist holiday companies which take on buildings of historic interest, raise grants and restore them. This might be possible for the East Lodge. The building requires a new roof covering -although the concrete which has been fitted should remain masonry repairs and new windows. New windows should match evidence of existing or be derived from polygonal lodges of a similar date by the same architect, for example the lodge of Monzie in Perthshire (William Stirling, 1812). The interior is entirely lost and with the exception of the stone stairs, there would be little point in reinstating lost decorative detail to the rooms. The amount of detail and appearance of the rooms would be designed to meet the requirements of an intended use. A holiday maker, for instance, would expect appropriate cornices and shutters but someone working in an office would not.

6.4.4 Airthrey Castle Yards

- Repairs to stone walls will need some changes of materials and detailing to be effective long term repairs
- Recapping and some rebuilding of stone walls within service areas
- · Significant pointing and repairs to walls of former walled garden, including removal of young trees and ivy
- · Icehouse door should be replaced with a gate to allow ventilation
- · Repointing of retaining wall to bund at icehouse
- Laurel tree growing on roof of icehouse should be cut back but retained

The conservation, maintenance and repair of the former stable yard walls at Airthrey Castle Yards needs considerable care and sensitivity. Unlike other building repair at other parts of the campus site, a wholesale single contract approach to repointing these walls would not be appropriate as it would damage their subtle character. This character has been established over time and partly depends on the managed decay and slight undermaintenance of these walls. There is a very pleasing contrast between natural growth between rugged masonry walls and the clean white lines of the new buildings. This contrast has taken time to develop and over the 40 years since the buildings were completed has reached a point where the beauty and contrast is working very well. This contrast would be lost if all of the weeds and vegetation were raked off the 18th century walls and the walls were fully repointed. The 18th century walls of the former stable yard are clearly, and intentionally, part of the architecture of the Principal's House and the Nuffield Houses. They were carefully reduced in height to match levels on the Principal's House. Their capping detail is not particularly effective but it is clearly the intention of the original architects not to finish these walls with a cope and this design detail, or lack of it, should be respected.

In order to avoid losing the natural quality of these walls it would be best to tackle the necessary repairs, such as loose capping, eroded wall core and loss of pointing, in a piecemeal fashion in an extended period according to an overall strategy. The walls should be surveyed and repairs indicated. The nature of the decay is relatively slow in most cases and approximately the same extent of repair will be required in 10 years time as it would in one year. A mason skilled in the use of lime mortars should be asked to carry out small packages of work – say 2 weeks work per year working around all of the walls. By the time that the work has been completed, other parts of the walls will have had a chance to regain their current attractive character.

6.4.5 Airthrey Castle

The repairs to Airthrey Castle are mainly desirable points of restoration rather than essential repairs. There is a small amount of pointing to the masonry and work to the roof required but this would be expected in any historic building of this scale. Airthrey Castle has an appropriate use and the restoration and improvement of the exterior can only be expressed as an aspiration rather than a requirement in this conservation plan. Some of the interior fabric is at greater risk. The quality of the architectural antiques in the interior of Airthrey Castle is a remarkable quality of the entire estate. It is suggested that a full recording by a specialist historian and

conservator should be made of all of these objects to establish their quality, value, conservation needs and repairs costs. Although most of these artefacts appear to be in fair condition, it is important that the university is advised about the appropriate environment and other possible threats to their condition.

6.4.6 Gannochy Pavilion

The original sports pavilion is a significant building dating from the first campaign of university buildings. If it is to be retained then repair and sensitive alteration would be appropriate along the same lines as already carried out at the Pathfoot building. If major alteration is proposed then the building should be recorded in photographs and drawings.

6.4.7 Boundary Walls

The campus is surrounded by the rubble stone boundary walls that marked the inner part of the Airthrey Castle estate. The survival of these walls is of significance in heritage terms but also defines the boundary of the current campus. Together with the walls around the walled garden and some other original rubble walls, they do present a maintenance burden. In many places the walls are leaning, are being damaged by vegetation or need repointing. In very few instances the repair is urgent. This applies mainly to a rubble wall in the garden of the Scottish Institute for Sport and at some damage by trees in the walled garden at the north east part of the Airthrey Castle Yards Character Area 5. Most of the walls are intact and the type of decay is slow. A full report and written survey should be made of the boundary walls to identify the extent of repair. This repair should be carried out according to a strategic and prioritised approach of 20 years or so.

In the few places where walls are lost or damaged – such as the boundary at the footpath to the north west of the walled garden and the walls near to the East Lodge – consideration should be given to rebuilding and reinstating these walls.

The landscape context for the East Lodge has also degraded. Rubble walls which define the boundary of the estate have been broken down to either side of the lodge at the gate piers which mark the entrance point have all been lost. The access route to the lodge has new planting on either side which will, eventually, provide an appropriate context. It would be good to restore the new hedging on either side of the approach to the lodge.

6.4.8 Walled Garden

Repairs to wall of walled garden

6.4.9 Pathfoot

- Some damage to soffit panels to be repaired
- Some flaking of external paint finishes
- Rotten timber at windows and sills, particularly at link corridors

6.4.10 Scottish Institute for Sport

Some roof repairs are required on original villa building

6.4.11 Conclusion

It is a remarkable testament to the maintenance regime at Stirling that in such an extensive, complex, heavily used and varied collection of buildings there are so few points of concern about condition or maintenance. The priorities for urgent repair

are restricted to very few items compared to the scale of the Stirling University buildings. The extent of other recommendations is also relatively light for the scope and significance of the buildings. Many of these recommendations are desirable works to recover significance or restore some lost feature, rather than necessary works to protect a building from decay.

- Some further survey and reporting work is necessary in order to allow proper planning for conservation related repairs and alterations in the future. These surveys and reports include:
- A survey of the boundary walls to establish condition, priorities, specification and cost. This survey would be carried out by a conservation accredited architect with assistance from structural engineer to advise on stability of the buttresses of the wall to the north of the halls of residence.
- Repair schemes and costs for East Lodge
- · Repair schemes and costs for Ivy Cottage
- Repair schemes and costs for Garden Cottage
- Repair schemes and costs for the icehouse
- Survey, report, specification and costs for original walls at Airthrey Castle Yards. This report would be written by a conservation accredited architect.
- · Written statement with illustrations of strategy and design intentions for the landscape. We suggest that this should be written by the landscape consultant to the university.

6.5 Restoration

Some alterations have been made to the significant buildings on the site in the past which should be reversed to restore the original design intentions. This work could include:

6.5.1 Airthrey Castle

Apart from the conservation of the artefacts of the interior of Airthrey Castle, it would be desirable to consider some restoration of the interiors. The interiors of Airthrey Castle were designed as a country house. Clearly, they will never be used for this function again but they currently have the quality of a public building. The use of white paint and services associated with a public building, although entirely appropriate to the function, are not the best way of displaying the original artefacts in context. There is no necessity for the university to consider further alterations to the interior of Airthrey Castle beyond the conservation and repair of the fabric and architectural artefacts but it would be a desirable objective to reinstate some original paint colours, plaster work and to relocate some of the more intrusive servicing. This would provide a more attractive, coherent and understandable interior which is the appropriate context for the important architectural elements.

Restoration could include:

- Restoration of original glazing pattern
- Restoration of original paint colour for exterior joinery
- · Removal of excessive external pipes

Restoration of interior paint colours

6.5.2 Airthrey Castle Yards

- Alter access ramp to Principal's House
- Remove roofing felt cladding from water tank and finish in white render

6.5.3 East Lodge

Restoration of gatepiers and appropriate landscape context

6.5.4 Ivy Cottage

Removal of 19th and 20th century additions to exterior

Repair and restoration work must be based on thorough physical and historical understanding of the buildings. The design of repair works to buildings should be undertaken with a thorough knowledge of traditional building history and practice.

The work should be designed so that it can be carried out safely and consideration must be given to safety issues arising from the continued maintenance of the building.

It is essential that conservation work is carried out by experienced trades people. A large part of the success of any project is in the understanding of the task and sharing of experience between all professionals and all trades people involved.

The repair and restoration of missing elements should be based on detailed examination of the relevant parts of the existing structure or feature. Existing masonry elements should be surveyed to provide an accurate replacement for the restoration of damaged masonry around windows and doors. The specification of materials in building restoration should match the existing in terms of quality, materials, colour, and finishes.

The fabric should be recorded before the restoration work is carried out.

6.6 Work to the Interiors

The architectural antiques which are fitted to the interior of Airthrey Castle should be assessed by an appropriately qualified professional and a management care plan prepared for their repair and for the appropriate environmental conditions.

6.7 Adaptation to a New Use

The campus buildings were designed to be inherently flexible in terms of their use by the University. All of the buildings on the Stirling University campus, both pre-university and post 1960s, are capable of alteration. Such alteration should be done to a high quality and with reference to the significance analysis of each building. The exterior of Airthrey Castle is significant and therefore would be difficult to alter or extend satisfactorily with the exception of the removal of the nurses block. Other buildings, such as the East Lodge and Ivy Cottage have backs which are less important than the architectural fronts. Alteration should be concentrated on these sides. The significance of the interior on many of the buildings is less than the exterior. On the more complex buildings, such as Airthrey Castle, there are some parts which have high significance and other parts which have neutral significance.

Future adaptation to suit new or revised use should be concentrated in the areas of neutral significance. If this is not possible then areas of moderate significance should be altered in preference to areas of considerable significance.

Some buildings - Garden Cottage, East Lodge, Ivy Cottage – are not currently in use, and it is desirable that they are in active habitable use. An access to Ivy Cottage could be established fairly easily from the east. The other two houses already have vehicular access independent from the campus. It would be possible to extend all three houses without compromising their integrity,

The area between Ivy Cottage and Garden Cottage offers scope for new buildings.

6.8 Interventions to Existing Buildings

6.8.1 Pre 1960s buildings

Alterations to improve current use or to suit a new use might be carried out to the following pre 1960s buildings: Airthrey Castle, East Lodge, Garden Cottage, Ivy Cottage, Airthrey Cottage. The design of interventions should meet the following objectives:

- The design must respect the significance of the existing buildings. It should be innately attractive but it should not be intrusive to aesthetic or historical appreciation.
- The design must respect the existing fabric of the buildings. The interface between a new element and the existing fabric must be carefully considered to avoid damage to the existing buildings, for instance by differential erosion or by damage at fixing points. Where possible, the alteration should be reversible.
- Interventions should be carefully considered to be in sympathy with the existing structure or feature in terms of design and materials. This does not mean, however, that an intervention or extension should necessarily replicate elements or the style of the existing structure. Interventions should be clearly identifiable as such, both physically, by dating, and by documenting the construction and alteration process. The interventions throughout a building could have common character so that they can be interpreted as being part of a single datable campaign of alteration.
- The materials used in interventions should be of good quality and long lasting. This does not necessarily mean that the walling materials of the building should be matched in an extension or in a new building nearby.

6.8.2 Interventions to post 1960s buildings

The campus buildings were designed to be flexible, and in many cases the original architects included future extensions in the plans.

Future adaptation and interventions to suit new or revised use should be concentrated in the areas of neutral significance. If this is not possible then areas of moderate significance should be altered in preference to areas of considerable significance.

