



ARO40: Achnahaird Sands By Achiltibuie, Highland

by Stuart Farrell

With contributions by Torben Bjarke Ballin, Beverley Ballin Smith, Ruby Cerón-Carrasco, Ray Chadburn, Adrian Cox, Amanda Forster, Dennis Gallagher, Derek Hall, Mhairi Hastie, Nicholas Holmes, Frances Ross and Catherine Smith



HISTORIC
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SCOTLAND

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ARO40: Achnahaird Sands By Achiltibuie, Highland

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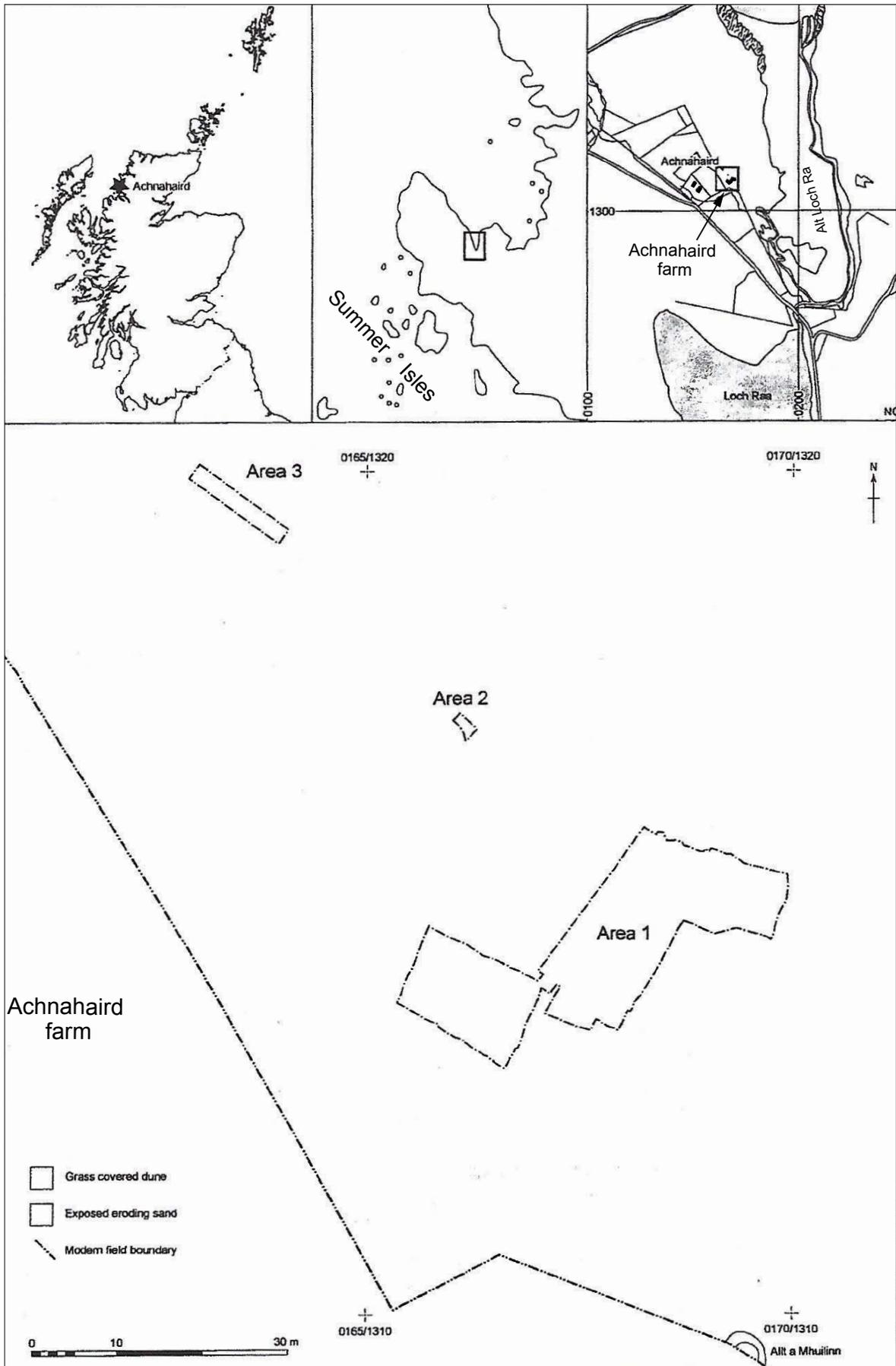


Figure 1: Site location

Summary

Achnahaird Sands near Achiltibuie on the north-west coast of Ross-shire was excavated in 2000. The excavation revealed the remains of two buildings with an enclosure wall, which contained the remains of a paved area and possibly a hearth for metalworking. The buildings date to the late seventeenth or early eighteenth century. Many of the finds which included pottery, metalwork, coins, stone and bone are contemporary. Lithic artefacts and those of steatite point to earlier uses of the area.

Introduction

Achnahaird Sands is situated to the north of Loch Raa, which itself lies to the north of the village of Achiltibuie on the north-west coast of Ross-shire. The site lies due east of Achnahaird Farm on an area of old sand dunes. The geology of the wider area is complex but the site is located on sandstone of the Applecross Formation, with the addition of marine beach deposits of gravels, sand and silt (BGS 2020). The site of Achnahaird Sands (NRHE NC01SW 2), which forms part of the SSSI of Achnahaird Bay (SNH 260/4/1/46) was excavated under the direction of the author in October 2000 due to storm damage to the site. The storm had caused significant erosion to the site over the previous winter by removing the turf cover and exposing archaeological remains in the blowout.

Due to the extensive recovery and collection of finds in various places and the numerous specialist reports required to analyse them, it was not until late 2005 that a completed data structure report was submitted to Historic Scotland (forerunner of Historic Environment Scotland). At the time, it was hoped that further fieldwork in the area of Achiltibuie would occur, but funding and other project commitments, made this impossible. However, the excavation results from Achnahaird remain significant and worthy of publication, despite the passage of time, as many of the research questions from 2000 are still very much active today.

The manuscript for this article was completed in late 2005, and is published here with a brief update. Aside from a small change to the pottery

and lithics report, the specialist reports are reproduced as they were at the time they were commissioned, and the bibliography has been updated. If any elements of this publication are now out-of-date, the author hopes that any issues that arise are outweighed by the value of having the results of this excavation out in the public domain.

Cartographic Background

The settlement of Achnahaird appears on the earliest maps of Scotland in a variety of spellings but in no great detail. It first appears on Robert or James Gordon's map of Coigach dating to the period of the 1640s and is named *Achanachard*, but later appearing in Blau's *Atlas of Scotland* of 1654 as *Achanahard*. It later appears on Moll's map of 1742 as *Achanahard* and on Ainslie's map of 1789 as *Auchnihard* and on Thomson's map of Ross and Cromarty dated 1826 as *Auchnahaird*.

Detailed maps of the areas are only to be found after the mid-eighteenth century when the Cromarty Estate was forfeited to the Crown as part of the annexed estates after 1746. Peter May's map of Coigach dated 1758 (National Records of Scotland – RHP 85385) shows the settlement of Achnahaird depicted in the area of the present farmhouse comprising 18 structures, one larger house with an enclosure with four structures, to the south were areas of lazy beds/rig and furrow cultivation. It is possible that the larger house is the Tacksman's house that forms the farm today. The area of Achnahaird Bay is marked as *A bay where the fishers haul up their boats*.

For Achnahaird Peter May recorded that it comprised the following:

Arable land – 54 acres, 2 rods and 30 feet

Improvable ground – 4 rods and 2 feet

Marshy ground – 9 acres, 3 rods and 30 feet

Moss – 140 acres

Wood – 7 acres, 3 rods and 20 feet

Barren – 3157 acres

Whole content – 3374 acres



Plate 1: John Morrison's map of 1775 of the farm of Achiltibuie (NRS – RHP 3429),
Reproduced with Permission of the National Records of Scotland.

Named as Achnahard on Roy's Military Survey of 1747-52 and comprising two clusters of buildings enclosed (one of four, the other of six) with associated field systems. William Morrison's map of 1775 (National Records of Scotland – RHP 3429) of the farm of Achiltibuie is almost a copy of Peter May's map of 1758 but with little or no additional details given (Plate 1).

The first Ordnance Survey map dated 1881 (surveyed 1875) and the second edition of 1906 does not show anything of the area of excavation but an area of sand dunes and the fence line as it is today. (See plan by Long 2006 for fence line).

Historical Background

By Frances Ross

Introduction

Achnahaird is situated in the Aird of Coigach, a subdivision of the old Barony of Coigach, part of the Parish of Lochbroom, Wester Ross, in Ross-shire. It is a rocky mountainous land with settlements restricted to a heavily indented coastline, or along the bottom of steep sided straths and glens forged long ago by glacial activity.

The township is situated in the south-east corner of Enard Bay, and straddles one of the largest stretches of machair, or dune pasture, in the north-west mainland. These lands were virtually inaccessible by foot until the coming of the roads in the mid-nineteenth century. In this respect, Coigach had more in common with the western seaboard and was, in effect, more of an island than part of the mainland.

There is little information recorded in relation to Coigach and Lochbroom prior to the seventeenth century. Therefore, information from records detailing historic boundaries, maps, language, place name evidence and land ownership have been used, and testify to a diverse cultural background of Pict, Gael and Norse throughout the early centuries.

Achnahaird does not appear in the documentary record until 1572. And, while there has been some marginal publication involving Achnahaird from c. 1650 onwards (Baldwin 1994, Bangor-Jones 1994, Cromartie 1977, Long forthcoming, Richards and Clough 1989) there has been little scope for a systemic synthesis of all the available documentary sources.

It is not until 1756, when Coigach was annexed to the government that detailed information on population, economy, social organisation, settlement distribution and land use becomes available. This is followed through, over a century later, from evidence taken from the Royal Commission's report on Crofters and Cottars in 1884 that provides us with a more detailed economic perspective of the region.

Boundaries

Today, Wester Ross is an accepted geographic sub-division of Ross-shire, formerly known as Ross and Cromarty. Ross-shire is in effect made up of many disparate estates accumulated by the Cromartie Mackenzie's throughout the fifteenth-seventeenth centuries, from the forfeited lands of Douglas, the Earls of Ross, and the mainland Lewis Estates of MacLeod (Bangor Jones 1994). In essence the Ross-shire of today is made up of three considerable Baronies: Strathpeffer, New Tarbet and Coigach.

John Baldwin (1994) reminds us that the term Wester Ross suggests that the area has always been part of the western most division of the Earldom of Ross. Consequently, as a term it is insufficiently precise, for neither Wester Ross, nor indeed North-West Ross suggests that any part of this area was once distinct from the Western lands of Ross, as indeed they were.

In the thirteenth and fourteenth centuries the area from Kintail, north to Gairloch and Lochbroom, was referred to as North Argyle. This Argyle has nothing to do with the modern-day Argyll, but refers to boundaries once occupied by the Irish speaking Scots - the *Earra-Ghaidheal*. The boundaries for North Argyle were probably established by the late seventh century when St. Maelrubha, an Irish Priest, established a monastery at Applecross (Baldwin 1994). The early documented history of the Nicholsons and MacLeods attest to the fact that Coigach looked to Assynt in the north and had close associations with Lewis to the west. It therefore, remains a matter of conjecture how far north-west the Irish speaking Scots had colonised before the Vikings first raided in the late eighth century.

The early amalgamation of the indigenous Pictish and Scottish Kingdoms in AD 750 shows very little evidence for the affiliation of the north-west mainland and the Northern Hebrides, and it is generally considered that at this time they formed an outlying region of the Northern Pictish Kingdom (Armit 1996). Therefore, the inhabitants of Coigach could be described as peripheral descendants of a Pictish Kingdom on the eve of the Norse raids.

Place-name evidence

Watson writes in his 1904 *Placenames of Ross and Cromarty* that after the Norse invasion the old 'Celtic' nomenclature never wholly gave way. Whether the names we know today were in existence before the Norse settled is a matter of conjecture. However, from Loch Duich to Lochbroom old Gaelic (P Celtic) or Pictish stem words are still in evidence. Pictish place names corrupted by the later Irish Gaelic (Q Celtic) may include Achiltibuie (with the same root as Welsh *Uchel*); *davoch* a Pictish system of measurement, as well as river or stream names ending in *n*, *ie* or *y*; Carron, Garvie, Polly and Runie (Watson 1904).

The word *Coigach*, is translated as a place of fifths (ibid). The Gaelic word *coig* translates as five, and *ach* as field. It is thought to have evolved from a pre-existing hybrid Norse and Pictish system of agricultural land management (Long forthcoming). Coigach as a whole encompassed the River Kirkaig in the north, the Summer Isles to the west, and south to Strathcanaird and Glen Achall (Baldwin 1994).

During the seventeenth century Coigach was recalled as the former fifth part of Assynt. And it is possible that the current translation accepted by Watson (1904) and Fraser (1957) of 'Five Fields' stems from an older terminology meaning a fifth measurement of agricultural land in the domain of Assynt - perhaps losing a final element when it became an estate in its own right in the fifteenth century.

A *davoch* is another system of land management. Gaelic - *Dabh* meaning vat (Baldwin 1994). Adams (1976) defines a *davoch* as 'a

unit of land in Scotland subject to fiscal and military assessment', which did not conform to any aerial measurement, and as such, should be taken to indicate a loose clustering of farms of various sizes for administrative purposes, rather than a unit of cultivated acreage (Long forthcoming).

