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AUCHINDRAIN TOWNSHIP
INVERARAY
ARGYLL

Interim Archaeological Report

PRN: 2358

Auchindrain Township
Argyll

Interim Archaeological Report

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SUMMARY

In April 1999 Lancaster University Archaeological Unit (LUAU) were commissioned by Historic Scotland to undertake a fabric survey of the Auchindrain Township, near Inveraray, Argyll (NGR NN 030 031). The survey was undertaken in advance of a scheme of repairs and possible reconstruction of the architectural and constructional detail of the standing buildings. The survey was undertaken in two phases, and in the first phase the survey examined buildings A, B, M, N, O, P, R, S, T, U and W. The summary results of the first phase of survey are presented in this report.

The township was a multiple tenancy farm, and was one of six such townships in a six mile strip of land between Auchindrain and Inveraray. The earliest documented reference to Auchindrain was from 1534. In 1693 it was assessed as having four tenants and by 1779 there were up to six tenants and a total population of thirty eight (*ibid*, 464). The township went into a decline in the late nineteenth and early twentieth century, the last tenant left in 1963, and the township was granted by the Argyll Estate to a newly founded Auchindrain Museum Trust, as one of the best surviving examples of a 'fermtoun'.

The survey involved the implementation of an oral / documentary study, a photographic survey, following on from a major photographic survey by the RCAHMS, a fabric survey of the township buildings by rectified photographic, and reflectorless instrument techniques. The survey data was used to create plans, elevations and cross sections of the buildings. A geological study was undertaken to investigate the diversity and sources of the stone used to construct the buildings.

The stone survey identified that all the stone material was of essentially local origin, deriving from local drift deposits. Some of the stone could have been obtained from within the extent of the township, but also there are hushed gullies, both to the north of the main road, but also to the south of the burn which may potentially have served as the source.

An oral / documentary study examined the recent history of the site, recording the interventions that have occurred to the buildings within living memory. This used oral interviews, particularly with Bob Smith the former curator, but also unpublished reports and records of intervention proposals. Many of the buildings were repaired in about 1978, which, where possible, used locally available or easily accessible materials. Some of the repairs were unsuccessful, such as the thatch roofing of the byre of Building O, which was completed in 1978 and subsequently collapsed in the same year. In general though most of the work undertaken since the establishment of the Trust has concentrated on maintenance of the extant structures rather than wholesale reconstruction. Some buildings have been subject to marked decline, this is most clearly exhibited at Building N, which has degraded very considerably since its roof blew off in 1968.

The analytical fabric survey has shown that there has been a general development and enhancement of the buildings, particularly through the nineteenth and early twentieth centuries. The most notable effect is that most of the earlier buildings were constructed with hipped roofs, and incorporated central hearths and louvres. These

however, were for the most part re-roofed, and gables were constructed to provide additional loft space, with gable-end chimneys and fireplaces. This is most notable in Building O, which was rebuilt with a western gable.

ACKNOWLEDGEMENTS

We would particularly like to extend our thanks to John Macdonald, Curator Auchindrain Museum, for his considerable assistance throughout the fieldwork. We would also like to thank Ross Dallas, Neil Ross (Historic Scotland) and Mike Burgoyne (Historic Scotland) for their assistance and advice during the project. LUAU are grateful to all the individuals who have contributed to the oral study, and in particular to Bob Smith who provided a valuable insight into the recent history of the site. We are grateful to Royal Commission on the Ancient and Historical Monuments of Scotland for allowing the use of their topographic survey of the Auchindrain Township.

The archaeological survey was led by Chris Wild and was assisted by Graham Suggett, Neil Wearing, and Dan Ellsworth. The stone analysis was by Colin Patrick, and the oral study was by Graham Suggett and Chris Wild. The drawings were prepared by Graham Suggett and Emma Carter. This report was compiled by Chris Wild and Colin Patrick, and was edited by Jamie Quartermaine and Richard Newman. The project was managed by Jamie Quartermaine.

1. INTRODUCTION

1.1 CONTRACT BACKGROUND

- 1.1.1 In April 1999 Lancaster University Archaeological Unit (LUAU) were commissioned by Historic Scotland to undertake a fabric survey of the Auchindrain a fermtoun, near Inveraray (NGR NN 030 031). The survey was undertaken in advance of a scheme of repairs and possible reconstruction of the architectural and constructional detail of the standing buildings and structures of the township, which would include those that have areas of modern intervention. The survey had three primary goals, firstly the provision of detailed drawings for the scheme of repair works, secondly an analytical record and interpretation of the site and finally the provision of reconstruction drawings as an aid to presentation.
- 1.1.2 Due to the extent of works and the requirement for the site to remain open to the public the archaeological building survey of Auchindrain Township is being carried out over two seasons. The first season programme of works (1999) reported here, included the recording of buildings A, B, M, N, O, P, R, S, T, U and W (Figs 5-12).
- 1.1.3 This interim report summarises the findings for the buildings recorded during the first season. The full detailed analysis of these buildings will be submitted following the completion of the second season.

1.2 SITE DESCRIPTION AND HISTORICAL BACKGROUND

- 1.2.1 **Setting:** Auchindrain Township is located 9km south-west of Inveraray, on the A83. The fermtoun lies in the floor of a valley between the hills of An Torr and Dun Leacainn to the south-east, and the ridge of Creag Mhor to the west. A small stream the Eas a' Chorabhja Burn flows through the site, along the main line of the valley, and a tributary burn enters the site from the north at the northern corner. The main river in the area, Leacann Water, lies about 1 km to the west of the site, and flows south into Loch Fyne at Furnace. The valley floor area from the north-east of the site round to the south is afforested.
- 1.2.2 **Historical Summary:** the township was a multiple tenancy farm, and was one of six such townships in a six mile strip of land between Auchindrain and Inveraray. The earliest documented reference to Auchindrain was from 1534 when the future wife of Archibald MacAlasdair MacIver received the charter of the merklands of Auchindrain from the fourth earl of Argyll (RCAHMS 1992, 464). In 1693 it was assessed as having four tenants, with one hearth each. By 1752 there were six joint tenants, and by 1779 there were up to six tenants and a total population of thirty eight (*ibid*, 464). An estate plan of 1789 (Fairhurst 1968) shows two groups of buildings corresponding with the C-J buildings group and the R-T buildings group, and individual buildings in the approximate locations of present buildings A, L, N, and a further pair of buildings to the west of building W. Following the decline of the multiple tenancy in about 1935 a period of single tenancy was continued by Eddie MacCallum who occupied

building A. In 1963 the township was granted by the Argyll Estate to the Auchindrain Museum Trust.

- 1.2.3 The township comprises a number of roofed byre-dwellings, associated barns, stables and other agricultural structures such as a cart shed and the majority of these probably date from about 1770 to 1840. A number exhibit evidence of later intervention works. In total there are twelve buildings, six ruins and four structures that are classed as remnants. These vary in age and condition but all are of dry stone construction pointed with clay nogging and subsequent patches of repair.

2. METHODOLOGY

2.1 PROJECT DESIGN

- 2.1.1 A project design (*Appendix I*) was submitted in March 1999 by LUAU in response to a request by Historic Scotland for an archaeological building survey of the Auchindrain township, Inveraray.
- 2.1.2 The project design called for an archaeological fabric survey of the building, and was undertaken in two stages: the recording of buildings A, B, M, N, O, P, R, S, T, U, W and X were undertaken in 1999, with the remainder to be undertaken in 2000. The fabric survey was required to generate floor plans, rafter plans, elevations, cross sections of the buildings. This was undertaken in conjunction with a programme of context recording and analysis to investigate the development of the buildings.
- 2.1.3 Variations to the original project design were implemented in order to record the roof nails on the buildings and also building X.

2.2 ORAL HISTORICAL STUDY

- 2.2.1 It was not within the remit of the project to undertake a full documentary study of the site, but it was required that an oral study be undertaken to examine the developments and alterations that have been made to the township buildings within living memory. This involved extracting work undertaken by the RCAHMS on the township and also the University of Glasgow Archaeology Department. The material was used to augment the existing record. The study also involved interviewing the current and former curators of the Auchindrain Museum, the trustees and also local persons or experts who have worked on the site and who would have a pertinent knowledge of its recent history. The principle aim of the study is to elucidate the recent history and interventions that have been made to the township fabric and which are not defined within written records.
- 2.2.2 Two visits were made to the RCAHMS archive in Edinburgh. A search through the archive revealed information from the 1963 survey of the site, and the report included in the 1967 Argyll volume. The material mainly comprised plans, and elevations which were copied for this archive (to be included with the final report) and a large number of photographs, which it was unfeasible to copy. The site report, later included in the Argyll volume (1992) contained valuable information about the main buildings of the township prior to the interventions of the Museum Trust.
- 2.2.3 The archive of the Museum Trust kept at Auchindrain was examined with the assistance of the present Curator, Mr John Macdonald. The archive contains a wealth of information, including proposals for alteration / consolidation works. However, there was little record of the interventions that had taken place. This extensive archive should be subjected to a more detailed inspection than was possible within the remit of this project.

- 2.2.4 A list of relevant interviewees (*Appendix 2*) for information about interventions was drawn up in association with Historic Scotland, and an attempt was made to contact all of them. Telephone interviews proved sufficient with most people contacted and visits were made to interview Hugh Crawford of Sir Frank Mears Architects and Bob Smith, Curator of the museum between 1963 and 1986.

2.3 PHOTOGRAPHIC RECORD

- 2.3.1 A detailed semi-rectified photographic record had been created for all the exteriors and much of the interiors by the RCAHMS; this was provided by Historic Scotland on photoCD prior to the survey and it served as the basis for creating the external elevations. However, there were notable gaps within the record and also some photographs were too oblique to be used as the basis of creating elevation drawings. As a consequence rectified photography was undertaken of some internal elevations in order to provide the basis for the creation of elevation drawings. This was, where possible, undertaken with a medium format camera, although in some instances, particularly with smaller elevations, 35mm SLR cameras were used. Survey control was established with a reflectorless total station to the walls to enable them to be digitised into a CAD system. Co-ordinates were defined for the rectified photograph targets, to facilitate the subsequent plotting of the photographs. The elevations generated by instrument survey were superimposed on those generated by rectified photography within a CAD environment.

2.4 FABRIC SURVEY

- 2.4.1 An instrument-based survey, with hand-measured enhancements, was carried out to record the fabric of the walls following the stripping of the wall finishes.
- 2.4.2 **Survey Control:** a Zeiss Elta 3 total station, linked to a portable data logger, was used to establish the survey control around the township by means of a closed traverse. This provided external control around the buildings and also within. The control was established over the whole site in order to allow for the precise location of the structures with respect to the base map.
- 2.4.3 **Topographic Survey:** a topographic site map had previously been undertaken of the site by RCAHMS, and it was not required that this be resurveyed. However, there was a requirement for the mapping of the individual plans of the standing and ruined buildings, and that these should be superimposed on to RCAHMS base map.
- 2.4.4 The survey of the ruined buildings was undertaken by means of a conventional total station (Zeiss Elta 3) to LUAU's Level 3 which provides for a detailed level of structural recording in plan and elevation. However, the elevations of the ruined buildings were created using rectified photography with respect to survey control on the walls established by means of the total station. The digital survey data from the instrument logger was transferred, via DXF file format, into a CAD system (AutoCAD14). The archaeological detail was drawn up in the field with respect to plots of the survey data and these edits were then transferred onto

the raw survey data within the CAD system. The archaeological digital data was subsequently superimposed as a vector file on top of the RCAHMS base topography which was incorporated as a scanned raster element.

- 2.4.5 **Standing Building Survey:** the standing buildings were for the most part recorded using a reflectorless total station, which is capable of measuring distances to a point of detail by reflection from the wall surface, and does not need a prism to be placed against the structure at each point of detail. The instrument used was a Leica T1010 theodolite coupled to a Disto electronic distance meter (EDM). The Disto emits a powerful laser beam which can be visually guided around points of detail. The digital data was stored within a portable computer running TheoLT software which allows the survey to be directly inserted into AutoCAD LT software. The survey provided plan information internally and externally and also control points for the external walls to inform the creation of the external walls by rectified photography. The internal elevations were for the most part created directly by measurement of the detail using the reflectorless total station, which was created as an elevation record within the computer. This latter method required only minimal manual enhancement to enable completion of the elevations and cross sections.
- 2.4.6 The survey provided for outline recording of the elevations, but did not record individual stones. The drawings were created for an anticipated output at 1:20, however, in order to provide compatibility between all drawings it was subsequently agreed that the principal plotting scale would be 1:50 for all drawings at A1 paper size.
- 2.4.7 In one area, the byre of building A, there was too much floor detail to be economically recorded using instrument survey methods and in this instance the plan was mapped using a planning frame, and the resultant plan was digitised into the computer.
- 2.4.8 **Fabric analysis:** a context record was made for each element of the elevation, plan and cross sections. The context recording was based on a pre-defined pro-forma, however, in the event the data was recorded in the field on a tape recorder using the pro-forma as a verbal template and the data was subsequently transcribed onto an access database. The context recording provided for a descriptive record of each element, intended to augment the photographic and drawn records. These context details are incorporated within the project archive, but are not incorporated within the present report.

2.5 STONE ANALYSIS

- 2.5.1 **Aims:** the aims of the stone survey were to determine:
- i) the rock types involved
 - ii) the possible sources of the building stones and, in particular, whether they could have been obtained locally or would have had to be imported to the site
 - iii) whether there has been any selection of rock types for use as special structural elements, such as lintels and corner stones

- iv) whether there is evidence of variations in the mixture of building stones used between buildings.

2.5.2 **Methodology:** the range of rock types used as building stones was determined during the survey (21st and 22nd July). The building stone surveys were based on the annotation of rectified colour photographs of the non-whitewashed buildings D to G, J, K, and N to P, provided by Historic Scotland. Prior to field survey the stones on the photographs were numbered and the minimum size of stones subsequently identified was determined by the ability to resolve them as separate and distinct units on the photographs.

2.5.4 The details of the buildings surveyed are summarised in Table 1 (*Section 3.1*), in terms of the buildings, the wall or walls surveyed, the number of stones involved, and whether all the stones in a wall were identified (giving a full survey for that wall) or only a fraction of them (giving a partial survey for that wall). All external walls were surveyed except for Building O in which external moss and lichen cover made the internal walls more useful. The number of stones surveyed was always less than the full number of stones present in the building, due to limitations of time. In only one building, Building F, were all external stones surveyed. In other buildings one or more walls were surveyed, in full or partially, and the aim was to identify a large enough number of stones to represent a significant percentage of the total stones in each building.

2.5.5 In the survey the lithology of each numbered stone was determined and recorded, in an abbreviated form, against its number on a prepared survey sheet. Limitations were imposed on rock type identification by the impossibility of breaking stones to provide fresh faces (the standard geological approach), the general absence of fresh faces, the blurring effects of weathering and rounding, and varying degrees of cover due to moss and lichen, whitewash and cement. A few stones numbered on the photographs proved to be spaces, and a few were unidentifiable. In the survey as a whole missing and unidentified stones accounted for 5.1 % of those surveyed.

2.6 ARCHIVE

2.6.1 An archive has been compiled in accordance with the project design (*Appendix I*). A copy of the report, including a synopsis of the archive, will be deposited with Historic Scotland and a copy submitted to RCAHMS on completion of the programme.