Buildings such as Pathfoot and Cottrell are unusual in being designed to suit adaptation and there is no reason, in conservation terms, that these buildings should not be extended or altered as long as the alterations are designed with reference to the significance of the original building. The buildings within the university core were designed to be extended according to the original and later RMJM masterplan. Later buildings, such as RG Beaumont and Iris Murdoch have been designed to a more traditional brief without the radical attitude to flexibility embodied particularly at the Pathfoot building.

The nature of the post 1960s buildings is too varied to form overall guidelines about height or building form. The 1960s buildings set a high standard of architectural design and it is considered that the university campus in general is of sufficient significance generally and the same high standard to be maintained in the alteration of new buildings. This has not always been the case, although some buildings such as the extension to the Scottish Institute for Sport, the Robertson Trust Swimming Pool/National Swimming Academy and the Iris Murdoch building are all recent additions to the campus buildings of high architectural quality.

Although the first phases of development included a 'house style' which was typical both of work by RMJM and of the 1960s and early '70s, this style of buildings is no longer relevant to new design. This is because there have been many buildings which have departed from this style since the 1960s so a self-conscious 1960s revival would be pointless. The exception to this is probably in the immediate context of Pathfoot. New buildings should be to the highest standards of contemporary design and should represent the best design that can be achieved within the parameters of site and budget set by the university. Although there can be few constraints on what 'good design' might mean within or adjacent to the 20th century buildings, it might be considered good manners to derive some aspects from qualities in the existing building. The colour, horizontal emphasis, cladding style and window material are all elements which could be repeated to provide a general continuity of new buildings as the university continues to develop. A building which departs from these elements, such as strongly coloured building, would need to be very carefully judged and justified. It must relate to its setting within an 18th century designed landscape and also avoid creating a visual disharmony with the buildings constructed so far.

Extensions in some areas would require greater care than in others.

6.9 Demolitions

Some demolitions are recommended as desirable to enhance the significance of the site. These are:

- 1950s former Nurses Accommodation block to east of Airthrey Castle
- 1950s conservatory at Airthrey Castle: first floor level above Victorian masonry base

6.10 Landscape

The history and development of the landscape since the start of the university has been more complex than it has for the buildings. This influences conservation policies and recommendations. In 2009 we consider the underlying 18th century designed landscape to be one of the most significant characteristics of the Stirling University campus. Although the qualities of the landscape were clearly appreciated

when the university buildings were designed, this was probably an aesthetic design appreciation – a beautiful setting for new buildings – rather than the appreciation of the landscape as a historical work of art. Research, understanding and appreciation of historic landscapes has advanced a great deal since the 1960s and the significance of the landscape is now considered to be on equal terms to the significance of Airthrey Castle and the rest of the 1960s buildings. This change of attitude is illustrated by the phase 3 development strategy which proposes new buildings across the parkland across the south of Airthrey Castle. In the '60s this would have been an acceptable proposal as a reaction to an existing parkland steading. In 2009 it could no longer be considered to be appropriate to place buildings within the open, Capability Brown inspired setting of a Robert Adam country house.

The landscape work being carried out now by the university has a different quality and design aesthetic from the landscaping work associated with the 1960s buildings. There are a number of reasons for this. The tree stock that was used for planting in the 1960s was not of high quality and this means that many of the trees planted at that time are not worth retaining. The land use has changed with more intensive pedestrian use, car parking and a larger area for sports. The nature of the design associated with the 1960s and early '70s buildings is now considered to be inappropriate. As well as changing fashions, current landscape design is informed by the wish to make long-lasting, maintainable and appropriate context for the buildings in ways which were possibly not considered in the 1960s.

A further problem in the landscape is that, almost from the start, the design was compromised by the planting of groups of flowering shrubs. This problem was identified in a critique of the Stirling University landscape in 1991 and continues to be a problem today. Colourful planting has been introduced along the line of the original west drive and in odd groups around the west end of Airthrey Loch and to the east of the Cottrell building. This means that there are now four different landscape architectural sensibilities competing within the campus area – the original designed landscape, the 1960s scheme, the colourful 'public park' style planting and the linear and structured planting introduced by Ian White Associates in the past 20 years.

A significance analysis of the various competing landscape sensibilities suggests that the original 18th century landscape is by far the most significant. It was a green landscape with open areas of grass articulated by grouped and single mature trees from a narrow range of species. Airthrey Loch was the principal component of this landscape and its focus was on Airthrey Castle.

The next most important planting is the current strategic approach to replanting carried out by Ian White Associates. This is a thoughtful and considered response which meets the current needs of the University within the context of the designed landscape.

This current landscape strategy is different from and in some cases involves the removal of landscape planting which was contemporary with the first phases of the campus development.

The decorative colourful planting is well intentioned but is counter to the design intention of the original 18th century landscape and the 1960s and current landscape strategy. It represents a need to decorate but the result is a disorderly character where original sweeps of green landscape are interrupted by outbreaks of colour.

Perhaps what is needed for the landscape is a clearer statement of the relative significance of each of the competing factors in landscape design and an understanding of the quality of its most significant element – the 18th century designed landscape. In addition, the thinking behind the current landscape strategy by Ian White Associates should be fully understood by all involved in making decisions about the landscape. The planting of belts of trees to be subsequently thinned out to provide single trees within the landscape is not immediately evident without an explanation by the landscape architect. In order to avoid piecemeal alterations which might decorate one part of the landscape but compromise the landscape design as a whole, it might be worth forming a group or committee or all parties who have an interest in or make decisions about the landscape. The decisions that this committee make should be informed by the significance and strategy document.

The aesthetic principles of the 18th century picturesque landscape design should in general be used as the basis for landscape management.

The Estate Strategy sets out the following principles:

- Conservation of existing woodland
- · Extension of existing woodland for new development
- · Rationalisation of existing planting including removal of inappropriate species
- · Improving the public realm including at entrances to Cottrell and Pathfoot
- New planting including beech hedges at carparks

In addition, it is recommended that discrete areas are used for growing species not found in the original designed landscape:

- · Arboretum to north of castle
- Walled garden
- Commemorative garden
- Area around Alexander Court
- Island

6.11 The Character of the Surrounding Area

The campus is surrounded by a boundary wall. Beyond this on all sides is the public road, except at the north where there are open fields beyond Hermitage Wood. The surrounding landscape is highly scenic, and the campus forms part of an area of considerable natural beauty. In views from the Wallace Monument the campus buildings make a striking contribution to the landscape.

6.12 Design and Location of New Buildings

The Estates Strategy identifies three design principles for the siting of new buildings in the campus:

• New development should be an extension to the existing teaching and social core as envisaged by the 1968 and 1973 Development Plans.

- New development should be located close to the edges of the Estate with a background setting of woodland.
- New development outwith these zones should be located so as to maintain views to and across water, within and beyond the campus, and should not interrupt the main visual horizons or ridges within the site.

The design of buildings in close association with existing work of quality always requires particular architectural knowledge, judgement, skill and care. There will be many appropriate ways of designing new buildings on this site but some basic criteria can be applied.

New buildings should not damage, mask or devalue the significance of existing buildings, either physically or visually. They should be of appropriate quality and should complement the existing significant buildings on the site. New buildings can be carefully matched, blended or contrasted with the existing buildings but in all cases they should combine to form a composite building or group of buildings of overall architectural and visual integrity. Even when a particular approach is judged to satisfy all the relevant criteria, the visual success of the development as a whole will depend on the fine detail, and on the skill and aesthetic sensitivity with which it is carried out.

The design of new buildings should not be perceived as an end in itself, to be regarded in isolation. The composite building group should be of appropriate quality throughout and should have architectural integrity as a whole and in its setting. The component parts should be maintainable and should be expected to age, weather and generally to grow together.

A designer of extensions to the campus buildings is fortunate in having detailed design drawings available from the original design. This will allow accurate replication of original detail if such an approach is considered appropriate

6.12.1 Height

The height of new buildings should generally be no greater than the height of the nearest block. The visual impact of a new building within the site should be considered in terms of principal views, tree cover and horizon.

6.12.2 Scale

The monumental scale of the existing buildings has been carefully judged to balance against the landscape and the topography of the site according to the aesthetic of the period when they were designed. The university was intended to be extended, and the development plans set out by RMJM provide guidelines which remain relevant.

6.12..3 Materials

Building materials are likely to be the main difference between the existing pre 1960s buildings and new construction. Where extensions are made to the campus buildings, which were constructed after the 1960s, it would be possible to match the materials precisely. In the context of the $18^{\rm th}$ and $19^{\rm th}$ century buildings, natural materials of high quality are preferable to composite materials, but this does not apply to the $20^{\rm th}$ century buildings.

Airthrey Castle and the East Lodge are built of sandstone and have slated roofs. If stone is used in new buildings it should be chosen to match this colour and character of pattern.

Materials in new developments should be derived from the significant structures on the site and from the surrounding buildings. Character Areas 5 Airthrey Yards, 1 Pathfoot, 3 Students' Residences, and 6 Airthrey Castle, are particularly sensitive in this regard. The Cotterell building has been reclad and is less sensitive, as are most of the other buildings in the campus.

Character Area 1 Pathfoot, Character Area 3 Students Residences, Character Area 2 Central Area, Character Area 4 Sports Area

- Materials used in existing buildings should inform extensions and new buildings
- Particular regard should be paid to the colours of existing buildings

Character Area 6 Airthrey Castle, including East Lodge

- Sandstone, formed or clad in ashlar courses, buff colour sandstone with some gradation in texture and iron staining. Some stone surfaces should be tooled rather than left plain
- · Sandstone laid as rubble with tooled face and mortar joints brought flush
- Painted timber frames
- Painted metal frames
- Natural slate
- · Lead cladding to flat or low pitched roofs
- Painted timber windows and doors
- Metal gutters and down pipes

6.12.4 Detailing

The campus buildings were generally designed using a very simple architectural 'language' which was intended to allow extensions. The detailing of the new buildings will depend on the chosen construction materials. If the new buildings contain detailing which refers in any way to the mouldings and other architectural form of the existing building, this detail must be handled very carefully.

If details are to be repeated as a reference to the existing building, then they should be repeated accurately to avoid the feeling of pastiche.

Pre 1960s buildings

It is preferable in this case to make detailing which relates to the original, either in size, position, heights, or by lining through horizontally with the existing building but which is expressed quite differently in a contemporary manner.

The architectural response which is least likely to be acceptable is a design between these two positions which involves an approximation of historic detailing without an understanding of its purpose or construction.

6.12.5 Symmetry

Since the setting is a romantic landscape, and since the 20^{th} century buildings are a flexible group capable of expansion, it is not essential, and possibly not desirable, that new buildings are precisely symmetrical or symmetrically arranged. However, a balanced disposition of elements would be a reasonable response to the character of both the existing pre 1960s buildings and the 20^{th} century campus buildings.