Achnahaird was first documented in a charter dated 1572 (NRS GD 305/1/1/4/5.1) and was synonymous with *Dabhac na h-airde*, known today as the Aird of Coigach. Achnahaird has been translated as the fields of the promontory, and *Dabhac na h-airde* as the land of the promontory (Watson 1904). The two names appear to be intrinsically linked. Another early charter (NRS GD 305/1/1/4/5.2) dated 1617 refers to the Davoch lands of *Dauachnahard Auchnahard* as though they were a single entity, and lists; Achnahaird, Domie, Badentarbet, Achiltibuie, Badenscallie, Strath Polly, Strath Garvie, Reiff and various pasturages near Inverkirkaig as components (Long forthcoming). Watson succinctly puts it as *the cultivated land from Badenscallie in the south to the River Kirkaig in the North*, (1904).

Evidence for Norse settlement in Coigach through place-names, spot finds, and local legends attest to Norse cultural influences (Watson 1904, Clark 1993, Cromartie 1997, Mackenzie 1988). The majority of the Norse place-names are topographical in nature and often refer to coastal landmarks such as bays and islands, e.g. Enard Bay - ON *Eyvind-fjörör* - Eyvind, which is a personal name (e.g. Orkneyinga Saga or Laxdael Saga), Firth - ON - *fjörthr fjord*; Reiff - ON - *rif* reef; Tanera - ON - *hafnar-ey* Harbour Island.

Others suggest land holding and cultivation e.g. Langwell - ON - *lang-völlr* long field, Loch Osaig - ON *óssskiki* outlet strip, and Loch Sceanascaig - ON - *sjónar-skiki* observation point. However, there are one or two remaining examples that do indicate Norse settlement in the area; names such as Ullapool ON *Ulli -bolstatör* Ulli's steading, and Kirkaig - ON *kirku-vik* Church bay (Watson 1904).

The survival of many topographical place-names down to the present day indicates a strong Norse tradition in the area at one time. The names of townships on the other hand

have mainly come down to us in the language of the Gael, corrupted and anglicised over the years. Fraser (1995) argues that the lack of habitative names is a reflection of the assimilation between Norse and Gaelic speakers in the medieval period. And, as many townships have been displaced and abandoned over the years it is possible that many of the Norse named townships have been lost and forgotten.

In the area of Achnahaird an interesting settlement name appears on some early sixteenth century maps. The maps by Lawrence Nowell, Nicholas de Nicolay, Gerard Mercator and John Speed (Royal Scottish Geographic Society 1973), all drawn between 1565 and 1610, depict a coastline between Kirkaig and Lochbroom clearly representing the form of the Aird of Coigach (Long forthcoming). The township is labelled Rowra. It lies slightly to the west; between Loch Raa and Enard Bay, and closely correlates to the area of excavation at Achnahaird. Surviving names reflecting an association with Rowra, can be found in the nearby Pairc Ra (Fraser 1957), the Morevaich (First and Second edition OS maps) and Loch Raa. All appear to include elements from the ON *rau ör* - red (Watson 1904). The colour of the sand and rock in the loch and on the shore of Achnahaird.

Until recently, Rowra was thought to represent Rubha Reigh, a promontory in Gairloch, to the south-west of little Loch Broom. Long (forthcoming) formulates that this was erroneously identified by Taylor (1980) on the basis of his understanding of John Speed's map. John Speed never visited Coigach, or indeed many parts of Scotland, and used earlier maps to form his own map of Scotland. The map was compiled hastily so that it could be included in an atlas conceived for England and Wales in the 1590s, but with the Union of Crowns taking place in 1603 the map had to be quickly extended to cover Scotland (Nicolson 1988).

Long postulates that Nowell's earlier map is generally considered more accurate when compared to other contemporary, and some even more recent cartographers, such as Blau, Ortelius and Moll (Royal Scottish Geographic Society 1973). And, it is likely that Nowell based some of his coastal information on

a document he would have encountered in the 1540s, Alexander Lindsay's *Rutter of the Scottish Seas* - a contiguous chart of the Scottish coastline written in text form during a circumnavigation of Scotland (Taylor 1980). This was later translated into French and used by de Nicholay for his own maps in the 1580s (de Nicholay 1583, Royal Scottish Geographic Society 1973, and). Although it contains errors, the description of the coastline between the Point of Stoer and Loch Broom is accurate, and supports the topographical information depicted on the latter; *From Assin to Rowra south southwest, viii myle* (De Rouura au lac Byme Su Suest, viii mille.) (Composite English/French transliteration, Taylor 1980, 50). The navigation details clearly demonstrate that Rowra was indeed part of Coigach (Long forthcoming).

This investigation shows a high probability that sometime before, and during the sixteenth century, the area encompassing Achnahaird held a key position in the economy and administration for the Davoch of the Aird (The Aird of Coigach).

An overview of land ownership

From at least the tenth century, to before the collapse of Norwegian rule in 1266, Coigach and Assynt were ruled as a mainland estate by the Nicholsons of Lewis; a clan of Norse descent, before being superseded by the MacLeods of Lewis. The Nicholsons had a stronghold at Ullapool, the remains of which are depicted on William Morrison's 1775 plan of the township (RHP 3429) as a 'mott'.

The MacLeods were loyal supporters of the Lordship of the Isles throughout their dynasty, but only appear to have formally been a part of the lordship between 1437 and 1475. Prior to this the situation is unclear, although Lochbroom, and other districts in Wester Ross appear to have formed part of the Earldom of Ross in 1370 (Bangor Jones 1994).

In 1343 David II of Scotland granted a charter to Torquil Og (son of Murdo I Baron of Lewis) of three davochs of land and the castle of Assynt (this presumably included Coigach, see below) (Halford-Macleod 1994).

Coigach became an estate in its own right in 1460 when Norman I (Tormod) Chief of

Assynt, the second son of Roderick VII Baron of Lewis, gave Coigach to his second son John Riabhach (illegitimate). John lost Coigach in 1506 when Torquil MacLeod, VIII Baron of Lewis¹ had his lands forfeited by the Crown for backing Domhnall Dubh when he escaped from prison to reclaim his due title 'Lord of the Isles' (Matheson 1981).

The Crown then awarded Coigach with Assynt to the Mackays of Strathnaver. However, this only lasted a few years, and Lewis with its satellite estates were restored to Malcolm IX, the brother of Torquil VIII, in 1511 (Halford-Macleod 1994). After his death there was a period during which Torquil's son John took possession of the estate without legal title. He was then succeeded by Malcolm's son Roderick (Old Ruari), whose title was established by grants from the Crown in 1538 and 1541 (Matheson 1981).

'Old Ruari' married four times and had many legitimate and illegitimate sons who fought over the estates, including Coigach (Halford-Macleod 1994). Although Torquil Cononach was the eldest son; his paternity was in doubt, and he was raised by his mother Janet's people, the Mackenzie's of Kintail. Janet Mackenzie was accused of adultery with Huchean, the Morrison Brieve (Celtic Judge) of Lewis and chief of the Clan MacGillechalum. She was later divorced. (Morrison 1974).

When Torquil Oighre, the heir, was drowned in 1566, Torquil Cononach and another half-brother, Torquil Dubh, each made a bid for the inheritance. Torquil Cononach had the backing of the Mackenzies of Kintail, the Morrisons of Ness and his half-brothers Tormod Uigeach and Murdo. With their help he seized 'Old Ruari' and had him locked away in Stornoway Castle for two years. In 1572 'Old Ruan' was taken to Edinburgh where he resigned his lands in favour of Torquil Cononach. Although he later repudiated it on the grounds of coercion, they were later reconciled, and in 1576 Torquil Cononach became the legal heir and received a direct grant of Coigach (Halford-Macleod 1994).

¹ Torquil MacLeod was the recipient of the charter from James IV, dated at the castle of Kilkerran in Kintyre, 28 June 1498 - Halford-Macleod 1994),

This was not to the liking of Torquil Dubh and Norman, another half-brother, nor some of the other illegitimate brothers. Struggles ensued with the result that Torquil Cononach invaded Lewis from his camp in Coigach and shut up 'Old Ruari' for a second time. This time he took away all the Macleod writs and charters; consigning them to the Mackenzies of Kintail for safekeeping. He left his son John Cononach in charge, but he was ambushed and murdered by his uncle, Ruari Og, who set 'Old Ruari' free and restored his estates (minus Coigach) until his death in 1595 (Morrison 1974, Halford-Macleod 1994).

After the death of 'Old Ruan'; Torquil Cononach and Torquil Dubh carried on their feud. In 1596 both declared submissions to James VI, hoping to profit at the others expense. If anybody, James VI favoured Torquil Cononach because of his Mackenzie connections. However, Torquil Dubh took the war to Coigach itself where a battle ensued that was fought at the mouth of the River Garvie, a mile or two east of Achnahaird Sands. In very like manner (Torquil Dow came) *to the lands of Coigach and Lochbroom where they committed sick barbarous and monstrous cruelties as the like had not been heard of, sparing neither man, wife, nor child whom they might apprehend so that a great number of our true subjects are cruelly murdered and slain, the whole ground foresaid depleted and laid waste, and all the beasts and goods thereof taken and slain* – Milford Manuscript (Record of the Privy Council 11 February 1596/97).

The battle between Torquil Dubh of Lewis and Torquil Cononach of Coigach is preserved in oral tradition that says the swords of the vanquished side were thrown into a nearby loch known as *Loch nan Claidheichean* (now silted up). Stones nearby are said to mark graves; and when draining the land, it is said that a local man came upon the body of a Highlands soldier. The drain was diverted to avoid the body (Baldwin 1994). The battle was won by Torquil Cononach, and Torquil Dubh was summarily beheaded after being declared a rebel by the Privy Council in July 1597. Local tradition says he was executed at Cnoc na Croiche, Achlochan, in Coigach (pers. comm. William Muir).

In December 1597 an Act of Parliament required *all landlords, chieftains, leaders of clans, principal householders, heritors, and others possessing, or pretending right to any lands in the Highlands and Islands to produce their various title deeds before the Lords of the Exchequer upon the 15th May 1598* failure to do so would result in absolute forfeiture of all titles, real or claimed (Morrison 1974).

As Torquil Cononach had previously taken the Macleod Writs and Charters, no one in the Lewis faction was at liberty to prove ownership. He had deposited the papers with the Mackenzie's of Kintail for safekeeping and, in this effect the Mackenzie's of Kintail became the later heritors of the MacLeod Estates.

The intention was, without doubt, to put large areas of the Highlands and Islands at the King's disposal in order that King James VI might pursue his plans for raising cash by the privatisation of regional development there. The lands of the MacLeod's of Lewis were thus forfeited, by default, to the Crown in 1598. In effect the Mackenzie's with the aid of Torquil Cononach were an instrument of the Royal Campaign to bring the Highlands and Islands into the policy and due restriction of the *Kingdome of Scotland* (Richards and Clough 1989).

Torquil Cononach had one surviving heir. A daughter called Margaret. Margaret Cononach married Rorie her cousin, the second son of Kenneth Mackenzie of Kintail (later to become Earls of Seaforth) in 1605. As a dowry he conveyed to them the Barony of Lochbroom and Coigach shortly after their marriage (Cromartie 1977), and a great deal of Lewis property (Burke 1977)². Tradition holds that Rorie MacKenzie and Margaret Macleod enjoyed a residence at Achiltibuie. The Coigach Charter was confirmed by the Crown in 1609 and was held by the family for the next four centuries (Richards and Clough 1989). It was from this period that the title Lord MacLeod became the second title of the Mackenzie Earls of Cromartie, and the MacLeod arms of a *Mountain in a flame azure and gules* ... were added to the Mackenzie arms (Crawford 1716).

² Tradition holds that Rorie MacKenzie and Margaret Macleod enjoyed a residence at Achiltibuie

Coigach was now administered from Tarbet on the east coast by absentee landowners. And, it is from this period that Coigach, and to a lesser extent Achnahaird, come directly into the historic accounts through surviving records relating to the overall administration of the Cromartie Estates. At the end of the sixteenth century and the start of the seventeenth century, the principal tacksmen for the Barony of Coigach were apparently based centrally in each Davoch - at Ullapool, Langwell and Achnahaird, though by the later seventeenth century Achiltibuie appears to have become more important in respect of Achnahaird (Richards and Clough 1989). The principal tenants and tacksmen who lived at Achnahaird during this period can be traced through the Lewis administration of the MacLeod's (Long forthcoming). They include John Mackenzie McDonald McEan in 1572 (GD305/1/1/4/5.1), followed by his son Donald McKenzie McDonald McEane in 1617 (GD305/1/1/4/5.2).

Covenanter Wars

During the Covenanter Wars of 1639-1660 men from Lochbroom and the other Cromartie Estates campaigned in the field under the leadership of George Mackenzie, 2nd Earl of Seaforth, for Covenanters and Royalists respectively (Furgol 1990). Kintail Mackenzies were also involved, including Rorie Mackenzie's son Sir John Mackenzie, Master of Tarbet, the Landlord of Coigach and Member of Parliament for Inverness-shire from 1628-1633 (Richards and Clough 1989).

In 1648 John, Master of Tarbet, became allied to the Royalist cause and made a break from his estates and transferred the arable lands at Achnahaird to his third son Roderick Mackenzie (GD305/1/162/286). Both appear to have been absentee tacksmen (Long forthcoming). By the end of 1650, John Mackenzie and his eldest son, the eighteen year old George, both held commissions from the Scottish King Charles II. On 30th January 1649 Charles II was proclaimed King of *Grate Britaine, France and Irland* at 'Edinburgh Cross' and crowned King of Scotland on 1st January 1651 at Scone. By 1652 his cause in Scotland was lost and Charles became a fugitive (Mackie 1979). However, they both paid heavily for their allegiance to the Crown. An act of Parliament in 1649 imposed a series of fines and

other financial obligations on several Royalist families, including the estates of Coigach, culminating in the brief imprisonment of John Mackenzie in the new Citadel of Inverness in 1654. He died in his castle of Ballone a year later (Richards and Clough 1989).

