

Historic Land-use Assessment

Pilot and Study Areas



Royal
Commission on the
Ancient and
Historical
Monuments of
Scotland



HISTORIC SCOTLAND
ALBA AOSMHOR

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Further Information

Information about Scotland's archaeological, architectural and maritime heritage can be found in Canmore (see above) and PastMap, at pastmap.org.uk. Archive items can be inspected in the RCAHMS Public Search Room, which is open Tuesday to Friday from 9.30am to 5.00pm (6.00pm on Thursdays), at the following address:

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Cover Page Image: Oblique aerial view, looking across Loch Lomond towards Ben Lomond and the Grampian Mountains. SC506616

1. INTRODUCTION

The Historic Land Use Assessment pilot project was established as a partnership venture in October 1996 by Historic Scotland and the Royal Commission on the Ancient and Historical Monuments of Scotland. It aimed to explore the viability of creating a method of depicting historic land use patterns in Scotland.

The initiative for this project came out of the development of a new and more informed approach to landscape issues that had resulted from the practice of Landscape Character Assessment (LCA). Scottish Natural Heritage (SNH) had initiated a national programme of LCA in the mid-1990s. However, an assessment of the resulting reports indicated that the scale of resolution at which they had been undertaken (1:50,000) made it difficult to assimilate the historical or archaeological landscape in a systematic fashion.

Other approaches have been taken elsewhere. For example, in Cornwall a map-based interpretative system developed into landscape characterisation (Herring 1998), while in Wales a Register of Landscapes of Outstanding or Special Historic Interest catalogued significant landscapes (Cadw *et al* 1998).

The preliminary methodology for the HLA project was based on a combination of the Cornish experience and the postgraduate MA thesis by Lynn Dyson Bruce (1996) in which she developed a methodology for historic landscape characterisation in Scotland, using the Mar Lodge Estate in Aberdeenshire as a test bed.

As relict (past) landscapes are widespread in Scotland, it was considered vital to include them if the mapping was to be a valuable tool for historic landscape management. Two key resources for this exercise were the National Monuments Record (the archaeological sites and buildings record for Scotland held by RCAHMS) and the All Scotland Survey of 1988 of vertical aerial photography (also now held by RCAHMS).

A critical decision for the project was to adopt a scale of 1:25,000 as the base for interpretation, which is the smallest scale at which the Ordnance Survey (OS) depicts the physical boundaries and structures that characterise the historic landscape on the map. The one disadvantage of using this scale is that any feature less than one hectare in extent is too small to map. One further critical decision was that the data would be held in a Geographical Information System (GIS) so that individual areas could be tagged with their land use type, allowing the data to be filtered and analysed, and to be presented to users as an overlay of OS maps.

2. PILOT AREAS 1996–1998

The initial stage of the pilot project was carried out in 1996–7 and looked at two very different examples of Scottish landscape: Skye, a West Highland landscape, and Fife, a highly developed agricultural, industrial and urban landscape. The success of this first stage led to a follow-up second stage in 1997–8, which aimed to extend the methodology by widening the range of landscapes. The additional survey areas for this phase of the project were Orkney (West Mainland), Cairngorms, Liddesdale (Borders) and the eastern half of the Antonine Wall.

These studies identified 42 current (later termed historic) types with an additional 35 relict (past) types, as well as three cropmark and three artefact scatter types. Every area had a current (historic) type, but only some areas had relict (past) types. This methodology was published in a report (Dixon *et al* 1999 *Historic Land-use Assessment (HLA): Development and Potential of a Technique for Assessing Historic Land-use Patterns* RCAHMS / Historic Scotland) that brought together the results of the project, including a glossary of types. The report included several case studies which demonstrated the potential uses of the HLA data. They presented the data according to a range of possible future applications, including regional and chronological patterning, monitoring and managing landscape change, and archaeological management.

One of the case studies looked at the Mar Lodge Estate, as its recent acquisition by the National Trust for Scotland was expected to increase visitor numbers. In light of this, the relict (past) HLA land use types were considered in relation to the existing paths and route ways on the estate. This highlighted that certain relict areas could be under a potential and increasing threat from damage due to their proximity to visitor access routes. It was concluded that further and more detailed analysis of the HLA data would help to inform land managers and could feed into planning strategies.

In addition, the HLA survey contributed to a better understanding of the setting and management issues for the eastern half of the Antonine Wall. It demonstrated that there is a significant amount of development, including housing and industry, encroaching onto the immediate surroundings of what is one of Scotland's premier archaeological monuments. However, the data also indicated that at several locations the Wall sits within an open landscape made up in part of 18th–19th century rectilinear fields. This highlighted the management issue that, as development pressures continue, an enhanced importance should be given to those areas where the setting of the Wall has been less severely affected.

Although HLA was not intended as a predictive tool for archaeological assessment, the pilot project took the opportunity to test this by carrying out a comparison of the areas of Waternish and Trotternish on Skye. In 1993 the Afforestation Land Survey (ALS) undertaken by staff of RCAHMS had carried out a detailed ground survey in Waternish and the resulting data was evaluated alongside that of HLA. As expected, the land use data for these two areas was of a similar nature, with extensive remains of pre-improvement settlement in the lower-lying coastal areas. The ALS had recorded the traces of buildings within these areas in Waternish, and it was concluded that similar remains would probably be found within this land use type in Trotternish. In addition, the ground survey had recorded later prehistoric settlement remains in the form of numerous round houses (hut circles) on the fringes of the pre-improvement enclosures. Although a small number of round houses are known to survive in comparable fringe locations in Trotternish, the project results suggested that more round houses would probably be found, with HLA analysis providing a good starting point to target future ground survey.

The case studies carried out using the pilot project data suggested that the methodology could be adopted as the basis for a national land use assessment. HS and RCAHMS undertook to continue the partnership and jointly fund and manage the HLA project with the ultimate aim of providing national coverage.

3. AREAS COVERED 1998–2004

In the first few years of the HLA project the main focus of the data collection was targeted at areas where there was an immediate need:

- In the first instance this was the proposed National Parks – Loch and Lomond and the Trossachs, and the Cairngorms (see below) – and the island of Rum which Scottish Natural Heritage manages on behalf of the state and for which it was preparing a Management Plan.
- Financial support from the Forestry Commission and Ayrshire Joint Structure Plan focused attention on Eastern Dumfriesshire (to help with the management of the Forest Estate) and Ayrshire (to inform the development of part of its Structure Plan).
- The method by which National Scenic Areas Management Strategies might be developed using HLA was trialed in Wester Ross and on the Solway Coast in 2001–2 and then Shetland in 2003–4, although by then the review had been curtailed (see below).
- Coverage of Stirling Council was requested by the Local Authority Archaeologist to provide historic landscape data for input to the strategic housing plan.
- From 2001 there was also a desire to target areas that the RCAHMS was prioritising for survey, such as Renfrewshire and Strath Don. The latter provided an opportunity to incorporate HLA data into a synthetic publication on the archaeology of the area (RCAHMS 2007, 232–3).