6.13 Campus Development Plan

6.13.1 Peninsula Site

This is an area identified for expansion within the campus Development Plan. The building has been proposed for this site from the early masterplanning exercises by RMJM. The east and north sides of the Robbins Centre are less architecturally resolved, presumably in anticipation of a building on the peninsula site. This is a very sensitive site from the point of view from the historic landscape but this does not mean that the landscape need be compromised by a building on this site. It is considered that a building would be better placed to the south east of the ridge of the peninsula. The building should affect views southwards across the western part of Airthrey Loch as little as possible. This is because the other university buildings, with the exception of the bridge, have little impact in these views. The view from the eastern arm of the loch needs to be carefully considered but the building can be more prominent in these views. It will form a group with the MacRobert Centre and the Cottrell building with the fly tower of the MacRobert Centre becoming a central point.

6.13.2 Expansion to west of library

Site 1.04 on the revised campus Development Plan shows a proposal for extension to the west of the university library. In the original development plan this was intended for an extension to the library with the library rising above and even over the edge of the loch. As originally intended the west wall would have been in line with the west side of the north west corner of the Cottrell building. The library and the Cottrell building would have formed the most dramatic element of modern intervention into the historic landscape. The gap between the Cottrell building and the library extension would have been a tall entrance way. This strong architectural element was never realised and, with the building of Hurd Rolland's University Court building this architectural drama will not be achieved. However, the potential of this site for an iconic and dramatic piece of architecture has been recognised in the past and could form the design of a new building on this site. The designer should also consider the proximity to the library and the likely original appearance of the library and its relationship to the loch. This might be an influence for a new design on this site.

6.13.3 Proposed development of Cottrell building.

The proposed campus development plan shows various potential developments to the Cottrell building and additions to the south and around the RG Bomont building. All of these can be achieved without compromising the architectural or landscape significance of the buildings, as can a proposed extension to the Stirling Management Centre.

6.13.4 Developments within the designed landscape

The development area is shown as 1.13 and 1.14 to the south and south east of the eastern arm of Airthrey Loch will require considerable skill and quality of design in order to avoid compromising the landscape significance of the university campus. The site at Wallace View has the benefit of being hidden from most significant views from the north. The masterplanning originally intended an important functional building on this site, the main university hall for graduations. The main impact to be considered is in views across Airthrey Loch across the west and north west.

Any development in place of the nurses block to the east of Airthrey Castle must be extremely carefully considered to avoid distracting from the role of Airthrey Castle as the focal point within this part of the designed landscape.

6.13.5 Residential development

Residential development has been proposed to the south of Alexander Court, to the north of the walled garden between Garden Cottage and Ivy Cottage, and the north east corner of the Airthrey Castle Yards Character Area. The development to the south of Alexander Court would have an impact on the original east drive. This impact can be managed to become a positive benefit. A carefully design development in architectural and landscape terms in this area could help to screen the views of Alexander Court and its inappropriate bulk and materials from the rest of the designed landscape.

The area between Ivy Cottage and Garden Cottage is surrounded by walls and could be developed without compromising the significance of the rest of the site. The most complex issue, in conservation terms, is likely to be the access past Garden Cottage.

The development to the north east of the Airthrey Castle Yards Character Area is also an opportunity for attractive contemporary architecture. Although it might be appropriate to repeat the materials, colour and height of the Nuffield Houses, we consider that it would be a mistake to try to repeat the architectural style. The Principal's House and Nuffield Houses are a discreet architectural group and this quality would be diluted by repetition. The density of the Nuffield Houses sets an appropriate precedent for density of development within this walled garden site.

6.13.6 East bridge proposal

A bridge over the eastern arm of Airthrey Loch was proposed within early campus development plans.

A bridge in this location could be managed to be a positive design benefit into the designed landscape.

It was originally intended to be access to student accommodation proposed to the land to the south of Airthrey Castle. The design need not follow the pattern of the bridge to the north of the Andrew Miller building and should be specifically appropriate to its location, the character of the banks, the character of the landscape area to the south of Airthrey Castle and be high quality contemporary design.

6.14 Views

6.14.1 Reinstatement of lost/obscured views

Views around Airthrey Loch have been obscured by plantations of colourful shrubbery or self-seeded saplings and a management programme should be followed to open up these areas:

- West shore, view of university buildings
- North shore, views to and from Students' Residences
- South west shore, views to castle

Reinstatement of views to and from Airthrey Castle should be a priority in landscape management.

- Reassessment of golf course design, including removal of conifers, smaller species and exotic trees
- Removal or replanting of commemorative trees in vicinity of castle

Historic views which have become obscured by tree growth should be managed over time to reinstate openings. These are principally from the Summer House and from the Hermitage.

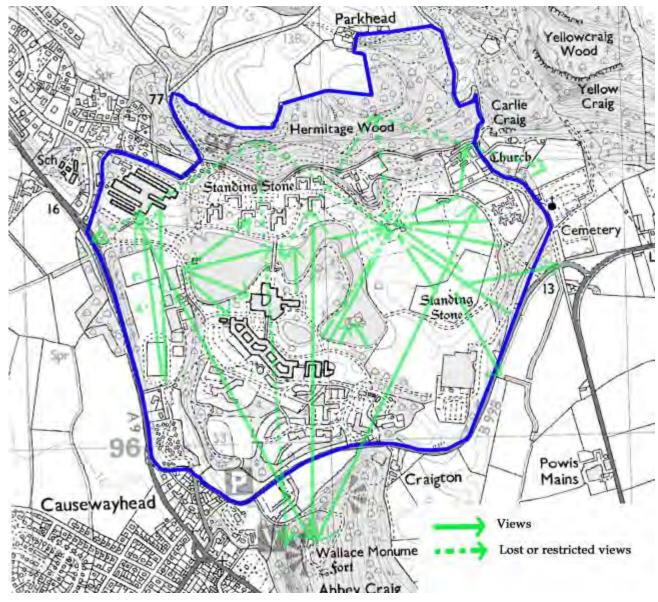


Figure 477 Principal views within campus, including lost or restricted views *S&B*

6.14.2 Future development

Development should not obscure or intrude upon significant views within the site, such as the views to Airthrey Castle from the south, east and west, the views across the loch from all directions.

The design of the development should take particular care to avoid affecting views towards the site from the Wallace Monument.

APPENDICES

APPENDIX I ARCHITECTS AND DESIGNERS' BIOGRAPHIES

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APPENDIX I ARCHITECTS AND DESIGNERS' BIOGRAPHIES

Architects at the University of Stirling

1.1 Robert Matthew Johnson-Marshall and Partners

Robert Hogg Matthew was born in Edinburgh in 1906 and was educated at the then Edinburgh Institution (now Stewarts Melville College). He trained to be an architect at the Edinburgh College of Art, gaining his diploma in 1930. Upon graduation Matthew subsequently worked for his father, John Matthew, who had recently assumed sole partnership of Lorimer and Matthew. Matthew Senior had been made a partner with Sir Robert Lorimer in 1927 after working for him since 1893, and became the sole partner after Lorimer's death in 1929. Matthew worked full-time for his father's firm for four years, and continued on a part-time basis when he returned to the College of Art as a postgraduate student. After graduation Matthew was successful, against stiff competition, in gaining the post of Assistant Architect with the Department of Health for Scotland in 1936 and started his own practice in the same year.



Figure 1 Sketch perspective of winning competition entry for Ilkeston Baths by Robert Matthew and Alan Reiach. *Adam Swan/The Scottish Thirties*

Interestingly, in the following years he entered a number of competitions in collaboration with his close contemporary Alan Reiach, three decades before their joint efforts at Stirling. These competitions included Duncan of Jordanstone College of Art in 1936 (won by James Wallace though not built until the 1950s) and Ilkeston Baths in 1938 (which they won, but was not built). The pair also designed Watford Fire Station in c1937.

After the war, Matthew moved to London to take up the role of architect for London County Council, a post he retained until 1953 when he returned to Scotland as Professor of Architecture at the University of Edinburgh. His return was to "prove, in retrospect, the decisive turning point of the Modern Movement in Scotland"¹.

RMJM was formed in 1956 when Matthew formed a partnership with Stirrat Johnson-Marshall (1912-1981). The year after, Matthew was presented with a centenary medal from the Edinburgh Architectural Association for his Turnhouse Airport terminal building that he had been commissioned for in 1952, his first commission since recommencing private practice.

Robert Matthew's accolades continued in the following years: he became a Fellow of the RIBA in 1955, was knighted in 1962 and was awarded the Royal Gold Medal in 1970. He died in June 1975.

After Matthew's death, the firm continued under Johnson-Marshall who retired in 1977. RMJM was re-formed as a limited holding company in 1986.

¹ Glendinning, M. et al, A History of Scottish Architecture, p440

As of the end-2008, RMJM was the eighth-largest architecture firm in the world, with a total of 14 offices in the UK, US, Middle East, Russia and Asia. RMJM "employ over 1200 people, spanning 47 nationalities and speaking more than 50 languages"².

Selected works:

Turnhouse Airport, 1952-56

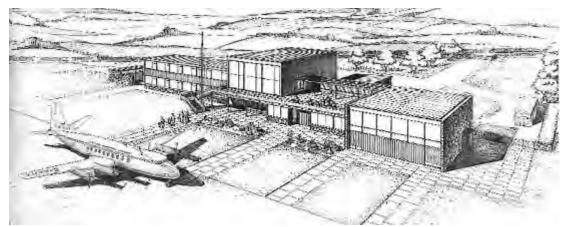


Figure 2 1954 perspective view of the terminal building by Robert Matthew. Note the expanse of glazing to the double-height upper level restaurant, and the generous viewing terrace, indicative of the exciting nature of aviation at that time. RMJM/Glendinning



Matthew's 1950s Modernism. on the terminal building **RCAHMS**

Described by Patrick Nuttgens as 'the early symbolic building of the Modern Movement in Scotland'3, Matthew's terminal building for Turnhouse Airport was somewhat of a revelation to 1950s Edinburgh. Receiving the EAA award in 1957 meant that Matthew's reputation, and future career was well assured.

The building is a representation of Matthew's 'strong call for the Modernist application of scientific method to the use of stone in building'4 in his inaugural lecture at the University of Edinburgh. The distinctive style was largely confined to the 1950s - by 1960 tastes had moved on.

Figure 3 Typical materials used in Despite being recognised as one of Scotland's key vernacular buildings of the modern movement, it was Turnhouse demolished in the 1990s - almost twenty years (demolished). after its original function had moved to the replacement terminal building of 1977.

² http://www.rmjm.com/ 18-Feb-2009

³ Patrick Nuttgens, quoted by Glendinning, Miles, Modern Architect: The Life and Times of Robert Matthew, 2008, p161

⁴ Glendinning, Miles, Modern Architect: The Life and Times of Robert Matthew, 2008, p159

The tower building, recently refurbished, is a landmark building in Dundee, boldly announcing the presence of The building replaced a University. series of linked villas that had undergone several additions and alterations as they became institutionalised, but despite proposals to aggrandise, the villas did not have the presence that was required of the recently renamed Queen's College - the institution, first established in 1881, had been a constituent part of the University of St Andrews from 1897. In the 1950s the College began to gain greater independence from St Andrews this tower was in many ways an expression of that independence which was fully realised only a few years later, in 1967. The tower remains as an excellent example of Robert Matthew's 1950s 'vernacular Modernist' style.



