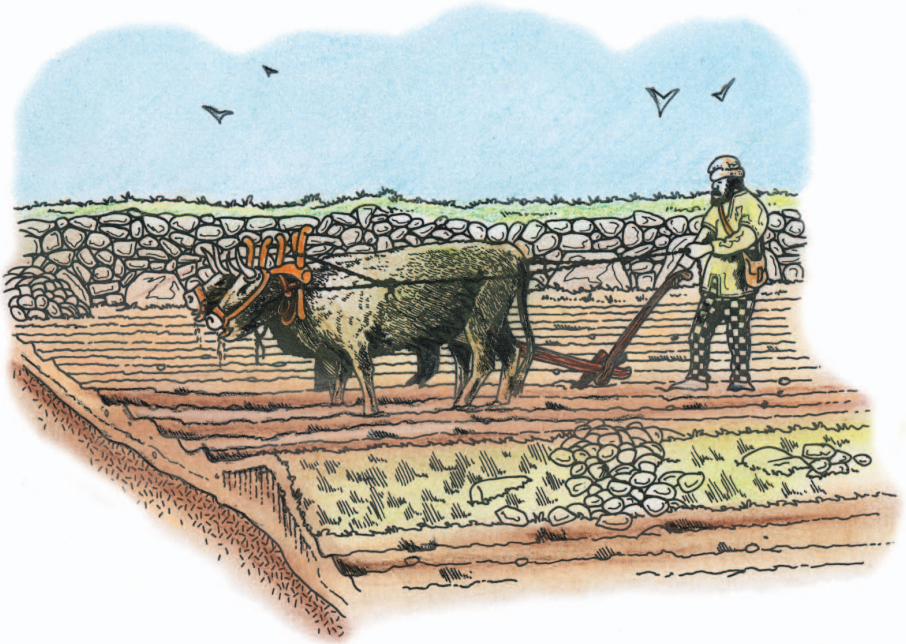




ANCIENT FARMING





Early ploughs or ards were very simple and produced little more than a groove in the soil. The ploughshare could be a stone bar with a pointed end or a wooden bar strengthened with an iron tip. Repeated ploughing of small fields on a slope resulted in gradual movement of soil to form banks or lynchets, and stones cleared off the arable fields were piled in heaps or added to the lynchets.

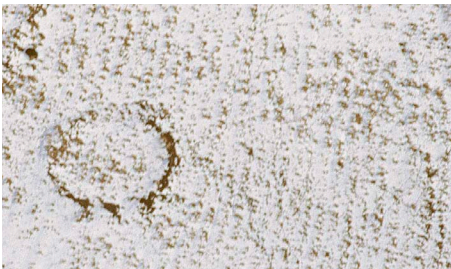
Farming began to be adopted in Scotland some six thousand years ago. It was an alternative to the older lifestyle of hunting, fishing and gathering wild foodstuffs, although the latter lifestyle continued in some areas alongside the new. Farming meant settling in one place at least as long as the soil remained fertile. Often woodland had to be cleared in order to make space for arable fields and to provide timber for building houses, and stone axes were an essential tool. Successful farming provided a surplus of food that could be stored, thereby freeing some members of the community for other work, such as building burial tombs and ceremonial monuments.

The nature of ancient farming varied according to local resources, and a balance could be achieved between cultivation, stock-breeding and the exploitation of natural resources such as fish, shellfish and deer. But the essential ingredients, which had to be imported into Scotland initially, were seed corn (barley and wheat) and domesticated animals (cattle and sheep). As the climate deteriorated towards the end of the 2nd millennium BC, wheat became a less viable option. Oats and rye were introduced in the 1st millennium BC, and domesticated pigs and chickens probably appeared then too.



A circular prehistoric house built of stones and turf survives today as a hut-circle, a low stony bank marking where the wall of the house stood. The upright stone probably marks one side of the doorway. Beyond the house are small clearance cairns along the low banks of a field-system. © Crown Copyright: RCAHMS. Licensor www.rcahms.gov.uk

Excavation can reveal the physical remains of crops and animals, and the landscape of today incorporates many traces of ancient farming. In rural areas that are marginal to modern farming, upstanding remains of farming settlements survive, with houses, enclosures and fields. In the fields of today's farms, ploughing has usually obliterated earlier remains from view at ground level, but from the air they often show up as cropmarks, where richer soil in pits and ditches encourages stronger growth.



Seen from the air, snow has outlined a hut-circle together with field-banks and the narrow ridges of early rig-and-furrow cultivation. © Crown Copyright: RCAHMS. Licensor www.rcahms.gov.uk

Early cultivation may leave no trace other than small piles of stones (clearance cairns) gathered from the fields, but sometimes repeated ploughing on a slope led to the formation of banks or lynchets round the fields. Abandoned ploughed fields can often be seen from the air and even on the ground as patches of roughly parallel narrow ridges and furrows (cord rig).



This reconstruction of a simple com-drying kiln shows how wooden slats were placed across the circular chamber, and a layer of straw prevented the grain from dropping through. The fire was set in the entrance flue so as not to set the wood and straw alight, and the heat was drawn up through the grain.

The raised ridges helped the soil to warm up and the furrows helped to drain it. On hillsides, early rig-and-furrow ploughing could result in level swathes following the contours (cultivation terraces). Rig-and-furrow cultivation continued into more recent times, and in southern Scotland broad plough rigs of medieval date are common. In the Highlands and Islands, hand-dug 'lazy-beds' are characteristic of the 18th to the early 20th centuries.