3.1 National Parks and HLA

While the establishment of National Parks was in the process of consultation, HLA work was undertaken for the two proposed areas – Loch Lomond and the Trossachs, and the Cairngorms. The results of the studies contributed to the discussion about the extent of the Parks and the importance of the cultural landscape in their management. The results were published jointly by Historic Scotland and RCAHMS in two reports (*Loch Lomond & The Trossachs*, Boyle and Macinnes, 2000; *The Cairngorms*, Cowley and Govan, 2001) both of which can be downloaded as pdfs from this website. The report on Loch Lomond and the Trossachs National Park was published before the final area was defined and does not cover Cowal, though HLA was undertaken for what was considered to be the widest possible area at the time. The Cairngorms National Park has also now been enlarged into areas not included in the report, but HLA data was available for consideration when the extension was proposed and agreed.

The published reports took a chronological approach to the development of the landscape within each proposed Park area, from prehistoric to modern times. In addition, a more detailed consideration of the patterns of human settlement and land use was included as case studies of certain smaller areas within the Parks.

It was intended that these reports would highlight how HLA could contribute to a range of management issues. Following its establishment, the Park Authority for Loch Lomond and the Trossachs worked with partners including Historic Scotland, RCAHMS, Scottish Natural Heritage and the Local Authority Archaeological Services to carry out an evaluation of the special qualities of the Park to inform management policies, actions and decisions. Such a comprehensive evaluation had never been

attempted for a protected area in Scotland. It drew together information on landscape character, historic land use, biodiversity, archaeology and the built environment. This took the form of a landscape study designed to assess how different areas might be able to absorb change. HLA contributed to this in describing the historic landscape, and was complemented by sites and monuments data provided by the Local Authority Archaeologists. The evaluation of the special qualities went beyond describing the historic dimension of the landscape and started to look at the relative importance of particular historic land uses and the pressures and trends affecting them.

Both National Parks have used HLA data in the updating of their Landscape Character Assessments (LCA). The report for Loch Lomond and the Trossachs National Park was published in 2009 by Scottish Natural Heritage. This assessment used an essentially topographic approach to the landscape, with landform defining character types. The HLA data helped characterise some areas, particularly with respect to the relict landscapes of clearance, designed landscapes and improvement period field patterns. The Cairngorms Park LCA study of 2009–10 took a holistic approach to the factors that contribute to the landscape. It used geological and HLA data to inform the descriptions of the characteristics of the area in a way which reflects their close inter-relationship.

3.2 National Scenic Areas and HLA

Following a review of the NSA designation and a public consultation, SNH published an advisory report (*National Scenic Areas: SNH's Advice to Government 1999*), which recommended that management strategies be produced for each of the 40 NSAs, to identify the actions required to safeguard their valued qualities. The production of trial strategies was undertaken for Wester Ross and Dumfries and Galloway, in conjunction with the relevant Local Authorities.

The HLAs for these two areas (both of which are can be downloaded as pdfs from this website) were carried out to help in the preparation of these management strategies, aiming to ensure that the human contribution to the current landscape was given full consideration. In Wester Ross the area included in the assessment was larger than that covered by the NSA to show the broader context. Similarly, the assessment done for the Solway Coast took in an area that encompassed all three of the NSAs: the Nith Estuary, the East Stewartry Coast and the Fleet Valley. The reports that were produced each contained a general commentary for the area as well as a more detailed breakdown based on the HLA land use categories. Short management summaries were also included for each historic land use category, to give an indication of its potential management needs.

HS and RCAHMS assisted with the subsequent review by SNH of the special landscape qualities of all NSAs. This applied a standardised methodology that made use of HLA data as part of the background desk study and helped to ensure that the historic environment was included within the resultant special landscape qualities (The Special Qualities of the National Scenic Areas SNH Commissioned Report No 374).

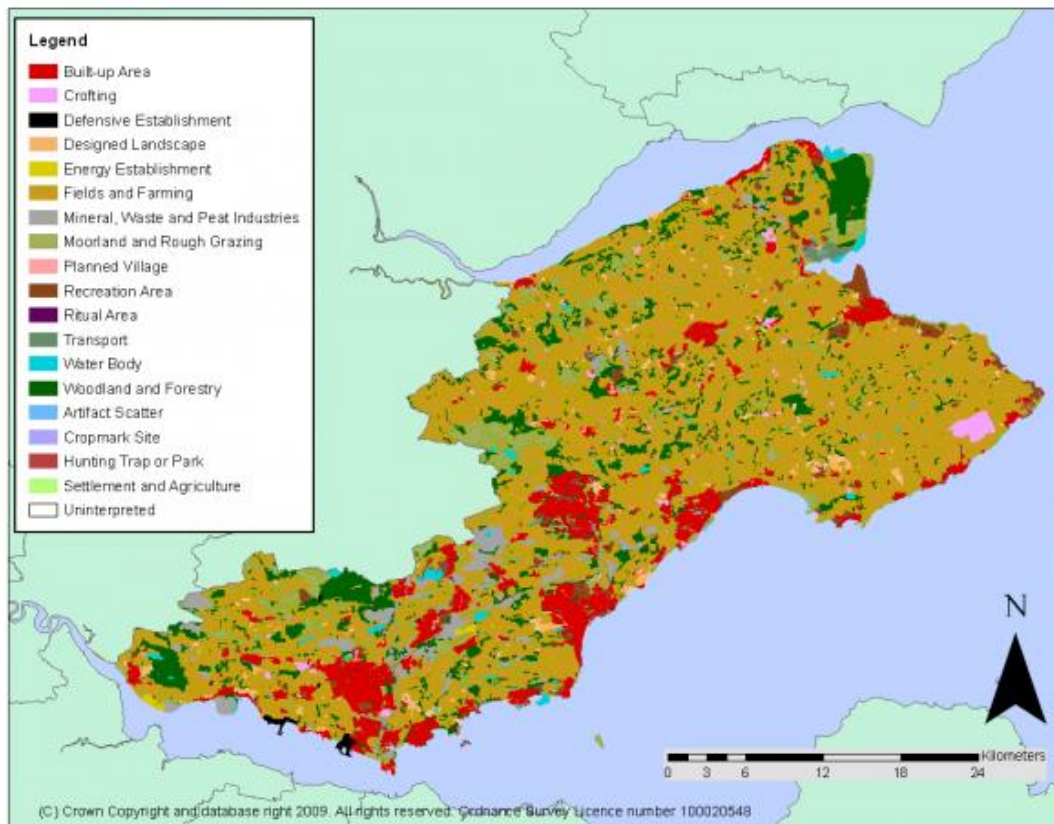
4. AREAS COVERED 2004–2012

From 2004 the focus has shifted to completing coverage by Local Authority Areas, to encourage the use of the HLA data by Local Authority Archaeologists. Thus Caithness (2004–5), Sutherland (2005–7), Lothians (2004–5), Buchan and Banff (2005–6), Moray and Nairn (2006–7), Fife (2007), South Argyll (2007–9), Western Isles (2009–10); Galloway and western Dumfries (2009–11), South Lanarkshire (2011) and Scottish Borders (2011–2) have been covered. In addition, the work on the Western Isles was undertaken to support Historic Scotland’s scheduling programme for the Outer Hebrides. Inverness City (2006–7) and the City of Dundee (2007) have also been completed, thereby providing coverage of all the major conurbations for use in strategic urban planning.