Figure 4 Queen's College Tower. *Scran/University of Dundee Archives*

iii University of Edinburgh, George Square (David Hume Tower, 1960-3; Theatre, 1964-7)



Figure 5 1963 oblique aerial view showing David Hume Tower nearing completion. Note the soon to be demolished 18th century buildings immediately to the left and below, and the cleared site to the top-left ready for the construction of Alan Reiach's Appleton Tower. *Scran/University of Edinburgh*

The redevelopment of George Square by the University of Edinburgh was a controversial period in Edinburgh planning history that spurred the conservation

movement into action to prevent further similar demolition in other parts of the city. Nevertheless, RMJM's DHT, one of the first buildings that arose above the 18th century tenements and townhouses, was a remarkable addition to the Edinburgh skyline. The slate and sandstone cladding was a clear demonstration of Matthew's concern for an appropriate application of modernism in such a location – despite it's distinct massing and verticality, it is a building that was determined to respect the neighbouring historic buildings that survived the University's master planning. DHT is now listed at category A.

iv Ninewells Hospital, 1961-74



Figure 6 1972 oblique aerial view showing Ninewells Hospital nearing completion. *Scran/University of Dundee Archives*

This was a substantial project, creating what was the first completely new teaching hospital in the UK, and the largest hospital in Europe at the time.⁵ According to McKean, the hospital "makes an interesting comparison to the same architects' later Stirling University campus... [though] not so blessed with a beautiful site".⁶ The similarities can be seen in the methodical approach to planning the buildings in relation to their function: at Ninewells the functionality was likened to that of an airport terminal.

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⁵ McKean, C and Walker, D, Dundee: An Illustrated Introduction, p83; www.scran.ac.uk, accessed 20-Apr-2009.

⁶ McKean, C and Walker, D, Dundee: An Illustrated Introduction, p83



Figure 7 View of the University of York Central Hall and artificial lake. *Scran/Robert Gordon University*

In many ways the University of York is one of Stirling's closest comparators: it also a campus university of the post-Robbins era, and one designed by RMJM⁷. The campus was largely a greenfield site on the outskirts of the city – the estate of Heslington Hall. The main focus of the campus is a lake, though this was artificially created, rather than pre-existing as at Airthrey⁸. The University, being based on a collegiate model, is arranged quite differently from Stirling, and the buildings were built using the CLASP system, which RMJM rejected at Stirling.

vi Royal Commonwealth Pool, 1965-7



Figure 8 The opening ceremony of the Roya Commonwealth Pool, 17-Jan-1970. *Scran/Scotsman Publications*

for the 1970 Built Commonwealth Games, this large swimming pool complex was built on a sensitive site close to Holyrood Park and Arthur's Seat. The clean layering of horizontal roof slabs is remarkably similar to the Pathfoot building Stirling – not surprising as both projects were designed in of the Royal the RMJM office at the same Scran/Scotsman time with John Richards as the Project Architect.

Like the 1963 David Hume Tower, the Royal Commonwealth Pool is now listed in category A.

⁷ The architect Andrew Derbyshire was the lead architect.

⁸ The lake on the campus is actually a plastic-lined pond, the largest example in Europe.



1994 view of British Home Stores on Princes Street, Edinburgh. RCAHMS

The BHS building on Princes Street is an excellent example of the Princes Street Panel era – a short-lived period which the wholesale redevelopment of Princes Street was envisaged with modernist buildings arranged with both shop entrances at street level and from a first-floor terrace. Only a few buildings were built to this plan before it was abandoned, meaning the isolated first floor terraces that were built were never used.

Midlothian County Buildings, 1967 viii



Figure 10 Former Midlothian County Council buildings (demolished). Scran/RFACS

Midlothian County Council held a competition in 1960 for an extension to their existing building on George IV Bridge - this went no further, and it wasn't until a second competition held in 1967 (won by RMJM) that building commenced. The building was the result of a careful Geddesian approach in researching the historic form of the complex site which resulted in the building comprising four thin vertical blocks, slightly off-set against each other in order to fill the site. The new building had the benefit of appearing to be entirely separate from the existing building (which was a typical example of Edwardian civic self-importance), being connected only by a tunnel beneath street level, indeed appearing to align itself to the historic pattern of the neighbouring buildings, albeit with a very modern interpretation. The Craigleith sandstone rubble walls as teak-framed windows were 'almost a nostalgic throwback to... Matthew's 1950s vernacular buildings'9. After the abolition of Midlothian County Council in 1975 the two buildings were used by the new Lothian Regional Council.

⁹ p298, Glendinning, Miles, Modern Architect: The Life and Times of Robert Matthew, 2008

After this too was abolished in 1996, both buildings came under the care of the City of Edinburgh Council, and were used for a variety of purposes, including temporary accommodation for the Scottish Parliament from 1999 until 2004. RMJM's building subsequently remained empty until its unfortunate demolition in 2007.

ix New University of Ulster, 1966-77



Figure 11 2005 view of the central buildings of the University of Ulster, Coleraine. CAIN

This University, on the outskirts of Coleraine was a contemporary of the University of Stirling, but with Matthew himself taking a lead in the project until his death in 1975 (John Richards took the lead at Stirling, though he had been involved on the Ulster project until early 1967).

John Deacon Richards (1931 – 2003)

"The distillation of form and detail to an elegant minimum is the essence of his work." 10

John Richards studied for his Architecture diploma at the Architectural Association and moved to Edinburgh in 1955. After a short spell with the National Coal Board, he joined RMJM in November 1957.

Richards became a partner in the firm at the same time as Kenneth Graham in 1964. He was the project architect for RMJM's work for the University of Edinburgh at George Square and the partner in charge for the Royal Commonwealth Pool and at the University of Stirling.

In 1976 John Richards was conferred with an honorary doctorate from the University of Stirling in recognition of his architectural work and development plan for the University. He continued his connection with the university in the subsequent decades, and revised the Development Plan in 1994¹¹.

¹⁰ Duncan, M., 'Appreciation: John Richards', The Scotsman, 13-Nov-2003, p20

¹¹ Bomont, R.G., p70

1.2 Alan Reiach, Eric Hall and Partners

Born in London in 1910, Alan Reiach moved to Edinburgh in 1922 with his aunt where he was educated at the Edinburgh Academy. In 1928 he joined the firm of Lorimer and Matthew, where he met the latter partner's son, Robert Matthew. In these years he also studied part time at the Edinburgh College of Art. He stayed with the practice until 1932 when he left the in order to commence full time study at the College, gaining his diploma two years later. Whilst at college he started his own small private practice Architectural accolades were achieved at a young age: in these two years Reiach won the Soane Medallion, the RIBA Tite Prize, the RIBA Silver Medal and an Andrew Grant travelling scholarship. After completing a diploma in Town Planning, his travelling scholarship took him to France, Scandinavia, the USA and the USSR. What he saw in each of these countries was to prove highly influential in his later work – not least by him meeting Frank Lloyd Wright at his experimental summer home and studio, Taliesin¹².

... COURAGE!

Imaginative design based on courageous thinking out of problems is apt to produce unusual results that make one catch one's breath. Here, at any rate, are three superbly bold and sincere examples of modern architecture. We, too, shall have to build Exhibition Halls, Factories, and, alas, Sanatoria . . . will they be as well lit and logically constructed as the Detroit factory, or as inspiring and practical, medically, as this Finnish Sanatorium?



SANATORIUM, PAIMIO, FINLAND

Figure 12 A typical page from the 1944 reprint of *Building Scotland: A Cautionary Guide* by Alan Reiach and Robert Hurd, first published when Alan Reiach was only 30, and highlighting his enthusiasm for Scandinavian and North American modernism as well as acting as a clarion call for a more bold architectural culture in Scotland.

APPENDICES

After a short spell in London, Reiach returned to Edinburgh in 1938, accepting a post as a research and teaching fellow at the College of Art. In 1940 he published a small significant book with Robert Hurd entitled "Building Scotland: A Cautionary Guide" - which was anything but cautionary in its expression of opinions. The basis of many of the ideas in the book was Reiach's travels abroad, in particular the modern movements of Scandinavia and North America. The polemical work hailed the simplicity and honesty of the vernacular and railed against the stylistic excesses of much of the 19th 20th and early century architecture in Scotland. **Taking** from its cues international Modernism. Reiach and Hurd argued for a bold reinvention of Scottish architectural aspirations.

Reiach's friendship with Matthew was to prove useful when the latter drew Reiach into the Department of Health for Scotland in 1940, where he was to use his planning

¹² Taliesin, which had originally been built by Frank Lloyd Wright in 1911 was burned down and rebuilt twice over the next two decades. The third house, Taliesin III was used by Wright as an test-bed for architectural ideas of his own and those of the architectural students in the Taliesin Fellowship which was founded in 1932.

and architectural skills for Clyde Valley Regional Planning Advisory Committee. He remained there until 1946, the same year as Matthew left for London. After setting up in private practice again, Reiach soon found himself back at the College of Art – this time as a Senior Lecturer, a position he retained until 1957 when he found his private practice required his full attention.

Alan Reiach & Partners merged with the equally successful firm Eric Hall & Partners, become Alan Reiach, Eric Hall and Partners. Alan Reiach stayed with the firm until 1975, though remained as a consultant to the firm until 1980. The firm was renamed Reiach and Hall in 1981. Alan Reiach died in 1992.

An interesting quote from the Dictionary of Scottish Architects suggests that it is difficult to fully appreciate Reiach's contribution to Scottish architectural history: 'Because of the war years, his teaching commitments and the early involvement of partners in his university hospital and school projects, the period in which Reiach's own ability as an architect can be clearly recognised was short'. ¹³

Selected works:

i College of Agriculture, Edinburgh, 1948-60

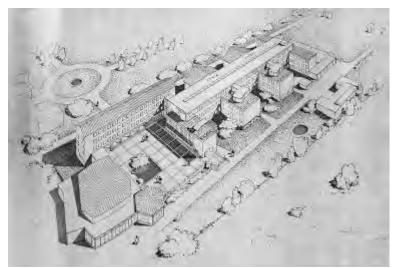


Figure 13 1948 perspective by Alan Reiach showing the University of Edinburgh College of Agriculture. *RCAHMS*

Although designed in 1948-50 in collaboration with his College of Art colleague Ralph Cowan, construction delayed until 1954, with the building being opened by the Duke of Edinburgh in October 1960. In his obituary for Reiach, Stuart Renton described the building as being 'a building of sensitive human scale with admirable detailing evolving out of Scandinavian influence'14.

The main block of the building comprised a three storey block above an open cloister – allowing for unobstructed views through the site the Liberton Tower in the distance.