3. STONE ANALYSIS

3.1 GENERAL DESCRIPTION

- 3.1.1 In terms of solid geology Auchindrain Township lies almost centrally within a 6.5km wide north-east to south-west belt of Ardrishaig Phyllite, part of the Dalradian Supergroup of metamorphic rocks. This stratigraphic unit consists of phyllites, quartzites and sandstones, and chloritic slates and schists. These lithologies are exposed on the shores of Loch Fyne, and at two outcrops within the site. They occur in the path to the east of Building N and in the grassy area between Buildings D and E, and expose thin-bedded sandy and argillaceous beds, and a thin-bedded flinty lithology.
- 3.1.2 The Ardrishaig Phyllite has been intruded by felsite and diorite, the latter metamorphosed to epidiorite. Felsite occurs in the slope of An Torr to the south, the boundary lies immediately to the south of the Township boundary, and in the south-west quadrant of Dun Leacainn, extending south along the shore of Loch Fyne. It is well exposed in the quarries at Furnace and Crarae. The crags on the ridge to the west of the site consist of felsite and epidiorite.
- 3.1.3 The valley floor around the township is covered by drift deposits. These appear to be a mixture of boulder clay and fluvio-glacial sands and gravels. They are exposed in the road cuttings and forestry clearance area, adjacent to the main road, about 500m to the south-west of the site. The conical mound south of the modern wooden house may be a fluvio-glacial feature, not a drumlin as apparently reported in a previous investigation, but could possibly have also been used as the Township stone pile.

TABLE 1. SUMMARY OF BUILDING STONE SURVEYS

Ref	Building surveyed	Wall(s) stones	No of	Full / Partial
D	MacNicol's House	Front	300	Partial
E	Stable	Front	120	Partial
F	Cartshed	Left and right of opening	40	Full
G	Cottar's House	Front	147	Full
J	Munro's Barn	Back	260	Partial
K	Smiddy and Corn Kiln	Front	260	Partial
N	MacNicol's Barn : Ruin	South wall	165	Full
O	House and Byre: Ruin	Interior: East wall	119	Full
		Interior: West wall	185	Full
P	Barn: Ruin	Front	56	Full
		Back	152	Full
		South wall	66	Full
Total stones surveyed			1871	

3.2 ROCK TYPE

3.2.1 Rock types were identified specifically, whenever possible, but the limitations on rock type identification made it impossible to distinguish between some similar rock types. In these cases composite categories, grouping several rock types together, had to be established. The following rock types were identified specifically:

- Felsite
- Quartzite
- Sandstone
- Schist / Mica schist
- Flinty rock type within the Ardrishaig Phyllite, exposed on the site
- Diorite
- Basalt
- Andesite
- Slate

3.2.2 The two composite categories established are:

- Green beds which probably includes epidiorite, chloritic schist, rocks from the stratigraphic unit known as the 'Green Beds' and other metamorphic rock types
- Ardrishaig Phyllite blocks and slabs of sandstone and quartzite which could have been derived from the Ardrishaig Phyllite, although this cannot be demonstrated

3.2.3 The results of the survey for each building are shown in Table 2, in terms of the percentages of each rock type present in the wall or walls surveyed. The percentage of rock types in all the building stones surveyed is also shown. Ten rock types / composite groupings were identified. Five rock types were identified in Building F, six in Buildings G, K, and N to P, seven in Buildings E and J, and eight in Building D. The building stones are dominated by five rock types (felsite, green beds, quartzite, and the two 'rock types which could be derived from the Ardrishaig Phyllite'). The subordinate rock types occur in only very small numbers. Buildings D and K have a relatively high proportion of 'rock types which could be derived from the Ardrishaig Phyllite', and Building N has a relatively high proportion of the 'flinty rock type found in the Ardrishaig Phyllite'.

TABLE 2
STATISTICAL RESULTS OF BUILDING STONE SURVEY

Percentage of stones in each rock type category

Building	F	Gb	Q	MS	AP	H	S	D	B	A..?
D	28	23	20	1.3	12	0	2.7	2.7	1.7	0...8.3
E	26	51	13	4.2	0.8	0.8	1.7	0	0	0...3.3
F	30	45	10	5.0	2.5	0	0	0	0	0...7.5
G	29	50	15	2.0	0	0	0.7	0	0.7	0...2.7
J	37	33	18	5.4	4.2	0	1.2	0	0	0.8 1.2
K	22	34	26	1.5	12	0	1.2	0	0	0...3.1
N	29	32	9.1	5.5	6.7	13	0	0	0	0...4.8
O	30	41	17	0.3	4.6	0	0.3	0	0	0...6.9
P	41	37	11	0.7	3.3	0	0.4	0	0	0...7.3
All Buildings	31	36	17	2.4	6.1	1.2	1.0	0.4	0.3	0.1 5.1

Key:

F	Felsite
Gb	'Green beds'
Q	Quartzite
MS	Schist and Mica Schist
AP	Rock types which could be derived from the Ardrishaig Phyllite
H	Flinty rock type found in the Ardrishaig Phyllite
S	Sandstone
D	Diorite
B	Basalt
A	Andesite
?	Missing or unidentified

3.3 COMPARISON OF BUILDINGS

3.3.1 The extent to which the survey results, based on only part of a building, can be considered to represent the proportions of stones used in each building as a whole has to be determined before inter-building comparisons can be made. This problem has been investigated in two ways:

- i) by examining the effect of sample size on the stability of the resultant statistics
- ii) by examining the results of the surveys of buildings in which several walls were surveyed.

3.3.2 The effect of sample size on survey results was investigated by recalculating the percentages of rock types in each category using subsets of data involving 50,100,150 etc stones up to the maximum number of stones surveyed. Examination of the sample size / percentage relationships produced suggests that with sample sizes of 200 stones or more stable percentage values result, although still accompanied by an error of the order of +/-3% for the three main rock types (felsite, green beds, quartzite). As full surveys were conducted on walls in

buildings F, G, N, O and P, the percentages obtained are a correct reflection of their building stone composition.

- 3.3.3 The possibility of generalising from results for individual walls to the whole building was examined using the data from Buildings O and P, in which two and three walls, respectively, were surveyed. The results are ambiguous; for Building O the statistics for the walls are almost identical, suggesting that generalisation may be acceptable, whereas for Building P percentage values vary markedly from wall to wall, making generalisation impossible.
- 3.3.4 In spite of this ambiguity about the possibility of generalising results from a wall or walls to a whole building this step has to be made, with appropriate caution, if the data presented here is to be used to compare buildings. A second assumption also has to be made, that the construction of internal and external walls is identical. This has not been tested formally but general observations in the buildings surveyed suggest that it is probably valid. A third assumption is that the building has not been radically altered by maintenance or rebuilding, however, it is evident that in some instances, particularly buildings such as 'O', which have seen the rebuilding of gable walls from hip roofed buildings, that there has been some alteration to the fabric. Where this has been evident the stone data of the sections of rebuild / repairs have been excluded from the dataset.
- 3.3.5 Assuming that these assumptions are valid, the data from Table 2 has been plotted on a triangular diagram (Fig 3) to provide a basis for comparing the building stone composition of all the buildings. This is a method of presenting data which overcomes the problems inherent in comparisons based on tabulations of data. The data has to be expressed in terms of three components; the three components used in Fig 3 are felsite, green beds and (quartzite + schist and mica schist + the 'rock types' and 'flinty rock type' found in the Ardrishaig Phyllite + sandstone).
- 3.3.6 The rock type composition of each building, in terms of these three components, has been determined by recalculating the percentage of each rock type present as a percentage of the fraction represented by these three rock types. When expressed in this way the building stone composition of each building plots as a point within the triangular diagram. The potential effect of errors on the plotted points is shown by the error circles for +/-5%. When the error circles are taken into account Fig 3 suggests that Buildings D, J, K, N, O, and P are probably distinct from one another whilst Buildings E, F and G may be indistinguishable from one another although distinct from the other buildings.

3.4 STRUCTURAL USES OF ROCK TYPE

- 3.4.1 The possibility that rock types have been selected for use as specific structural elements in buildings has been investigated using the results of the surveys, where appropriate, augmented with more general observations on the buildings. No attempt has been made to quantify the results as the samples are too small to produce meaningful statistics. The following preferences can be detected, although not backed up by statistical results:

- i) felsite and green beds are preferred for corners of buildings, edges of door and window openings, and for chimney corners.
 - ii) slabs of quartzite from the Ardrishaig Phyllite may be preferred as door, window and fireplace lintels, and as door steps,
 - iii) window sills show no preference among the slabby rocks, and slate was used in Buildings E and O,
 - iv) large flagstones used in the house as flooring or hearth are schist or quartzite, and possibly both from the Ardrishaig Phyllite,
 - v) fireplace edges, and flue linings are preferentially felsite.
- 3.4.2 Support for the idea of active selection of rock types to be used as building stone is provided by a comparison between Buildings D and N. Building D is located immediately adjacent to an outcrop of Ardrishaig Phyllite but contains none of the 'flinty rock type found in the Ardrishaig Phyllite'. This is in contrast to Building N, also alongside an outcrop, in which it has been used extensively. An explanation may be found in the different uses of the buildings in relation to the characteristics of the stone. The 'flinty rock type' forms irregular and erratically sized and shaped blocks, its load bearing properties are probably unpredictable as it is thinly banded and brittle, and it may be susceptible to weathering along the fissility. As a result the 'flinty rock type' may not have been a preferred stone for a habitable building, whereas it was acceptable for a barn.
- 3.4.3 This is the only comparison possible between the compositions of habitable and farm buildings as the sample of three houses and six barns makes further comparisons unrealistic.

3.5 SOURCES OF BUILDING STONE

- 3.5.1 Comparison of the rock types present as building stones within the buildings surveyed, in terms of their lithology, sizes and shapes indicates that, with the exception of slate, all the stones observed could have been derived from the local Drift. As the township site is underlain, and flanked on both valley slopes, by Boulder Clay and / or fluvio-glacial gravels derived from the Boulder Clay it follows that virtually all the stones surveyed could have been obtained within or adjacent to the site. The limitations on rock type identification imposed by various factors does not affect this conclusion as all the rock types included in the composite categories occur within the Drift.
- 3.5.2 Off-site derivation seems more probable than actual on-site derivation for most of the stones as, with two exceptions found on internal walls, the felsite stones show no indications of the effects of the chemical weathering which affects them in peaty soil. Chemical weathering is to be expected on felsite stones obtained within the Township area as most of the site is waterlogged and covered by peaty soil. The chemical weathering produces a rotted skin or rots the boulder entirely; it can be seen on the felsite boulders exposed in the peaty soil on the forestry clearance area. Although it is possible that some of the rounded stones, seen in building walls, may be core stones left after a weathered skin has been

removed the general good condition of the stones suggests that they have not been subjected to chemical weathering.

- 3.5.3 These considerations suggest that the majority of the building stones were obtained by either surface picking from non-peaty ground, excavation during cultivation, especially by the lazy bed method, in areas without a peaty soil, excavation of better drained sites on fluvio-glacial deposits, such as alongside the wooden house, excavation on the better drained valley slopes. This latter possibility could include the use of hushing to separate stones from clay. There appears to be an area of hushings, and associated channels, in the stream bed to the north of the A83, across the road from Building A, and there are some gullies and hollows, which might indicate hushing, on the slope south of the burn.
- 3.5.4 Further support for a source of stones from adjacent lower slopes is provided by the variations observed in the proportions of felsite used in buildings. The percentage of felsite in each building surveyed has been plotted on a map and the data contoured (Fig 4). The map also shows the approximate position of the geological boundary between the felsite and the Ardrishaig Phyllite.
- 3.5.5 Although the data set is small, the contours very subjective, and the occurrence of felsite in buildings is confused by the apparent selection of felsite for structural use, the pattern of contours does suggest that buildings nearer to the southern site boundary contain more felsite than those further away, and across the burn. It is interesting to note that all the buildings north of the burn appear to form a coherent group. This variation in felsite content is consistent with the expected geology as the drift on the south side of the stream is likely to be richer in felsite boulders, due to derivation from the felsite outcrop on the lower slope of An Torr, than the Drift to the north of the stream, where there will be no relative enrichment in felsite. On this basis it may be possible to distinguish between a 'high felsite' Drift source of stones, on the slopes of An Torr, and a 'low felsite' Drift source of stones, on the Creag Mhor hillslope. Recognition of these two distinct sources give support for separate hushing operations on the two sides of the valley; on the north side producing 'low felsite' stone mixtures, on the south side producing 'high felsite' stone mixtures.
- 3.5.6 In addition to these possible sources within the drift there are indications that stones were obtained by excavation from exposures of Ardrishaig Phyllite within the Township. This suggestion derives from the rock types found in buildings D, J, K and N. Buildings D, K and N contain high proportions of 'rock types which could be derived from the Ardrishaig Phyllite' and the 'flinty rock type found in the Ardrishaig Phyllite'. Although these rock types have been found in the Drift on the forest clearance area the relatively high occurrence of the former in Buildings D and K, and of the latter in Building N, suggests that a source, or sources other than the drift has been involved. The outcrops of Ardrishaig Phyllite within the Township are adjacent to Building N and in the grassy area between Buildings D and E; the flinty rock type occurs in both outcrops. The flinty rock type used in Building N could thus have been obtained by excavation near to the building. The 'rock types which could be derived from the Ardrishaig Phyllite' used in Building O may similarly have been excavated near to the building, although the present outcrop does not show the blocky or slabby rock

types used in the building. The 'rock types which could be derived from the Ardrishaig Phyllite', used in Building K. could have come from either of the present outcrops or from one which has subsequently been covered up.

- 3.5.7 Building J is distinct from the other buildings in having a relatively high percentage of the 'quartzite plus' category of rock type. Although there is no evidence of the occurrence of these rock types on the site its grouping with Buildings O, K, and N (Fig 3), and its location on a 'line' connecting these buildings (Fig 4), which coincides with the strike in the underlying rocks, is suggestive of a common source in the Ardrishaig Phyllites.
- 3.5.8 If Buildings D, I, K and N are to be considered as a group, on the basis of both apparent stone composition and location, it is necessary to ask why other buildings in the same general location, Buildings E, F and G, do not appear to belong to the group on the basis of stone types present. This question cannot be answered on the basis of the information and data currently available but possibilities are; inadequate sample sizes distorting the real stone type proportions (Table 1, *Section 3.1*), construction at a time or times distinct from the construction of Buildings D, J, K, and N, and using other sources, effects of reconstruction.
- 3.5.9 Recognition of these similarities, and differences, between buildings makes it possible to propose a classification of the nine buildings surveyed in terms of the four principal stone sources inferred. These sources are the low felsite mixture from the northern valley slopes, high felsite mixture from the southern valley slopes, and Drift-derived and locally excavated Ardrishaig Phyllite mixtures. This classification is:

Buildings	Felsite source	Ardrishaig Phyllite source
E, F, G	Low felsite	Drift derived
D, J, K, N	Low felsite	Locally excavated
O, P	High felsite	Drift derived

- 3.5.10 One rock type, slate, must have been imported to the site as it is a rock type which would not survive glacial transport, and which does not occur within the Township area as part of the solid geology. It is not possible to define its source without further investigation, as there are several possible sources on the coast of South-West Scotland, but it is interesting to note that Lindsay and Cosh (1973) record the use of Easdale slate in the building of the New Town. Other, or several, sources could be involved, especially when the time period over which buildings have been constructed and altered is taken into account. It may also be appropriate to distinguish between extensive use of slate for a roof, as in Building E, and for window sills and chimney tops.
- 3.5.11 Two other building stones may have been imported to the site. These are the 'possible schist' flagstone in the kitchen of Building D and the quartzite hearth stone in Building O. Both may have been obtained on site if there was a suitable outcrop of the Ardrishaig Phyllite, but there is no evidence of an appropriate exposure now.