The completion of Fife in 2007 offered an opportunity to investigate how interpretation had developed since the pilot project almost ten years earlier and helped trigger a review of the type definitions. The short report on this work, published in *Archaeology Scotland* in 2009, is reproduced here as an example of HLA’s contribution to understanding Scotland’s historic landscape.

4.1 The HLA of Fife

Lying on the east coast of Scotland, Fife has land boundaries with Clackmannan and Perthshire, and the Rivers Tay and Forth separate it from Angus and the Lothians. The land has been extensively sculpted by glaciation and river systems, with a thick, rich topsoil in a gently-rolling landscape devoid (to a greater extent) of large hills and moorland. This fertile land is dominated by agriculture, with a concentration of urban settlement and industry to the south.



Map 1: Completed HLA data for Fife, by category

HLA interpretation (Map 1) confirms that farming is, by a long way, the largest current land-use. However, the pattern we see today, of dispersed farmsteadings and rectilinear fields, is to a great extent the result of the agricultural improvements of the 18th and 19th centuries, with some later field amalgamation in the following centuries as farming technology improved and machinery became ever bigger and labour-saving. Much evidence survives of the development of agriculture and the different phases that eventually led to current farming practices. This includes medieval/post-medieval rig-and-furrow cultivation and early field and property boundaries. For instance large areas of rig-and-furrow cultivation survive in the Cleish Hills, and cropmark rig survives around the village of Leuchars. Medieval reverse S-shaped fields, so-called because their boundaries follow the distinct backward letter-S plough pattern of the rig, are rare throughout Scotland with only a handful of sites recorded.



Image 1: A view of a reverse-S shaped field boundary to the east of Falkland (NGR: NO 2602 0725), taken from the NNW (October 2007) DP 044237

The only Fife examples HLA discovered were associated with medieval Royal Burghs. At St Andrews, a significant area of this distinctive field-pattern was uncovered. Some boundaries were still in use as modern field boundaries, while others had been incorporated into the layout of a 20th century graveyard and housing development. At Falkland, a number of reverse-S field boundaries have been preserved in later Improvement fields.

A number derive from the late 19th century, and were built for rich industrialists. For instance, the original Melville House, by St Andrews, was built in the late 17th century by the influential Melville family, and later sold to the Younger brewing family. They demolished the old house and built a new one with substantial landscape changes. By 1947 part of the designed landscape had been turned into Craigtoun Country Park and in the 1990s more land was sold to create a golf course development. As well as being an example of a country house modelled and crafted by industrial-derived money, the fundamental changes in this estate's land-use and appearance reflects the amount of change in the landscape that often occurs. Throughout Fife designed landscapes are shrinking as policies are turned into farmland or have disappeared completely, sometimes with only their boundaries remaining, as at Inchdairnie House near Glenrothes.

Southern Fife has the majority of urban settlement, with the major towns of Glenrothes (a New Town, built in the 1950s/60s), Kirkcaldy and Dunfermline all located here. The need for new housing across the region has led to the considerable growth of these towns. In the case of Dunfermline this is in response to a rapid increase in the number of commuters who travel the short distance to Edinburgh over the Forth Rail and Road Bridges. Many of the small coastal villages and towns in the East Neuk of Fife are growing very quickly too, with new housing developments in Crail and Anstruther being two specific examples. This urban expansion has led to the creation of more recreational facilities, especially golf courses, to serve the needs of swelling populations. There is nothing new in this idea and many of the mining villages that were created in the late 19th/early 20th century had a golf course attached. In most cases these have disappeared without trace and have been quickly forgotten. HLA has managed to identify some of these lost courses. For instance the planned industrial village of Lumphinnans, just outside Cowdenbeath, had a golf course. Few buildings of the original village survive but features of the golf course still exist. The creation of new golf courses can also be in response to tourism in Fife, and this is especially the case in and around St Andrews, the so-called 'Home of Golf'.



Image 2:

A general oblique aerial view centred on new houses occupying the site of Seafield Colliery, Kirkcaldy. Taken from the SSE. DP 040751

Some parts of Fife have been synonymous with mining for many years, and it has remained as one of the region's main industrial activities. The deep-mining of coal in south and central Fife, which has left many relict traces, has given way to open-cast mining in the 20th and present centuries. This is initially very destructive but the sites are usually restored to farmland and are difficult to distinguish from their surroundings. In some instances, however, the land is redeveloped into new housing estates, such as that on the site of the Seafield Colliery in Kirkcaldy.

Fife has a complex landscape that is constantly changing and has been exploited by people for thousands of years. Evidence of past land-use is the main concern of the HLA project and it has shown that these clues to our past are still in abundant evidence all around us. Whether this is an old field boundary, a ruined mine complex or an abandoned settlement, they combine to paint a vivid picture of intense, wide-ranging and developing use of the land for a multitude of purposes. So the next time you walk down a country lane take note of that old wall or building and consider its history and use, and the influence it may have on the modern landscape around you.

5. OTHER STUDY AREAS

5.1 HLA for the outskirts of Stirling (2003)

INTRODUCTION

Some 2,500 new houses are to be erected in the area immediately to the east of Stirling, as a consequence Stirling Council has requested a Historic Land-use Assessment (HLA) of the area from RCAHMS/HS to assist the Planning Department in the development of the area. This digest of the results of the GIS-based map data is designed to draw attention to the principal historic components that survive to form discrete elements within the modern landscape. The full data set is available from RCAHMS and a copy has been lodged with Stirling Council.

The area included within the HLA survey covers some 87 square kilometres, stretching from Blair Drummond and the Kilsyth Hills in the west to Alloa in the east, and from the southern Ochils in the north to Denny in the south. Central to the area is the flood plain of the River Forth, which is flanked on the north-east by the rugged escarpment of the Ochils and elsewhere by more rounded hills. These contrasting landforms have, since the first arrival of man in the seventh or eight millennium BC, been overprinted and modified by a series of successive historic land-uses, traces of which are preserved in the landscapes and townscapes we know today.

As elsewhere in Scotland, the historic landscapes in the Stirling area, both urban and rural, are undergoing change. The City of Stirling itself has expanded in recent decades, mainly to the south and east, while Alloa, on the north bank of the Forth, is also growing, and, such is the pressure on land, that housing and industry are beginning to encroach significantly on to historic agricultural landscapes.

To the west of Stirling there are a number of extensive 18th and 19th century designed landscapes, which are also under pressure from development. Although some estates are still in private hands, many have been sold off and the mansions demolished or substantially altered and the parklands developed for housing or turned over to public recreational use.

Almost all of the fertile land has been intensively farmed, and even marginal hillslopes show some form of agricultural management. As a result, little in the way of early archaeological landscapes have been preserved. What does remain is largely restricted to 18th century rig-and-furrow cultivation, and this is chiefly found on the higher ground, where the pressure of modern agriculture has been less intense. Other archaeological evidence is limited to a small number of individual monuments, including prehistoric cairns and forts, and two Roman temporary camps.