¹³ http://www.scottisharchitects.org.uk

¹⁴ Renton, Stuart, 'Obituary: Alan Reiach', The Independent, 22-Aug-1992

ii Exhibition Gallery, Edinburgh, 1955

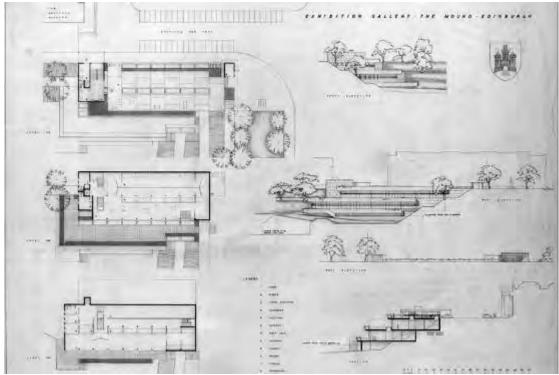


Figure 14 Plans, elevations and section of unbuilt exhibition gallery on The Mound in Edinburgh, placed immediately adjacent to the Royal Scottish Academy and National Gallery of Scotland buildings. *RCAHMS*

iii Royal (Dick) School of Veterinary Studies, University of Edinburgh, 1967-71

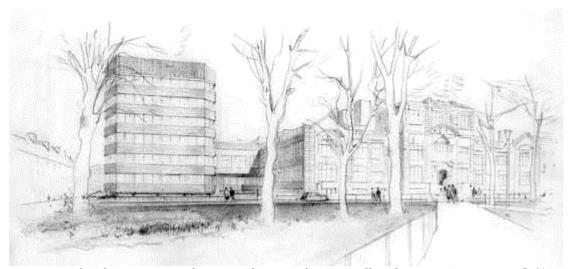


Figure 15 Sketch perspective showing Alan Reiach, Eric Hall and Partners' extension (left) to the Royal (Dick) School of Veterinary Studies. *RCAHMS*

Alan Reiach, Eric Hall and Partners designed this new Brutalist style tower, replacing the Hope Park United Free Church that previously stood on the prominent corner site at the east end of The Meadows. Along with the rest of the buildings on the site, Reiach and Hall's extensions are listed category B.

iv Appleton Tower, University of Edinburgh, 1967-71

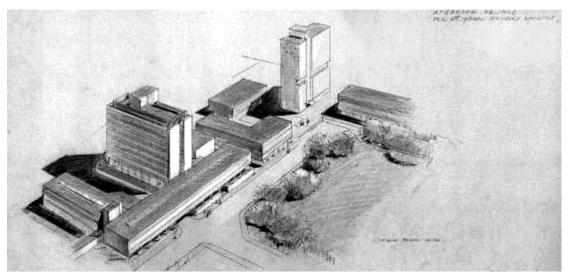


Figure 16 Sketch perspective showing Alan Reiach Eric Hall and Partners' Appleton Tower and 1st Year science and mathematics buildings. *RCAHMS*

Whilst never quite managing to achieve the same critical acclaim as its near neighbour David Hume Tower (listed at category A), Appleton Tower remains, academically at least, functional and effective. After significant criticism (even Reiach himself was to later question the validity of such a tall building on the site) the building was removed from the selection of University buildings considered for listing in 2005. Figure 16 shows the group of low-rise buildings that were to surround the building, providing accommodation for 1st Year Science and Mathematics students as part of a plan to integrate these students into the central campus. This plan was abandoned and these subjects were housed at the King's Buildings campus. Appleton Tower was left isolated and practically and aesthetically incomplete.¹⁵

v The New Club, University of Edinburgh, 1966-69



Figure 17 The New Club. RCAHMS

Competing with Matthew's contemporary BHS building as the favourite building of the *Princes Street Panel* era¹⁶, the category A listed New Club building is one of Reiach's most celebrated buildings. Controversially replacing a William Burn building of 1834, the bold addition to Princes Street, incorporated parts of that building on the interior, such as panelling in the dining room.

The four-storey plus roof terrace of the main elevation hides the true bulk of the building that extends to the full depth of

¹⁵ Fenton, C, 'A Century of Change in George Square, 1876 – 1976', *Book of the Old Edinburgh Club*, New Series Vol. 5, 2002, pp35–81

¹⁶In Edinburgh: An Illustrated Guide, Charles McKean suggests the New Club is 'by far the best result of the Princes Street Panel recommendations' (p.49 of 1983 edition) while The Buildings of Scotland: Edinburgh by John Gifford, Colin McWilliam and David Walker argues that the BHS building was 'the first and best of the redevelopments that followed the Princes Street Panel guidelines' (p311).

the block to the lane behind, and which includes a tower block with bedrooms.

1.3 Morris and Steedman

James Shepherd Morris (1931 - 2006) and Robert Russell Steedman (b. 1929) met at the Edinburgh School of Art where both studied architecture. The pair graduated in 1955 and their practice was formed in 1957¹⁷. In the intervening years, both architects studied landscape architecture at the University of Pennsylvania, where they also studied under Philip Johnson, the renowned American modernist architect. The architectural influences that the pair were exposed to included the works of Mies van der Rohe, Breuer, Neutra and the then ongoing Art & Architecture Magazine's Case Study Houses series which showcased American architects' low-cost modern housing. ¹⁸ This was to be crucial in their later works back in Scotland, not least in their overall approach of sensitively applying modernism in a variety of landscape settings.

Despite the practice's small size and select nature of work, seven of Prospect's 100 best modern buildings in Scotland were designed by Morris and Steedman¹⁹. The practice continues as Morris Steedman Associates at the Young Street Lane North office, with Robert Steedman acting as a consultant.

Selected works:

i Tomlinson House, 'Avisfield', 1956-7



Figure 18 The Tomlinson House, 'Avisfield' before additions and alterations. *Morris and Steedman Associates*

This project was commissioned whilst Morris and Steedman were still studying at the College of Art – the Tomlinsons met Robert Steedman through their church. Work continued whilst Morris and Steedman were in the USA and was actually completed by the time of their return, giving the pair an extraordinary start to their career. Furthermore, "Morris and Steedman consider Avisfield to be possibly their best

¹⁷ The Dictionary of Scottish Architects & Historic Scotland Listed Building Reports state 1957, yet the Morris Steedman Associates website states 1958.

¹⁸ Green, S, 'Early Private Houses', Prospect, January 2007

¹⁹ Best 100 Scottish Modern Buildings, Prospect, October 2005

house, and positive reviews following the erection of the house helped to establish them as one of the leading architectural practices in Scotland"²⁰.

ii Sillitto House, 1959-61



Figure 19 Sillitto House, with Arthur's Seat and Salisbury crags in the background. *Morris and Steedman Associates*

This two storey house sits high above Charterhall Road, set above its neighbours in order to maximise daylight and enhance the view from the first-floor open-plan living areas. The original owners of the house described it as "the first 'modern' house in Edinburgh that could be seen from a bus route" 21. Patrick Nuttgens, an architect and academic, who was later to write The Story of Architecture and Understanding Modern Architecture, was a friend of the Sillittos. He had advised that they start their search for an architect at an exhibition in 1957 that showcased the works of six young Scottish architects – including Morris and Steedman. Upon seeing Steedman's model of the house, Nuttgens remarked that "This is architecture!" 22 The Sillitto house can be seen as an early comparator to the Principal's house at Stirling: with the inconspicuous entrance masks the spectacular view from the hilltop until arrival in the main reception space.

²⁰ Historic Scotland, Listed Building Report, as extracted 05-Mar-2009

http://www.sillittopages.co.uk/houseonthehill.html (website created by the original owners of the building), accessed 20-April-2009
 Ibid.

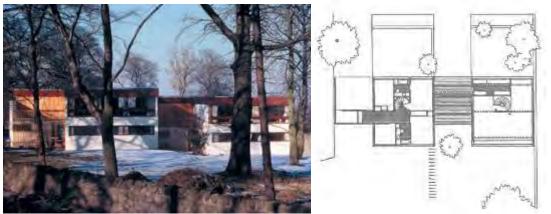


Figure 20 The paired Hunt/Steedman houses. Note the slightly staggered elevation, and the separation in plan. *Morris and Steedman Associates*

Located in the Ravelston Dykes area of Edinburgh, this project comprised a pair of identical houses, one for Professor Hunt and the other for Robert Steedman himself. Although semi-detached and identical in plan, the houses are staggered in section over the gentle sloping site. The distinction between the two properties is also underlined by the carport and first floor terrace that effectively separates the interior accommodation of both properties, ensuring privacy yet maximising effective use of the site.

iv Students' Amenity Centre, University of Edinburgh, 1966-73



Figure 21 Oblique aerial view of the Students' Amenity Centre with the large dome covering the atrium space on the interior. *RCAHMS*

One of the practice's largest commissions at the time, this complex of three buildings was completed in stages over a number of years. The most prominent part of the complex is the dome-covered atrium space, conceived as a covered 'outdoor' space (unheated), likened by Steedman to an Italian piazza, realistically re-conceived for the Scottish climate.

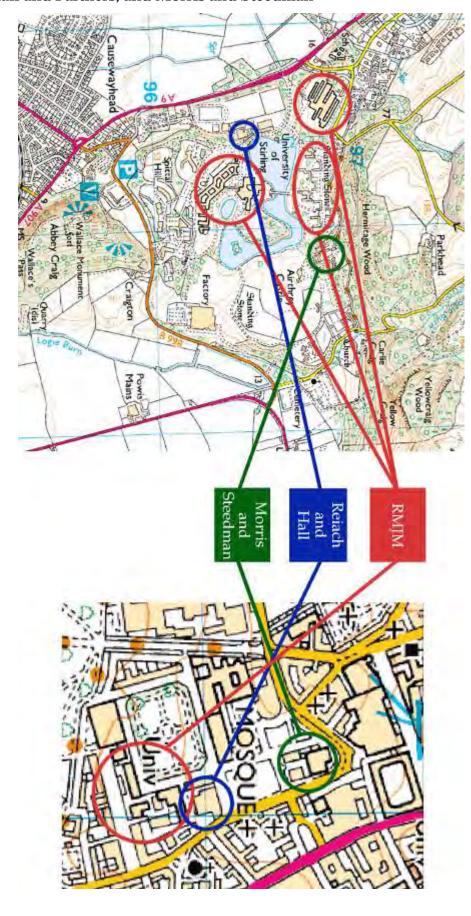


Figure 22 The Morris House, 'Woodcote Park'. Charles McKean

One of the most lavish of the Morris and Steedman houses, designed for James Morris, and his wife Eleanor. The house was built on the site of the David Bryce-remodelled Woodcote Park, of which only the remains of a tower were retained for decorative purposes after the rest was demolished. The house is a simple Miesian oblong on two levels, with two-thirds of the interior cleverly divided into bedrooms, bathrooms, kitchen and utility on the ground floor, and large open living space on the first flowing between library, billiard room and drawing room. The third half-cube is a double-height space with a swimming pool and interior terrace.

1.4 Robert Matthew, Johnson-Marshall and Partners, Alan Reiach, Eric Hall and Partners, and Morris and Steedman

in Scotland. Multimap/OS edited by S&B proximity at the University of Edinburgh, demonstrating the key importance of each of the architects at the forefront of modernist public works Figure 23 Diagram showing how the three original architects of the University of Stirling campus (left) also designed major buildings in close



The presence at Stirling of three of Scotland's most well-known and celebrated 20th century Modernist architectural practices cannot be underestimated. Despite the higher-profile of their projects for the University of Edinburgh, their achievements at the University of Stirling are of enormous significance. The works of the three practices complement each other, and although RMJM were dominant in terms of the size of their commission, the comparatively small Alan Reiach and Morris and Steedman buildings feature far more prominently than their size would otherwise suggest.