4. DOCUMENTARY STUDY

4.1 INTRODUCTION

- 4.1.1 The purpose of the documentary study was not to undertake further research into the site, but rather to undertake an inspection and review of the relevant background material relating to the site and its environs as kept by the RCAHMS, and the Museum Trust at Auchindrain. Interviews with former Curators, some of the Trustees and other experts who have worked on the site were also undertaken in an attempt to provide a source of information into interventions and repairs to the buildings and structures. A summary of the historical information obtained for each building is presented below.

4.2 BUILDING A

- 4.2.1 Misnamed as Registrars house (Bob Smith pers comm), this structure was a typical long house, comprising parlour, closet, kitchen and byre. It appears to be one of the later buildings, inhabited from the 1820's until 1954 when the colt house was erected (Dunbar 1965, 64).
- 4.2.2 Several interventions prior to its abandonment are recorded, such as the insertion of the stone partition between kitchen and byre, although without dates. Bob Smith observed quite a few alterations, mostly concerned with mortaring the dry stone, which took place at any time up to 1955.
- 4.2.3 A photo from the road, dated 1904, shows a thatched roof (Buchanan *et al* 1988). Bob Smith was aware of an exchange of correspondence from Argyle Estates, who by that time were the landlords, and the MacCallums regarding a new roof. It appears that the roof was offered by the Estates around 1902/3, and was fixed by the tenants shortly after the photograph of 1904 was taken (*ibid* 1988).
- 4.2.4 A proposal for works, dated 1964 (Hay 1964), included consolidation of the eastern gable and the re-insertion of glass into the skylights in the byre. A further proposal of 1978 (Naismith 1978) stated that the building should be maintained in its present condition and that only maintenance work should be done. It also suggests a thatched roof should be added at a later date. The subsequent report on the buildings in 1980 (Naismith 1980) states that the building was repaired in 1978.

4.3 BUILDING B

- 4.3.1 This was the barn for House A, set at 90°, across the prevailing wind to maximise the winnowing efficiency. The building incorporates a stable at its northern end and appears to have had a hipped southern end with a small structure attached, looking like a cartshed in the photograph of 1904 (Buchanan *et al* 1988). The building was also shown as thatched on this photograph.

- 4.3.2 The RCAHMS survey of 1963 noted that the building was '*said to have been rebuilt within comparatively recent years; in its original arrangement it was somewhat longer and incorporated a cart shed at its south end*' (Dunbar 1965).
- 4.3.3 It is unclear when the thatched roof was replaced with a corrugated iron roof. It is likely that it was after house A (c1904), and Bob Smith suggested that it was sometime before 1914.
- 4.3.4 Bob Smith recalled several alterations, some of which were obvious, like a patchwork of cement mortar 'into the dry stone wall. *Sometimes they used old-fashioned lime mortar, other times modern cement mortar. People had just slapped some in when they felt like it, which was the typical way of doing it*' (Bob Smith pers comm).
- 4.3.5 The 1964 proposal for works (Hay 1964) included consolidation of the south-east and south-west angles, the rebuilding of the southern jamb of the north door (although it does not state which elevation) and the re-glazing of the west roof light. The further proposal of 1978 (Naismith 1978) stated that the roof timbers should be retained and a thatched roof should be ultimately be added, and that a split door should be added. Mr Naismith's subsequent report (1980) on the buildings noted recent wind damage to the roof, but no other signs of deterioration.
- 4.3.6 A summary of the buildings in September 1986 (Anon 1986) stated that the gable was recently rebuilt, and this presumably refers to the southern gable which was rebuilt in timber together with new trusses and a new corrugated iron roof in the same year. The document also mentions the disappearance of the '*small tarred shed, and the fairly modern pigsty at the southerly end*'. The shed at the northerly end of the barn had apparently been removed before the Auchindrain Museum Trust took over.

4.4 BUILDING C

- 4.4.1 The RCAHMS survey of 1963 (Dunbar 1965) noted the footings of a small sub-rectangular building, said to have been a dwelling-house, latterly used as a stackyard. It was recommended in 1978 (Naismith 1978) that this building should be consolidated, and a small tree was removed from the stackyard after 1986 (Anon 1986).

4.5 BUILDING D

- 4.5.1 This building was of typical longhouse plan but originally with a hipped gable and central chimney (evidence for which could be seen in the thatch underlying the corrugated iron roof). The structure is probably the oldest surviving structure in the township and a building in this location is shown on the 1789 Langlands map (Fairhurst 1968). The building was drawn in some detail by the RCAHMS in 1963 (RCAHMS 1992).
- 4.5.2 Bob Smith suggests that the house was widened slightly (the old gable door still visible in stonework), and the original roof was replaced with a slightly larger

roof. A later corrugated iron roof was laid on top of the thatch, (the cheap way of doing it) after seeing the improvements to House A. However, it would appear that the dwelling part of the house was corrugated prior to the photograph of 1904 (Buchanan *et al* 1988). Notes from the restoration of the building suggest that the original corrugated iron was added in the late 1800's.

- 4.5.3 Hay's (1964) proposal for works included consolidation of the wall-heads in the byre, shoring up the window lintel of the central northern window, and the replacement of the timber door-head. A further proposal of 1978 (Naismith 1978) stated that the building should have a thatched roof, and that the concrete floors should be replaced with flagstones and the central hearth exposed. It also suggested that the attached cartshed be provided with a simple coupled roof, but no door. Mr Naismith's (1980) subsequent report on the buildings noted further deterioration of the building, worsened by storms immediately prior to that report. Corrugated iron sheeting was repaired round the east chimney stack.
- 4.5.4 The floor had been covered in compacted dung in the 1960's (Bob Smith pers comm) and in the 1980 an excavation was undertaken through this floor by Eric Talbot of Glasgow University, which revealed traces of an earlier pine coarse planked wooden floor resting on massive joists, which had all been infilled with lime mortar and were resting on earth. This wooden floor had an alignment that was different to that of the building, and the excavator considered that this was potentially the floor of an earlier structure on the same site (Alex Morrison pers comm). Further research by Robert Neasmith (pers comm) produced evidence of other houses, the closest at Tranent near Edinburgh, where this technique was found in higher status housing as an early damp course.
- 4.5.5 By 1988 the building had become unsafe and was closed to the public prior to its restoration in 1990 and 1991. The restoration comprised the dismantling and rebuilding of specific areas of walling, some excavation of the floor, and relaying with concrete or re-cobbled in the byre, the renewal of windows and doors, and the replacement of the tin roof and any necessary structural timbers (Macdonald pers comm).

4.6 BUILDING E

- 4.6.1 This structure was a small barn, oriented east / west and therefore not used for winnowing. It appears to have originally been used as a shed for rearing calves (Bob Smith pers comm), and is shown with a hipped western gable and thatched roof on the photograph of 1904 (Buchanan *et al* 1988). The slate roof was added after this time by the Estates Office. The slates came from Easedale, the then Earl of Argyll receiving royalties from the quarry, Easedale slate is full of garnets and Bob Smith (pers comm) recovered several from broken slates!
- 4.6.2 The 1964 proposal (Hay 1964) suggested reslating the gables with projecting drip-edges, and the proposal of 1978 (Naismith 1978) stated that the building needed repointing and additional drainage. Mr Naismith's subsequent report (1980) on the buildings noted that the building was in good condition, presumably the repointing having been carried out. The summary of the

buildings in 1986 (Anon 1986) stated the building had been repaired and that *'the rear wall was badly bulging when we took over'*.

4.7 BUILDING F

- 4.7.1 This structure was originally a cartshed built into the retaining wall of a raised stackyard / kailyard. A photograph taken about 1900 (Buchanan et al 1988, 21; Bob Smith pers comm) shows that it was being used as a communal wash house, and had a pitched, thatched, roof.
- 4.7.2 A corrugated iron roof was suggested for the structure in the 1978 proposal (Naismith 1978), although it was later proposed that the building should be re-thatched with bracken (Anon 1986).

4.8 BUILDING G

- 4.8.1 Building G was completely ruinous in 1963 and was apparently a house comprising two rooms, each with a separate entrance. It was said to have been used latterly as a stirk-house (Dunbar 1963). A later cartshed abuts the western gable.
- 4.8.2 Bob Smith excavated the interior, with input from Glasgow University in 1979. He noted *'little of it left apart from the floor, and it was so obvious where the fire had been that he restored the whole thing (in 1980). I constructed it in the ancient way cruck frames with the purlins lying across, with saplings on top of that with turf on top and thatch and run of rush. I had problems getting turf, and had to go well up the hill to find decent turf. I was forced to take an unsuitable wood; cherry'*.
- 4.8.3 After Bob Smith departed the building deteriorated and the roof started to cave in. It was again reconstructed, but with little documentary evidence, and the roof was added in the mid-1990's (Macdonald pers comm).

4.9 BUILDING H

- 4.9.1 This structure is another longhouse comprising parlour, closet, kitchen and byre. The westernmost window in the kitchen appears to have originally been an entrance doorway (Dunbar 1963). Both existing doorways also appear remodelled, the one to the byre having been inserted with the removal of a cruck. The partition between kitchen and byre also appears to be an insertion (Dunbar 1963). The attic floor was inserted around 1907 (RCAHMS 1992), with timber stairs from the closet. Bob Smith suggests that the byre was a later addition to the house. The report of 1986 (Anon 1986) agrees and also suggests that the building was renovated by the Munro family in 1907 and that partitions were added within the loft c1950. It would appear that the timber lining of the parlour dates from this same period.
- 4.9.2 The proposal of 1964 (Hay 1964) advocated repointing around the chimney base and along the gable upstand between the dwelling and byre, and reglazing of windows, including the skylights. However, Bob Smith stated that nothing was

done to the building during his time as Curator (1963-1986). This is supported by the need for repointing to the chimney base being listed in the report of 1980 (Naismith 1980).

4.10 BUILDING J

- 4.10.1 This was the barn associated with house H and was a typical winnowing barn with stable at the north end; it was very similar to Barn B, but with a hipped roof.
- 4.10.2 Some strengthening work was proposed in 1964 (Hay 1964), but the roof blew off in 1968 (Bob Smith pers comm). The barn was rebuilt by Bob Smith in the late 1970's, in drystone with '*mortar at the wall-heads to bind them a little*'. When he came to re-roof it he noticed none of the walls were parallel as the barn was '*extended at both ends before Monro's time*'.
- 4.10.3 The document of 1980 stated that the corrugated iron roof was nearly finished, and that the new roof had survived two gales. Excavation of the floor undertaken by Glasgow University identified the change from earth to cobbled flooring coinciding with the change in layout (presumably by the Munros). The cobbles at the northern end appear recent and may date from the restoration in the late 1970's. The excavation also revealed post holes for an internal partition and evidence of a stock pen (Morrison pers comm).

4.11 BUILDING K

- 4.11.1 This was originally the kiln house (although the building post-dates the kiln), but apparently Eddie MacCallum's grandfather never saw it used, and therefore it must have gone out of use before 1820. The building was latterly used as the bull's house, and as a tool store by the Trust until it was turned into the 'Smiddy' display in the 1970's (Bob Smith pers comm).
- 4.11.2 The proposal of 1964 (Hay 1964) included consolidating the wall-heads and re-pinning the walls where necessary. Perspex panels were suggested for part of the roof in 1986 (Anon 1986) to let in some light.

4.12 BUILDING L

- 4.12.1 This structure was built on the wettest part of the township and was inhabited by a man named MacCosham who leased the plot of land at some time after 1780 (Buchanan *et al* 1988, 23). Bob Smith believes it was constructed at the end of the Napoleonic wars when farm produce was fetching high prices.
- 4.12.2 It was suggested that this building should be reconstructed in 1978 (Naismith 1978), complete with louvre, but no interventions have been carried out by the Museum Trust.

4.13 BUILDING M

4.13.1 This house dates to around the 1890's and was constructed as a poor house for the township and was at one time occupied by a Bell Poll, who retired to the village. As a consequence the house has come to be known as Bell Poll's house (Buchanan *et al* 1988). The building was shown as roofless and partially collapsed in a photograph of 1963 (AG/832), but was restored by the Trust in 1976 (Bob Smith *pers comm*). Repairs to the thatch have subsequently been carried out by John Macdonald (*pers comm*).

4.14 BUILDING N

4.14.1 This was the barn of House D and was situated in the windiest part of the township, presumably being one of the oldest barns. The northern part of the structure appears to have been shown as a ruin in the photograph of 1904 (Buchanan *et al* 1988). The building is shown intact on a detailed photograph of 1963 (AG/833), but its roof blew off in a gale in 1968 and it has steadily deteriorated to its present condition as a consequence. The north-west part of the building was apparently reconstructed, and Bob Smith recalled that Eddie MacCallum or his son had turned the barn into a garage.

4.14.2 The proposal of 1964 (Hay 1964) suggested consolidation of the northern gable, whilst the 1978 proposals (Naismith 1978) suggested a full rebuilding of the barn. No intervention has been recorded since the barn roof blew off, and the structure continues to deteriorate.

4.15 BUILDING O

4.15.1 The buildings to the west of Building N (Buildings O - X) have previously been recorded in much less detail, primarily because they were not included in the original RCAHMS survey of 1963 (Dunbar 1965).

4.15.2 Building O comprises the consolidated ruins of a small house and later byre, adjoining to the south-east. A building is shown in this position on the George Langlands Estate plan of 1789 (Fairhurst 1968). A late-nineteenth century photograph (Buchanan *et al* 1988, 12) shows both structures, with thatched roofs, and with the house having a hipped western end.

4.15.3 Bob Smith suggested that the eastern gable and chimney were added in the second half of the nineteenth century, and the western gable was obviously added sometime after 1904 (Buchanan *et al* 1988, 2). The 1904 photograph also shows a small shed (coal-shed?) butting the eastern gable.

4.15.4 Interventions were undertaken in 1978 (Bob Smith *pers comm*), with the insertion of new crucks and the repointing of the walls. Repairs were carried out on the chimney, with the insertion of a ceramic liner inside it and it is believed that more substantial repair work was carried out on the stack at this stage also. It would further appear that some consolidation of the wall-heads was also undertaken at this time, and that a thatched roof was added to the byre, but this collapsed shortly afterwards (Hay 1978).

4.16 BUILDING P

4.16.1 This was a small animal shelter associated with Building O. It has thin walls and was constructed of low quality stonework. The building is just visible on the photograph of 1904 (Buchanan *et al* 1988, 2) and appears to have a gabled roof and a smaller structure attached to its southern elevation.

4.17 BUILDING R

4.17.1 This building was a three-bay gable-ended cottage, and was one of the later buildings of the township. The photograph of 1904 (Buchanan *et al* 1988) shows both gables and chimneys clearly. The building was converted into the museum office and plasterboard internal walls were inserted in c1978 (Naismith 1978).

4.18 BUILDING S

4.18.1 This was a typical longhouse and appears to be shown on the photograph of 1904 (Buchanan *et al* 1988). The building was a ruin when the Museum Trust took control of the site, and with the exception of an excavation of the floor by Glasgow University in the 1970's, which exposed the floor layout of the house and byre, no interventions have been made.

4.19 BUILDINGS T AND U

4.19.1 These buildings were associated with House S, and appear to represent a barn (Structure T) and an animal shelter (Structure U). Building T was planned by RCAHMS in 1967 (RCAHMS 1992) and appears to comprise two phases, with the original barn being sub-divided at the eastern end to form two new small rooms.

4.20 BUILDING W

4.20.1 This structure was a longhouse and appears to have had three additional cells attached to the western gable. The building was a part-ruin in 1963, as shown in a photograph of that date (AG/781), with only the roofed byre and parlour wall surviving. The ruin was planned by RCAHMS in 1967 (RCAHMS 1992), suggesting a contemporary structure to the immediate west, presumably a stable or barn, with a later mill and cartshed adjoining further to the west.