HISTORIC LAND-USE CATEGORIES

In the text below each of the major HLA categories identified in the area of study is considered in turn. Six- or eight-figure National Grid References have been given for areas of interest, and, where appropriate, the NMRS database reference number (www.rcahms.gov.uk) has been included.

Built-Up Areas

The main urban area is centred on Stirling, which is expanding towards Bridge of Allan in the north and has already engulfed Bannockburn in the south. Stirling (NS 7963 9357, NS79SE 154), being a principal seat of the royal Scottish court until the 17th century, has a large medieval heart to the town; the town walls, built in the mid-18th century, are the best surviving in Scotland. The medieval town leads from the Castle down St John Street to King Street and the Bastion Jail, now within the Thistle Shopping Centre. As a result of Stirling's importance in the medieval period, members of the nobility began to build town houses close to the court. A small number survive today, such as Argyll's Lodgings (NS 7926 9380, NS79SE 21) and Mar's Wark (NS 7923 9374, NS79SE 22).

Alloa is a second major urban centre and, like Stirling, its medieval street pattern has been preserved within the historic core of the town. The town (NS 8889 9251, NS89SE1) grew up around the medieval parish church (NS 8863 9258, NS89SE6.00) and the 15th century tower-house (NS 8889 9251, NS89SE1). Recent development, much of it industrial, has begun to swallow up smaller, surrounding settlements such as Sauchie and Tullibody.

In the past decade there has been a substantial expansion to the industrial and retail sectors in the Stirling area. Industrial estates and out of town shopping centres, such as Bandedeath and Springkerse, have developed and expanded rapidly. Bandedeath has had an interesting military history, some of the evidence of which is still well preserved. Throsk (NS 850 928, NS89SE 76) was built just before the Second World War as a Royal Navy Explosives Store. Ships heading for decommissioning unloaded their cargoes at Throsk, which had its own railway system running from the pier on the Forth. The main buildings of the camp are now in use as Bandedeath Industrial Estate, while to the north, the ammunition stores are still occasionally used. Inside, the stores are much as they were left, including blackboards detailing how many rounds each store contained. Indeed, there are air raid shelters (detailed as 'Tanks' on the OS Landline) and the original lampposts.

At Bannockburn, once an important centre for the production of carpets and tartan, the Royal George Mill (NS 8089 9047, NS89SW 31) still stands; built in the 1820s, it is now a masonic lodge.

Alloa is surrounded by large industrial areas, such as the distillery bonded warehouses to the west along the banks of the Forth. Relict elements of Alloa's industrial history also remain, such as the 19th century glass cone of the Alloa Glassworks (NS8801 9240, NS89SE 49.01) along with some features of the once busy port and shipbuilding yards.

Planned Villages

The Stirling area contains a number of planned villages built to house agricultural or industrial workers. Dunmore village (NS 8932 8941, NS88NE 74), on the shores of the Forth, was laid out for workers on the Dunmore Estate. Fishcross (NS 8994 9535) was built in the late 18th century for the miners of the nearby Devon Irons Works and Devon Colliery; the rows of cottages survive in the centre of the village, which is now a dormitory town for Alloa. There is also a very small industrial planned town at Banton Mains (NS 749 800, NS78SW 29), which served the nearby coalmines. The village at Cambuskenneth also displays signs of planning, and some of the properties of South Street display long plots that suggest a medieval origin, possibly as the tenants of the former Abbey.

Defensive Establishments

As a result of its strategic position in central Scotland, the Stirling area has been an area of military importance since at least medieval times. Stirling Castle (NS 7899 9403, NS79SE 6.00), situated in a commanding position high on a volcanic rock, was built at the start of the 12th century to guard the lowest crossing of the Forth, and subsequently became of major importance as a royal palace and as a seat of the Scottish parliament. It continued in use as a barracks until 1964, and the Kings' Old Buildings are still home to the Argyll & Sutherland Highlanders regimental headquarters and museum.

There is still an military presence in the study area: Drip Camp (NS 7704 9589, NS79NE 86) is used by the army as a training camp; there is a tank training ground at Shielbrae (NS 7535 9060); and there is also a disused Ministry of Defence and Army barrack complex at Forthside (NS 8000 9337); the latter, however, is soon to be developed as a specialist shopping centre.

Designed Landscapes

Designed 18th and 19th landscapes form a distinctive feature in the area to the west of Stirling. Most of the estates in the study area remain privately owned, but Blair Drummond (NS 7317 9895, NS79NW 40.00) is an interesting example as the policies have now been divided up. The gravel workings to the north of the estate are no longer in use and this land has now been landscaped into parkland. The Camphill Trust, which runs activity breaks for children with learning difficulties, now owns the house and immediate policies, much of which remain as they were originally designed in the late 18th century. The remainder of the policies now form Blairdrummond Safari Park.

Although Stirling Castle was built primarily as a defensive site, it was also a royal residence and therefore also used for recreational purposes. The King's Park (NS 7846 9317, NS79SE 6.16), immediately south-west of Castle Rock, was enclosed at the end of the 12th century by William I, and used as a deer park. It then fell into disuse until James IV renovated it at the end of the 15th century. This later park was smaller than the original, but the old boundary can still be seen, leading up to the Castle wall. The 1st edition of the OS 6-inch map shows that the park was then used as a racecourse, and it is now a golf course. Adjacent to the park is the King's Knot (NS 7889 9364, NS79SE 7), an octagonal stepped mound, which was once the centrepiece of the Royal Gardens, and intended to be viewed from the Castle above.

As many of the estate policies have changed little since the landscapes were designed, many archaeological features have been fossilised within their bounds. For example, pre-improvement period rig can be seen in the policies of Touch House (NS 7495 9300), and at Kippenross House there is a well-preserved early Iron Age fort (NS 7812 9985, NS79NE 17).

Fields & Farming

The agricultural landscape is largely the creation of the improving landlords of 18th and 19th centuries, and the Rectilinear Fields laid out in this period are a defining landscape characteristic of the area. Rectilinear Fields, although the dominant type, are not the only form represented, and there are a number of other field patterns represented in the area pre- and post-dating the period of improvement (see also below, Small-holding/Crofting).

At Bridge of Allan (NS 7943 9620), elements of the pre-improvement landscape survive in the form of distinctive reverse-S shaped fields, where the current field boundaries follow the reverse-S curve of the medieval and later rig, and this distinctive S-shape is also preserved in the street patterns to the north of the fields. In some cases, however, the form of pre-improvement furlongs do not have such a well-defined reverse-S shape, for example, at Northshields (NS 770 840).

To the west of Stirling, the field pattern around Blairdrummond Moss (NS 7240 9723) is typical of the improved Carse of Stirling mosslands. During the agricultural improvements of

the 18th century, hundreds of acres of the moss were converted to farmland and almost all the peat cover was removed. The 1st edition of the OS 6-inch map clearly shows the pattern of the small-holdings which housed the tenants of the Blairdrummond Estate, but many of the fields of the small-holdings have since been amalgamated to form large rectilinear fields.