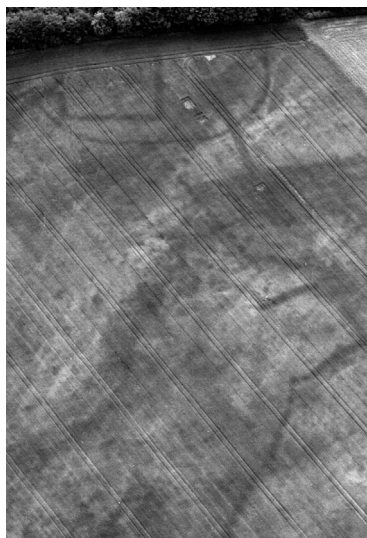
Three horizontal, or Norse, mills at Huxter, Shetland. Small mills were built beside fast flowing burns. The water was diverted along a lade to pass through the lower chamber; where it powered a paddled wheel set horizontally. The wheel turned the upper stone of a pair of mill-stones in the chamber above.

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In the damp Scottish climate, grain needed to be dried before it could be stored or ground. This was done in small batches in kilns partially dug into the ground and lined with stone. Throughout most of prehistory, grain was laboriously ground by hand on portable stone querns (and in remote areas the use of querns continued into recent times). From the 6th century AD the water-powered mill was adopted where there were suitable burns. Unlike later corn-mills with vertical wheels, these early mills had horizontal waterwheels, and the type continued in use into the 20th century in Shetland and the Outer Hebrides. There they were built of stone with











wooden wheels, but in mainland Scotland many are likely to have been built entirely of timber, apart from the mill-stones.

Irregular enclosures bounded by banks or walls could function as stock pens or fields, or both, for the advantages of animal manure as a fertiliser was appreciated from early times. More important land boundaries took the form of stone walls, earthwork banks and ditches, and banks of earth and stone derived from quarry pits (lines of such pits show up from the air). In some areas, extensive systems of linear earthworks appear to have belonged to a cattle-ranching economy that developed towards the end of the 1st millennium BC. Ancient field-walls and boundaries are often preserved under peat, where they relate to farming in warmer and drier periods of the past before the peat began to form.



Showing up from the air as markings in a growing crop are enclosures and an angled alignment of dark dots. The 'dots' are large pits, now filled in, which were originally part of a major land boundary. © Crown Copyright: RCAHMS. Licensor www.rcahms.gov.uk

TIME-LINE

End of the last Ice Age Wildlife colonises land Mesolithic hunting settlers		12,500	
		8500	Flint scatters Shell mounds, rock shelters
Neolithic farming settlers		4000	Chambered tombs and houses Cupmarked rocks
		3000	Stone circles, henges, and standing stones
Metal technology (gold, copper)		2000	Burial mounds and short cists Hut-circles
Climate deteriorating Fortifications begin		1000	Burnt mounds Hillforts
Iron-working technology		500	Crannogs
		200	Duns, brochs, wheelhouses, and earth-houses
		BC ▲	
		▼ AD	
Roman army in Scotland		79	
Waning of Roman influence		200	Roman camps, forts and roads, Antonine Wall
		400	
Introduction of Christianity Picts, Gaels, Britons and Anglians Start of the Viking Age		600	Long cist graves
		800	Early Christian and Pictish carved stones, chapels
Emergence of Scottish nation		1000	Pagan Viking graves and settlements
		1100	
First burghs		1200	Stone-built churches
		1500	Mottes, abbeys, stone-built castles
Reformation of the Church		1600	Tower-houses
Agricultural improvements & Industrial Revolution		1800	Deserted villages and farms
		1900	Coal mines and heavy industries
Two World Wars		2000	Gun batteries and airfields

FRONT COVER PHOTOGRAPH:

A prehistoric farming landscape seen from the air. The circles are the remains of round houses, and the little heaps are stones cleared off the fields. © Crown copyright: RCAHMS. Licensor www.rcahms.gov.uk

For advice and further information, please contact
Historic Scotland
Longmore House, Salisbury Place
Edinburgh EH9 1SH
Tel: 0131 668 8766
Email: hs.schedulingteam@scotland.gsi.gov.uk
www.historic-scotland.gov.uk

Historic Scotland is an agency within the Scottish Government and is responsible for administering the legislation that protects ancient monuments (buildings, ruins, archaeological sites and landscapes). It provides general advice on the conservation and protection of Scotland's heritage.

Historic Scotland's Education Service encourages the use of the historic environment as a learning and teaching resource.

Over 300 historic properties are looked after by Historic Scotland and are open to the public for enjoyment and education. For further information, including free leaflets, telephone 0131 668 8600.

Our data service website contains details of scheduled monuments and has GIS datasets available to download:
<http://data.historic-scotland.gov.uk>

The following leaflets are available from Historic Scotland:

Scheduled ancient monuments: a guide for owners, occupiers and land managers

Managing Scotland's archaeological heritage

Grants for Ancient Monuments: a guide to grants available for the preservation, maintenance and management of ancient monuments

Archaeology on farm and croft (produced jointly with Archaeology Scotland)

Scotland's listed buildings: a guide for owners and occupiers

The carved stones of Scotland: a guide to helping in their protection

Metal detecting - yes or no? Metal detecting, scheduled ancient monuments and the law

A leaflet on *Treasure Trove in Scotland* is available from the National Museums of Scotland, Edinburgh

A number of *Historic Scotland Technical Advice Notes*, on topics such as the use of lime mortars, the conservation of thatching and stonecleaning, are available. Catalogue from and Orders to:

Historic Scotland Conservation Group
Tel: 0131 668 8638

e-mail:
hs.cgpublishations@scotland.gsi.gov.uk

This information leaflet is one of a series produced by Historic Scotland.

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