4.20.2 Rebuilding of the structure was commenced in September 1977, originally proposed as a boat-house, and by 1980 the building had been '*thoroughly modernised*' (Bob Smith pers comm) for use as a restaurant, with the toilet block under construction. A new roof was also proposed at this time and was completed shortly afterwards. The restaurant plans fell through after the rebuilding was completed in August 1981, and the building became a store for the museum.

4.21 BUILDING X

- 4.21.1 Originally labelled Building Y by RCAHMS (1992) this barn stands on a knoll to the west of the main road. Although outside the main focus of the township, the location was most probably chosen for the same reason as the location of Barn N; being an excellent location to take advantage of the wind for winnowing. No documentary evidence of interventions was revealed, suggesting the building remains as it was when the township was abandoned. It is currently used as a store for redundant farm tools and little used materials.

5. BUILDING SURVEY

5.1 GENERAL DESCRIPTION

- 5.1.1 The continuity of occupation at Auchindrain has ensured the survival of the majority of the structures in a relatively good state of preservation. The structures also demonstrate the changing form and function of the buildings both during the period of occupation and subsequently under the care of the Museum Trust.
- 5.1.2 The township in general exhibits a linear pattern of settlement, the majority of the buildings lying between the northern bank of the Eas a' Chorabha Burn, and the Inveraray - Campbeltown road to the north. The main tenant families occupied the five longhouses / byre-dwellings (Buildings A, D, H, S and W), each for the most part with barns, stables, cartsheds and kailyards, linked by a road winding through the township. Other community members occupied the smaller cottages (Buildings G, M, O and R). In general, the dwellings are oriented on an east / west axis, with doors and windows concentrated on the warmer, southern, side, with perpendicular barns utilising the prevailing westerly winds for winnowing.
- 5.1.3 All structures were built of local undressed stone (*Section 3*), usually laid on large foundation stones and with some rough quoining at the corners. Eaves drip gullies were provided at the wall bases where necessary to aid drainage, and several of the buildings have flagstone or raised cobbled entrances to give drier access in a naturally boggy location. Most of the buildings were cruck framed, comprising two scarf-jointed members, pegged at approximately wall-head level, and although not strictly raised crucks, they sat within the wall fabric on the foundation course to protect them from the damp. Although jointed crucks are not common, their occasional usage can be seen throughout the Highland region (Stell 1981). The majority of the buildings originally had thatched hipped roofs at one or both ends, with centrally placed hip-crucks in the end-walls of the larger structures.

5.2 BUILDING A

- 5.2.1 This structure appears to be the latest of the longhouses / byre-dwellings, and was built in the early nineteenth century. It has a typical basic longhouse plan, comprising a parlour, closet / dairy, kitchen and byre with separate entrances on the southern, front, facade to house and byre. However, this building differs from the other longhouses in that the byre is significantly larger and has a second entrance [14] in the eastern gable, for mucking out to the midden to the east, and with a drain (subsequently replaced with a modern ceramic pipe) and bucket for collecting liquid manure, located immediately outside. These features show the conclusion of the evolution of the basic longhouse plan form within the settlement, and also appear to reflect an increase in livestock numbers and / or changing farming practices. There is no surviving evidence of any original half-loft in the byre; a full loft was later added, probably at the same time as the thatched roof was replaced with a tin roof, with projecting ridge-vent over the

byre, in the earliest part of the twentieth century (although after 1904 (Buchanan *et al* 1988), and prior to graffiti dated 1918). The cobbled byre comprised two conventional stalls at the western end [89], with, probably later, trevises (which are more appropriate for horned highland cattle who get hair tangled in conventional stalls) down both sides. Those on the south were probably removed with the later insertion of a porch (Room 5) in the south-west corner of the byre creating a new, clean, entrance to either the kitchen (Room 4) or byre (Room 6). This may be associated with a remodelling of the eastern side of the doorway. The byre also had a calf pen [95] in the south-east corner.

- 5.2.2 The original timber partition between byre and kitchen was replaced with a thick stone partition [6] with a fireplace containing a range inserted into the kitchen, and must date before 1904 as a central chimney is shown on the photograph of that date (Buchanan *et al* 1988). Running water was also added into the kitchen, with a sink [71] located in front of the southern window, to maximise the available light. All the windows, with the exception of the north window of the kitchen (which appears to retain its original frame but was modified slightly to allow for an opening light), were enlarged and had sash windows inserted. Those in the parlour also had panelled interiors to match the tongue-and-grooved panelling to the gable. The features described mark the achievement of a level of privacy, hygiene and decency that was considered basic to the housing of the rural poor elsewhere in Britain by the later nineteenth century.
- 5.2.3 By 1904 (Buchanan *et al* 1988) both end walls had gables, but It is unclear whether the building originally had a hipped roof at either end; both external walls are heavily whitewashed (although the upper west gable less so when the rectified photographic survey was undertaken), and any joint in the western gable is internally masked by later timber panelling, presumably added at or around the same time as that in Building H. It would appear, however, that the western gable is an original feature, allowing for a fireplace [26] in the parlour, rather than a hearth. The interior of the eastern gable is also whitewashed at ground floor level, but leans outwards and thins in the roof-space, suggesting it may have been a later addition. Older longhouses within the site certainly had hipped roofs over the byre originally, but, without removing the whitewash and sampling what little of the mortar remains in the eastern gable; it is unclear whether this was a rebuild or an original feature showing further evolution of the basic longhouse plan.
- 5.2.4 The closet / dairy (Room 2) was separated from the kitchen (Room 4), parlour (Room 1) and porch (Room 3) by stud partitions which were not seen in the older buildings. That between closet and parlour [7] had roughly cut studs from floor to ceiling height with rubble stone nogging; it was butted by a wall of similar construction forming the north partition of the porch. The eastern wall [8] was of a different style, however, having a timber rail [44] which housed the original studs. The studs, and presumably the rubble nogging, were later replaced with a timber partition. It is unclear why two different techniques were used, and as no stratigraphic relationships exist between them it is not possible to deduce which was tried first, or whether they were contemporary attempts to ascertain the best method for previously unused stud partitions. It does, however,

highlight the dynamic, *ad hoc* approach to the evolution of the structures within the township.

- 5.2.5 Many of the original cruck-bases remain in-situ [29, 33, 62, 74, 97 and 102]. A loft was added over the parlour, closet and kitchen, the floor being supported on large (c 0.25m diameter) beams of roughly hewn pine trunks. A window in the upper eastern gable [5] was presumably blocked at this time. All trusses in this loft were replaced with modern trusses and were clad with tongue-and-groove boards beneath the tin roof, presumably for insulation.
- 5.2.6 Concrete floors were added throughout the building in several stages, although only partially in the byre which had a concrete drain [92] added.
- 5.2.7 The building is largely unchanged since being taken over by the Museum Trust, with only minor repairs, most notably to the eastern end of the north wall [4] of the byre, most probably carried out in the late 1960's, and the addition of mains electricity throughout the building.

5.3 BUILDING B

- 5.3.1 This structure was the barn for longhouse A, immediately to the north, and has been largely rebuilt. It appears to have originally been two cells, with a winnowing barn to the south and a stable to the north and had a hipped roof at the southern end and a northern gable.
- 5.3.2 The walls have been rebuilt almost from the footings, with a mixture of triangular [215] and rectangular [210, 211 and 214] vents used. A timber panelled gable [202] was added above wall-head height at the southern end at the same time as the building was re-roofed in 1986. A cartshed shown in a photograph of 1904 (Buchanan *et al* 1988), also appears to have been rebuilt as a small tarred shed and pigsty, jointed to the south elevation of the barn with concrete mortar, and with a concrete floor. The original partition between barn and stable was also removed and replaced with a new timber partition [205] at the same time as the building was re-roofed.
- 5.3.3 The building has been consolidated at wall top height by the Museum Trust and several *ad hoc* episodes of repointing / repair have also been undertaken. This style of repair, using materials that were either nearest to hand or were cheapest is typical of the interventions made by the Museum Trust (Bob Smith pers comm), and it is due to such methods that the settlement has survived in generally good condition. Display boards / boxes have more recently been fixed throughout the barn.
- 5.3.4 A concrete platform observed to the north of building B may represent the base of a shed mentioned as having been removed prior to the Museum's management of the site (McDonald pers comm).

5.4 BUILDING M

- 5.4.1 This is one of the smallest buildings in the township lying on the boggy margins of the burn. It was one of the later buildings, reputedly built as a poorhouse by

the Lord of Argyll (RCAHMS 1992). The building appears to retain much of its original walling, albeit heavily whitewashed, with gabled ends; the western gable housing a fireplace and chimney. The building was originally thatched, but was roofless at the time of the formation of the Museum Trust. Purlin sockets [1211 and 1212] and ridge pads [1202 and 1204] can be seen internally in both gables. No cruck-bases or cruck positions were observed within the building, suggesting they have either been infilled, or that the low-status building had more traditional ground-set crucks.

- 5.4.2 The wall-heads were repaired around the windows and new frames, a thatched roof and trusses were added by the Museum Trust in 1976.
- 5.4.3 The floor shows several phases, from rough stone flagging [1201] to modern concrete flagstones, laid by the Museum Trust. The principle box bed was located in the western corner and, but there is also a concrete floor pad [1216] in the northern corner of the building that shows the position of a second box bed.

5.5 BUILDING N

- 5.5.1 This ruined structure was the barn, for longhouse D, the main structure standing intact, with roof, until a gale in 1968. Henceforth the building has deteriorated rapidly and now little is identifiable and interpretable. The north-west corner of the barn [1304] was possibly reconstructed, with the west wall bowing at its northern end and returning to the east, whereas it originally continued north into a second cell, which appears to be shown as a ruin in the photograph of 1904 (Buchanan *et al* 1988). The photograph also shows the barn with a hipped southern end and a gabled northern end. All that remains of the original cruck for the hipped roof is an out of situ timber [1312], amidst a large area of collapse against the eastern wall [1301], whilst the northern gable [1304] survives to less than 1m in height.
- 5.5.2 Little remains of the opposing entrances [1309 and 1311]; the footings of the southern jamb on the eastern elevation [1301] and those of the northern jamb [1303] of the narrow door in the western elevation appear intact, whilst the eastern doorway [1311] has been remodelled. Although no documentary evidence was revealed for any alterations by the Museum Trust, the apparent brick jamb and wall on the north side of the doorway appear to relate to the narrowing of a previously widened opening. However, the RCAHMS photograph of 1963 (AG/833) clearly shows the doorway in its original form; there is no evidence of the inserted brickwork, and the stonework to the north does not match any of the stonework on the photograph. If the reported date of the photograph was correct then this would suggest that the intervention was undertaken by the Museum Trust between 1963 and 1968 when the roof blew off; however, Bob Smith does not remember any such interventions, which may suggest that the work pre-dated his time as curator (1963-1986), and therefore the reported date of the photograph is incorrect.

5.6 BUILDING O

- 5.6.1 This structure has been much altered, but originally appears to have been a single room house, with a hipped roof at the west, possibly with a gable and fireplace to the east. The eastern gable [1409] has subsequently been rebuilt and repointed above wall-head height, with a new chimney flue and stack [1426] added, probably in the mid-nineteenth century (Bob Smith pers comm). A gable was also added to the western end of the building after the photograph of 1904 (Buchanan *et al* 1988). There is a clear building line on the western elevation, defining the interface between the original build [1404] and the added gable [1410]. The window [1412] in the northern elevation was rebuilt and possibly enlarged, with slate flashings, most probably at the same time as the new gable was built, certainly the late nineteenth century photograph (Buchanan *et al* 1988, 12) shows the smaller original windows. The adjoining building (Room 2) to the rear (north) was a barn or byre with a hipped roof and was added prior to the late nineteenth century photograph.
- 5.6.2 Cruck-bases [1418, 1419, 1420 and 1423] have been re-inserted since the building's abandonment (in 1978) (Bob Smith pers comm), and whilst not original timbers, they appear to occupy repaired original positions. The wall-heads have also been partially repaired, although collapse around one of the cruck positions in the barn [1405] is continuing.

5.7 BUILDING P

- 5.7.1 This structure is in a very ruinous state and appears to be a small barn or animal shelter associated with building O. A photograph of 1904 apparently shows it with a northern gable and a thatched roof, hipped at the south. The northern elevation is now almost completely collapsed, and as no cruck positions were observed within the wall fabric it appears that they were ground-set.
- 5.7.2 No direct evidence of the small structure shown to the south on the photograph of 1904 was revealed, although the field boundary butting the south-east corner of the building may have formed its western side.

5.8 BUILDING R

- 5.8.1 This structure was originally a three-bay cottage with gabled ends, each with a fireplace [1723] and chimney [1799 and 1800]. The building has one of the earliest tin roofs and a timber porch within the township, and they are shown in an early twentieth century photograph (Buchanan *et al* 1988, 32). Evidence of a partition wall [1801] and blocking off of the eaves in the roof-space suggest that it was used as living space, with the windows in both gables being blocked later. The building is currently the museum office and has been fully refitted internally, with enlarged windows, complete replastering and the addition of several stud partition walls [1705-1708], mains water and electricity.

5.9 BUILDINGS S, T AND U

- 5.9.1 Building S, standing to less than 1m in height, is one of the tenant's longhouses. The plan is still clearly visible, with the byre at the western end. Much of the floor cobbling has been retained, as have the foundation courses of several of the internal divisions. A large slab, most probably a hearth stone, was located c0.5m from the eastern end-wall suggesting that the roof was originally hipped, with a smoke hood at the eastern end. This is the only structure so far examined (Phase 1) that retains such direct evidence for a hipped roof to the parlour, and as such demonstrates part of the evolution of the architectural style within the township.
- 5.9.2 The ruinous structures located in the boggy area to the south appear to be associated buildings. Building T may originally have been a barn, although it was aligned at the wrong angle for winnowing. It has two north / south aligned internal walls; the easternmost of which had a slight return that was added at a later stage to create a three-celled structure. At this stage this building was presumably used as a stable or animal shed, and incorporated two much smaller rooms at its eastern end.
- 5.9.3 The very ruinous structure U was probably an animal shelter of similar size to structure P, and had similarly thin walls; however, little structural evidence survives and it was not possible to establish the detailed character.

5.10 BUILDING W

- 5.10.1 This structure was a tenant's longhouse which was badly collapsed by 1960, with only the byre (Room 1) retaining its roof. The byre originally had a hipped roof, the later south-west gable being a clear rebuild. The north-eastern end-wall, which contained a fireplace [2238], survived to a height just above the wall-heads.
- 5.10.2 The original internal layout of the longhouse was different to those in the east of the township, and appears to resemble the early layout suggested for Building H. A single entrance [2222] served the byre and kitchen, presumably incorporating a timber partition, although now they are a combined room (Room 1). The closet and parlour (Room 2), would have been divided by a further partition, which no longer survives. They would have been accessed by a second doorway [2221] through the south-east wall, and directly inside the door would have been an internal porch, similar to Room 5 of Building A, with entrances to kitchen, closet and parlour. The partition between kitchen and closet was subsequently replaced in stone [2225]. The modern render and whitewash that cover the walls make phasing almost impossible, whilst the original floors have been covered with concrete.
- 5.10.3 The building has been re-roofed and extensively rebuilt / repaired by the Museum Trust in the late 1970's / early 1980's, with little of the original features remaining. The window [2230] in the south-eastern elevation of the byre was re-inserted, with similar windows being added to the parlour [2229], within the original embrasure, in what was the closet [2232]. This latter window is highly conjectural and given the former position of the closet, is unlikely to reflect the

original fenestration. A window [2231] was also inserted in what appeared to be an original opening in the north-western elevation of the byre.