Some alterations have occurred since the Second World War with the amalgamation of some fields and the removal of field boundaries to form larger units more suitable for modern agricultural machinery. This is particularly noticeable to the north-east of Bannockburn (NS 823 918), where pockets of rectilinear fields remain unchanged, but the majority of the surrounding fields have been amalgamated.

In the south-west of the study area there are some distinct areas of Unenclosed Improved Pasture, which were previously rough pasture. This is evidence of recent expansion of agriculture into marginal land. Although such land-use can destroy archaeological sites, much evidence for pre-improvement settlement survives in this zone.

Further evidence of relatively recent agricultural expansion can be found on the fringes of some of the intensively farmed agricultural land, New Fields have been laid out in areas of what had previously been rough ground. New Fields can also be seen around a number of mansion houses where former parkland has been turned over to agriculture.

Small-holding/Crofting

Although this area is not typical of the crofting landscapes found in the Highlands, there are several clusters of small-holdings. These are a distinctive feature of the rural lowland landscape of Scotland, and were laid out at the time of the agricultural improvements. Small-holdings are characterised by small plots of land laid out around individual dwellings. The small-holdings by the Bannockburn Interchange (NS 8032 8932) and at Auchenbowie (NS 7972 8792) are clearly depicted on the 1st edition of the Ordnance Survey 6-inch maps. The Auchenbowie plots have a regular layout, but those at Bannockburn are much more irregular in layout and plot size. The larger grouping at Sauchenford (NS 8226 8812) is much more recent in date, and was built as part of the 'Homes Fit for Heroes' scheme to alleviate housing shortages after the First World War.

Moorland & Rough Grazing

In the uplands of the study area much of the land is marginal and unsuitable for cultivation. As a result, there are still large areas of rough grazing that have not come under any form of modern agriculture. To the south of the Touch Hills some of the rough ground has been drained, but such areas tend to be only found in small pockets. Elsewhere, moorland has been managed for grouse shooting.

Areas of moorland and rough grazing frequently contain well-preserved prehistoric and later archaeological remains. Pre-improvement rig and settlements are visible around Easter Cringate Shooting Lodge (NS 709 868), while to the north-east of the Lodge there is also a group of seven hut-circles (NS 7102 8724, NS78NW 18), evidence of prehistoric settlement in the area. Remains preserved in moorland can also be of much more recent date, for example, a set of long-abandoned 19th century rectilinear fields visible on relative steep slopes to the southwest of North Third Reservoir (NS 748 879).

North-east of Stirling, the Ochil Hills rise steeply from the valley floor, and Menstrie Glen, in the south-eastern corner of the hills, was subject to a detailed RCAHMS archaeological survey in 2001. The glen was densely settled and farmed in the first half of the 18th century, but it is unpopulated today, having been turned over to sheep-farming, resulting in the preservation of the pre-improvement landscape, comprising settlements, rig, shielings and cultivation terraces.

The interest of such areas has recently been highlighted by the publication of a detailed study by RCAHMS of Menstrie Glen, at the south-west end of the Ochils, where field survey and historical research was able to unravel the history of agriculture in the glen from the medieval period to the 19th century.

Woodland & Forestry

There are large areas of Forestry Commission coniferous plantations situated towards the south-west of the study area on higher, less favourable ground. There are also pockets of older, managed woodland throughout the area, situated for the most part on rural hillsides, along the smaller river valleys and on the edges of policies. Some small plantation banks remain as evidence of early managed woodland, for example, at Park of Keir (NS 7829 9895). Although the Forestry Commission has planted some areas of new trees, these are by no means extensive, and tend to fill small pockets of land within, or close to, estate policies. Some areas of woodland have not been developed and thus retain earlier archaeological features, e.g. there is a small prehistoric fort at Gallow Hill (NS 7825 9845, NS79NE 10), which survives on a tree-covered knoll.

Mineral, Peat & Waste Industries

Modern extractive and waste industries have modified some areas of the historic landscape in recent years. Large landfill sites are now commonplace, and the sites near Steuarthall (NS 8383 9314) and to the south-west of Clackmannan (NS 8964 9070) are typical examples.

Quarrying activity is equally distinctive in the landscape. At Murrayshall, the whinstone quarry (NS 7700 9125, NS79SE 189) now severely encroaches onto the former policies of Polmaise Castle.

Since the 18th century, the Carse of Stirling has been extensively cleared of its raised peat bog. Much of this land is now intensively cultivated and little evidence of this past activity remains. However, there are still two large-scale peat extraction ventures at Letham Moss (NS 8714 8676, NS88NE 85) and Dunmore Moss (NS 8671 8926), which both have a major impact on vegetation and wildlife in the area. It is likely Letham Moss will continue peat extraction well into the future.

The villages of Plean, Cowie and Fallin lay within the Central Scotland Coalfield. Some landscape elements of this once important industry still survive but, elsewhere, new industries have developed on the sites of former coalworkings, e.g. Plean Colliery (NS 8388 8626, NS88NW 47) and Bannockburn Colliery at Cowie (NS 8395 8890, NS88NW 45). At Fallin, however, the former Polmaise Colliery (NS 837 914, NS89SW 43) has been cleaned up and landscaped for use by the local community.

Recreation Area

The Stirling area has a variety of attractions and monuments in care, the most notable being Stirling Castle, in the care of Historic Scotland. Cambuskenneth Abbey (NS 8085 9396, NS89SW 4), also owned by Historic Scotland, lies in a bend in the Forth, overlooked by the Castle. The Abbey was founded in c.1147 by David I, but the main period of construction was later in the 13th century. It was restored in the 19th century when the coffins of James III and Margaret of Denmark were found. Some of the remains now lie in farmland including an area of earthworks immediately west of the Abbey.

The Pineapple at Dunmore (NS 8889 8853, NS88NE 40) was built as a garden retreat by the 5th Earl of Dunmore in 1761 for his wife, the daughter of the 9th Duke of Hamilton. It is now managed by the National Trust for Scotland and open to the public.

Two former policies to the east of Stirling are now Country Parks. Plean House (NS 8298 8664, NS88NW 15.00) and the surrounding 200 acres were owned by British Coal, and, after years of neglect following the closure of the last pit at Plean, were handed over to Stirling Council. The estate has now been re-landscaped as a Country Park. Similarly, the grounds of the now demolished Alva House (NS 9010 9750, NS99NW 74.00) have been landscaped to form the Ochil Hills Country Park.

Ritual Area

The largest burial-ground of note in the area is the Valley Cemetery (NS 7917 9377, NS79SE 39.01), just below Stirling Castle. The earliest headstone in the graveyard dates from 1579 and it was a place renowned for the execution of witches and martyrs. The Star Pyramid commemorates those who were martyred while seeking religious freedom. The adjacent Church of the Holy Rude (NS 7920 9371, NS79SE 39.00) forms part of the medieval core of the town. The nave and tower of the church were completed c.1470, while the second phase of building was completed in c.1555. James VI was baptised in the church in 1567.