If Pathfoot is selected as an exemplar of RMJM's work at the University of Stirling, with the Principal's house representing Morris and Steedman's work and the Gannochy Trust Pavilion from Alan Reiach, not only do they represent some of the finest modern architecture on the University estate, but in Scotland. Each architect contributed with their trademark approach and style: the simple clarity and logic of late 1960s RMJM, the synthesis between landscape and architecture from Morris and Steedman, and the robustness and solidity of Reiach. These three examples also happen to be the least altered examples on the University estate, and are thus worthy of special attention.

1.5 Landscape Architects

Herbert Francis (Frank) Clark (1902-1971)

Frank Clark trained under Percy Cane (1881-1976), and Christopher Tunnard (1910-1979), and went on to establish his own practice, and to lecture at the Universities of Reading and Edinburgh. Clark was closely involved with the landscaping of Stevenage New Town (1947) and the Festival of Britain (1951). In the 1960s he had a major role in planning the York University campus at Heslington, in association with architects RMJM. His initial involvement in the development of the Stirling University campus was cut short by his early death in 1971, after which much of the design work was undertaken by landscape architect Ed Hilliard. Clark was author of 'The English Landscape Garden' (1948), and was a founder member and sometime president of the Garden History Society.

Ed Hilliard

Ed Hilliard joined RMJM shortly after graduating in landscape design from Syracuse University, New York. He took over from the landscape designer Frank Clark, who had died in 1971. The University of Stirling was Hilliard's first landscape design project.

Subsequent work with RMJM included the Sauna Suite at the Royal Commonwealth Pool, Edinburgh; relandscaping at Cumnock, Ayrshire; the landscape around Edinburgh Airport; and the Sharjah Sports Club in Bahrain. Hilliard subsequently left Scotland and moved to the USA where he has pursued an academic career while continuing in professional practice.

2.0 Architects of later buildings at the University

i Burnett Pollock Associates

The Edinburgh-based firm of Burnett Pollock Associated have completed a number of projects at the University of Stirling. These include the redevelopment of the Dining Room at Pathfoot, the recladding of Cottrell, the refurbishment of the Logie Lecture Theatre and other lecture theatres in Cottrell, the new build Colin Bell Building and adjacent Iris Murdoch Building, and extensions and alterations to the Stirling Management Centre.



Figure 24 Norton Park, converted by Burnett Pollock and now used as offices for voluntary and charitable organisations. *Google*

Other key projects by Burnett Pollock include a proposed re-cladding of Liverpool John Moores University's campus at Byrom Street – a similar, albeit larger, project to the re-cladding of Cottrell. The firm also carried out the highly regarded conversion of the Edwardian Norton Park school building for use as office space for voluntary and charitable organisations.

ii Hurd Rolland Partnership

The Hurd Rolland Partnership designed the University Court Building and R G Bomont building, both completed in 1998. The partnership has since designed a number of other projects for tertiary education including three buildings at the King's Buildings campus for the University of Edinburgh and a large residential development for the University of Abertay.

iii McEachearn MacDuff Architects

This Stirling-based firm designed the Golf Centre and Sports Pavilion east of Airthrey Castle and also the Craig Gowans Football Centre. As well as completing a variety of residential, healthcare and conservation project, the firm has designed new buildings for a number of private schools in the Stirling and Perth areas.

iv Bennetts Associates

Bennetts Associates were involved at an early stage in the redesign of the University library. The firm, established in 1987, also designed the Centre for Health Science at Raigmore Hospital (completed by Keppie Design) – a joint project by the University of Stirling, NHS Highland and Highlands and Islands Enterprise.

v Lewis and Hickey

This firm were commissioned to implement the refurbishment of the interior of the Library, a project commenced in early 2009. Lewis and Hickey have worked on a number of similar size projects, including a major refurbishment of Spence, Glover & Ferguson's main library for the University of Edinburgh.

3.0 Architects and designers associated with Airthrey Estate

3.1 Robert Adam (1728-1792)

Architect of Airthrey Castle

One of Scotland's most celebrated architects, Robert Adam dominated the architectural scene in the latter half of the 18th century, effectively taking over from his eminent architect father, William Adam.

After attending the Edinburgh High School Adam studied at the University of Edinburgh, but his studies were curtailed by the Jacobite occupation of the city in 1745, and he never returned.

In the subsequent years prior to his Grand Tour of 1754-8, Adam built up a variety of experience under the influence of his father, William, and elder brother, John, with whom he joined in the inherited family practice after the death of their father in 1748.

Projects such as Hopetoun House, Fort George and Dumfries House, acted as early training for the young architect.



Figure 25 Robert Adam c1770-75, attributed to George Willison. *National Portrait Gallery*

While William Adam had introduced Palladianism to Scotland, Robert's imagination created new architectural designs based on a wide variety of classical sources, not only from Antiquity, but also from the Italian Renaissance. His style became less rigid than his father's, more elegant and was an emotionalistic approach to the use of monumentality.²³

Robert Adam's inspiration derived from his three years in Italy on his Grand Tour (1754-8), where also made contacts among artists and future patrons. This formed the basis of his later success, and his originality, his detail in decoration and the monumental scale appealed greatly to his clients.

Adam first set up office on his own account in London. Most of his Scottish works were created towards the end of his career. Register House (1772-92) and Old College in Edinburgh (begun in 1789) are among his finest buildings in the capital. Of Adam's castle buildings Culzean is probably the finest example, and is now celebrated as the jewel in the National Trust for Scotland's collection.



Figure 26 Aerial view of Culzean

Adam's projects reflect his ability to combine the picturesque of classical motifs with the elegance of movement.²⁴

²³ Colvin 1978, 47; Glendinning/MacKechnie 2004, 106.

²⁴ Glendinnig/MacKechnie 2004, 106.

3.2 Thomas White (senior) (1736-1811)

Landscape designer at Airthrey 1798

Thomas White (senior) trained under Lancelot 'Capability' Brown, who is credited with the transformation of the English parkland landscape. He went on to establish his own landscape practice, working in the naturalistic style practised and promoted by Brown. From his home at his home at Woodlands in County Durham, Thomas White (senior) made frequent trips to Scotland between 1770 and his death in 1811, after which his son also Thomas, (Thomas White junior, c1764-1836) continued the landscaping business for another ten years or so. Between them, they are thought to have prepared plans or had some involvement in as many as 70 Scottish landscapes. White was a friend and associate of Sir Henry Steuart of Allanton, who described him in his book 'The Planters Guide' (1828) a as 'a superior and ingenious artist ... an excellent agriculturist, and a planter of great skill.'

3.3 Alexander Nasmyth (1758-1840)

Possible involvement with landscape design, late 18th century

Alexander Nasmyth studied at the Trustees' Academy under the painter Alexander Runciman and at sixteen was apprenticed as a heraldic painter to a coachbuilder. There he attracted the attention of the artist Allan Ramsay, who took Nasmyth to London and employed him to paint subordinate portions of his works.

Nasmyth returned to Edinburgh in 1778, and was soon a successful portrait painter. He assisted Mr Miller of Dalswinton as draughtsman in his mechanical researches and experiments. Miller offered the painter a loan to enable him to pursue his studies abroad, and Nasmyth left in 1782 for Italy, where he remained for two years. On his return he painted the well known portrait of Burns, now in the Scottish National Portrait Gallery. His practice became more limited as his outspoken political views apparently offended aristocratic patrons.

Nasmyth's landscape paintings were among the earliest to express the picturesque qualities of the Scottish landscape.

He also practiced as a landscape architect throughout Scotland, and as an architect. The temple at St Bernard's Well in Stockbridge, Edinburgh, was designed by him.



Figure 27 'View of Edinburgh from Corstorphine Hill' Alexander Nasmyth *Bridgeman Art Gallery*

3.4 William Stirling (1772-1838)²⁵

Architect of gatelodges 1809

William Stirling came of a long-established Dunblane merchant family which may have had landed connections. He practiced as an architect builder in partnership with his cabinet maker father from c1798, and under his own name from the early years of the 19th century. His marriage to Jean Erskine brought family links with the Erskine, Stirling and Graham families, and with the related Masterton family, and subsequently the architectural business of the Linlathen, Airth, Gartmore, Ardoch, Braco, Gogar and Strowan estates in addition to those of Kippendavie, Kippenross, Tillicoultry, Airthrey, Tullibody, Dunira and Cardross.

From about 1807 Stirling's practice had intermittent links with David Hamilton's. This appears to have originated at Airth where Stirling was replaced by Hamilton as architect but retained as contractor. From about 1816, it is probable that Stirling's 'chief assistant and superintendent', his cousin William Stirling II (born c1789), who had served his articles with him, was sent to Hamilton's office to gain experience which would bring the firm more up-to-date and designed most of the firm's work thereafter. Airth Parish Church, where they competed against Hamilton, seems to have been William II's first major design, and he appears to have done most of the designing from at least 1818, although on at least one occasion, at Lecropt, Hamilton and the Stirlings were joint architects.

From 1806 onwards Stirling began buying land and property around Dunblane and out of some eleven purchases created the small estate of Holmehill on which in 1826 he erected a fine Tudor mansion, very much in the Hamilton idiom.

Stirling had a large practice, including other lodges at Monzie and Comrie, also several manses in Perthshire and Fife, stables, churches, schools, wings and additions to existing houses.

3.5 David Thomson (1831-1910)²⁶

Architect of Extensions to Airthrey Castle

David Thomson was for many years assistant and principal assistant to the important Glasgow architect Charles Wilson, studying at the Government School of Design under the unrelated Charles Heath Wilson.

Thomson practised briefly on his own at 63 Renfield Street in 1862 before returning to Wilson and being taken into partnership. On 19 August the same year he married Janet Giffen at Mearns, Renfrewshire. When Charles Wilson died in February of the following year he continued the practice which thereafter consisted principally of church, school and country house work. Later in that same year, 1863, Charles Heath Wilson's tenure as headmaster of the Government School of Design ended when the institution was transferred from the Board of Trade to the Department of Science and Art. He set up business as an architect although his practice was limited to monuments and ship interiors rather than buildings. Nevertheless he had some influential patrons and he became both Honorary Director of the School (which thereafter became the School of Art) and a trustee of the Haldane Academy. Wilson

 $^{^{\}rm 25}$ Information from Dictionary of Scottish Architects

²⁶ Information from Dictionary of Scottish Architects

and Thomson went into partnership some time in that year as C H Wilson & D Thomson, but in 1868 Wilson withdrew to live and work in Florence.

Thomson was important as a teacher during this period: he was appointed architectural master 1862-64, and was reappointed teacher of architectural drawing in 1869 and teacher of architecture in 1871. After the dissolution of his partnership with Wilson he practised alone until July 1876 when Alexander Thomson's partner Robert Turnbull requested permission from Alexander Thomson's trustees to take a partner to handle the design work, Turnbull being clerk of works rather than architect. The request was eventually agreed to later in that year. No name was mentioned but Turnbull had probably already discussed the possibility of a partnership with David Thomson. The firm became D Thomson & Turnbull later that year. Thomson and Turnbull were not, however, really compatible and the partnership was dissolved in 1883, probably primarily because of the severe recession from 1881 onwards.