- 5.10.4 A toilet block (Rooms 5-7) and two concrete outshuts (Rooms 3 and 4) were constructed to the north-east and north-west of the building, and an internal dry store built more recently. The original kitchen window [2223] was remodelled into a doorway to one of these modern extensions (Room 3).
- 5.10.5 To the south-west of the longhouse are the discontinuous, overgrown foundational remains of three adjoining cells. That closest to the byre appears contemporary and probably represents a stable or storage barn, whilst the documentary study suggests that the central cell represents the remains of a mill. The south-westernmost cell was most probably a cartshed.

5.11 BUILDING X

- 5.11.1 This structure was located on a knoll on the edge of the township, across the Inveraray - Campbeltown road. The structure appears to have originally been similar to barn N, being located on a knoll, ideal for winnowing, and was probably associated with longhouse W.
- 5.11.2 The barn appears to have originally had a hipped roof, the northern gable being built later with an aperture, presumably a pitching hole that served a half-loft which has subsequently been removed. The tin gable at the southern end is most probably contemporary with the relatively early tin roof. The winnowing door in the western elevation was blocked, presumably when the township shrank in population and the building went out of use as a barn, and thereafter became a storage shed.

5.12 CONCLUSION

- 5.12.1 With a further season of survey to come, conclusions can only be tentative, but it is clear that much of the fabric of the buildings of Auchindrain township has been altered in recent times. Whilst this may be considered to have reduced the historical authenticity of some of the buildings, these intentions can also be viewed as part of the necessary on-going maintenance of the buildings and this part of their history. The buildings are close to the vernacular threshold and without repeated and frequent interventions it is evident that they would rapidly decay into a highly ruinous state. Without the interventions that have taken place in the past thirty years none of the buildings would still be standing.
- 5.12.2 Even so this survey should have identified those intrusions that have produced features of a wholly modern nature and those reconstructions which are at best conjectural and at worst inaccurate. It should enable any such errors to be rectified if considered necessary and inform the historical accuracy of any further repair and reconsolidation work.

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APPENDIX 1 PROJECT DESIGN

1.1 PROJECT BACKGROUND

- 1.1.1 Auchindrain Township located 9 km. south-west of Inveraray existed as a multiple tenancy farm until 1935. It was one of six such townships in a six mile strip of land between Auchindrain and Inveraray. Following the decline of the multiple tenancy a period of single tenancy continued until the township became a museum in 1963. The majority of the existing buildings probably date from about 1770 to 1840, a number exhibit evidence for intervention works.
- 1.1.2 The township comprises a number of roofed byre-dwellings, associated barns, stables and other agricultural structures such as a cart shed. In total there are twelve buildings, six ruins and four structures that are classed as remnants. These vary in age and condition and are of dry stone construction pointed with clay mortar and subsequent patches of repointing.

1.2 PROJECT DESIGN

- 1.2.1 Prior to the undertaking of a scheme of repairs and possible reconstruction, Historic Scotland has issued a specification for the recording of the architectural and constructional detail of the standing buildings and structures of the township to include those that have areas of modern intervention.
- 1.2.2 The survey will serve three purposes, firstly the provision of detailed drawings for the scheme of repair works, secondly an analytical record and interpretation of the site and finally the provision of reconstruction drawings as an aid to presentation.
- 1.2.3 This document was written in response and to comply with the specification as issued as Historic Scotland and contains a programme of works, method statement and project costing.

2. PROGRAMME OF WORKS

2.1 PROGRAMME

- 2.1.1 Due to the extent of works and the requirement for the site to remain open to the public it is proposed that the archaeological building survey of Auchindrain Township is carried out over two seasons. The dates as specified for the two seasons are a start date of 12th April to 30th September for site work and a delivery date for the seasons work of 31st October.
- 2.1.2 Following the end of the first season an interim report will be produced summarising the findings for the buildings recorded during that season. The project archive will be submitted following completion of the second season.
- 2.1.3 The first season programme of works will include the recording of the following roofed buildings:
Houses **A,D,F**; Barns **B,J,W**.
- 2.1.4 The second season programme of works will include the recording of the following:
Smaller buildings **G,E,F,K,M,R**; ruins **N,O,P,S,T,U** and remnants/ruins **C,L,Q,V**.
- 2.1.5 It is anticipated that some elements of the recording, such as establishing external survey station control and additional control for external elevations, will be carried out for the entire site within the first season to maximise the efficiency of the survey team.

3. METHOD STATEMENT

3.1 DOCUMENTARY RESEARCH

- 3.1.1 There is no proposal to undertake new documentary research into the site but rather to undertake an inspection and review of the relevant background material relating to the site and its environs as kept by the RCAHMS, and academic projects carried out by University of Glasgow Archaeology Department. Interviews with the current and former Curators, the Trustees and other such local persons or experts who have worked on the site will be undertaken. These interviews will provide a source of information into interventions and repairs to the buildings and structures.

3.2 SURVEY TECHNIQUES

- 3.2.1 **Survey control:** this will be established for all structures/ruins utilising an Elta conventional total station.
- 3.2.2 **Ground plans/Joist plans/rafter plans:** these will be undertaken using a Reflectorless Electronic Distance Measurer (REDM) using substantial amounts of detail points. This will either be used within the TheoLT environment on a portable PC, or alternatively the data captured by the REDM will be down loaded into an industry standard CAD package (Autocad release 14) for the production of final drawings. Where the nature of the structure restricts the use of the REDM hand survey techniques will be utilised and the results imported into Autocad.
- 3.2.3 **Building elevations:** where appropriate both internal and external elevation drawings will be produced by the process of digitising from the rectified photographic record in Autocad Release 14. The plotted drawings will be corrected/enhanced on site prior to production as finished drawings. Where the rectified coverage is insufficient for this process to be carried out a combination of REDM and/or hand survey will be used. The resultant data will be imported into the CAD package. Following site inspection it is anticipated that the majority of the internal elevations will be produced using the REDM and the external taken from the rectified record.
- 3.2.4 **Vertical cross sections:** the cross sections will not detail elevations/walls located behind the cross section. The sections will be taken through the main elements of the structures rather than through cross walls and will consist of the principal wall plane, openings, voids, passageways, beam sockets, roof and floor timber components.

3.2.1 PLANS AND DRAWING DETAIL

- 3.3.1 **Floor plans;** these will be provided at a scale of 1:20 and incorporate such detail as structural wall outlines, plinths, skirting, openings, windows, doors and structural timber. Normally drawn at a height of 0.50m above internal floor level, windows of sill height 0.75 to 1.25m will be represented.
- 3.3.2 **Elevation drawings:** unless otherwise stated stone by stone detail will not be drawn. Detail to be shown will include constructional breaks, change in building material, damage and architectural/structural features such as windows, doorways, fireplaces, chimneys, constructional and timber detail, and architectural moulding.
- 3.3.3 **CAD layers:** an appropriate CAD layering system will be detailed or adopted to separate different categories of information.

3.4 PRODUCTION OF SITE DRAWINGS¹

3.4.1 *Plans:* the production of plans for the site will include:

Floor plans for structures ADH B JW GEF KMR NOP TU [17]; roof space plans for structures ADH R [4]; floor surface for byres attached to structures ADH [3]; joist plans for structures ADH R [4]; rafter plans for structures ADHG B JW EKM R [10]

3.4.2 *Vertical sections:* vertical sections will be produced for:

Transverse sections, 3 each for buildings ADH [9]; Transverse sections each for B JW GEF KMR NO [11]; a longitudinal section each for ADH B JW GEF KMR NOS [17]

3.4.3 *Elevation drawings:* outline elevation drawings of all external and all internal walls of structures ADH B JW GEF KMR N [45] external and [100] internal; for ruins/remnants NP STU CLQV a total of [30] elevation drawings: for structure O stone by stone elevations drawings will be produced for both external and internals [16]

3.4.4 *Roof slopes:* these will be presented as true to scale for buildings ADH B JW GEF KMR [12] as well as shown as foreshortened on the elevation drawings.

3.5 ANALYSIS AND INTERPRETATION

3.5.1 *Text Based information:* to allow for a descriptive record of all detail of each building/structure to be maintained it is proposed that LUAU building pro forma record sheets are utilised (see attached). The pro forma comprise building description, room description and single context record sheets as well as record sheets for plans/elevations/sections and photographs. It is envisaged that context numbers will be allocated to every architectural component within the wall structures and that the site drawings will be annotated to include the allocated numbers. The existing building and room numbering system will be adopted. The information recorded on the sheets will be entered into a computer database (Access) and cross-referenced to the Autocad drawings.

3.5.2 *Rebuilt structures:* the level of recording for these structures will be less detailed in nature than for areas of historic fabric. It is anticipated that context record sheets will not be applied to rebuilt parts of the structures.

3.5.3 *Photographic records:* the need for additional photography has been identified for sample areas of internal roofing material, in particular the areas which utilise small branches such as building D. Where access permits sample sections of these areas will be photographed using semi-oblique photography. Photography will be taken in colour negative film and colour transparency. One set each of these will be supplied to the client. All photographs taken will include a scale bar and identification number.

3.6 PREPARATION OF THE RECORD DRAWINGS

3.6.1 All drawings will be supplied in Autocad Release 14 format and will be stored onto CDs. Each drawing will be in metric format at a scale of 1:10, 1:20 or 1:50 as appropriate and show a scale bar with the equivalent imperial value. Drawings will be supplied on Mylar-base film of minimum 0.003" thickness as a standard A1 sheet, in landscape format. The sheets will have a standard 90mm design panel down the right hand side containing the Historic Scotland logo.

3.6.2 *Analytical drawings:* these will appear as layers within the site drawings and on separate printed sheets as specified above.

¹ Numbers shown in brackets denote approximate number of plans/drawings to be produced e.g. [17]

- 3.6.3 **Axonometric drawings:** axonometric drawings showing current layout are to be undertaken for structures **A,D,H,J** and **W**. One view of each structure [5] will be produced utilising 3d survey data and Autocad release 14.

3.7 MATERIALS ANALYSIS

- 3.7.1 **Stone:** all types of building stone found within the structures will be identified and analysed. The results will be incorporated into the site report and a layering system for typology established within Autocad. The approximate cost for a specialist to undertake this study will be **£1050**. At this stage it is anticipated that the analysis would be undertaken by the Department of Environmental Sciences at Lancaster University.

3.8 ARCHIVE

The results of the survey will form the basis of a full archive to professional standards, in accordance with current English Heritage guidelines (MAP II 1991). The project archive represents the collation and indexing of all data and material gathered during the course of the project. The deposition of a properly ordered and indexed project archive in an appropriate repository is considered an essential and integral element of all archaeological projects by the IFA.

- 3.8.1 The principal material generated in the course of the recording programme will be deposited with the RCAHMS National Monuments Record of Scotland (NMRS) and all materials submitted will comply with their requirements.

3.9 REPORT

The site report will assemble and summarise the results of the documentary study, geological analysis and site recording. The buildings will be presented in individual chapters and appropriately illustrated. The report will be supplied in both bound paper and digital form, the number of copies and recipients to be specified by the client.

4. ATTENDANCES AND MONITORING

4.1 PROJECT TEAM

- 4.1.1 The team will consist of a project officer and project assistant located on site to carry out the surveying and recording work, and a project supervisor based at Lancaster to undertake the bulk of the digitising work. The site report will be written up and produced at Lancaster where the archiving of the paper and digital databases will also take place. This team will be managed by a project manager based in Lancaster.

4.2 PROJECT MONITORING

- 4.2.1 Management will be facilitated by an appropriate number of days allocated for site visits and meetings with the client and representatives of the client. An allowance has been made for approximately one day per month of field work and one additional day per year for meetings to discuss work in between the seasons.

4.3 HEALTH AND SAFETY

- 4.3.1 LUAU considers health and safety to be of paramount importance on all their projects. LUAU has considerable experience in applying modern health and safety practices in large and small-scale archaeological projects.

- 4.3.2 LUAU provides a Health and Safety Statement for all projects and maintains a Unit Safety policy. All site procedures are in accordance with the guidance set out in the Health and Safety Manual compiled by the Standing Conference of Archaeological Unit Managers (1996 rev.). A written risk assessment will be undertaken in advance of project commencement and copies will be made available on request to all interested parties.

4.4 CONFIDENTIALITY

- 4.4.1 The report is designed as a document for the specific use of the Client, for the particular purpose as defined in the project brief and this project design, and should be treated as such; it is not suitable for publication, save as a note, without amendment or revision. Any requirement to revise or reorder the material for submission or presentation to third parties beyond the project brief and project design, or for any other explicit purpose, can be fulfilled, but will require separate discussion and funding.
- 4.4.2 Any proposed variations to the project design will be agreed with Historic Scotland with whom preliminary meeting will be arranged.

4.5 INSURANCE

- 4.5.1 LUAU has both professional indemnity and public liability insurance. Details will be provided if required.

APPENDIX 2

DOCUMENTARY STUDY INTERVIEWEES

Name	Organisation	Manner of Interview
Hugh Crawford	Sir Frank Mears Architects	In person
Robert Naismith	Sir Frank Mears Architects	Phone
Bob Smith	Former Curator	In person
Dr. Margaret McKay	University of Edinburgh	Phone
Sandy Fenton	National Museums of Scotland	Phone
Gavin Sprott	Trustee?	Phone
Marion Campbell	Former Trustee	Phone
John Macdonald	Present Curator	In person
Alex Morrison	GUARD	Phone and correspondence
Jim Souness	Historic Scotland	Not contacted
Ian Fisher	RCAHMS	In person

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ILLUSTRATIONS

- Fig 1 Auchindrain Location Map
- Fig 2 General Site Map (after RCAHMS 1992)
- Fig 3 Building Stone Combinations
- Fig 4 Distribution of Felsite in buildings
- Fig 5 Plan of Building A
- Fig 6 Plan of Building B
- Fig 7 Plans of Building M and N
- Fig 8 Plan of Building O
- Fig 9 Plan of Building P
- Fig 10 Plan of Building R
- Fig 11 Plan of Buildings S, T and U
- Fig 12 Plan of Building W