This resulted not only in financial burden and political hardship for George his heir, but also, and more importantly, a disruption to agriculture and trade through military operations; including burning much of the estate of Lochbroom (and presumably Coigach) by General Monk in 1654 (Bangor Jones 1994).

The Mackenzie administration, which had started so peacefully, was again thrown into political turmoil. However, it is evident that during this period there was little internal friction between the new proprietors, the Mackenzie's of Kintail and the resident Coigach MacLeods. As late as 1675, 'Murrow' MacLeod, the last MacLeod tacksman resident at Achnahaird, had obviously maintained a degree of economic and political continuity when he was granted additional holdings, including the adjacent farm of Badentarbat (GD30511/162/286).

The Jacobite Uprisings

The aftermath of the Covenanter Wars resulted in severe local consequences for all the Royalist estates, including Coigach. The costs incurred by George Mackenzie of Kintail in fines and promoting recovery of the estate were ultimately born by the tenantry. However, the Restoration of Charles II in 1660 saw an upturn in his fortunes. George, a staunch Royalist supporter took a more cautious and neutral stand during the Jacobite Rising of 1689-90 (Macneill and Macqueen 1996). He was eventually rewarded for his service with the official title of 1st Earl of Cromartie in 1703 (Richards and Clough 1989).

There is little documentation relating to Achnahaird from this period, but suffice it to say by 1681 the arable lands of Achnahaird had passed to the Mackenzie's of Ardloch. A list of Ardloch's tenants, and those that were eligible to pay the original Poll Tax in 1695, are recorded in the Cromartie Papers (National Records of Scotland). The 'Poll-able of Coaygach'

includes *John McLeod in Achnahard his servant lad and lass*. Could this be the son of 'Murrow Macleod' the last resident Tacksman in Achnahaird? (Monica Clough pers. comm. 1999, Ullapool Museum ULM REF 1998). Achnahaird then passed to the Gordons of Invertoch and by 1740 to the Mackenzie's of Corrie (GD305/1/1/4/5.7-11; GD305/1/64) (Long forthcoming).

In 1720 another period of financial misfortune fell on John, 2nd Earl of Cromartie as he had been disinherited by his father George, the first Earl. In a bid to regain some collateral John made an attempt to sell the standing timber of Coigach as ship planks but it ended in failure as it was not his to sell. He had previously assigned the woods of Coigach to John Innes who died shortly after leaving the interests to his son William Innes. As the 2nd Earl was already in debt to the Innes family, a long drawn out legal battle ensued (Clough 1994). This was followed by a period of stability and good estate management on the succession of George, 3rd Earl of Cromartie in 1731 (Richards and Clough 1989). However, George like his predecessors was a staunch Royalist and joined the Jacobite Rising of 1745.

On the 15th April 1746, the day before the Battle of Culloden, George, 3rd Earl of Cromartie, with his army, including over 200 men from Coigach, were 'tricked' into surrender and captured at Dunrobin Castle; from where they were transported to London to face trial (Richards and Clough 1989). The Minister, James Robertson of Lochbroom and Coigach, a staunch Hanoverian, intervened and went south to plead on behalf of his parishioners as he believed they had been coerced into joining the uprising. Subsequently, most of the prisoners, including Hector Mackenzie, the Earl's forester in Coigach, and Alexander MacLennan, a blacksmith from Achnahaird, had their sentences commuted to transportation to America, whilst the Earl himself was disinherited and placed under virtual house arrest in London till his death in 1766 (Richards and Clough 1989).

Reprisals followed, and in the summer of 1746 a squadron of Hanoverian vessels under the command of Ferguson appeared off the

coast of Lochbroom and Coigach. All around the coast they seized livestock, burnt crops, woods and dwellings, including the Mackenzie and Macleod charters, wadsets and writs as part of the 'scorched earth policy' ordered against the homelands of the Jacobite rebels. A cannon ball, now in a private collection in Canada, was found in the vicinity of the Dun at Achnahaird in the 1970s. It was identified at the time by the Imperial War Museum as from an eighteenth century 'English Man of War' (Jack Thompson pers. comm. 2000, Clough 1994, Baldwin 1994).

Annexation

From the moment George joined the rising his estates were forfeit to the Crown and they were placed under the jurisdiction of the Board of Forfeited Estates, and were subsequently annexed by an Act of parliament in 1753. In 1755 the lands around Achnahaird were recorded as 'unrentalled and lying waste' (Richards and Clough 1989). However, the 'Judicial Rental for the Barony of Coigach 1755' records that George Mackenzie entered the farm of Achnahaird 'at Whit 1750 without Tack'. He had 17 or more subtenants who *paid him yearly £220 Scots or thereby, but being poor they make not punctual payments* (Baldwin 1994, 367).

In 1756 the Board of Annexed Estates commissioned Peter May, an Aberdeen surveyor, to make a thorough survey and investigation into the *detail of the circumstances of Coigach*. He found that the total male population over the age of 17 was 238, and considering that over 200 able bodied men from Coigach had been deported only a decade earlier, constitutes a sharp drop in population (Richards and Clough 1989).

Peter May was instructed to measure the subtenants possessions separate from those of the principal tacksman, but found that he was unable to do so. They were, as he wrote, *so interwoven with one another, and run-ridged on sundry farms with the tenants themselves and so very small that there were above a hundred ridges ill an acre. He was, therefore, given leave to make no distinction between holdings, but to give the gross arable acreage of pasture and hill and moss upon each of the farms* (Adams 1979).

The corn land of Achnahaird comprised of 54 acres, 2 roods and 30 falls, a third of which was under cultivation. He also records 14 acres, 1 rood and 30 falls of grassland, and 7 acres, 3 roods and 20 falls of woodland. The hill and moss consisted of 3,297 acres and the arable lay compact round the houses. There was also a small area of outlying cultivation situated on the eastern side of the bay in a side valley (Mitford Manuscript)³. Examination shows the manuscript also includes extracts from May and Morrisons' survey of Coigach (1756 and 1775), as well as from the Forfeited Estate Papers and the Cromartie Papers. The manuscript seems to be based exclusively on material now available in the National Records of Scotland. The papers were found in the fishery warehouse in Ullapool when cleared out for conversion to become the Captain's Cabin. Enquiries of the Troughtons of Leckmelm failed to identify the papers. They appear to have been written for serialised publication in a newspaper or magazine (Baldwin 1994).

The map (RHP 85395)⁴ indicates the position of 25 buildings in three groups set back from the west shore of Achnahaird Bay. The main settlement of 19 buildings occurs at a road junction at the centre of the cultivated area, with a small group of four buildings (part of the present day farm - at that time the Tacksman's House) to the side of a small burn to the south, with two outlying buildings to the north (Long forthcoming). There is also mention of a sheiling now covered by the sea at Achnahaird Bay, and another sheiling between the burn and Loch Raa (misnamed Loch na Bhattachan - Baldwin 1994).

Peter May suggested that the poor folk would be usefully employed in making improvements, and urged the inhabitants to make garden plots for cabbage and turnip. They all answered, *as they had no leases they could never propose to improve. He also recorded that the Tacksmen and sub-tenants were in a state of civil war and there was bad neighbourhood between the parties as the sub-tenants were becoming more independent and wanted to balance accounts with the Tacksmen* (Mitford Manuscript).

3 The 'Mitford Manuscript' is a typed document based on papers held by the late Mrs. Mitford (nee Fowler of Braemore

4 In 2000 the map was awaiting conservation in the National Records of Scotland

Roderick Macleod, who claimed descent from the MacLeods of Coigach, was a sub-tenant at Reiff, on the *skirly* of Achnahaird farm. He challenged the Board of Forfeited Estates claiming the subtenants paid to the *Tacksman, George Mackenzie of Achnahaird, three times as much for an acre of poor land as the Tacksman paid the Board for rental of his choice land on the Brae* (Mackay 1996).

George Mackenzie of Achnahaird wrote in his defence: *Altho' a cottar or sub-tenant work one day in the month or week to his master, he very probably sits idle and basks himself in the sun for the greatest part of the rest of his time half starved for want of victuals which the master always gives him in plenty when at his work* (Mitford Manuscript). The problems persisted, and it became apparent the Board of Annexed Estates was better equipped to identify problems, rather than solve them (Richards and Clough 1989).

In 1784 Coigach was Disannexed by Act of Parliament and the Cromartie Estates were restored to the disinherited 3rd Earl's heir; John Mackenzie, or as he was styled, Lord MacLeod. However, the Estates were also restored with an outstanding debt of £19 0s 10d which had existed since before 1746. Lord MacLeod died without issue and the estate was inherited by his cousin Captain Kenneth Mackenzie the last remaining male heir. He died seven years later and the Estate was succeeded by Lord MacLeod's elderly sister the Dowager Lady Ellibank and then to her daughter The Honorable Maria Murray Hay-Mackenzie in 1801 (Richards and Clough 1989).

The Hay-Mackenzies lived beyond their means and the revenue made from the estates could never hope to be balanced (Richards and Clough 1989). Once again the costs were borne by the tenantry. In 1829 the township of Achnahaird was 'lotted', This entailed the resettlement of people to small pieces of allotted land, as opposed to sharing communal ground, with an increase in rents. The smaller crofts were created in the hope that the crofters could supplement their income with fishing. The overall plan seems to be that the sub-tenants would pay rent direct to the Hay-Mackenzies, as opposed to subletting direct from the Tacksman, who at this

time was Roderick Mackenzie, and had held the tack since 1795. The aim was to increase revenue paid directly to the estate. However, in the case of Achnahaird, the sub-tenants continued to pay rent direct to the Tacksman/Tenant until 1866 (Richards and Clough 1989).

Roderick's heirs, George and Roderick Mackenzie in 1833, succeeded Achnahaird. George appeared as sole tenant from 1845-1855 (Baldwin 1994). However, when George died in 1851⁵ an offer was made by a sheep farmer named Purves for the farm at a rate well in advance of the current payment. However, he made a stipulation and asked, Andrew Scott, the Coigach Factor, that the eleven sub-tenants be removed. Scott did not relish the task of clearance and explained somewhat ambiguously *it is proposed to let the farm with power to the incoming tenant to continue the sub-tenants as they are at present - not to increase their number, tho' he may diminish them as may suit his convenience* (Richards and Clough 1989). The responsibility of clearance obviously did not sit well with Purves either.

The outcome was a new tenant; George MacLeod from neighbouring Assynt. He paid little more for the land than his predecessor and retained the sub-tenants subject to the condition *they paid their rents and conducted themselves in an orderly and peaceable manner* (Richards and Clough 1989).

However, in 1852, following the prolonged 1847-50 famine, the people of Achnahaird refused (or could not afford) to pay their rent to George MacLeod and *heaped abuse upon him* (Richards 1994, Richards and Clough 1989). Scott tried to serve summonses of eviction on them, but they were liberated in effect by the 'Coigach Riots'. On the 18th March 1852 a boat was sent from Ullapool containing summonses for a number of people who either refused to be removed from the farm of Badenscallie to Badentarbet, and those from Achnahaird who had refused to pay their rents. On the boat was a Scott the Factor, the Sheriff Officer, and a police accompaniment. However, news had reached the inhabitants of the proposed evictions and boat was met by a large party of women who seized

and burnt the summonses, and dragged the boat over the shingle for three hundred yards. Scott observed: *It is clear, if this cannot be done with impunity, there is an end to landlords on the west coast collecting their rents, if the tenantry like the Achnahaird subtenants refuse to pay* (Richards and Clough 1989). Another attempt was made in December the following year but again it was anticipated, and the Sheriff's party were assaulted by another large party of women. The summonses were burnt again and the Sheriff Officer stripped entirely of his clothes and *put on board the boat in which he went to Coigach in a state of absolute nudity*. Scott suggested calling the military. However, the response from the Solicitor General in Edinburgh was less than decisive. He judged that the deforcements had not been sufficient to justify the intervention of troops. He ordered a third effort to be further reinforced by police but the result was identical. It was assumed that military assistance would be given on a fourth attempt (Baldwin 1994, Richards and Clough 1989).

The attempted clearances and evictions were followed closely in the newspapers of the day and generated a lot of adverse publicity. The general public was outraged by the reported indignities and the insecurity of the sub-tenants. The Cromartie Management's *nerve was broken*. And, in the event they gave up the campaign and did not pursue the evictions. The people of Coigach and Achnahaird enjoyed a victory almost unprecedented in Highland history (Baldwin 1994, Richards and Clough 1989).

George Macleod died in 1864 and his heirs farmed Achnahaird until 1868. Alex Munro then became tenant for two years (Baldwin 1994). It appears that he became the first new style tenant farmer at Achnahaird. From this period onwards the sub-tenants of Achnahaird paid their rent direct to the proprietor, who at that time was the Duchess of Sutherland, daughter of Maria Hay-Mackenzie (Richards and Clough 1989).

Shortly after she inherited the estate the people of Coigach petitioned 'Her Grace the Duchess of Sutherland' in 1882. They complained of recent rent increases. They asserted

⁵ His widow Susan immigrated on the *Allan Macnab* with her brother-in-law Murdo and family in 1853 to Tasmania - ULM Gen Ref 2000: 241 and 211

that the patches of ground which are now arable, were with many years of toil and hard labour without any assistance from your Grace, scraped together by ourselves and our ancestors among rocks and stones. As soon as the crofts were created the rents were immediately raised and the best arable land at Achnahaird was taken from them and added to the farm (Richards and Clough 1989).