Water Bodies

The River Forth is the most important and obvious water body in the study area. People have settled on the banks of the river and on the surrounding fertile floodplain since prehistoric times, and the river continues to be of significance today. To the south-west, there are many reservoirs, such as the Carron Valley Reservoir (NS 7074 8354), serving Falkirk and Grangemouth. The Earlsburn Reservoirs (NS 7068 8861) were built to supply the Carron Ironworks, near Falkirk.

CONCLUSIONS

Although the area covered by the Stirling Historic Land-use Assessment Study is relatively small, it incorporates a variety of historic rural and urban landscape features, many of which are under pressure as a result of changes in agriculture or urban/industrial expansion. The importance of the historic landscapes reflects the diversity of the physical landscape, the significance of Stirling in the medieval period, and the development of agriculture in the 18th and 19th centuries.

The Historic Land-use Assessment of the area will help to draw attention to the diversity of rural and urban landscapes to be found by identifying the various elements that combine to produce the modern landscape. An understanding of the historic components in the landscape, and the chronological depth those components represent, will provide a backdrop to the management of future landscape developments.

5.2 HLA for Strathdon, Aberdeenshire (2003)

INTRODUCTION

The area included within the Strath Don Historic Land-use Assessment (HLA) comprises the watershed of the River Don with, in addition, a block of ground stretching from the south of Aberdeen northwards to Newburgh, and part of the River Ythan watershed (Fig. 1).

The Don and its tributaries rise in the sheltered glens and heather moorland on the eastern flanks of the Cairngorm Mountains. A large part of this upland area has been managed since the 19th century for sheep grazing, grouse shooting and deer stalking, while ground suitable for agriculture is, for the most part, limited to the valley floors. The majority of this agricultural land was laid out and enclosed during the improvements of the early 19th century. In the 20th century, large-scale forestry has spread over the rough grazing areas that lie between the agricultural land and the managed moorland on the hills, areas that are often rich in the remains of previous phases of settlement.

Between the upland area and the coastal plains there are fertile basins, known locally as howes, surrounded by hills. The howes are generally used for arable agriculture, and the Howe of Alford's characteristic 19th century pattern of rectilinear fields is still relatively unscathed by 20th century improvements. Towards Aberdeen, surrounding the town of Kemnay for instance, the landscape is a particularly complex mosaic of different types of land-use, with the higher ground to the north and east occupied by modern forestry and crofts. The intensification of farming has led to the replacement of the 19th century fields, both of farm and croft, as fences have been removed in the process of agricultural improvement. To the east of the area, especially to the north and north-west of Aberdeen, there are flat

fertile plains dominated by arable agriculture. These too are characterised by large amalgamated fields that are more suitable for modern mechanised arable farming. Scattered across Strath Don there are many examples of designed landscapes based upon estate centres, whose owners have played an important role in shaping the modern landscape.

The city of Aberdeen, which dominates the area in the south-east, has seen rapid expansion since the early 1970s with the development of the oil industry. Pressure on housing has resulted in urban development in outlying towns and the creation of new towns such as Kingswells and Westhill. In conjunction with this growth, land for recreational use has also increased, particularly with the establishment of new golf courses.

The survival of archaeological landscapes depends upon the intensity of farming undertaken in that area, past and present. Thus, prehistoric and pre-improvement landscapes are generally found in forestry, the woods of designed landscapes, or areas of rough grazing.

THE ANATOMY OF AN HISTORIC LANDSCAPE

In the text below each of the fourteen major HLA categories identified in the area of study (Fig. 2) is considered in turn (see HLA Glossary for definitions at <http://www.rcahms.gov.uk/>). Eight-figure National Grid References have been given for areas of interest mentioned in the text.

Fields and Farming

Fields and Farming dominate the landscape of Strath Don. Rectilinear Fields, typical of the 18th and 19th centuries, are the most common type of field, reflecting the large-scale agricultural improvements that occurred in Aberdeenshire mainly in the early 19th century. The distribution of these extends over the whole of the lowland parts of Strath Don, with the best survival towards the west. In the east, the fertile plains to the north and north-west of Aberdeen have seen greater improvements to the fields during the 20th century than those further west. Here, there has been considerable change, with the amalgamation of fields, as fences have been removed, and the consequent dissolution of the 19th century pattern of fields. These Amalgamated Fields demonstrate the intensive nature of modern arable farming and its consequent impact on the landscape. This process has also been noted to the south of Kemnay and west of Loch Skene. A characteristic aspect of the 19th century field pattern is the appearance of Planned Rectilinear Fields, where the fences of several adjacent fields are aligned to common axes. These are to be found across the much of the Strath Don area. They range in size from very small groups of perhaps four to six fields to much larger systems, such as that at Myreton (NJ 6100 3000). Most occur on farms where the fields have been laid out to a single design.

The extent of the impact of the early 19th century agricultural improvements on the landscape of Strath Don is further demonstrated by the limited extent of late 20th century intakes of land, whether enclosed (New Fields), or unenclosed (Unenclosed Improved Pasture). Examples of New Fields were recorded where there were conversions of parkland within designed landscapes, as at Logie House (NJ 7030 2610), as intakes of marginal land in upland areas as at Tarbuckle Hill (NJ 4945 3747), on the edge of dune land by the coast, or in areas of former woodland, such as those by the River Ythan near Haddo House (NJ 8747 3722).

Despite the rich agricultural landscape few Cropmark Sites have been identified that meet the HLA criterion of extent. This is probably a result of a number of factors including geology, the restricted flying zones around Aberdeen and the agricultural regime. However, four Roman temporary camps have been recorded as relict archaeological types including that at Logie Durno (NJ 6970 2730).

Planned Villages

A number of Planned Villages, reflecting various economic activities, have been identified in the area. As might be expected, agricultural villages are by far the most common. Amongst

this group there are four estate villages (e.g. Dunecht, NJ 7520 0910), which were constructed on the edge of the policies of great houses to provide accommodation for estate workers. Pre-improvement survivals are rare, but the medieval Planned Village of Duncanstown in the Garioch (NJ 5795 2661) is one.

Garlogie (NJ 7815 0571), built to supply labour for a textile mill, was the only industrial village noted, but a related type, the planned fishing village at Footdee, was recorded at the entrance to Aberdeen harbour (NJ 9578 0582).

Crofting

The Smallholdings or crofts recorded in Strath Don form a highly distinctive feature of the Aberdeenshire landscape. For the most part, crofts were established at the margins of the better arable land in the 19th century as an element of the agricultural improvements, and many estates used the crofters to take in marginal land, such as that on the edge of mosses or hill ground. In form they are characterised by their small steadings and small fields. In Aberdeenshire, their irregular plan is in contrast to the larger fields of the surrounding farms. The distribution of crofts is spread throughout Strath Don, with concentrations between Kintore and Kemnay, as well as by the Glens of Foudland. Some crofts can be found adjacent to estate centres, suggesting that small parcels of ground were given to tenants who could then provide a source of labour for the estate when required, as at Corrie Crofts lying to the north of Castle Forbes (NJ 6241 2096). Planned villages laid out during the agricultural improvements were often associated with small plots (Allotments) that were given to the inhabitants as an incentive to settle. A good example of this is the pattern of Allotments around the village of Rhynie (NJ 4987 2711). In general, the extent of individual crofting areas is relatively small in comparison with farmland, especially in the more fertile arable areas, but they are more extensive where the land is poor, such as at Cults (NJ 5330 3100).