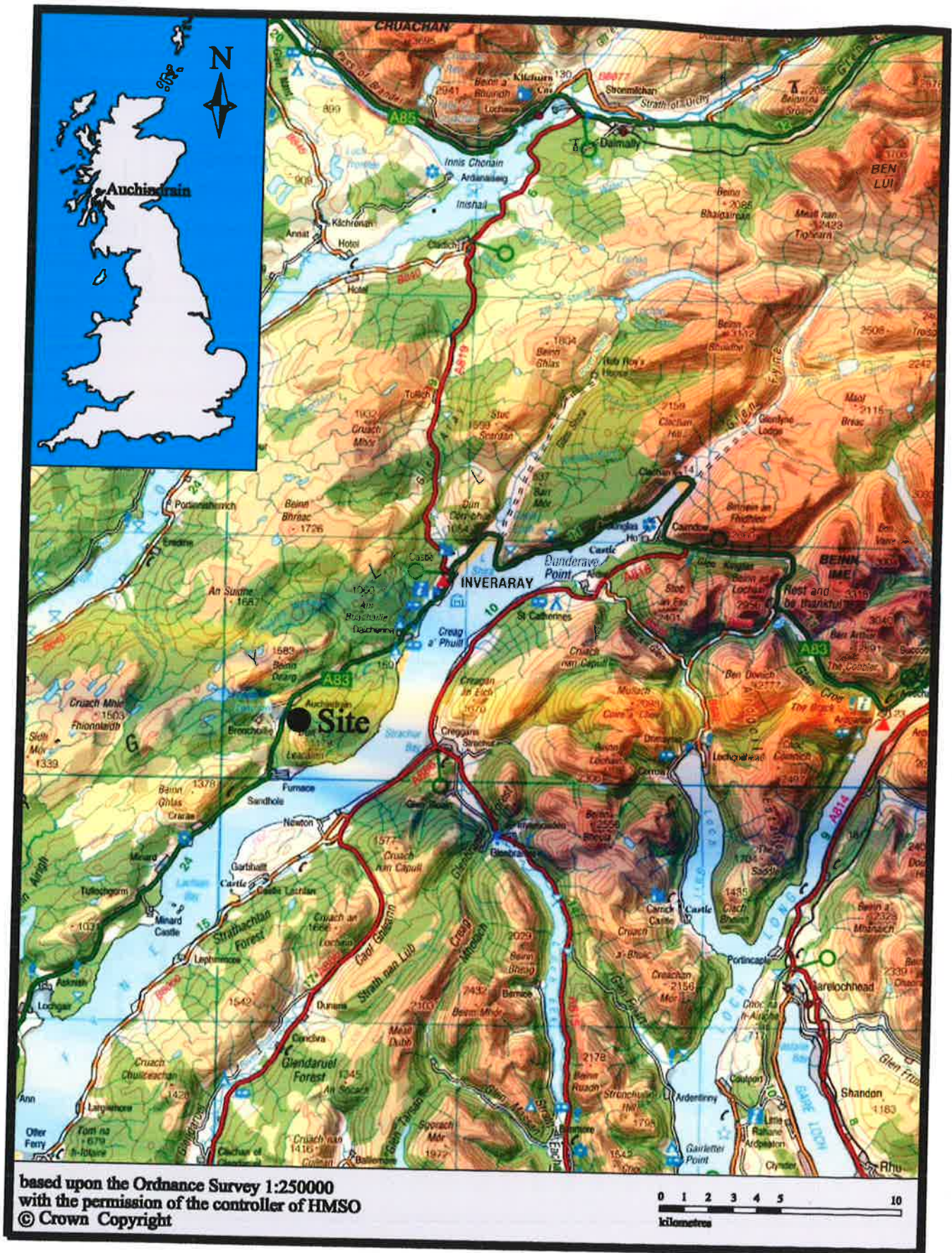


Fig 1 : Location Map

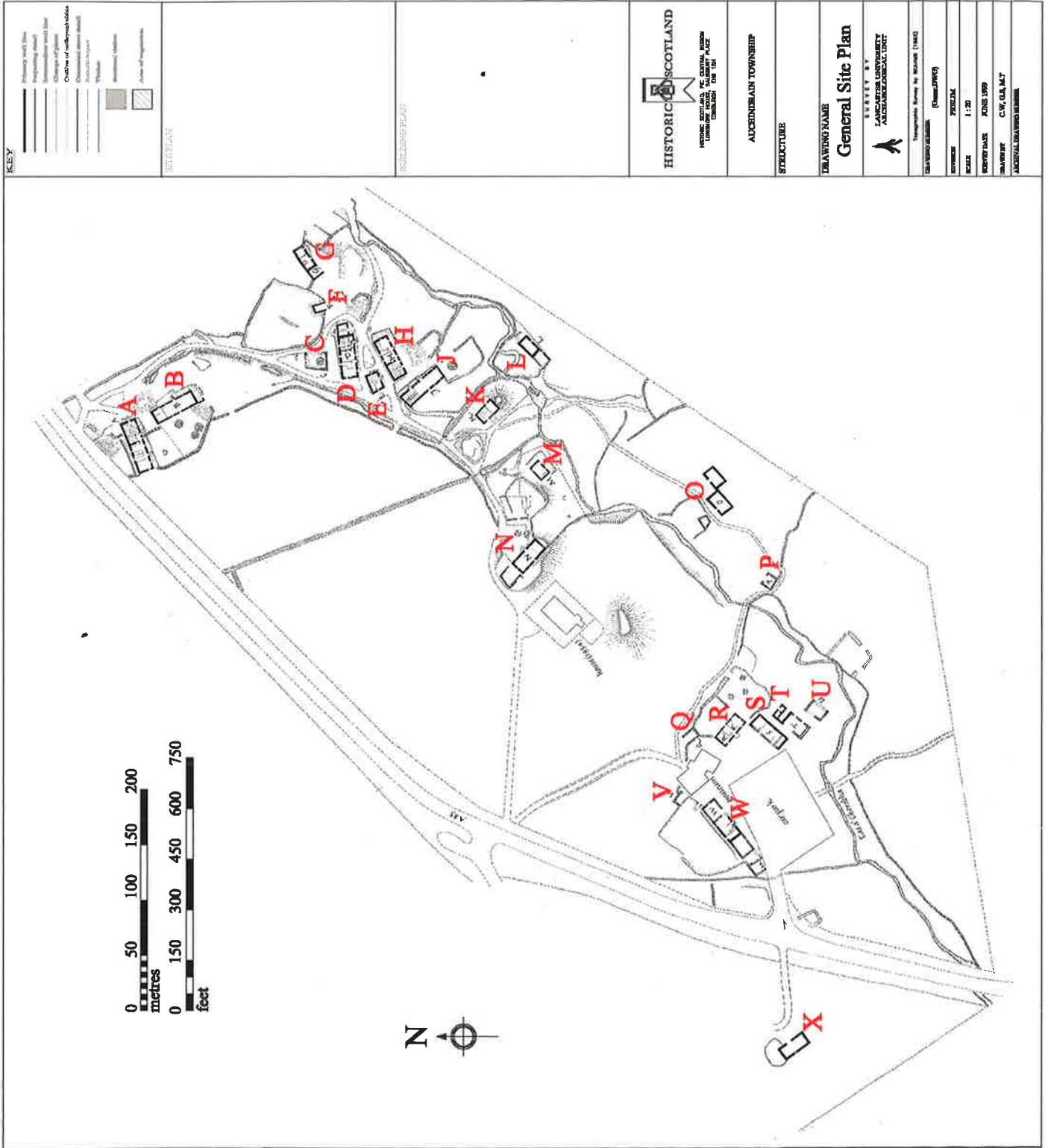
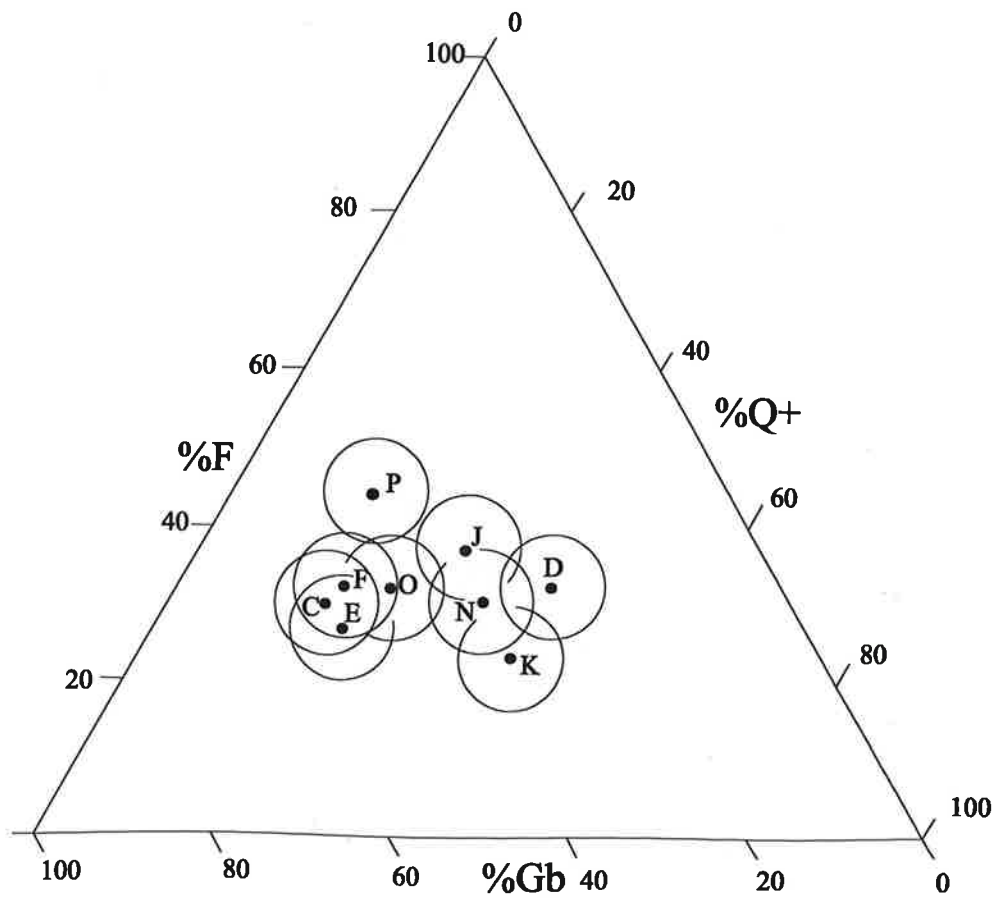


Fig 2 General Site Map (After RCAHMS 1992)



Stone combinations are expressed in terms of felsite, green beds, and (quartzite and sandstone and Schist / mica schist and rock types / flinty rock type derived from / found in the Aodrishaig Phyllite)

Circles represent +/- 5% error margins about the data points

Fig 3 Building Stone Combinations

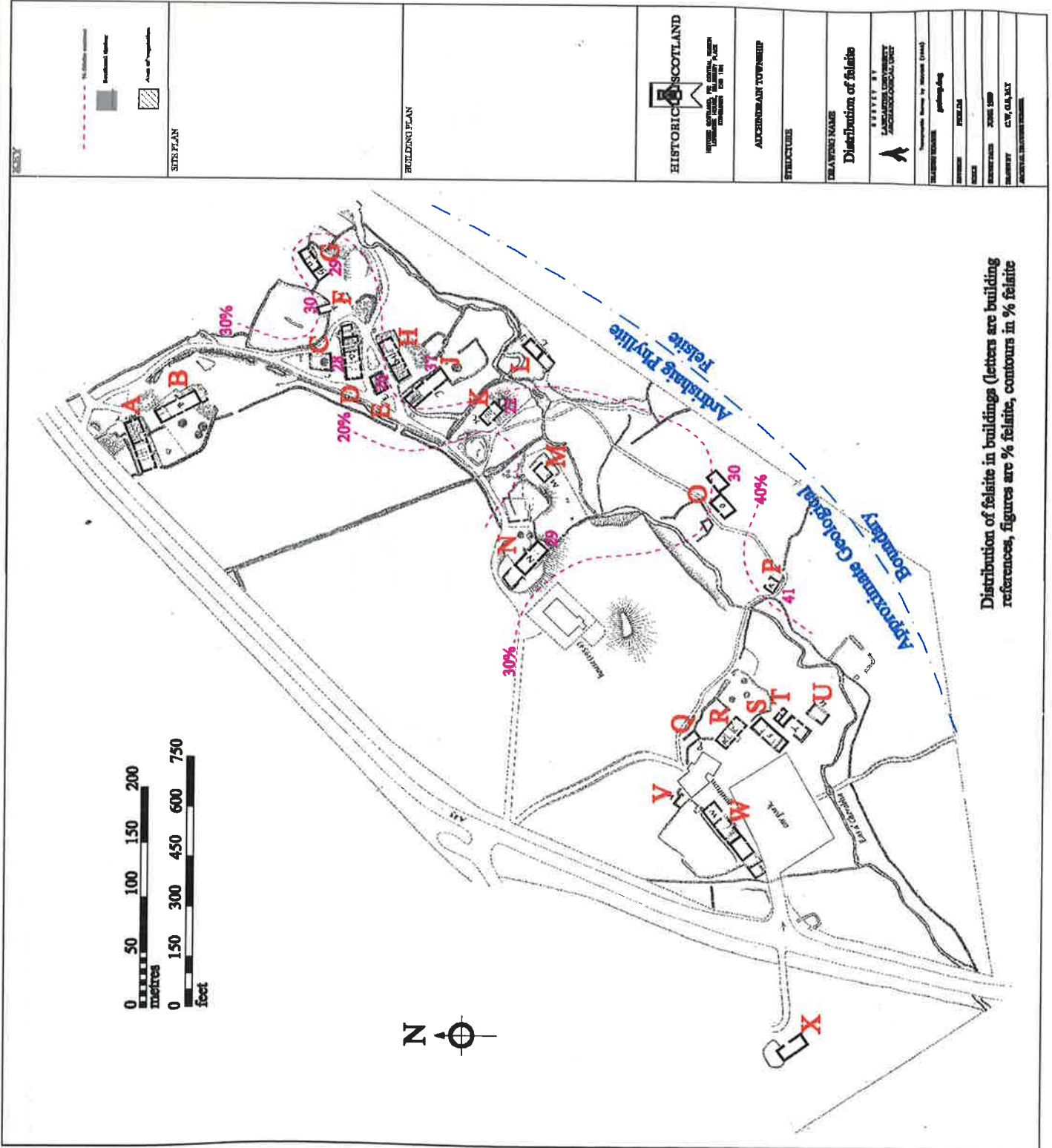


Fig 4 Distribution of felsite in buildings

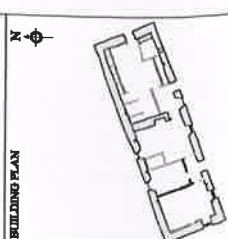
KSY

- Primary wall line
- Proposed detail
- Substructure wall line
- Change of floor
- Outline of substructure
- Outline of masonry
- Chimney or wall line
- Architrave
- Thin
- Thick
- Worked surface
- Area of excavation

SITE PLAN



BUILDING PLAN



HISTORIC SCOTLAND
 HERITAGE RECORDING AND MONUMENT RECORDING
 DIVISION 108 151

AUCHINCLOCH TOWNSHIP

STRUCTURE

Building A

DRAWING NAME

Ground Plan

SCALE

1:20 (of A1)

DATE 1999

DRAWN BY C.W. G.R. M.T.