The Napier Commission

In 1883 The Royal Commission, chaired by Lord Napier, devised an Inquiry into the conditions of Crofters and Cottars (1884). They travelled around the Highlands and Islands to talk directly to inhabitants and ask questions, something that had never been done before and a meeting was held in the Church of Scotland in Mill Street, Ullapool (Cameron 1986). At that time the tenant of Achnahaird was a man named Captain Lyndsay (Napier Commission – Minutes of Evidence 1884).

Murdo MacLeod, a crofter and fisherman, gave evidence from Achnahaird. He also brought with him a petition signed by Kenneth MacLeod and Mary McLeod a widow, and six others. The essence of the petition was that each crofter in Achnahaird had on average between two and three acres of land that had not been tilled for about 80 years. This was because there was not enough land to allow any to lie as grass. The land had, therefore, become so weak and poor they *could hardly make a boll of meal from one croft*. Murdo, himself had *a third of his croft under rye grass, a third under turnips and a third under oats, and one cow would eat the whole lot*. He believed that the land was so poor that it could not keep them alive and referred back to a time twenty eight years previously (claimed to be twenty by the Commission) when more than a third of the best pasture, and a third of the best arable land had been taken from the crofters and added to the existing farm tack of Achnahaird; along with the rights to the seaweed on the shore. This was now charged at 7/6d, or three days work to the tacksman, where formerly it had been free - and was much needed by the crofters to manure their land. They had not received a reduction in rent at the time and despite the present factor reducing the rent for each croft by fifteen shillings they still paid £4.10/- more than when the

land had been taken away. His main concern was to secure more land as *a larger holding is of all the things we want, we used to pay rent by our stock and now we cannot keep stock* (Napier Commission - Minutes of Evidence 1884).

He complained that the houses were *pretty bad, pretty old; just about as bad as they can be and still remain habitable*. The houses had been built at the tenants' expense and although they received some planks and a few bags of lime from the estate, when they left, the whole house was claimed and no compensation was given (Napier Commission - Minutes of Evidence 1884). It was, therefore, not in the sub-tenants interest to improve their housing either.

The Land League and Crofters Act 1886

The crofters and cottars expected much from the Royal Commission. However, Lord Napier's recommendation - to give each crofter paying rent of more than £6 a year 'Fixity of Tenure' and compensation for improvements - was rejected as out of hand by the flourishing new radical Highland Land Law Reform Association, or more commonly held 'Land League' (Cameron 1986). And, in 1885, with the crofters new gained right to vote, they changed the face of Highland politics.

An act was passed on 25th June 1886 which applied to all crofters irrespective of the amount of rent they paid, and brought them practical benefits: security of tenure, the right to pass on land to another member of the family, the right to compensation for improvements if they should ever give it up, and a new and permanent body; the Crofters Commission - a land court with the power to fix fair rents (Cameron 1986). The long term effects of this new land court was for instance; in 1872 Achnahaird paid a total of £42 rent which by 1890 was dropped to £27 (Richards and Clough 1989).

Economy

The economic foundations of Coigach were narrow and totally dependent on the weather and the seasons. There was little industrialisation or differentiation of employment (Richards 1994). Employment details taken

from the roll of Coigach Prisoners in 1746 include farmers, husbandmen, labourers, servants, ploughmen, a brogman (shoemaker), a weaver, several blacksmiths, drovers, a forester, dairyman, tailors, a snuff seller and a fiddler (Richards and Clough 1989).

The most notable export from Coigach was the trade of live cattle. Oral tradition holds that Achnahaird was used for large cattle markets dating back to the time of James VI. (W Muir pers. comm.). It is interesting to note that although the other Cromartie estates in Easter Ross paid rent in kind - Coigach paid in cash from at least 1660 onwards. Once a year the drovers herded their cattle over the hills to sell at Beaulay Market. As no members of the Mackenzie landholding family lived in Coigach by this time, the drovers were often pursued on their return by the Earl's Chamberlain, who took with him a few men, a clerk and a piper to collect the rents while they still had money in their hands (Clough 1994).

The cattle trade remained the main generator of cash income for most sub-tenants until the turn of the twentieth century. The success of cattle husbandry, however, ultimately depended on sufficient land and a favourable harvest, which in turn depended on a reliable climate. Unfortunately, Coigach was a poor agricultural estate and very much at the mercy of the seasons. It is, therefore, unlikely that Coigach ever produced enough corn to feed itself and depended ultimately on imported meal supplies (Richards 1994). A cycle of famine, or destitution as it later became known, exposed the inhabitants to a continuing recurrence of food shortages mixed with times of plenty and relative comfort (Richards 1994).

In July 1772 the 'United Inhabitants' of Coigach described the effects of famine that year and referred back to a brief boom in black cattle and corn from 1766-1769. *But alas! times are entirely altered as is fatally experienced by your petitioners. Few or none of them have lost a great part of their cattle and some their all. Besides this, their prodigious loss of cattle of all sorts, they expended all their coin upon these cattle so that they not only wanted bread to their families, but their landlady want of seed. In this deplorable situation some of the inhabitants had thoughts of transporting themselves and families to North*

America, but on mature consideration thought it proper to make known their case (Mitford Manuscript). The situation was so bad that many had thought to emigrate but were writing for help as a last resort.

Government officials proposed to help by sending seed oats and potatoes, but had little understanding of the geography of the Highlands, planned to send it to the Dornoch Firth! The Factor Jeffrey remonstrated on their behalf as no one in Coigach was fit enough to make the long journey and *few or none of them had a bit of bread to eat*, and it was out of the tenants power to carry their seed from Dornoch (Mitford Manuscript).

Fishing was introduced in the latter eighteenth century as a way of subsidizing their income, but the herring shoals turned out to be as unpredictable as the weather. The competition also induced unrest, and an agent for the British Fisheries Society recorded in 1788 that *The object of exertion with the crew of every vessel is not so much the taking of the greatest quantity of fish as of preventing as much as possible their fellow adventurers from taking any*. This resulted in Robert Fraser of London being sent to make a detailed report on the 17th of May 1788. He described how the fishermen around Lochbroom and Coigach stole each other's catch and destroyed each other's equipment, buoys and nets (Dunlop 1978). The market went into decline in the early nineteenth century owing to the war with France and the diminution of slaves on the West Indian plantations (Dunlop 1979). However, when they did make an appearance in 1788, the inhabitants of Lochbroom and Coigach were able to sell their catch at the rate of 5/6d a barrel (Dunlop 1979). Unfortunately, more often than not, the fishing and agricultural work coincided, and the sub-tenants who were bonded to the tacksman until the 1860s were not at home to fulfil their obligations and the factors and tacksmen complained (Richards and Clough 1989).

In 1835, the factor, Andrew Scott testified to the fact that every year some families suffered privation *living almost altogether on shellfish from the shore, with a little water gruel at night, and not a bit of bread or potato in their house* (Richards and Clough 1989,

Richards 1994). Once again, in the middle of the 1870s, it was reported from Coigach that the people had been without potatoes since the early part of the winter and, though food was still relatively cheap, they had exhausted their money and their credit (Richards 1994).

A solution to the 'Destitution' was finally endorsed in the later 1870s when the Duke of Sutherland was persuaded to finance further road construction in Coigach, partly for development purposes and the encouragement of the sporting tenantry, but more particularly to offer relief to the destitute people by means of employment (Richards 1994). The workers that applied, only one from each family, were paid with 'bolls of meal' (Richards and Clough 1989).

The survival of the community during this period can, no doubt be attributed to an underpinning of income from outside. In a large majority of cases, the dependents and in some cases, the tenants themselves, left on a seasonal basis for employment, to work at the Caithness fishing, the harvests of the Lothians and in domestic service in the 'grand houses of Edinburgh'. All helped provide an income for the landlords rent (Richards 1994).

The last 100 years

The Cromartie Estate passed from Her Grace the Duchess of Sutherland to her son Viscount Tarbet in the 1920s. It remained with him until 1959, when the Badentarbet Estate, which included the farm of Achnahaird, was sold to the famous Himalayan mountaineer and explorer Tom Longstaff. It then passed to his widow, Charmaine Longstaff, till her death in the early 1990s. The present day (2000) owners Mr. and Mrs. Peter Rex then inherited the Badentarbet Estate.

In the majority of cases, the crofts have remained with the descendants of the original crofters and the farm continued to be rented by a succession of tenants. From the Valuation Rolls it can be determined that David Ross was tenant in 1888, and ten years later was in the hands of Alexander Macrae. By the early years of the twentieth century the

farm had passed to David Lawson (later to become Captain) and he continued the tenancy, subletting in the final years, until at least 1948. The current tenants are Hector and Marilyn Mackenzie.

Today, the crofting township of Achnahaird reflects the original 'lots' laid out in the nineteenth century. Cultivation has declined slowly over the years, but has continued in practice, to some degree, until the 1970s. However, with the introduction of the tractor and the longer ploughshare, the fragile machair was undermined and exposed to over grazing, which hastened erosion from the elements. The original field drains, built with the shorter share of the foot and horse plough in mind, were breached and have all but been demolished and the once fertile stretches of reclaimed land surrounding the machair have once again reverted to barren moor.

Today, the process of diversification in the local labour market has considerably altered the social and economic structure of Coigach (MacLeod and Payne 1994). The crofts are still worked to some degree, but employment is closer to home - the fish farms, the services, tourism. and in one case local government.

Conclusion

Until the roads were built in the 1870s, Coigach was one of the most inaccessible and remote districts in the British Isles (Richards 1994). Throughout its history, the Coigach Peninsula was almost entirely isolated from the east coast and southern power-bases by the mountainous terrain of Coigach, Assynt, Tonidon and the Fannichs.

The paucity of documented evidence from the historic period does little to enhance the political, cultural and economic comprehension of Achnahaird, or the Barony of Coigach. However, the Lewis based Nicholson and MacLeod heritors, attest to links that were forged during this period on the basis of maritime communication and kinship ties, culminating in the consolidation of much of the western seaboard into a single power-base; the Lordship of the Isles.

In the context of medieval and post-medieval Scottish history, Coigach formed a transitional zone, whereby political, economic and cultural links were naturally formed between the Norse and Gaelic communities throughout the Hebrides and other west coast communities. A stable west coast focus was thus maintained throughout the thirteenth, fourteenth, fifteenth and early sixteenth centuries.

However, the region became increasingly confused following the collapse of the Lordship of the Isles in the mid-sixteenth century. James VI resolved the political vacuum through a combination of violent suppression and political manoeuvring with the aid of the Mackenzie's of Kintail, resulting in the formal claiming of Coigach into the Scottish Kingdom. As a reward, the Mackenzie's of Kintail, were awarded much of the Hebrides and Coigach, along with their own lands in Lochbroom and the East Coast.

Rowra is a consequential discovery, testifying again to a settlement of some local economic importance. It also demonstrates a punitive Norse influence, supported by the cultural background of the landowning Nicholson and Macleod clans of the time. However, over time, the continual pastoral activities and cultivation associated with the Machair lands of Achnahaird, which are located in a zone open to the extremes of the north and easterly winds, rendered the land unstable (Crofts and Mathers 1972). Could these agricultural and environmental factors have contributed to the final demise of Rowra and Achnahaird as the administrative centre for the Aird of Coigach? And, could the unidentified Boreraig of Coigach G. Bo - Cow refer to this area? (Baldwin 1994, Richards and Clough 1989).

The naturally fertile machair land of Achnahaird, the largest example on the north-west mainland, would have attracted the most influential settlers. And, despite the relative paucity of early documentation, there are clear indications from early charters that Achnahaird formed the local administrative and population centre for the largest davoch in the Barony of Coigach. The township is

also known to have been the residence of influential tacksmen in the late sixteenth and seventeenth centuries.

Throughout the seventeenth to twentieth centuries, Coigach was geographically divided from its east coast administrative centre at Tarbet, and the major tacksmen were no longer resident. The township of Achnahaird declined in importance relative to Achiltibuie.

The Royalist leanings of the proprietors, the Cromartie Mackenzies, dictated Coigach's part in the Jacobite uprisings that in turn led to government intervention and subsequent 'improvements'. Modern farming methods were introduced and the farm land of Achnahaird extended, as did the rights of the principal tenant/tacksmen. The resulting land pressure resulted in clearances, economic hardship and 'destitution'. However, by the mid-nineteenth century, the sub-tenants took matters into their own hands and rebelled. This coincided with general unrest in the Highlands and subsequently led to a government led inquiry by the Royal Commission, and finally to security of tenure and the crofters own land court. It is a situation that remains today.

Archaeological Background

By Stuart Farrell

Numerous finds have been made over the last 30 years on the area of Achnahaird Sands and the area around the excavation, because of the shifting and eroding sand dunes. As early as 1969 the site of the subsequent excavation was recorded (Crerar 1969) where shells, charcoal patches and several hearths were noted, and a building with a circular wall was recorded (likely to be Building 2). The finds were of pottery, flints, hammerstones, slag, part of a rotary quern and a spindle whorl. It was with some perception even then that the site was considered problematic, as the author noted *the occurrence of iron slag and the lower half of a rotary quern in the proximity of the foundations and shell-heaps, suggests a period for some of the remains, but the occupation of this area was probably over a long period of time*, (Ibid, 46)

By 1974 it was recorded that Building 2 *was weathering out beneath the sand cliff*, (Newall and Newall 1974, 60). Also noted was a cist, which has not been identified elsewhere, nor was it found as part of the current work. Finds made at that time included pottery, a spindle whorl, part of an iron knife, a bronze medieval brooch and two Charles II coins. In 1985, the then Highland Regional Council archaeologist Mr Robert Gourlay noted the finds of bone, bronze, pottery and flints, but made no mention of the structures (Gourlay 1985).