Thomson was admitted FRIBA on 17 December 1877, his proposers being John Carrick, John Burnet Senior and John Honeyman, the latter noting in particular the active part Thomson had taken in 'encouraging schemes for mutual improvement among pupils & draughtsmen' and stating that he had written 'several good papers on subjects connected with architecture'.

In 1890 David Thomson took into partnership Colin Menzies. Menzies had been born at 8 Hyndland Street, Partick on 15 June 1861, the son of Colin Menzies, engine fitter and his wife Margaret Scotland; his family is believed to have originated in Perthshire. It is not known in which offices he was articled or employed as an assistant, but he had studied at Glasgow School of Art from 1885 to 1888.

Thomson retired in 1897 and in later years moved to Helensburgh. He died there of congestion of the lungs on 6 November 1910.

Thomson was a prolific architect, designing 23 churches, 63 mansions, castle and villas (including additions), and 21 tenements. These include: Infant School Pollockshaws 1863; Knockdow House, Argyll 1867; Houston House, Renfrewshire 1872; Parish Church, Dalry 1873; UP Church Wishaw 1875; Innamore Lodge, Carsaig, Mull 1877.

APPENDIX II HISTORICAL INFORMATION RELATING TO THE UNIVERSITY OF STIRLING

2.1 Biography of Professor Tom Leadbetter Cottrell (1923 - 1973)

Cottrell, the first Principal and Vice Chancellor of the University was appointed to the role in June 1965. His background in academia was strong, but so to was his business background – something that was undoubtedly of use in the establishment of a new university.

Born in Edinburgh in 1923, Cottrell was educated at George Watson's College, before studying chemistry at the University of Edinburgh where he graduated in 1943. Until 1958 Cottrell was employed by ICI, working at the Nobel Division as a research chemist. Whilst employed by ICI, Cottrell published some thirty papers including work on calorimetry, gas kinetics, equations of state, and quantum theory²⁷. His research work was to earn him the



Figure 27 Portrait of Professor Cottrell by Alberto Morrocco. *University of Stirling*

Meldola Medal of the Royal Institute of Chemistry in 1952 – an award presented to researchers under the age of thirty who show the most promise in the field. His first book, *The Strengths of Chemical Bonds* was published soon after, in 1954. Cottrell published two further books, *Molecular Energy Transfer in Gases* in 1961 and *Dynamic Aspects of Molecular Energy States* in 1965.

In 1959, with his return to his *alma mater*, Cottrell became Chair of Chemistry, remaining at the University of Edinburgh until his move to Stirling. After his appointment in June 1965, "*due to the good offices of the University of Edinburgh*" ²⁸, Cottrell was able to start working, on a part-time basis, at Stirling as early as August of the same year. He started on a full-time basis at Stirling after resigning from Edinburgh in April 1965.

Cottrell quickly became renowned for his dynamic approach to education, and his commitment to underlining the importance of a broad education. It was Cottrell who was key in ensuring that one percent of the building costs was allocated for the arts, stating later that:

"Universities exist to provide specific instruction in certain spheres. They also exist to give focus to the culture that supports them ... including the insights of specially gifted individuals. If a University hopes to reflect, however fitfully, these important insights, it must ensure that these are evident not only to its students but also to those of the rest of us to whom the University means more than classes and a degree" 29

²⁷ http://www.chem.ed.ac.uk/public/professors/recent.html, 16-Feb-2009

²⁸ R.G. Bomont, p14

²⁹ Tom Cottrell, quoted in 'Special collections',

http://www.is.stir.ac.uk/newlibrary/SpecialCollectionsVision.pdf, 16-Feb-2009

The unique nature of the University under Cottrell's leadership is captured by the recollections of one of the first students, Helen McInnes:

"A few weeks into the term I was invited to dinner at Tom's house in Bridge of Allan. Each Sunday evening of that year, six students were invited, and I suppose by the end of the year, all of the first year had been invited to join them for a meal at some point... I distinctly remember entering their beautiful house and subsequently the dining room with its table laid out in a sumptuous fashion. I was unused to such styles of eating and slightly panicked. But that didn't last long because it was obvious that Tom and his graceful and gracious wife had done their homework by researching a little the background of the students..." 30

He died, "tragically early"³¹, in June 1973, six days short of his fiftieth birthday. When I heard about Tom's death, I was devastated and deeply saddened. Ok, I didn't know him well but when you met him in the corridor, he always greeted you and smiled. How many university students ever referred to the Principal by his Christian name as I am doing here?³²

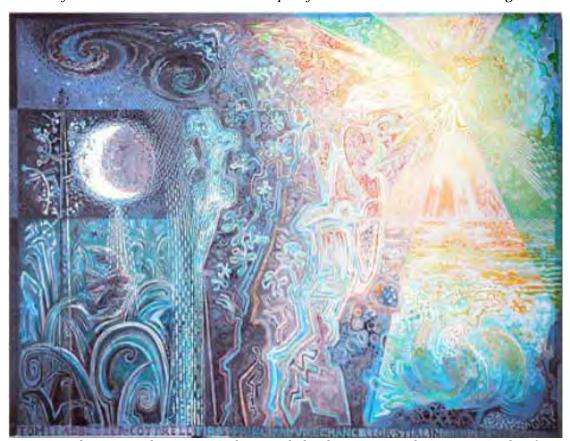


Figure 29 The memorial tapestry *Landscape with the Elements* woven by Dovecot Studios from a cartoon by John Craxton. *University of Stirling*

A memorial tapestry, *Landscape with the Elements*, was commissioned soon after Cottrell's death – the artist John Craxton started the cartoon in 1973 which was subsequenty passed to weavers at the Dovecot Studios. They completed the tapestry in 1976 after eight months of work. In addition, the 'T70' teaching block was named after Cottrell.

³⁰ http://www.anniversary.stir.ac.uk/memories/students/helen-mcinnes.php, 16-Feb-2009

³¹ http://www.chem.ed.ac.uk/public/professors/recent.html, 16-Feb-2009

³² http://www.anniversary.stir.ac.uk/memories/students/helen-mcinnes.php, 16-Feb-2009



Figure 30 2003 sculpture by Iain McColl.

These memorials were complimented in 2003 by the installation of sculpture by Iain McColl adjacent to the Pathfoot building. McColl was selected from a shortlist by a selection panel that included members of the Cottrell family. His design depicts Cottrell as a young man, sitting atop a tall plinth. sculpture is entirely blue, with the exception of a small crystal in the figure's hand which is shown as being closely studied. As a depiction both the curiousity of Cottrell's scientific mind, and as a further addition to the art collection of the University, the sculpture is a very fitting memorial.

2.2 Appeal Notices from 1966 and 1968

(First printed in *The Scotsman & The Herald*, sourced from R.G. Bomont, *The University of Stirling: Beginnings and Today*)

Reprinted from "THE GLASGOW HERALD" of May 1966

FOUNDATION FUND APPEAL

FIRST SUBSCRIPTION LIST

His Royal Highness The Prince Philip, Duke of Edinburgh

Airthrey Castle estate, covering some 300 acres, has been presented to the University by the Secretary of State for Scotland on behalf of the Government.

Grants from the Counties of Stirlingshire, Perthabire, Clackmannanshire, Dunbartonshire, Lanarkshire, Argyllshire and West Lothian towards the University's expenditure in its early years, amount to an initial annual figure of approximately \$120,000.

In the following list donations made under coverant are shown by an asterisk. The amount shown is the gross total receivable by the University during the first seven years or over the file of the coverant, including an estimate of recoverable tax, at the current standard rate of 8/3 in the pound.

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Further particulars may be obtained from:

The Resident Campaign Director, University of Stirling Campaign Office, Municipal Buildings, Stirling. (Tel. OST 6 3131).

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The following contributions have been received or notified since publication of the First Subscription hist in which gifts and donations amounting to £1,529,958 were acknowledged.

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Thomas Maneles Life	596*	A C.M.C. Li.D.; Miss L. J. Smort; J. Lovell & Sons Ltd.;
John Calloway & Co. Ltd.	596*	Selections of the Bearest School (Bridge of Allan) Lid Tre
Molithead & Sone Ltd.	596*	Hea Bernard Bruce, M.C.: W. Wallice Wichl. Esa.: John
Springhank Sand & Gravel Co. Ltd	596*	Different Annurance Desertion Thomas Law & Com Let
Forth Allner Ltd.	596*	Mice D. F. Reid: J. MacDonald Smith, T.D., J.P.: Miss
PARTY PARTY AND A COURSE OF STREET	596*	The following componess and submitted the coherence of the generality: De Alikan w G Wen, Leward, A A. Suite, 25th J.P., inter City Transpure & Trading On Life, Early of Landen and Spath Smerz; Lee Alika, Dry T. Robertson Simth, No. 18, 18, 18, 18, 18, 18, 18, 18, 18, 18,
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(Covenanted contributions are shown by a *).

(7 This figure includes allocation from Local Authority contributions for non-recurrent expenditure).

THE TARGET FOR THE APPEAL IS £2,000,000

Contributions received and promised to date amount to some £1,708,078.

UNIVERSITY OF STIRLING FOUNDATION FUND APPEAL THIRD SUBSCRIPTION LIST

The following contributions have been received or notified since publication of the First and Second Subscriptions. Lists in which gifts and donations amounting to £1,708,078 were acknowledged.

The Chancellor of the University

The Games by Trust	
Samer Farrhaim Snut	52,500
Gulberking Finnshition	30,000
Nuffield Foundation	39,000
Camegie Trust Universities of Scotland	40,000
British Insurance Association	35,000
Hugh Fraser Foundation	30,000
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Mary Kinross Charitable Trust(2nd)	
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D.W.T. Cargill Fund	5,000
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Stirring High School	1,000
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TO THE RESERVE AND THE PROPERTY OF THE PARTY	
Airxander Hall & Son (Builders) Gid for Hin: Miss Mary Hell and John F Hall Trust	
B.J.S. Paints (Septland) Ltd	715
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Sangans: Weston Lift	200

The following companion and individual number declarations of £100 or

Turmur Grott Engineering Lid.; The St Andrews Society of Finlandelphin; Stirling Ladies Chrebe; Sir Gilbert M. Bennie; De G.A. Walker; Dr.A. S. Biggart; The Governors of Huast Groupe School; R.M. Douglas Channeble Trust; Mr and Mrs Ralph K Common; Mr and Mrs E Standerson; Pringle of Scotland; Skriling Gimens & Variety Theories Ltd.; Assortatio & New Zeidend Bank Ltd.; The Maurice and Joseph Bloth Trust; Thou, Bortherick & Some Ltd.; National Council of Women, Stirling Branch; The English, Scotlish & Australian Bank Ltd.; Earl of Mar & Kellie: Mr & Mrs J Duntop, Mr & Mrs J H. Cross, Major & Mrs D.C. Boweer; Mrs E.M. L. Douglas; Congregational Church in Scuthaud; Baptist Union of Scuthand, Methodise Church in Scuthaud;

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Was Baird & Sur Lad.. J Strong Page, Enq.; U.P. Wilson, Enq. Scottish Worsteds & Woollens Lid.; S.C.W.S. (for Alban Water Hotel); Members Motors Lid.; Cradlesare Lid.; Anonymuts Domatons, Ashsed & Noshit Lid.; Br I R MacLeren; John Adom & Sone Lid.; Mrs M Batore Times Clitizens of Sciriling; Bairpobiedur and District Woman's Guild; Congregational Union of Scotland; Mrs M 550-wart, Mrs Bronces & Mischell; R M Cambinghum, Enq. (pswich and West Morebus Caladronam Society and Barus Chab; St Andrews Society of Rhode Edund; Mrs B G Martin; Miss Elizabath Rose: Acadla University Celhe Society; Airthrey Cardens Group; University Ludies Group; F Shand, Enq. N.A.L.G. (Strifingshairos Branch); A D Carlidon, Enq. R High School of Strifing Formar Papills; Mrs L M Cathbert; D R Glements, Eog. R A Hemberson, Enq. R J Come Roq. R G Brooks Lid.; Major D A Scoree:

Geomess gifts of silver, plate, gattares, etc., have been received from The LD. Forgassun Foundation, The Goldsmiths Company, Togic Kirk. The Scotlish Women's Boral business, Hopking & Farrar and Professor And Mrs. C.A. Mestgomery. In milition many restable gifts of busis for the library large been received and a Paulorzi Sculpsun.