ARCHITECTURAL DRAWING BOARD

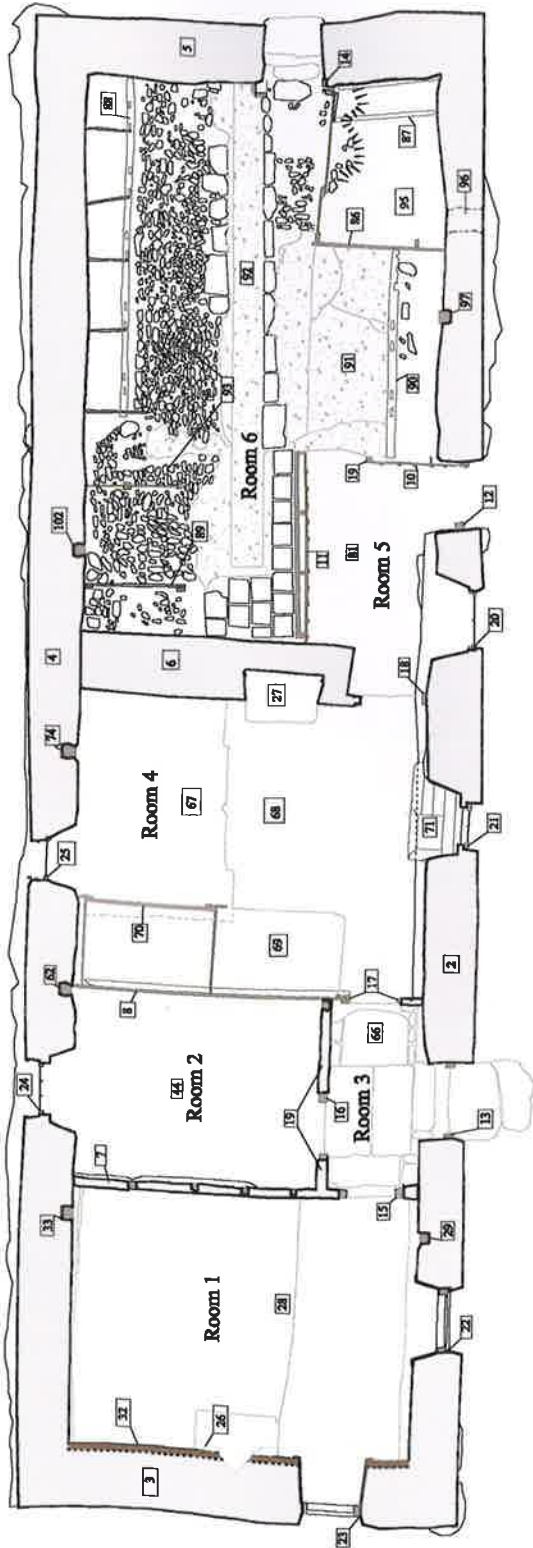
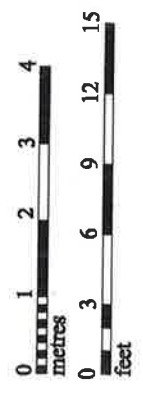
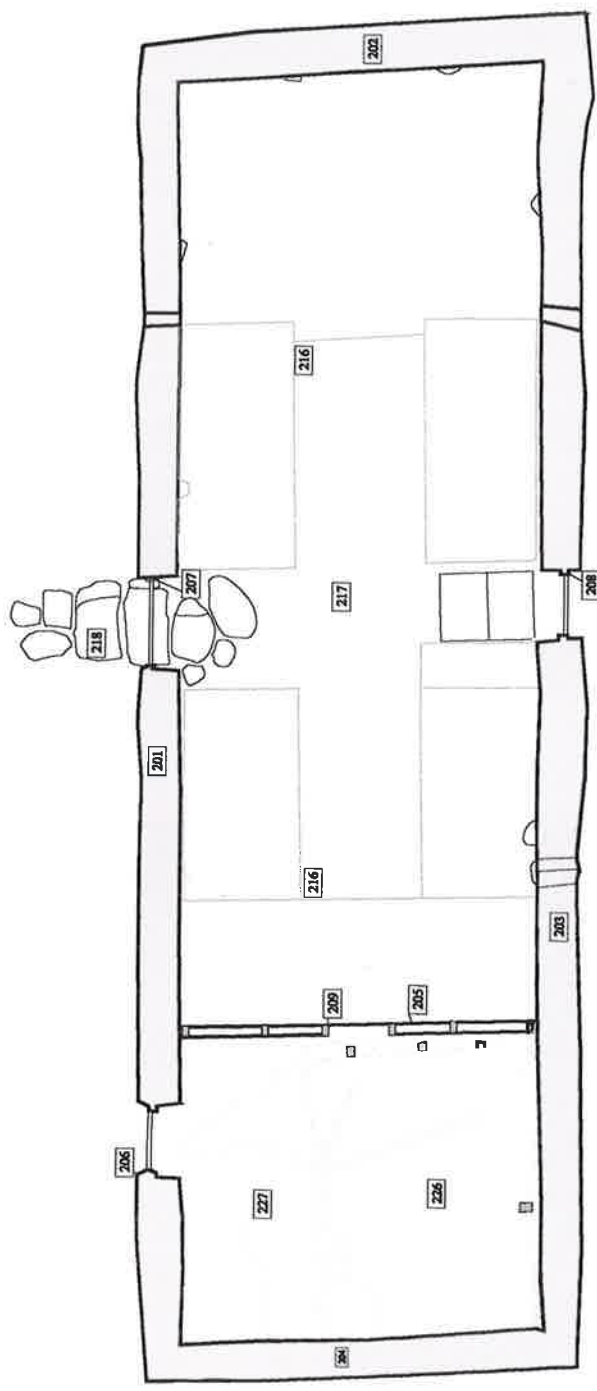


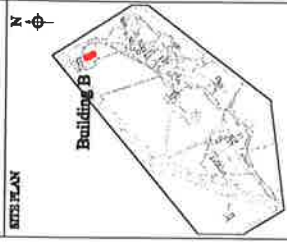
Fig 5 Plan of Building A



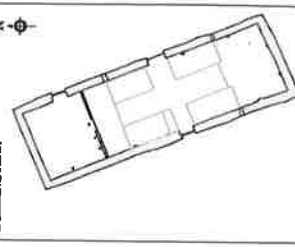
KEY

- Primary wall line
- Secondary wall line
- Interlocking wall line
- Change of plane
- Outline of wall/structure
- Contour lines
- Structure
- Roofed feature
- Area of vegetation

KEY PLAN



BUILDING PLAN



HISTORICSCOTLAND

HISTORIC SCOTLAND
1000 GRAFTON STREET, GLASGOW
G4 0AN
Tel: 0141 206 2000
Fax: 0141 206 2001
Email: info@historicscotland.gov.uk

ALCHENDEAN TOWNSHIP

STRUCTURE

Building B

DRAWING NAME

Ground Plan Building B

DESIGNED BY

ALCHENDEAN TOWNSHIP

DRAWING NUMBER

BP1A (RELANDING)

SCALE

1:50 (MAIN)

DATE

17th 1999

DRAWN BY

CW, GJA, MT

APPROVAL

ALCHENDEAN TOWNSHIP

Fig 6 Plan of Building B

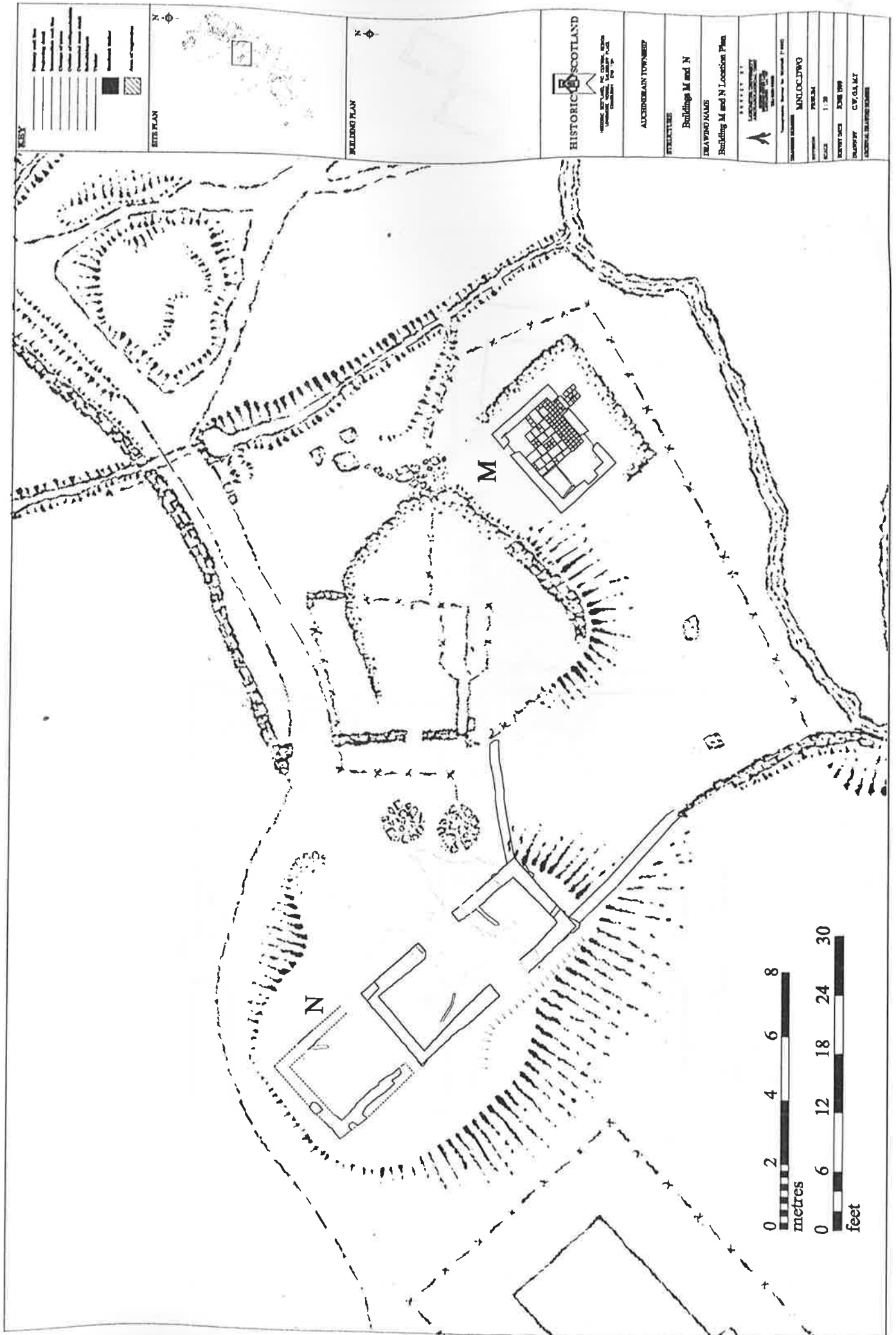
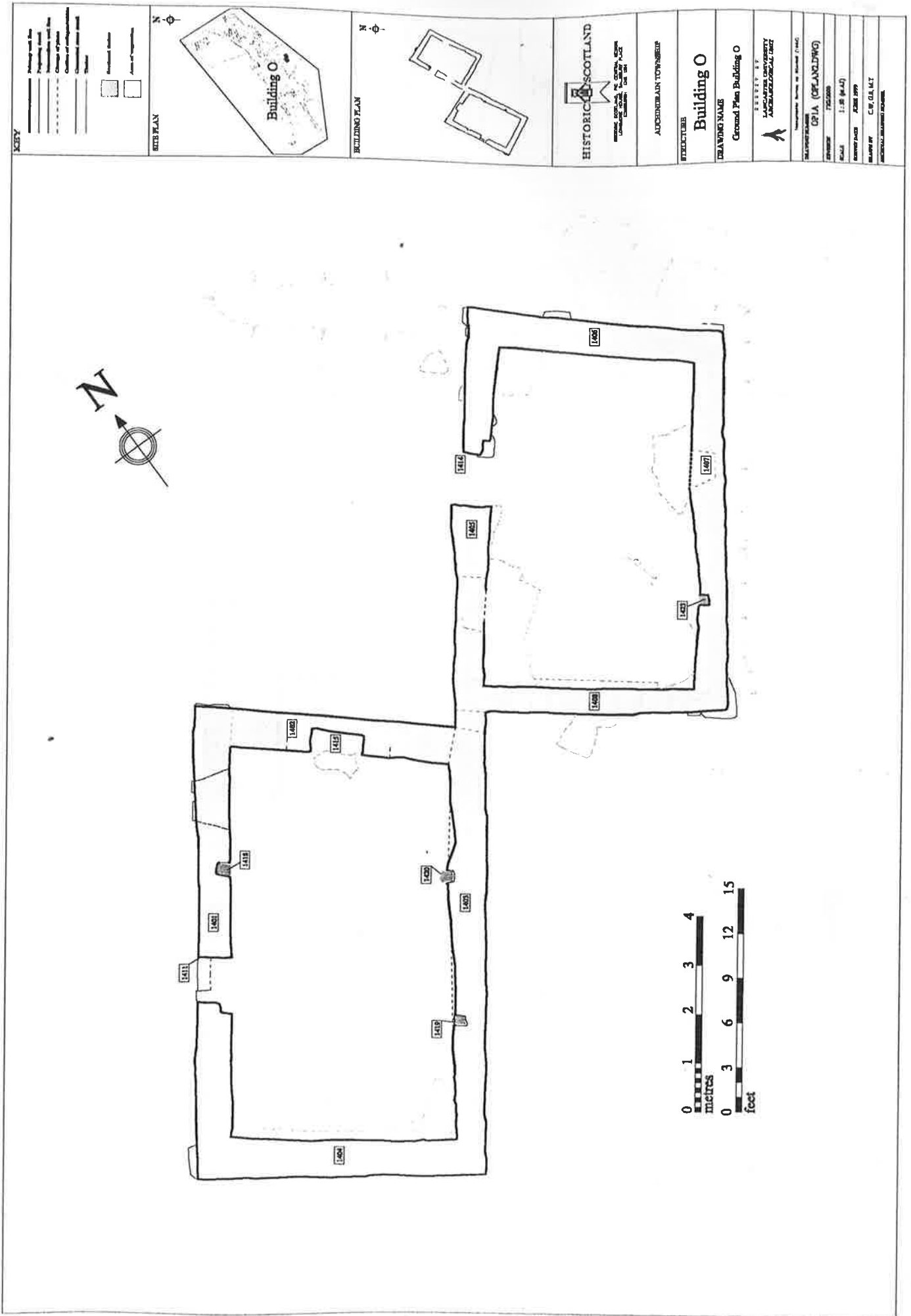


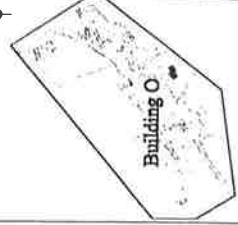
Fig 7 Plan of Buildings M and N



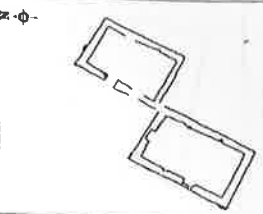
KEY

- Primary wall line
- Proposed wall
- - - - - Change of level line
- Outline of archaeological features
- Unexcavated area
- Trench
- Excavated feature
- Area of vegetation

SITE PLAN



BUILDING PLAN



HISTORIC SCOTLAND

PLANNING AND ARCHITECTURE
 1000 GLENCAIRN ROAD, GLASGOW, G3 7LN
 TEL: 0141 206 2000
 FAX: 0141 206 2001

AUCHINCLOUGH TOWNSHIP

STRUCTURE
Building O

DRAWING NAME
 Ground Plan Building O



SCOTTISH
 MANCHESTER UNIVERSITY
 ARCHAEOLOGICAL UNIT

Investigation Name: as above (1402)

Project Number: CP1A (OFFLANDING)

Drawn by: JACQUES

Scale: 1:25 (1:12)