Work by Andrew Long in 1990 noted up to 4 m deposits as well as finds of pottery, slag, charcoal and other artefacts, in a letter to the Highland Council Archaeologist dated 21-9-1990. Work by the Royal Commission on the Ancient and Historic Monuments of Scotland in 1996 made a visit to the site as part of their survey work of the nearby village of Achiltibuie. They designated building no.2 as (probably) being Norse due to its similarity to a site in Drimore, South Uist excavated in 1956, which was a round ended building with one internal wall (RCAHMS 1997).

By far the most substantial piece of archaeological work carried out on the site was the preliminary investigation carried out by Andrew Long and Glasgow University (Long 1996) as part of the Coastal Survey from Ullapool to Lochinver carried out on behalf of Historic Scotland. The site had been raised by Long as requiring excavation but nothing was done. As part of his survey, a plan was made of parts of the site, especially the buildings and the enclosure, which remained relatively unchanged before the 2000 excavation was undertaken. Long remarked that the area was suffering a high intensity of erosion and it should be noted that the vast majority of surfaces noted by him in 1996 were no longer evident when the excavation was undertaken four years later in October 2000.

The photographs taken by Long in 1996 (e.g. page 99) show surface areas with exposed shell middens, which by October 2000 had become areas of only sand. The excavation was to the rear of these areas. The main cause of this erosion is the palaeo-water channel that can be seen in the

foreground of the photographs, which was being eroded both by tide and storm damage. The previous winter had taken serious toll on the site and it was being wind-blown eroded.

As the coastal erosion was severe, funding was provided by Historic Scotland and from Ross and Cromarty Enterprise for a limited archaeological intervention. The author was asked to undertake the excavation by Frances Ross, who was then Curator of Ullapool Museum, as he had undertaken a community project of recording the gravestones in the churchyard at Ullapool, where the museum is located in the former church.

The excavation and recording work was undertaken over two weeks in October 2000, with the intention to understand what structures were present, record detail of their surviving contexts, try to date them, and recover finds from the wider area. Volunteers came from local area and the excavation team stayed in the adjacent farmhouse of Achnahaird. One girl abandoned her children to her mother-in-law for the duration of the excavation in order to dig every day - hence 'Izzy's house'.

Hand tools were loaned by Highland Council but the main logistical headache was getting a portacabin delivered along 16 miles of a single track road! The heavy west coast rain and showers ruined some of the photographs but the site drawings and supervision was undertaken by Mike Middleton.

There is possibly another early house close to Achnahaird Farm but it was decided that excavation there could cause more erosion once the turf had been removed, and the site was therefore not explored. The landowners were also adamant that the excavation team should re-cover site with turf that we had removed, but unfortunately that had previously been removed by the wind. Most of the post-excavation research was undertaken by SUAT (the now defunct Scottish Urban Archaeological Trust), who also analysed stray finds distributed in Inverness Museum, National Museums Scotland in Edinburgh, and a private collection belonging to the Maclean family in Tayport.

The Results of the Excavation

By Stuart Farrell

The area of excavation

This excavation was undertaken because of the continuing level of high erosion of the site by wind, rain, and animal and human disturbance. The ground cover was very sparse over the whole site (see Plates 2 and 3), with the exception of to the north, which had no ground cover surviving. It was in this latter area that the majority of surfaces finds were made and the area was gridded to sample and record them.

The area of the excavation lay on an area of raised beach, with the site being eroded over the preceding 40 years from the natural sand dune cover for. The excavation comprised four areas of interest (Figure 2):

Building 1

Building 2

The enclosure and paved area

The surrounding environment

Building numbers have followed those used by Andrew Long (1996) to aid identification.



Plate 2: View of Building 1 prior to excavation, facing NE.

Building 1

Building 1 differs from Building 2 in that it was a single-celled dwelling with no internal divisions. After the initial removal of windblown sand deposits (see plans) it was clearly evident that this building was not the single walled structure⁶ as proposed by the RCAHMS but a building with both external and internal walls (Figure 3a-d, Plate 4).



Plate 3: View of enclosure and Building 2 prior to excavation, facing NE.

⁶ i.e the building was not constructed into the sand dunes with only a single wall lining the interior of the structure.

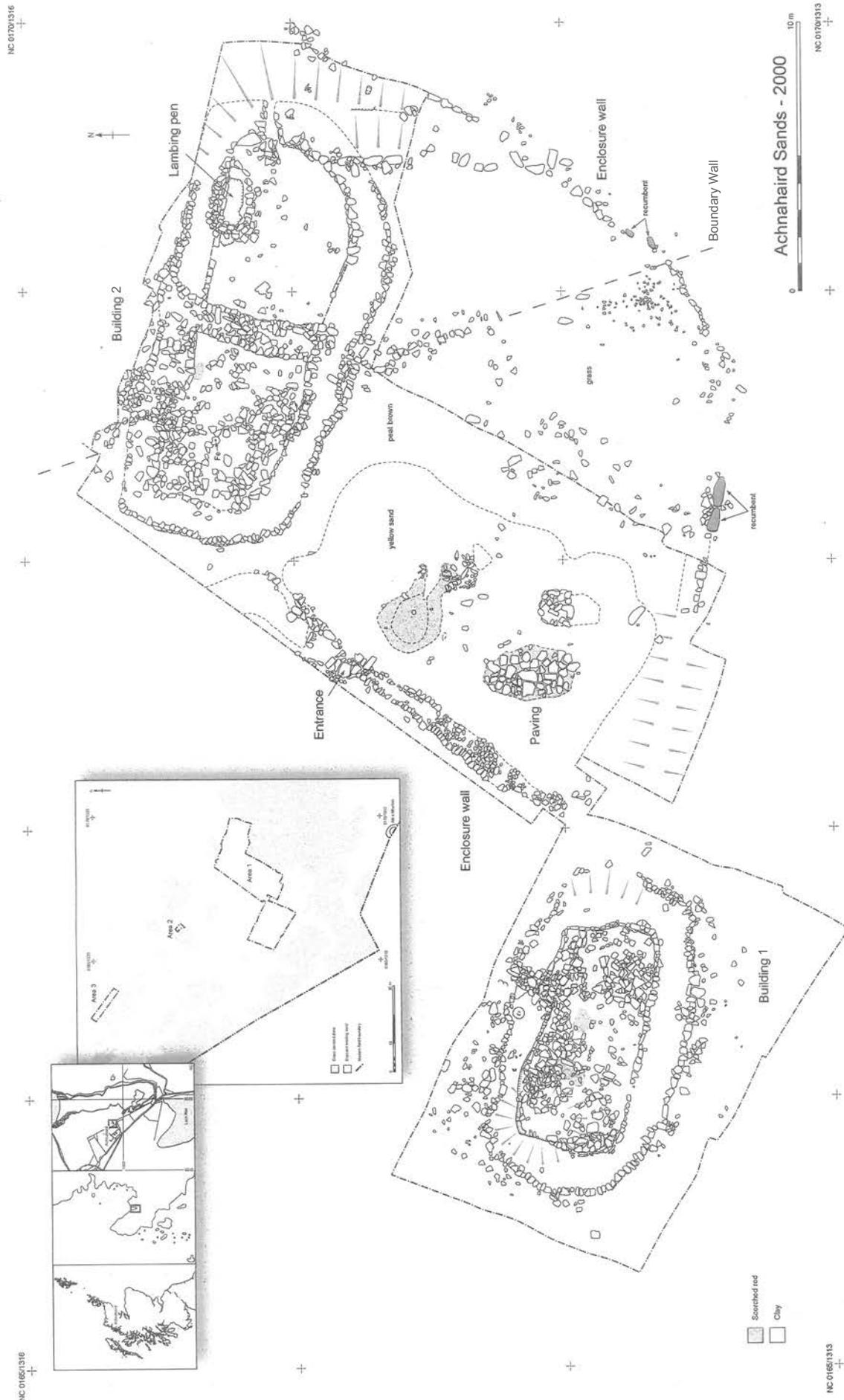


Figure 2: Plan of the excavated area

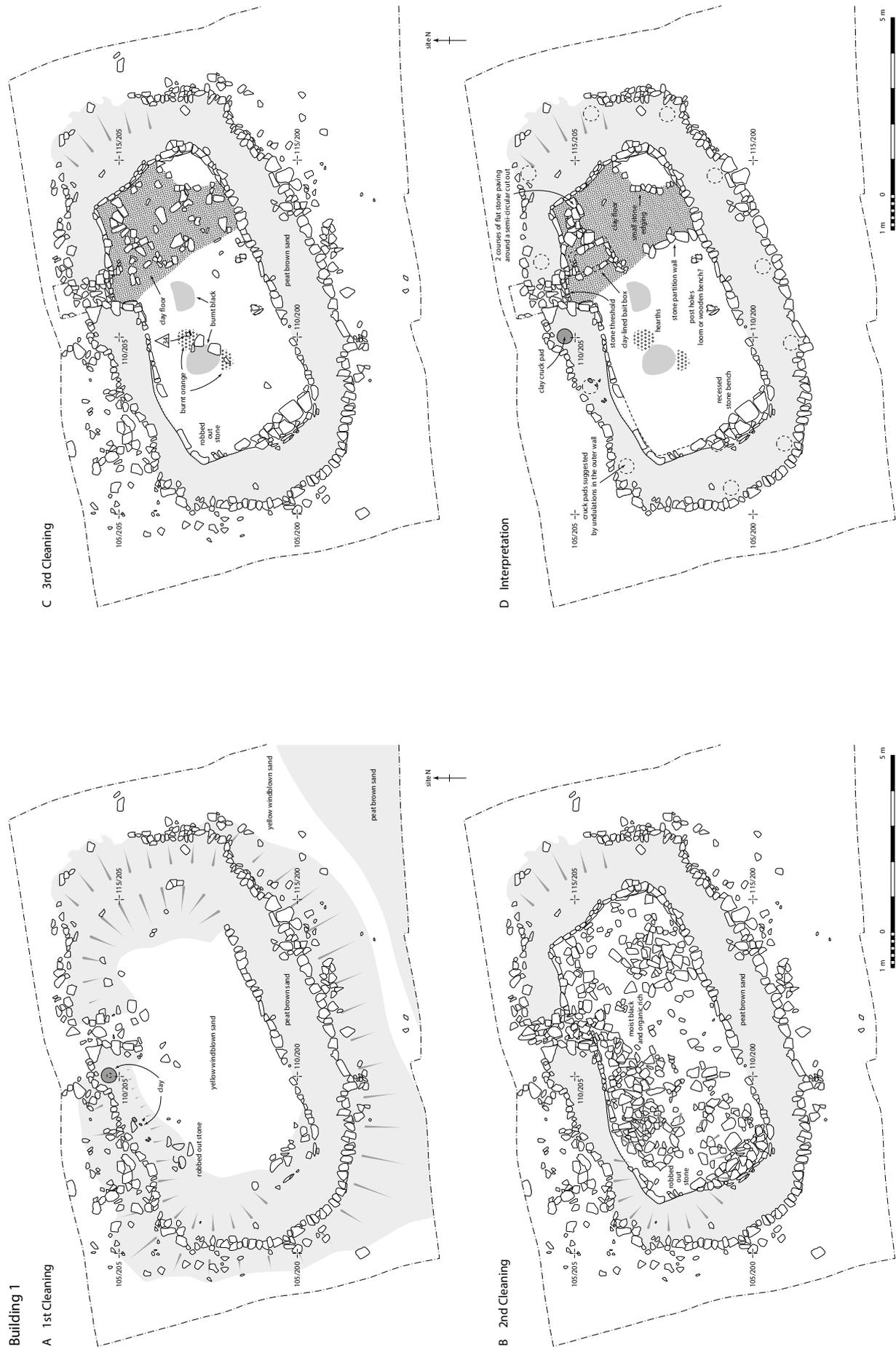


Figure 3: Building 1 during excavation, by Mike Middleton



Plate 4: View of Building 1 during excavation, facing NE – scales 1 m.

The entire circuit of the internal wall was not visible on the surface due to the partial robbing out of stone at its north-west corner, as well as the collapse inwards of most of the north wall, and part of the south wall (Figure 3a, Plate 5).



Plate 5: View of Building 1 during excavation, facing E.

Upon the removal of the windblown sand a black peat-like deposit was revealed (Figure 3b), which was initially thought to be flooring (Plate 6). During the post-excavation analysis of samples from it, which produced nothing, the deposit has to be interpreted as the remains of roofing combined with the natural built up of peat after the structure had been abandoned, or was in a state of collapse. Finds from this context were numerous and included worked stone, flint, iron objects probably nails, fragments of bronze, a piece of worked bone and a clay pipe stem.



Plate 6: View of Building 1 during excavation, facing E – scales 1 m.

Underlying this deposit, at the east end of the building, was a beaten clay floor (Figure 3c and d) that had imbedded within it small to medium size stones that sufficiently protruded above the floor level to form raised, dry platforms and a small partition wall (Plate 7). Further excavation revealed a rectangular stone structure with raised edges, interpreted as a bait box for marine molluscs (Mike Middleton pers. comm.), as similar structures are found in houses in Shetland, possibly used for the processing of fish).



Plate 7: View of clay floor in Building 1 during excavation, facing E – scales 1m.

The west end of the house contained two hearths and a recessed stone bench built in the west corner (Figure 3c and d). There were also two stone settings for a possible upright loom stance as spindle whorls were found in the vicinity, or wooden bench. The excavation of the peat-like deposits at the west end of the house revealed clean palaeo-sand beneath. Only one complete post-pad for a cruck was found on the north side of the interior of the building with a fragmentary second example.

Building 2

At the start of the excavation Building 2 was only partly visible being covered by a sand dune (Plate 8). Upon initial cleaning by the removal of wind-blown sand it was identified as likely to be a typical blackhouse with internal and external stone walls, and with a central stone partition (Plate 9). The excavation of the building revealed that it had had three phases of use. These are described from the latest to the earliest.