THE FIRST TARGET FOR THE APPEAL WAS £2,000,000

Contributions received and promised to date amount to some £2,203,187.

Undergraduate Accommodation 2008/2009

	Number of Places	Period of Let in Weeks	Rent 2008/ 2009	Wash Facilities ³³		
On-campus Halls of Residence						
AK Davidson Hall	_	37	£2,590	SH		
Murray Hall	776	37	£2,220	SH		
Geddes Court		37	£2,220	SH		
Andrew Stewart Hall	207	37	£3,256	ES		
Total (Halls)	983					
	On-campus Flats and C	Chalets				
Fraser (Flats)	163	37	£2,664	S		
Donnelly (Flats)	124	37	£2,664	S		
Muirhead (Flats)	115	37	£2,590	HS		
Muirhead (Flats)	5	37	£3,201	ES		
Polwarth (Flats)	99	37	£2,590	SH		
Alexander Court (Flats)	317	37	£2,664	SH		
Pendreich Way Chalets	50	37	£2,590	S		
Spittal Hill Chalets	113	37	£2,590	S		
Total (Flats & Chalets)	986					
Total (On Campus)	1969					
Off-campus Flats						
Union Street	250	37	£2,220	S		
John Forty's Court	182	37	£2,220	SH		
Thistle Chambers	38	37	£2,368	S		
Total (Off Campus)	470					
Total (Undergraduate)	2439					

Postgraduate Accommodation (Off-campus) 2008/ 2009

	Number of Places	Period of Let in Weeks	Rent 2008/ 2009	Wash Facilities ¹
Alangrange	44	50	£3,470-£3,720	BSH
Friarscroft	11	50	£3,470-£3,720	BSH
John Forty's Court	105	37	£2,875	ES
Lyon Crescent	180	37/50	£2,360-£3,335	BS
Total (Postgraduate)	340			

Approximate Comparison of Student Accommodation Provision

University	Number of Students ³⁴	Accommodation ³⁵	%
St Andrews	8965	3492	39
Stirling	10510	2799	27
Edinburgh	24225	6500	27
Aberdeen	14025	2183	16
Glasgow	25300	3400	13
Dundee	18225	2200	12
Strathclyde	26000	c.2000	c.8

 $^{^{\}rm 33}$ B - Baths in residence

 $[\]boldsymbol{S}$ - Showers in residence

 $[\]boldsymbol{H}$ - Wash hand basin in each room

ES - En suite

³⁴ http://www.hesa.ac.uk, accessed 17-Mar-2009

³⁵ Approximate numbers sourced from individual university websites

Building Names

Main Buildings

Building Name	Named After	Date Opened
Pathfoot	Small hamlet that existed on the site until the 18th	1967
	century	
Cottrell	Professor Tom Cottrell, the first Principal and Vice	1970-72
	Chancellor of the University	
Andrew Miller	Professor Andrew Miller, Principal and Vice Chancellor	1971
	of the University, 1994 -2001	
Colin Bell	Professor Colin Bell, Principal and Vice Chancellor of the	2003
	University, 2001-2003	
Iris Murdoch	Dedicated to Iris Murdoch, the author, on suggestion of	2002
	Professor Bayley, her husband.	
Gannochy	The Gannochy Trust, which gifted £100,000 to the initial	1970
	Appeal	
MacRobert	The MacRobert Trust, which gifted £250,000 to the initial	1971
	Appeal	
Robbins	Lord Robbins, first Chancellor the University	1971
Logie	The historical parish of Logie, of which the Airthrey	1972
	Estate was part.	
R G Bomont	Accountant of the University from inception, and later	1998
	Secretary of the University until retirement in 1995	

Residential Buildings

Building Name	Named After	Date Opened
Andrew Stewart	Not Known	1970
H H Donnolly	Harry Donnolly, First Secretary/Registrar of the	1970
v	University	
Fraser of Allander	Hugh Fraser, 1st Baron Fraser of Allander, whose	1970
	memorial foundation gifted £30,000 to the initial Appeal.	
Polwarth	Henry Alexander Hepburne-Scott, 10th Lord Polwarth,	1970-1
	Chairman of the initial Appeal Committee	
Murray	Lord Murray of Newhaven, Chairman of the Academic	1971
v	Planning Board	
Muirhead	Sir John Spencer Muirhead (presumed)	1971
Geddes	Lord Geddes(presumed)	1973
Alexander Kerr	Convener of Stirling County Council and Vice Chairman	1972
Davidson	of the initial Appeal Committee	
Thistle Chambers	Adjacent to the Thistle Shopping Centre	1978
Pendreich Way	Situated at the base of the road that leads to Pendreich	1981
v	Farm	
Spittal Hill	Historical name relevant to site	1990
Lyon Crescent	Street name	1991
Alexander Court	Sir Kenneth Alexander, Principal and Vice Chancellor,	1992
	1981-1986	
Union Street	Street name	1993
John Forty's Court	Professor John Forty, Principal and Vice Chancellor of the University, 1986-1994	1994

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APPENDIX III HISTORICAL DOCUMENTS RELATING TO AIRTHREY ESTATE

Text of 'The Hermit' by Oliver Goldsmith

'TURN, gentle Hermit of the dale, And guide my lonely way, To where yon taper cheers the vale With hospitable ray. For here forlorn and lost I tread, With fainting steps and slow, Where wilds, immeasurably spread, Seem length'ning as I go.'

'Forbear, my son,' the Hermit cries, 'To tempt the dangerous gloom; For yonder faithless phantom flies 'To lure thee to thy doom. Here to the houseless child of want My door is open still; And though my portion is but scant, I give it with good will.

'Then turn to-night, and freely share Whate'er my cell bestows; My rushy couch and frugal fare, My blessing and repose. 'No flocks that range the valley free, To slaughter I condemn; Taught by that Power that pities me, I learn to pity them;

'But from the mountain's grassy side,
A guiltless feast I bring;
A script with herbs and fruits supplied,
And water from the spring.
'Then, pilgrim, turn, thy cares forego
All earth-born cares are wrong:
Man wants but little here below,
Nor wants that little long.'

Soft as the dew from heaven descends, His gentle accents fall: The modest stranger lowly bends, And follows to the cell. Far in the wilderness obscure, The lonely mansion lay, A refuge to the neighb'ring poor, And strangers led astray. No stores beneath its humble thatch Required a master's care; The wicket, opening with a latch, Received the harmless pair. And now, when busy crowds retire To take their evening rest, The Hermit trimm'd his little fire, And cheer'd his pensive guest:

And spread his vegetable store, And gaily press'd and smiled; And skill'd in legendary lore, The lingering hours beguiled. Around, in sympathetic mirth, Its tricks the kitten tries, The cricket chirrups on the hearth, The crackling fagot flies.

But nothing could a charm impart
To soothe the stranger's woe;
For grief was heavy at his heart,
And tears began to flow.
His rising cares the Hermit spied,
With answering care oppress'd;
And, 'Whence, unhappy youth,' he cried,
'The sorrows of thy breast?

'From better habitations spurn'd, Reluctant dost thou rove? Or grieve for friendship unreturn'd, Or unregarded love? 'Alas! the joys that fortune brings, Are trifling, and decay; And those who prize the paltry things, More trifling still than they.

'And what is friendship but a name, A charm that lulls to sleep; A shade that follows wealth or fame, But leaves the wretch to weep? 'And love is still an emptier sound, The modern fair one's jest; On earth unseen, or only found To warm the turtle's nest. 'For shame, fond youth, thy sorrows hush, And spurn the sex,' he said; But while he spoke, a rising blush His love-lorn guest betray'd. Surprised, he sees new beauties rise, Swift mantling to the view; Like colors o'er the morning skies, As bright, as transient too.

The bashful look, the rising breast, Alternate spread alarms:
The lovely stranger stands confess'd, A maid in all her charms.
And, 'Ah! forgive a stranger rude--A wretch, forlorn,' she cried;
Whose feet unhallow'd thus intrude Where heaven and you reside.

'But let a maid thy pity share,
Whom love has taught to stray;
Who seeks for rest, but finds despair
Companion of her way.
"My father lived beside the Tyne,
A wealthy lord was he:
And all his wealth was mark's as mine,
He had but only me.

"To win me from his tender arms, Unnumber'd suitors came, Who praised me for imputed charms, And felt, or feign'd, a flame. "Each hour a mercenary crowd With richest proffers strove; Amongst the rest young Edwin bow'd, But never talk'd of love.

In humble, simplest habit clad, No wealth nor power had he; Wisdom and worth were all he had, But these were all to me. "And when, beside me in the dale, He caroll'd lays of love, His breath lent fragrance to the gale, And music to the grove. "The blossom opening to the day,
The dews of heaven refined,
Could nought of purity display
To emulate his mind.
"The dew, the blossom on the tree,
With charms inconstant shine;
Their charms were his, but, woe to me
Their constancy was mine.

"For still I tried each fickle art, Importunate and vain; And while his passion touch'd my heart, I triumph'd in his pain; "Till quite dejected with my scorn, He left me to my pride; And sought a solitude forlorn, In secret, where he died.

"But mine the sorrow, mine the fault, And well my life shall pay; I'll seek the solitude he sought, And stretch me where he lay. "And there forlorn, despairing, hid, I'll lay me down and die; "Twas so for me that Edwin did, And so for him will I."

'Forbid it, Heaven!' the Hermit cried, And clasp'd her to his breast; The wondering fair one turn'd to chide--'Twas Edwin's self that press'd! "Turn, Angelina, ever dear, My charmer, turn to see Thy own, thy long-lost Edwin here, Restored to love and thee.

"Thus let me hold thee to my heart, And every care resign: And shall we never, never part, My life -- my all that's mine. "No, never from this hour to part We'll live and love so true, The sigh that rends thy constant heart Shall break thy Edwin's, too.'

APPENDIX IV CURRENT UNIVERSITY CAMPUS PLAN (A3)