Many of the crofts were subsumed into larger holdings during the 19th century, a pattern of landscape change that continued throughout the 20th century. Indeed, some have left no trace to be mapped by HLA at all, as at Rowanbush, where a new farm and planned fields replaced the crofts by the end of the 19th century (NJ 6475 1002). Elsewhere, the croft-houses have been deserted, and their small fields are now incorporated into adjacent farms, as at Sauchenloan (NJ 6780 3475). These have left a recognisable trace in the landscape and are consequently recorded in the HLA as relict types. The crofts around the Glens of Foudland were created partly to support the workers of the slate quarries on the hills above. The crofter gained employment from the quarry as well as farming the croft. With the closure of the quarries the crofts have been slowly abandoned, and only one group of crofts survives (NJ 5969 3431), but the pattern of small fields and some of the steadings may still be picked out.

Built-up Area

Although Strath Don underwent a phase of rapid urban development in the second half of the 20th century, the pattern of urban settlement is still based on the numerous burghs established in the medieval period, which were designed to serve the needs of an essentially rural economy. These have been designated as Urban Cores in the HLA. The history of the growth of Aberdeen, the regional metropolis, is, as might be expected, more complex than that of the neighbouring towns, and the modern city embraces two medieval burghs (Urban Cores). The city developed as an ecclesiastical, commercial, fishing, transportation and industrial centre, and, since World War II, it has expanded rapidly, taking in much of the farmland that once surrounded the city. There has been a growth in surrounding towns and villages to satisfy Aberdeen's increasing housing needs. At least one new village has been created at Kingswell (NJ 8650 0730) and many other villages have seen large increases in their populations. Those towns within commuting distance have expanded, but less development has taken place elsewhere, especially to the west of Strath Don, where the influence of Aberdeen is much reduced.

Industrial and Commercial Areas are found around the urban areas centred on Aberdeen and the main road network. Large industrial estates, warehouse and service industries have been established, connected in many cases with the North Sea oil industry. The oldest industrial area is around the docks in Aberdeen. The River Don has attracted a number of mills, including paper mills at Inverurie and Aberdeen.

Other industries in more rural areas relate to farming, such as the livestock market at Kintore (NJ 7770 1830), and a knackery at Hill of Cottown (NJ 7630 1530). Although not a major whisky producing area, there is a large distillery and bonded warehouse at Kennethmont (NJ 5520 2918).

Designed Landscapes

Strath Don has a number of large estates, many of which are based on medieval centres, such as Monymusk (NJ 6888 1546), Castle Fraser (NJ 7227 1256) and Haddo House (NJ 8683 3476). In the later 17th and 18th centuries, many landowners created extensive policies and designed landscapes to improve the appearance of their estates (e.g. Castle Fraser). The creation of policies continued into the 19th century, often going hand-in-hand with large-scale agricultural improvements, which radically altered the appearance of the pre-improvement landscape. Fragments of pre-improvement rig still survive fossilised within the woods of designed landscapes. Examples of this may be seen at Haddo House (NJ 8722 3327) and Castle Fraser (NJ 7200 1210), while prehistoric remains survive within the woods at Tigh-Gael in the Howe of Cromar (NJ 4711 0517).

While most Designed Landscapes are still extant, a few are now no longer maintained for their original purpose and are recorded as relict land-use types. These include Paradise Wood (NJ 6792 1826), belonging to the Monymusk estate, which was established in the early 18th century, but since the 1940s has been left to go wild; Wardhouse (NJ 5622 3100), where the avenues of trees that were a feature of the designed landscape are still visible to the north of the ruined country house, despite its abandonment; the policies of Houghton House (NJ 5830 1690) which are now a public park and caravan site, and Rothie House, Rothienorman (NJ 7310 3610) which is a good example of one of the many former policies that have been turned over to farming, with the resultant loss of the pastoral aspect of the designed landscape.

Woodland and Forestry

Coniferous Plantations of 20th-century date are mainly found in areas of marginal ground on the upland areas in the centre of the survey area and on the hills to the west. The largest area of conifers occurs at Clashendarroch to the west of Gartly (NJ 4500 3250). There are relatively few large-scale forestry plantations in Strath Don as much of the available rough grazing land is still managed as moorland for grouse-shooting, while in the lower-lying plains only small patches of forestry exist but, in recent years, two notable cases what appear to be former arable farms (Achnacant, NJ 9600 2620 and Fornety NJ 9780 2630) have been completely given over to Woodland Plantations in recent years. Managed Woodland is more evenly distributed across the area, but is often concentrated in areas adjacent to commercial forestry.

Some afforestation was carried out by landowners during the agricultural improvements in the eighteenth century, while some plantations may be of even earlier date. Within these woodlands relict land-uses often survive, particularly archaeological landscapes, including medieval rig-and-furrow cultivation, such as that at Highland Wood (NJ 8675 1790), and also rare examples of the lowland prehistoric settlement landscape as at Skene's Wood (NJ 8119 1781). More recent plantations have even taken in Rectilinear Fields and some former Smallholdings, as at Boghead (NJ 6850 2130), and these are recorded as relict land-use types in the HLA.

Moorland and Rough Grazing

Moorland and Rough Grazing dominates the west of the survey area, and much of this high moorland is managed for grouse shooting, emphasising the influence of hunting estates on the Strath Don landscape. To the east of the survey area, however, grouse moorland is largely absent. Small areas of Rough Grazing can be found throughout the area, the largest of which lies along the coastal fringe north of Bridge of Don, up to and including the Sands of Forvie (NK 0260 2760). Others also survive within arable areas on rocky hilltops and mosses, which are not capable of improvement.

Preserved within areas of Rough Grazing there are a number of relict archaeological land-use types. These include, for example, prehistoric settlement near Tarland (NJ 4706 0391), post-medieval settlement at Fowlis Burn (NJ 4201 1005), and even 18th- 19th century field-systems on the Hill of Creagdearg (NJ 4479 2557).

Recreational Areas

Most of the towns in the survey area have access to a golf course. However, the increase in the popularity of golf and the growth of Aberdeen has led to a number of new courses being established in its hinterland, some of which occupy former farmland. There are occasionally examples of failures, as at Cluny Castle (NJ 6940 1300).

Most Recreation Areas that were recorded are football fields and parks within towns and villages. However, there are also three large country parks run by Aberdeenshire Council; one of which, Loirston Recreational Area, occupies a large area to the south of Aberdeen and incorporates areas of active farmland and smallholdings, as well as a country park. At Alford, the country park takes in the former policies of Haughton House. The extensive ruins of Kildrummy Castle (NJ 4548 1639) are open to the public under the guardianship of Historic Scotland and represent one of the few medieval features large enough to be mapped as a relict Defensive Establishment.