Phase 3 was the latest phase of use of the building. It included the reuse of stone robbed from the building to construct a rubble boundary wall running through the house from the south-east to the north-west (Figure 2). It continued the



Plate 8: View of site during excavation, facing NE.

alignment of the nearby fence-line and probably dates to the late eighteenth or early nineteenth century, although the boundary is not marked on the 1st edition Ordnance Survey Map of 1877. This boundary was important as it was not only adhered to but it can be traced in the sand dunes further to the NW. A later wire fence line was built parallel to it.



Plate 9: View of Building 2 during excavation, facing N.

Phase 2 included the use of the building prior to Phase 3 and probably at the same time as a bothy with a lambing pen. The circular lambing pen was built of rubble and had a diameter of 1.2 m. It was constructed in the byre end of the former house. The walls of the building varied in height, as part of the internal wall of the byre had been removed to allow access to the pen. During

this time the internal division between the byre and the living area was taken down and rebuilt, probably to provide more shelter for the pen. The original access between the two parts of the building was filled in during the rebuilding.

The bothy was formed from the former living area of the house and the remains of a hearth (Plate 10) were noted just inside the doorway, but to the east. As well as the changes to the internal dividing wall the floor level within the bothy was also lowered.



Plate 10: View of hearth in Building 2 – scales 1m.

Phase 1 was the initial construction and use of the building, but due to its subsequent reuse not many features of the original house remained (Figure 2). The house was partially lost due to

modern erosion at its east end. The loss of its external wall was probably due to the nearby water channel and increased high tidal action, which caused the wall to be collapse after it was undermined by water action. It is also possible that this part of the building was exposed in the dunes and was quarried for its stone possibly during Phase 3.

Much of the ground surface of the byre end was heavily pitted by animal burrowing and by the pit dug for the construction of the lambing pen in Phase 2. There was no surviving evidence for the remains of the internal drain through the centre of the byre, which was used to carry out waste products from stalled animals. Evidence for the drain survived only partially between the internal and external wall.

As with the byre, there was little evidence of original features surviving in the former living area due to the lowering of floor level in Phase 2. No hearth or internal features remained. The only feature to survive was part of the access between the house and the byre in the form of a 'cow-step' to prevent animals from entering the living area from the byre. The partial excavation of the ground level in the living area revealed only the underlying natural sand with no evidence of any postholes or slots to indicate wooden fittings.

Dating evidence was not recovered from either the byre or the living area for this phase of use. A 1 m wide section dug through the internal and external walls at the west end of the living area revealed only an infilling of sand and shell (Plate 11). No artefacts or charcoal were recovered to enable a date of its construction to be made.



Plate 11: Detail of deposit in wall of Building 2.

Enclosure and paved area

The enclosure wall was of two parts: the longest portion was partly curved, extending from the east end of Building 2 towards Building 1 with a straight stretch of walling running from the west end of Building 2 to the east side of Building 1 (Figure 2). The curved enclosure is constructed of rubble with the use of a few large recumbent (fallen or laid) stones. The area of this part of the enclosure was not investigated fully as further excavation would likely have caused more erosion.

Within this area of the enclosure was a small clearance cairn that is likely to have been associated with phase 3 of Building 2.

Of the straight stretch of enclosure wall between Building 1 and Building 2, erosion and excavation revealed that there was no physical stratigraphic relationship between the buildings, and that this stretch of walling was a separate feature that was not connected with the circular enclosure wall (Plate 12). One reason for this may have been the removal of stone for use elsewhere, or that the natural bank beneath the wall was utilised for the wall foundation. The recumbent stones could also be interpreted as part of an earlier structure.



Plate 12: View of enclosing wall during excavation facing towards Building 1 – scales 1 m.

The only entrance visible into the enclosure was in the straight stretch of wall running between the buildings on the west side. It comprised a number of large, flat and slightly raised stones. Stone settings in this wall indicate the position of wooden posts that would probably have had turf divots banked between them to keep stock in or out.

The paved area within the enclosure comprised flat round stones⁷ with the enclosed and

underlying deposits heavily eroded to the edges of the feature (Plates 13, 14 and 15). Large quantities of charcoal and some hammer-scale were found within and underlying the remains of the paved area. The pattern they formed resembled part of a smithy with scorched patches of the underlying palaeo-sand. Also underlying part of the paved area was an earlier stretch of paving within a deposit of burnt yellow sand. The underlying natural sand was also scorched in places.



Plate 13: View of paved area prior to excavation, facing N.



Plate 14: Detail of paved area prior to excavation – scales 1 m.



Plate 15: Detail of paved area upon excavation – scales 1 m.

⁷ M MacLean pers. comm. noted in c. 1992 that a larger area of stone had existed but was removed for paving for a garden.

Adjacent to the paved area was a small hearth, slightly oval in plan, with a diameter of c. 1.2 m. It comprised rounded medium to large stones set on edge with fill with a high charcoal content. Some of the stones were also fire-cracked (Plate 16 and 17). Although no metalwork or metalworking slag was found within the hearth or the adjacent paved area, analysis of the metal slag found in the area of the excavation suggests this feature had probably been a smithy. Close to Building 1 was a deposit of soil and scorched sand c. 1.6 m in diameter, which contained hammer-scale, charcoal and mixed coloured scorched sand⁸.



Plate 16: View of hearth before excavation – scales 1 m.



Plate 17: View of excavated hearth in enclosure area – scales 1 m.

The above evidence indicates the paved area was used as a smithy. It has also been suggested by Long (forthcoming) that the number of copper coins and amount of bronze-work found in the area was intended to be reused, although no direct evidence of moulds, etc., for this has yet been found. ‘Bog iron’ from nearby Loch Raa was available for smelting as iron, and could have produced hammer-scale if worked on the hearth in the smithy.

⁸ It should be noted that possibly the only reason that this deposit had survived erosion was that it formed part of a sheep track

The surrounding environment

A study was made of two areas beyond the main area of excavation (Area 1). These were Areas 2 and 3.

Area 2 (Figure 1) was the partial examination of the fragmentary remains of a hearth (context 4) that was eroding from a small sand dune. Initial investigation revealed only two stones remained embedded within a dark ash-like deposit, and no further work was undertaken due to the limited information that could be obtained. The relationship of this hearth to the excavation in Area 1 is unknown due to it being located at a higher level than the surrounding sand.

Area 3 (Figure 1) was the excavation of a small trial trench to explore the possibility that three coins found in this area in the first few days of work were from a hoard eroding from a land surface at this location. Excavation of a 2 m by 5 m area revealed only natural sand. The reason for the number of coins in this area is still not resolved, although they could have eroded from a land surface to the west, or had fallen into the sand as land surfaces have been eroded away.

A 1 m grid square system was placed over the sand dunes to the west of a line running between Areas 2 to 3 to record surface collections of finds. This work was carried out with the help of pupils from Achiltibuie Primary School. From each grid square all surface finds of shells, pottery, slag and bone were collected. The amount of slag was especially high towards Building 1⁹. The results of the surface collection can be found in the finds reports (below).

The dune area is a raised beach with the debris of shells present over its surface. There are however, small collections of limpets or whelks, presumably from the processing of shellfish for fishing, but none of them was in a stratified deposit to enable dating or detailed analysis to be carried out.

⁹ It had been noted that another hearth was found here in the past, as an iron knife and a bronze brooch were found there. Mrs M Maclean, pers. comm.

The Results of the Environmental Analyses

Comment on the samples

By Stuart Farrell

Results from all the environmental samples taken during the excavation were relatively poor (see below). Finds were made of grains of oats and barley, and animal dung used for fuel, both of which are to be expected from structures related to a Highland pastoral economy, and the fish bone retrieved reflected the proximity of the site to the sea.

The environmental samples

By Mhairi Hastie

Thirteen samples were subjected to a system of flotation in a Siraf style flotation tank. The floating debris (flot) (Table 1) was collected using a 250µm sieve and, once dry, scanned using a binocular microscope. Any material remaining in the flotation tank (retent) (Table 2) was wet-sieved through a 1 mm mesh and air-dried. This was then sorted by eye and any material of archaeological significance removed.

The concentration of archaeological remains recovered from the samples was very low. Carbonised material was the most frequently recovered material, but in the majority of cases this only amounted to small quantities of wood charcoal (unidentified to species) and the occasional charred cereal grain/weed seed. The primary value of these will be as a source of dating evidence. A small number of carbonised animal droppings were also recovered from the hearth from Building 1.

Each sample contained at least some fish and animal bone but this was present only in extremely small quantities and consisted mainly of small burnt fragments. Occasional fragments of marine shell were also recovered from a number of the samples. One iron nail was recovered from Context 14 (Sample 5) and Context 26 (Sample 13) contained a small quantity of industrial waste.

Discussion

With the exception of a small quantity of domestic and industrial waste the most commonly identified element was charred cereal grain with occasional weed seeds. The identified weed taxa were common to agricultural fields and

| Context Description | Context No | Sample No | Flot Vol (ml) | Cereal grains | Weed seeds | Charcoal | | Animal droppings | Comments |
|----------------------------------|------------|-----------|---------------|---------------|------------|----------|-----|------------------|---------------------------------------|
| | | | | | | Qty | AMS | | |
| Floor layer of building 2 | 9 | 1 | No flot | | | | | | |
| Deposit over walling | 11 | 2 | No flot | | | | | | |
| Hearth in paved area | 12 | 3 | <10 | + | | + | * | | Barley indet x 3 Hulled barley x 1 |
| Paved area | 13 | 4 | 10 | + | | + | | | Barley + Oat + |
| Hearth in building 1 | 14 | 5 | 20 | + | + | | | + | Barley + Oat + |
| Floor of building 1 | 15 | 6 | <10 | | | | | | No finds |
| Deposit in paved area | 16 | 7 | 20 | ++ | + | | | | Barley + Oat + A. strigosa x 1 |
| Burnt sand in paved area | 18 | 8 | No flot | | | | | | |
| Burnt sand in paved area | 22 | 9 | 10 | ++ | | | | | Barley + Oat + |
| Burnt sand in paved area | 23 | 10 | 20 | + | ++ | ++ | * | | Barley + Oat + |
| Ash layer to north of paved area | 24 | 11 | <10 | + | + | | | | Cereal indet x 1 |
| Fireplace 1 in building 2 | 25 | 12 | <10 | | | | | | No finds |
| Fireplace 2 in building 2 | 26 | 13 | 20 | + | | | | | Avena indet x 1 |

Key: + = rare, ++ = occasional, +++ = common and ++++ = abundant

* = sufficient quantity of charcoal for an AMS date

Table 1: Composition of flots

waste ground and it would seem likely that they originally became charred along with the cereal remains. The low concentration of remains, however, makes any detailed discussion of field ecology impossible.

Cereal grains rarely comprised more than ten identifiable grains per sample. Hulled barley (*Hordeum vulgare*) and oat (*Avena sp.*) were present. One oat floret was also present in Context 16 (Sample 7) and this was identified as *Avena strigosa* (small/bristle/black oat). Both hulled barley and black oat were primary cultivars in the Scottish Highlands throughout the medieval and post-medieval period and would have been expected on sandy soils of the West Coast.

In the absence of any obvious conflagration deposits the likely source of the charred material is from the domestic hearth from which burnt debris, charred during food preparation or small-scale crop processing has been re-worked and redeposited into many unassociated contexts. The concentration of material in most contexts, which are unlikely to be primary such as floor and paved deposits, is probably a reflection of their having been protected from the likes of trampling or dispersal across the site. One sample, however, the fill of a hearth, (Context 14) would appear to be primary and its composition is probably characteristic of the sorts of assemblage from which most of the background concentration of charred remains derive.

| Context Description | Context No | Sample No | Iron objects | Industrial waste | Mortar | Animal bone | Fish bone | Marine shell | Charcoal | Comments |
|----------------------------------|------------|-----------|--------------|------------------|--------|-------------|-----------|--------------|----------|--|
| Floor layer of building 2 | 9 | 1 | | | | | + | | | |
| Deposit over walling | 11 | 2 | | | | | | | | No finds |
| Hearth in paved area | 12 | 3 | | | | | | | + | |
| Paved area | 13 | 4 | | | | | + | | + | |
| Hearth in building 1 | 14 | 5 | + | | | + | | | | Occasional peat fragments |
| Floor of building 1 | 15 | 6 | | | | | | + | | |
| Deposit in paved area | 16 | 7 | | | + | | + | + | + | Peat fragments throughout sample |
| Burnt sand in paved area | 18 | 8 | | | | + | | | | Tiny fragments of burnt bone |
| Burnt sand in paved area | 22 | 9 | | | | | + | | | Tiny fragments of burnt fishbone Peat fragments throughout sample |
| Burnt sand in paved area | 23 | 10 | | | | | ++ | | + | Tiny fragments of burnt fishbone Peat fragments throughout sample |
| Ash layer to north of paved area | 24 | 11 | | | | | + | | | Peat fragments throughout sample |
| Fireplace 1 in building 2 | 25 | 12 | | | | | + | | | |
| Fireplace 2 in building 2 | 26 | 13 | | + | | | + | | | Ash and peat fragments throughout sample |

Key: = = rare, ++ = occasional, +++ = common and ++++ = abundant

Table 2: Composition of retents

The recovery of charred cereal grain relating to hearth deposits is extremely common and is most likely associated with small-scale cereal processing. The drying of grain is almost essential in northern altitudes, primarily to harden the grain prior to milling. Under conditions of subsistence farming, processing of the crop is likely to have been carried out piecemeal throughout the year with grain being dried when necessary (Holden 1998). A number of methods were used, for example, small pot drying or the parching of grains on flat-stones before the cooking hearth (Fenton 1978). Spillage from these activities would thus result in the accumulation of grains within the hearth area.