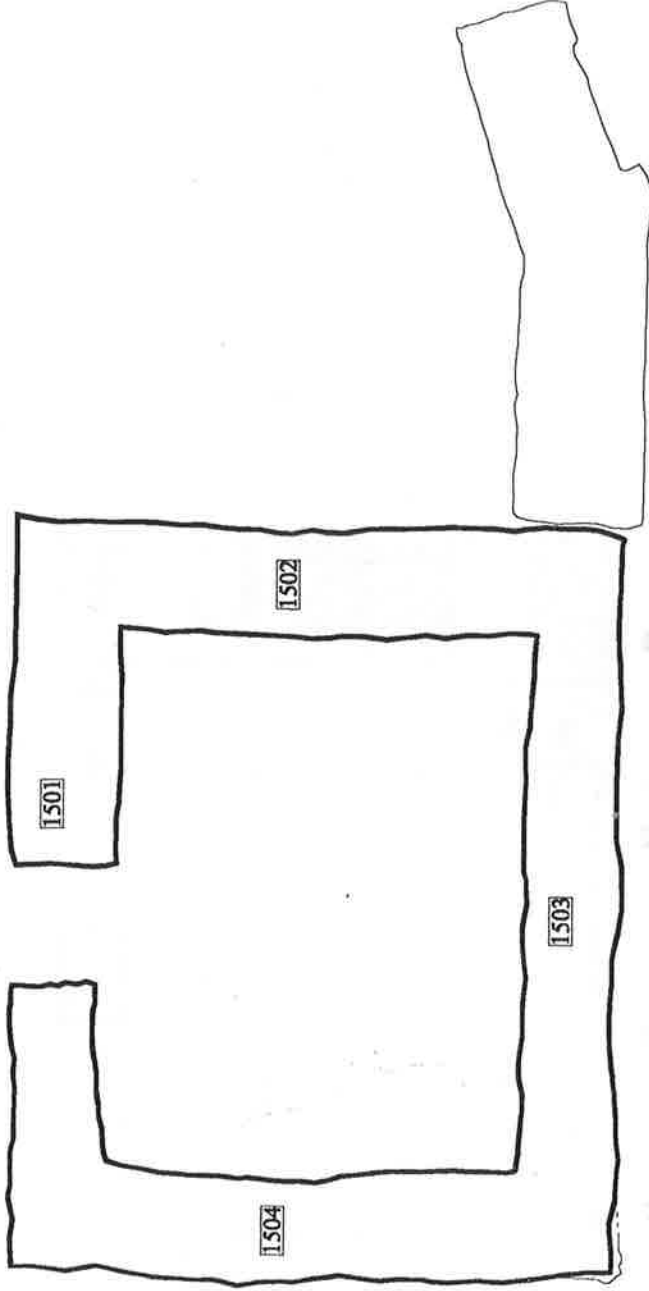
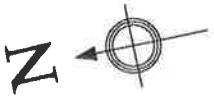
Survey Date: JUNE 1999

Survey by: C.W. GILLY

Archaeological Feature:



Fig 8 Plan of Building O



<p>--- Proposed Structure --- Existing Structure --- Change of Floor --- Change of Substructure --- Change of Use --- Other</p> <p>□ Proposed □ Existing</p>	<p>Site Plan</p>	<p>Building Plan</p>	<p>HISTORIC SCOTLAND</p> <p>HERIOT-WATT UNIVERSITY ARCHAEOLOGICAL UNIT</p>	<p>ALDINGHAM TOWNSHIP</p>	<p>STRUCTURE</p> <p>Building P</p>	<p>DRAWING NAME</p> <p>Building P Ground Plan</p>	<p>DATE</p> <p>15/06/2010</p>	<p>Drawn by: C. W. O. A. T.</p>	<p>Approved by: [Signature]</p>	<p>Scale: 1:20 (A1)</p>	<p>Project No: 1000000000</p>	<p>Client: [Name]</p>	<p>Project Name: [Name]</p>	<p>Project Address: [Address]</p>	<p>Project Location: [Location]</p>	<p>Project Date: [Date]</p>	<p>Project Status: [Status]</p>	<p>Project Reference: [Reference]</p>
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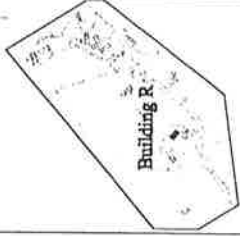
Fig 9 Plan of Building P

KEY

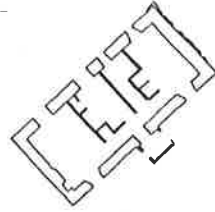
- ▬ Existing wall
- ▬ Proposed wall
- ▬ Proposed window
- ▬ Change of floor



SITE PLAN



BUILDING PLAN



HISTORIC SCOTLAND

HISMAK 2007/08, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100

AUGUSTINE TOWNSHIP

STRUCTURE

Building R

DRAWING NAME

General Plan



LANCASTER UNIVERSITY
ARCHAEOLOGICAL UNIT

Project Name: Building R

Reference: 2007/08

Scale: 1:50 (at A1)

Drawing Date: 2008/09

Drawn by: C.W. G.A. M.C.

Approved by: [Signature]

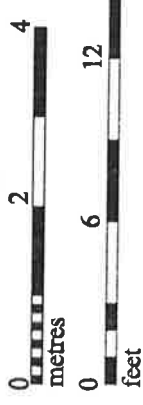
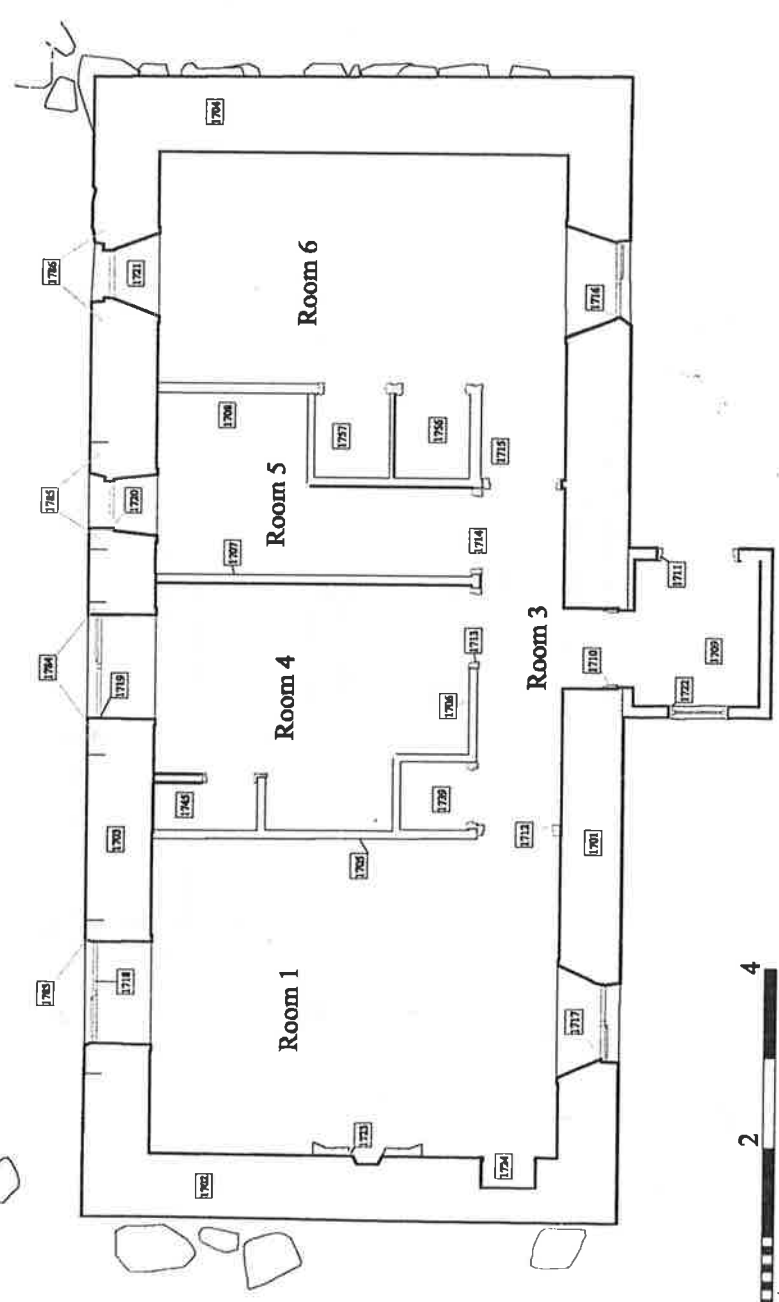


Fig 10 Plan of Building R

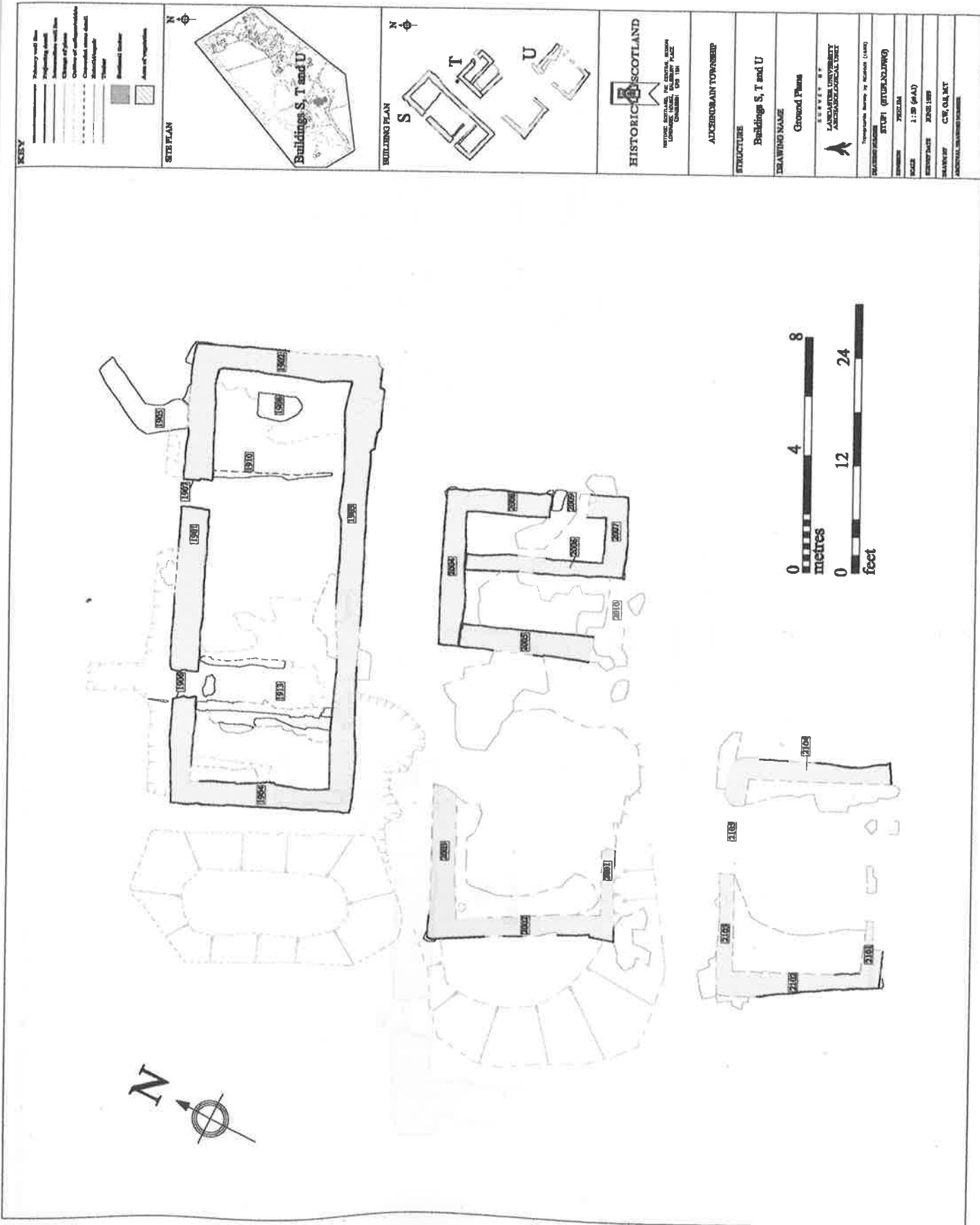
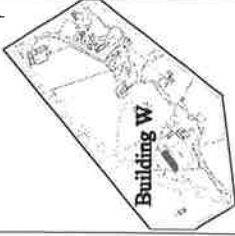


Fig 11 Plan of buildings S, T and U

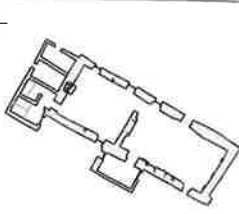
KEY

- Primary wall line
- Proposed door
- Secondary wall line
- Change of floor
- Level floor
- Level floor with
- Staircase
- Door
- Architect number
- Architect's identification

SITE PLAN



BUILDING PLAN



HISTORIC SCOTLAND

HERIOT-WATT UNIVERSITY
 LIBRARY ARCHIVAL UNIT
 100 COLIN CLARK DRIVE
 EDINBURGH EH10 5AH

AUCHINCLOCH TOWNHALL

STRUCTURE

Building W

DRAWING NAME

Ground Plan



DATE	1998
PROJECT	WPL (Wplm.DWG)
SCALE	1:20 (B.A.)
DATE	JUN 1998
DESIGNER	C.W.G.R., M.T.
ARCHITECT	ARCHITECTURAL UNIT

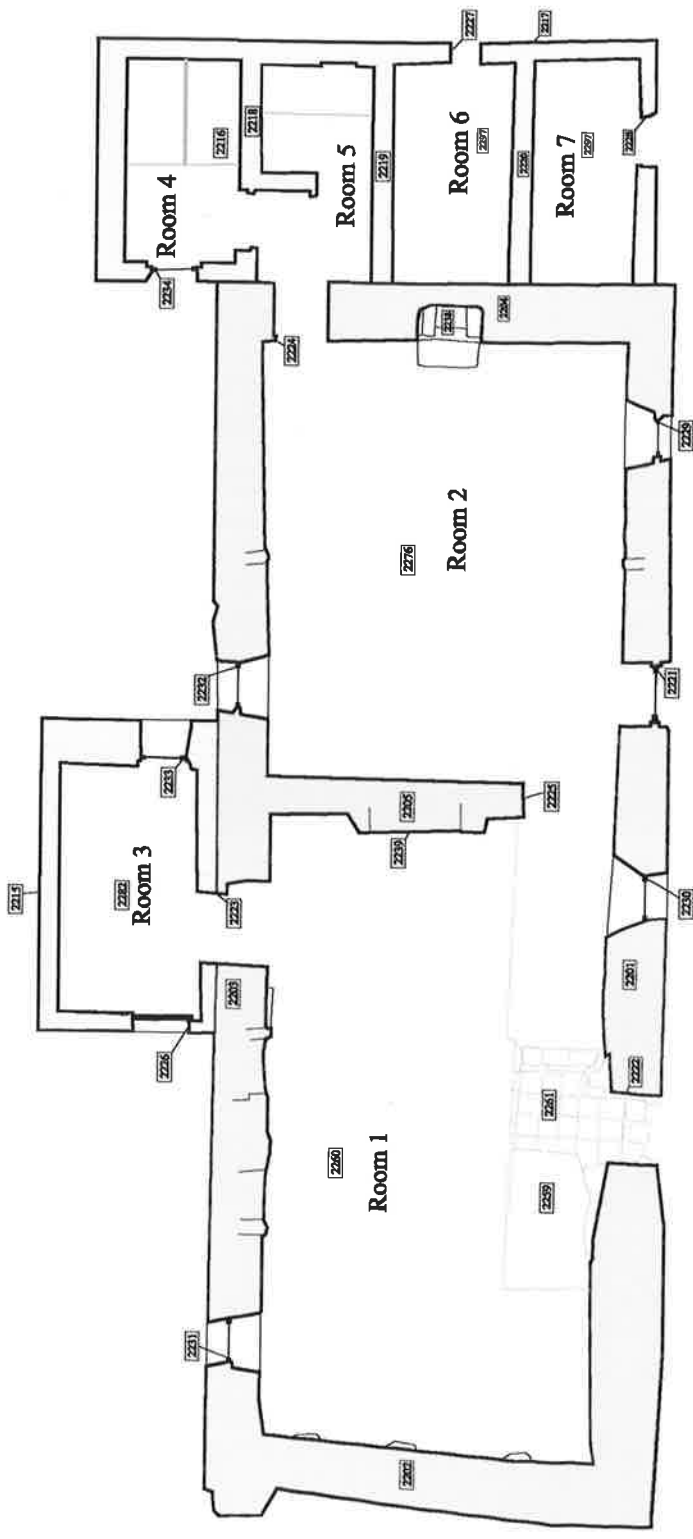


Fig 12 Plan of Building W



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