Ritual Areas

The Ritual Areas recorded by HLA in Strath Don are all cemeteries and, where present, associated churches. More than half the ritual areas were found in and around the City of Aberdeen.

Defensive Establishment

The coastal fringe around Aberdeen contains a number of military installations, particularly those relating to the Second World War, which reflect the strategic significance of the area.

Only two Defensive Establishments have been identified within Strath Don. The first is situated at Bridge of Don, where there is a Territorial Army barracks, once home to the Gordon Highlanders, the Aberdeenshire regiment. The present establishment occupies only part of the former more extensive barracks complex. This once included married quarters, sports fields and an ammunition store that have now been converted to civilian use and are recorded as relict Defence Sites in the HLA. The second Defensive Establishment, an extensive rifle range, lies to the north of Bridge of Don and occupies an area of rough scrub and sand dunes beside the North Sea at Blackdog Links (NJ 9650 1510). Within the range two areas of rig and furrow have been identified. Although not recorded as a military site, the civilian radar station at Perwinnes Hill (NJ 9218 1335) can fulfil a military role if required.

In addition to the two sites associated with the army, the runways and hard standings of the former RAF airfield at Dyce are still recognisable and date from the Second World War. Surviving coastal defences exist, particularly to the north of Aberdeen, but only the remains of the anti-invasion battery at Torry (NJ 9650 0560), guarding the entrance to Aberdeen Harbour, were large enough to be recorded by the HLA. Many pill boxes and other defensives measures found across Strath Don survive from the World War II, but these are also too small to record in the HLA. Nevertheless, information about them is available in the National Monuments Record of Scotland.

Water Body

The main natural Water Bodies recorded were Loch Skene, which is the largest loch in the survey area, and the rivers of the Dee and the Don. Most other Water Bodies are small and have little impact in the landscape.

Of the artificial Water Bodies, these are for the most part found around the outskirts of Aberdeen and tend to be relatively small and appear to be for the water supply industry. Most of Aberdeen's water requirement is met by extracting water from the River Dee.

Transport

The expansion of Aberdeen has resulted in the development of transport systems that surround and serve the city. The earliest transport development, which is still economically important, is the port at Aberdeen (NJ 9536 0559). The burgh of Aberdeen developed to take advantage of the estuary of the River Dee, which provided a natural harbour. The harbour was first mentioned in 1136, when King David granted the Bishops of Aberdeen the right to levy a tithe on all ships trading at the port. The harbour saw rapid growth in the 18th and 19th centuries with new docks constructed and the river diverted southwards. Major developments took place in the late 20th century with the growth of shipping servicing the North Sea oil industry, and it is essentially this that is recorded in the HLA as a Port, although the Victoria Dock is still evident. Other coastal towns, such as Newburgh (NK 0005 2570) had small ports, and Old Aberdeen may have had a small port at the mouth of the River Don, but these are not extensive enough to be mapped in the HLA.

Until the 18th century there were no engineered roads in Aberdeenshire. The military assisted with the construction of roads in the 18th century, partly to improve the movements of troops, as well as stimulating the local economy, but none of these have been mapped in the HLA, because of the scale of data capture. The construction of the canal from Aberdeen to Inverurie in the early 19th century was designed to open up the markets in Aberdeen to the farmers in Strath Don. Only traces of the canal now exist and none is large enough to be recorded by HLA. Aberdeen became an important railway hub and an imposing station was built together with railway sidings, repair and maintenance depots and a large locomotive works at Inverurie. The contraction of the railways in the 1960s affected Aberdeenshire, as elsewhere, and only the main lines to Dundee and Inverness survive. The 20th century has seen the development of Dyce airfield from an RAF station to an international airport and the largest heliport in the world. Road development has impacted on the landscape with the conversion of the roads out of Aberdeen to dual-carriageway standard.

Mineral, Waste and Peat industry

Although the area has no fossil fuel reserves, Strath Don does have a legacy of mineral extraction. Large granite quarries can be found across south-west Strath Don and these have been exploited since the 19th century. Two quarries still in operation at Kemnay (NJ 7370 1700) supply granite for the new Scottish Parliament building in Edinburgh; both have been recorded as quarries in the HLA. However, most quarries have either been exhausted or have closed, as they are no longer economically viable. In the north-west of the area, slate was actively mined in the late 18th- and early 19th- centuries at the Glens of Foudland (NJ 6018 3320); however, it could not compete with Welsh or other Scottish slate producers and was abandoned. It is visible as a relict Mining Area within rough grazing, clearly following the outcrop of slate.

Sand and gravel extraction is common, especially in the gravel river terraces along the River Don, but most are small scale. A few larger sites can be found to the north of Bridge of Don, many of which have been restored as agricultural land and have been recorded in the HLA (Restored Agricultural Land). On occasion, former gravel quarries have been re-used as landfill sites, such as Broom Hill (NJ 9540 1570), where its origin as a quarry is recorded in the HLA as a relict Mining Area.

Peat extraction has not been carried out on an industrial scale within Strath Don, but has been exploited for local use, using traditional methods. There are two areas at Red Moss (NJ 9110 1580 and NJ 9200 1570), where traditional Peat Extraction continued on a lowland moss until quite recently. Many of the low-lying mosses, which were once used as a source of peat, have been taken into agriculture, having been exploited to exhaustion by the late 18th- or early 19th-centuries. Consequently these could not be mapped in the HLA.

CONCLUSION

The landscape revealed in the Strath Don HLA survey is largely rural and a creation of the improved agricultural practices of the early 19th century. In this it differs from the central belt of Scotland where much of the investment in improved farming was effected in the 18th century. It may be characterised by its impressive series of designed landscapes, some of them having their origins in the 17th century; a high proportion of geometrically planned fields, suggesting a large degree of design and planning in the layout of improved farms; the many cottages and small irregular fields of the crofters that were a particular regional response to the problem of small tenants during the improvements; and the patchwork of the grouse moors in the background.

This 19th century landscape has not been static in the 150 years since its creation. Indeed, there has been substantial change. In the upland fringe the 20th century has seen the large-scale planting of conifers, while in the lowlands there has been an intensification of agriculture, which has transformed the 19th century landscape of some parts of Strath Don and adjacent areas, particularly in Buchan to the north of Aberdeen. As part of this latter process many farmsteads have been abandoned, or converted to modern habitations, and the pattern of 19th century fields has been replaced by prairie fields suitable for modern arable farming. The desertion of crofts has continued apace, and some marginal farms have been converted to woodland or golf courses. The growth of Aberdeen, fuelled by the North Sea oil boom, has had a particularly marked effect on its hinterland with increased industrial areas and an improved transport infrastructure. This, combined with the urbanisation of the areas around and of the towns nearby, has resulted in a radically different landscape emerging from that of the pre-World War II era.

Despite these changes, relict archaeological types have survived in small patches throughout the area, often preserved within managed woodland, policies, or on areas of rough grazing.

6. COMPLETION OF HLA ACROSS SCOTLAND

Work on compiling HLA data is on-going, with the aim of completing national coverage by spring 2015. Then the challenge will be to maintain the data and integrate its use in the management of Scotland's landscape.