A hearth fill (Context 14) from Building 1 is notable for the presence of seven carbonised animal droppings. The droppings are, however, very fragmentary and identification is therefore difficult. One dropping (approx. 10 mm in length and 6 mm wide) was roughly ovoid in shape and tapered at one end. The size and shape of the example from Context 14 was, compatible with droppings of goat or sheep (*Capra/Ovis sp.*). There are few parallels but similar droppings were recovered from a multi-phase site at Bayanne, Yell (Hastie and Holden 2000) and others identified as goat were recovered from a medieval layer of peat ash at Kebister, Shetland (Dickson 1999). The presence of carbonised animal droppings within the hearth may reflect the use of animal dung as fuel, however, the very low concentration of badly preserved remains makes any detailed discussion impossible.

Bone recovery from the site was very poor and only a small quantity of fragmentary mammal and fishbone were recovered from the samples. The absence of bone preserved on this site maybe of note. If the dunes at this point comprise of calcareous shell sand then bone preservation would be expected to be good. The apparent lack of bone may, therefore, be significant being a real trend rather than a factor of preservation.

Of some note is the recovery of a small quantity of wood charcoal from a number of samples. Most samples contained fragments of peat, which appears to have been the main source of fuel for the site. Nevertheless, the recovery of charcoal fragments suggests that wood/timber, either in the form of driftwood or peat oak, may have also been used as an additional source of fuel.

Faunal remains

By Catherine Smith

Mammal and bird bones

Animal bones from the rescue excavation at Achnahaird Sands were recovered from stratified contexts, as well as from the hand-collection of surface finds. The latter were methodically collected from a series of grid squares. The numbers of animals bones recovered are summarised in Table 3 and by context or grid square in Table 4.

| Species | Stratified Contexts | | Surface Finds | |
|-----------------------------------|---------------------|-------|-----------------|-------|
| | Number of bones | % | Number of bones | % |
| Cattle | 61 | 11.8* | 38 | 23.43 |
| Cattle/Large Ungulate | 2 | * | | |
| Cattle/Sheep | 1 | * | | |
| Sheep/goat | 65 | 11.9 | 64 | 39.5 |
| Pig | 4 | 0.74 | 1 | 0.61 |
| Horse | 1 | 0.18 | 1 | 0.61 |
| Red deer | 13 | 2.39 | 3 | 1.85 |
| Roe deer | 1 | 0.18 | | |
| Dog | 1 | 0.18 | 3 | 1.85 |
| Canid cf Fox | 23 | 4.23 | | |
| Cat | 2 | 0.37 | | |
| Rabbit | 7 | 1.28 | 13 | 8.02 |
| Large Ungulate | 17 | 3.13 | | |
| Small Ungulate | 21 | 3.86 | 2 | 1.23 |
| Indeterminate Mammal | 321 | 59 | 36 | 22.22 |
| Guillemot | 1 | 0.18 | | |
| Domestic Fowl | 1 | 0.18 | | |
| Indeterminate Bird | 2 | 0.37 | 1 | 0.61 |
| Total | 544 | 99.97 | 162 | 99.95 |
| *Percentages combined with Cattle | | | | |

Table 3: Total numbers of animal bones recovered from stratified contexts and as surface finds, by species

A substantial proportion of the mammalian remains, particularly from the surface finds collection, consisted of loose fragmentary teeth. Much of the bone showed evidence of burning or calcination. It is most likely that high temperatures perhaps associated with metalworking, for which there was plentiful evidence on the site, was responsible for shattering the teeth. In the case of the surface-collected material, the bones and teeth were, not surprisingly, bleached white, although a few retained the yellow-brown staining typical of the stratified deposits.

| Species | Stratified Contexts | | Surface Finds | |
|------------------------------|---------------------|-------|----------------|-------|
| | Weight (grams) | % | Weight (grams) | % |
| <i>Littorina littorea</i> | 1395 | 53.04 | 3295 | 58.58 |
| <i>L. obtusata</i> | 115 | 4.37 | 150 | 2.67 |
| <i>Buccinum undatum</i> | 45 | 1.71 | 0 | 0 |
| <i>Nucella lapillus</i> | 20 | 0.76 | 5 | 0.09 |
| <i>Gibbula</i> sp | 0 | 0 | 10 | 0.18 |
| Gastropod | 90 | 3.42 | 5 | 0.09 |
| <i>Patella</i> sp | 690 | 26.24 | 1745 | 31.02 |
| <i>Cerastoderma cf edule</i> | 120 | 4.56 | 305 | 5.42 |
| <i>Ostrea edulis</i> | 30 | 1.14 | 45 | 0.8 |
| <i>Ensis/Solen</i> sp | 25 | 0.95 | 10 | 0.18 |
| <i>Pecten</i> sp | 20 | 0.76 | 5 | 0.08 |
| <i>Mytilus edulis</i> | 0 | 0 | 5 | 0.08 |
| <i>Cepea</i> sp | 0 | 0 | 5 | 0.08 |
| Unidentified fragments | 80 | 3.04 | 40 | 0.71 |
| Total weight | 2630 | 99.99 | 5625 | 99.98 |

Table 4: Comparisons of mollusc species in stratified contexts with surface finds

Mammalian species found in the stratified deposits were cattle, sheep/goat, pig, horse, red deer (*Cervus elaphus*), roe deer (*Capreolus capreolus*), dog, canid (probably fox, *Vulpes vulpes*), cat and rabbit (*Oryctolagus cuniculus*). Birds were represented by one bone from the domestic fowl (*Gallus gallus*) and one from the guillemot (*Uria aalge*). Cattle, sheep/goat, pig, horse, red deer, dog and rabbit bones were also recovered from the surface finds. In both cases, the rabbit bones may have come from modern animals, which burrowed in to the site; rabbit droppings, presumably recent, were accidentally collected along with the other faunal remains. As well as the osteological evidence that dogs were present, in the form of canid bones and teeth, originating from dogs and one individual thought to be a fox (Context 06), carnivores gnawed many of the bones of the meat-bearing species.

From the cattle bones there was evidence that, as well as mature adults, very young calves had died or been killed. One horn core, from a short-horned beast, was recovered from Context 03.

Butchery marks were noted on some of the bones, particularly of cattle, sheep/goat and deer. Marks made by sharp knives were noted, for example around the distal articulations of sheep/goat humeri and on a red deer first phalanx. The marks on the deer toe bone may

have been associated with removal of the hoof, or with skinning (Context 03).

Mollusc shells

Mollusc shells were recovered both from stratified excavated contexts as surface finds methodically collected from a series of grid squares. The shells were weighed, rather than counted, and these weights (to the nearest 5g), are shown in Table 4. The stratified mollusc assemblage was dominated by shells of marine gastropods, particularly the edible wulk or periwinkle (*Littorina littorea*) and its smaller relative, the flat periwinkle (*L. obtusata*). Other major components were limpet (*Patella* sp) and cockle (*Cerastoderma cf edule*). Found in much smaller quantities in the stratified contexts were buckie (*Buccinum undatum*), dog wulk (*Nucella lapillus*), scallop (*Pecten* sp), oyster (*Ostrea edulis*) and razor shell (*Ensis/Solen* sp). The same suite of species was also recovered from the surface finds, with the addition of small quantities of mussel (*Mytilus edulis*), top shell (*Gibbula* sp) and one shell from a terrestrial species, the garden snail (*Cepea* sp).

It is apparent from Table 4 that the relative proportions of the mollusc species recovered from the stratified contexts are very similar to that found on the surface. For example, the percentage of stratified whelk shells by weight is 53%, compared with 58% of the surface-collected material. The same trend can be observed in the other species, particularly limpets and cockles. It is therefore possible that both the stratified material and the surface material may indeed be the remains of shell midden heaps, as observed by Long in 1996.

Discussion

The mammalian material represents animals that were probably eaten on or near to the site. The presence of deer bones in such a small assemblage is interesting. At Achnahaird, the relative percentage of stratified deer bones, consisting of 9.5% of the food-forming species, may be compared with 43.2% for cattle, 43.9% for sheep/goat, 2.7% for pig and 0.7% for horse. This relatively high percentage of deer bones may support a relatively early date for the stratified material, since in the medieval and post-medieval periods in Scotland it is more usual to find that the meat supply was obtained from domestic cattle, sheep and pigs.

The marine molluscs could have been eaten as food but were probably more important as a source of fishing bait. The large shell midden heaps seen at the site in the 1990s may represent a specific area where fishing lines were baited and the empty shells discarded.

Fish remains

By Ruby Cerón-Carrasco

The fish remains from Achnahaird were hand-collected during rescue excavations. All the remains derive from stratified contexts. Where possible, all the remains were identified to species level or to family group. Identification of the fish remains was done by reference to a modern fish bone collection and to standard guides (Watt et al 1997). Nomenclature follows Wheeler and Jones (1989, 122-123).

All fish skeletal elements were examined for signs of butchery and burning. The sizes of Gadidae, i.e. cod-family species, have been given as an approximate size range. This was done by matching the archaeological material to modern fish skeletons of known size based on 'total body length'. Therefore, the elements were categorized as 'small' (15-30 cm), 'medium' (30-60 cm) and 'large' (60-120 cm).

The recording of preservation state of the fish bone was based on two characters: texture on a scale of 1 to 5 (fresh to extremely crumbly) and erosion also on a scale of 1 to 5 (none to extreme). The sum of both was used as an indication of bone condition; fresh bone would score 2 while extremely poorly preserved bone would score 10 (after Nicholson 1991).

Results

The results are given in the catalogue presented as Table 5. The summary of species present and NISP (Number of Identified Species) by context is given in Table 6. Most of the material was quite eroded and very fragile. The level of preservation of the fish bone was consistent, in terms of fragment size and condition. Bones were most frequently 20-70 % complete. Their condition score was generally in the range of 6-8 indicating poor to extremely poorly preserved bone. A total of four taxa were identified consisting of two identified to species and two to family level.

Taxonomical Analysis

Cod (*Gadus morhua*) was the main species identified in the assemblage, with haddock (*Melanogrammus aeglefinnus*) and other unidentified Gadidae elements also present. Elements from right-eyed flatfishes (Pleuronectidae group) were also present.

The Gadidae is the family of marine cod-fishes, not more than thirty species are found in European waters. In Scotland this group includes some of the well-known species including cod (*Gadus morhua*), haddock (*Melanogrammus aeglefinnus*), ling (*Molva molva*), hake (*Merluccius merluccius*), saithe (*Pollachius virens*) and pollack (*Pollachius pollachius*).

Cod (*Gadus morhua*) and haddock (*Melanogrammus aeglefinnus*) were the species identified in the Achnahaird fish bone assemblage. Cod has been one of the most important food-fish in the British fauna; its value as a prime food is enormous and has been preserved for later consumption as far back as the Norse period (Cerón-Carrasco 1994 and 1998, Barrett 1997); when salted or dried cod keeps for winter consumption or trade. This is a demersal fish, a bottom feeder, its growth rate varies with different populations; mature cod can reach up to 150-cm in length and live up to 11 years. This species is widely distributed in a variety of habitats from the shoreline to well down the continental shelf. The younger fish, however, usually live close inshore (Wheeler 1978). The cod remains recovered at Achnahaird Sands were from specimens of 30-60 cm and over 100 cm in length. These may have been taken from the shore, particularly the 'medium' size specimens, and the larger, mature specimens from boats using hooks and lines.

Haddock is a fish of the North Atlantic, a very important commercial species and is eaten fresh, air-dried or smoked. Unlike cod, it does not take salt as well and for this reason it is mainly cured by drying and by smoking (Lockhart 1997). This species inhabits deep waters but large shoals are occasionally found in mid-water. It can attain lengths of up to 80-cm (Wheeler 1978). The elements recovered at Achnahaird Sands were from specimens measuring 15-30 cm up to 60-cm in length and these, like large cod, may also have been taken from boats using hook and lines.

| Context | Element | No | Species | Size | Texture | Erosion | Condition | Comments & % completeness of skeletal elements |
|---------|--------------------|----|----------------|----------|---------|---------|-----------|--|
| 1 | otolith | 1 | Haddock | M | 3 | 4 | 7 | 70% |
| | otolith | 1 | Haddock | S | 3 | 4 | 7 | 50% |
| | branchiostegal | 1 | Gadidae | S | 3 | 3 | 6 | 60% |
| 2 | cadual vertebra | 2 | Cod | L | 4 | 4 | 8 | 70% |
| | otolith | 1 | Cod | M | 3 | 4 | 7 | 50% |
| | pterygoid | 1 | Gadidae | L | 4 | 4 | 8 | 70% |
| | epibranchial | 1 | Gadidae | M | 3 | 4 | 7 | 70% |
| 3 | caudal vertebra | 1 | Cod | L | 4 | 4 | 8 | 50% |
| | precaudal vertebra | 1 | Cod | L | 4 | 4 | 8 | cut-marks / 50% |
| 4/5 | otolith | 1 | Cod | L | 4 | 4 | 8 | 40% |
| | otolith | 1 | Cod | M | 4 | 4 | 8 | 70% |
| | otolith | 1 | Cod | M | 4 | 4 | 8 | 50% |
| 6 | branchiostegal | 1 | Gadidae | L | 3 | 4 | 7 | cut-marks / 40% |
| 7 | opercular | 1 | Gadidae | M | 3 | 4 | 7 | proximal / 30% |
| 9 | frontal | 1 | Gadidae | M | 4 | 4 | 8 | 60% |
| | subopercular | 1 | Gadidae | M | 4 | 4 | 8 | 60% |
| | branchiostegal | 1 | Gadidae | S | 3 | 4 | 7 | 70% |
| | premaxilla/right | 1 | Pleuronectidae | Juvenile | 4 | 4 | 8 | proximal / 70% |
| | urohyal | 1 | Pleuronectidae | Juvenile | 4 | 4 | 8 | proximal / 60% |
| 13 | basioccipital | 1 | Gadidae? | M? | 4 | 4 | 8 | 30% |
| 19 | opercular | 1 | Gadidae | M? | 4 | 4 | 8 | medial / 40% |

Key: Gadidae Species S = Small 15-30 cm M = Medium 30-60 cm L = Large 60-100 cm

Table 5: Catalogue of fish remains

Quantification by NSIP (Number of Identified Specimens) per fragment count

| Contexts | Species | | | |
|----------|---------|---------|---------|----------------|
| | Cod | Haddock | Gadidae | Pleuronectidae |
| 1 | | 2 | 1 | |
| 2 | 3 | | 2 | |
| 3 | 2 | | | |
| 4/5 | 3 | | | |
| 6 | | | 1 | |
| 7 | | | 1 | |
| 9 | | | 4 | 2 |
| 13 | | | 1 | |
| 19 | | | 1 | |

Table 6: Fish species representation by context

The right-eyed flatfishes, family Pleuronectidae, are species widely distributed in the cold temperate waters of the Atlantic. Most are shallow-water, bottom-living fishes. Eight species

are known from northern European seas, all are found in Scotland, these species include plaice (*Pleuronectidae platessa*), flounder (*Platichthys flesus*), dab (*Limanda limanda*), lemon sole (*Microstomus kitt*), witch (*Glyptocephalus cynoglossus*), long-rough dab (*Hippoglossoides platessoides*), halibut (*Hippoglossus hippoglossus*) and Greenland halibut (*Reinhardtius hippoglossoides*).

The elements of Pleuronectidae recovered at Achnahaird Sands were not identified to species; these however belonged to immature specimens of less than 30-cm in length.

Discussion

This western seaboard area of Scotland where Achnahaird Sands is situated, is influenced by the

warm waters of the North Atlantic Drift, abounds with many species of fish particularly around the Summer Isles and Loch Broom (Robinson 1970). These species include most of the Gadidae found in Northern Europe, including cod and haddock that were identified among the Achnahaird Sands fish remains.

A few of the fish skeletal elements recovered displayed distinctive cut-marks; these included a vertebra and a branchiostegal; which may have incurred during gutting and splitting of the fish. These suggest the domestic nature of the remains and support the notion that the fish bones from Achnahaird are those of fish caught by humans.

The Results of the Artefactual Analyses

Comment on the finds

By Stuart Farrell

Most of the finds were retrieved from the eroded land surfaces surrounding the excavation area, and were therefore unstratified. In contrast, finds from the excavated contexts were few. A result of this, and the large amount of 'Victorian' rubbish over the site was that only a selection of the finds were analysed.

Pottery

By Derek W Hall

Pottery from the excavation

The excavations at Achnahaird in 2000 located 307 sherds of pottery, 266 of these sherds were picked from the gridded areas of the site while the other 41 are from the stratified occupation layers and structures (Table 7). The pottery was identified to fabric and type.

Tin Glazed Earthenware: The sherds of this fabric from Achnahaird are all from saucers, (Cat.1, Figure 4) plates and teacups and would appear to be of nineteenth century date at the earliest. The largest group of this material comes from the gridded parts of the site and may not be linked to the excavated buildings.

Earthenware: There are three sherds of earthenware from the gridded parts of the site. All of them come from bowls glazed yellow on a white slip, and they are all of nineteenth century date.

Bone China: All the bone china comes from the gridded parts of the site. Teacups, saucers and jugs are the most common vessel types. All this fabric would appear to be from the nineteenth century.

| Context | Achnahaird | | | | | | Totals |
|--------------|-------------------------|------------|------------|--------------|----------|---------------|--------|
| | Tin glazed earthen ware | Bone China | Stone ware | Earthen ware | Fabric 1 | Un-identified | |
| unstratified | 0 | 0 | 0 | 0 | 3 | 0 | 7 |
| North 2 | 7 | 0 | 0 | 0 | 0 | 0 | 7 |
| North 3 | 1 | 0 | 0 | 0 | 1 | 0 | 2 |
| North 4 | 1 | 0 | 0 | 0 | 1 | 0 | 2 |
| South 1 | 2 | 0 | 0 | 0 | 0 | 0 | 2 |
| South 3 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| 1 | 12 | 0 | 0 | 0 | 1 | 1 | 14 |
| 2 | 2 | 0 | 1 | 0 | 2 | 0 | 5 |
| 4 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| 6 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| 10 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| 20 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| 24 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| 55/215 | 15 | 13 | 1 | 1 | 0 | 0 | 30 |
| 65/215 | 2 | 3 | 7 | 0 | 1 | 0 | 13 |
| 75/215 | 39 | 2 | 8 | 0 | 0 | 0 | 49 |
| 85/215 | 5 | 1 | 3 | 0 | 1 | 0 | 10 |
| 75/225 | 115 | 22 | 7 | 1 | 6 | 2 | 153 |
| 85/225 | 5 | 2 | 3 | 1 | 0 | 0 | 11 |
| Totals | 208 | 43 | 31 | 3 | 19 | 3 | 307 |

Table 7: Pottery by context

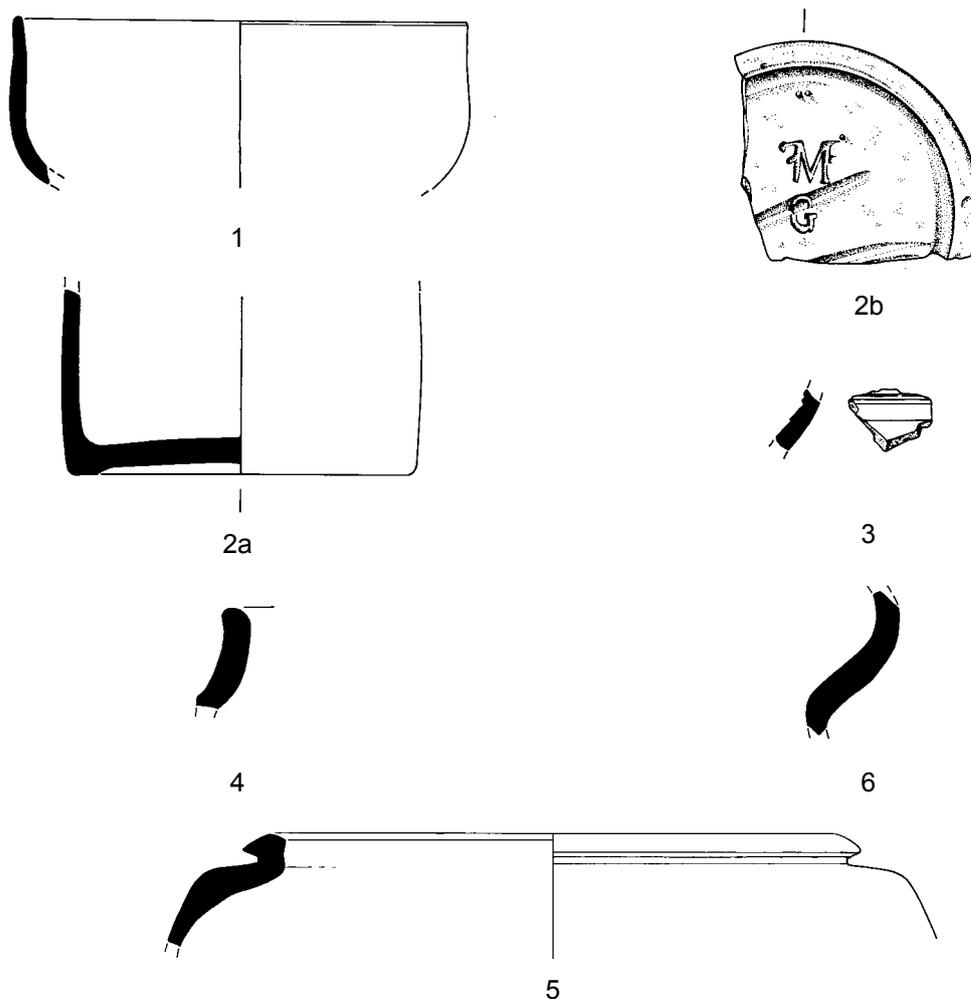


Figure 4: Tin Glazed Earthenware: 1. Rim and sidewall from teacup; glazed white internally and externally; context 1, Salt Glazed Stoneware: 2. Base sherd and sidewalls from jar; glazed light grey brown internally and externally, stamped with letters 'M' and 'G' on base; grid square 65/215. Westerwald copy: 3. Body sherd from vessel with cobalt blue decoration; context 20, Organic tempered ware: 4. Everted rim sherd from cooking vessel: context 1, 5. Collared rim sherd from cooking vessel: context 2, 6. Shoulder from cooking vessel: context 6.

Stoneware: 29 sherds of stoneware from the gridded parts of the site all come from jars. There are two tiny sherds from a vessel decorated with a cobalt blue glaze (Cat 3, Figure 4). This decorative technique is a very distinctive trademark of the eighteenth century stonewares of the Westerwald area, but on this occasion both these sherds would appear to be from a later, possibly English, nineteenth century copy of this pottery type (Gaimster 1997, 251 and 323-4).

Organic tempered fabrics: There are 19 sherds from vessels in an unglazed wheel-made fabric, which are all from cooking vessels. The best example of this form is indicated by the very sharply turned collared rim from context 2 (Cat 5, Figure 4) and the shoulder from context 6 (Cat 6, Figure 4). The external striations on the top of this rim would seem to indicate that some type of metal tool has been used in the manufacture

of this vessel (pers. com. George Haggarty). All this fabric belongs to the West Coast and island tradition of 'craggan' or 'Barvas' ware, essentially a pottery manufacturing technique that remains unchanged from the prehistoric period through to the nineteenth century (Cheape 1993). In fact, the apparent wheel-made manufacture of two of the rim sherds (Cats 4 and 5, Figure 4) would suggest that this fabric belongs to the later nineteenth century craggan ware tradition (Cheape 1993, 109).

Additional pottery from the site in other collections

There are 632 sherds of pottery in three separate collections of surface finds from the site at Achnahaird Sands (Table 8). They are currently located at the National Museums Scotland (NMS), Inverness Museum and a private collection at

Tayport (Figure 5). They have all been examined and separated into apparently different fabric types.

Organic Tempered Fabrics: The assemblage is dominated by sherds of this hand-made pottery. Three separate fabrics have been identified but it should be stressed that these are essentially based on variations in the number of inclusions and firing colour from the kiln and as such may not be significant.

Fabric 1: Slightly organic tempered oxidised red brown exterior with grey core and brown internal surface with abundant rounded and angular quartz inclusions; there is also a reduced version in the Inverness Museum collection. This is the most common version of these organic fabrics, being represented by 403 sherds.

Fabric 2: Slightly organic tempered reduced grey with occasional quartz inclusions. There are 214 sherds in this fabric variation.

Fabric 3: Slightly organic tempered oxidised brown with occasional quartz inclusions. There are only 13 sherds of this fabric variation.

Rhenish Stoneware

There is a single sherd from a stoneware vessel with a speckled brown glaze. This sherd is from a Frechen stoneware vessel with a mottled brown 'Tiger' salt glaze and could date to the late sixteenth or seventeenth centuries (Hurst 1986, 214; Gaimster 1997, 208-211).

Discussion of the pottery

All of the pottery from the excavation appears to date to the nineteenth centuries. This is most obvious in the form and style of both the tinned earthenwares and the bone china. The organic tempered material could be of an earlier date but from the style of manufacture of the most diagnostic pieces there is no reason why this fabric is not also of nineteenth century date.

This collection of pottery from the Highlands serves to highlight the continuing problem of the lack of an accurate chronology for the manufacture of organic tempered wares. The single sherd of Rhenish Stoneware is the only accurately datable pottery find and suggests a post-medieval date for some of the identified occupation horizons.

| Pottery from National Museum collection | | | |
|--|----------|----------|-------------------|
| Square | Fabric 1 | Fabric 2 | Rhenish Stoneware |
| A/-/-2 | 0 | 2 | 0 |
| B/-/-1 | 0 | 9 | 0 |
| C/1/-/3 | 0 | 1 | 0 |
| C/-/-2 | 2 | 0 | 0 |
| C/-/-3 | 0 | 1 | 0 |
| C/-/-4 | 0 | 1 | 0 |
| C/-/-5 | 0 | 1 | 0 |
| C/-/-6 | 2 | 0 | 0 |
| C/-/-8 | 1 | 0 | 0 |
| C/-/-9 | 1 | 0 | 0 |
| C/-/-10 | 0 | 8 | 0 |
| C/-/-24 | 0 | 3 | 0 |
| D/4/-/12 | 0 | 9 | 0 |
| D/1/-/2 | 0 | 2 | 0 |
| D/-/-7 | 0 | 1 | 0 |
| D/-/-8 | 0 | 4 | 0 |
| D/-/-9 | 0 | 2 | 0 |
| D/-/-10 | 1 | 0 | 0 |
| G/-/A/1 | 3 | 0 | 0 |
| G/-/B/1 | 0 | 6 | 0 |
| G/-/-16 | 0 | 10 | 0 |
| G/-/-17 | 1 | 0 | 0 |
| G/-/-18 | 0 | 4 | 0 |
| G/-/-19 | 5 | 0 | 0 |
| G/-/-20 | 3 | 0 | 0 |
| G/-/-21 | 0 | 26 | 0 |
| G/-/-22 | 23 | 0 | 0 |
| G/-/-23 | 1 | 0 | 0 |
| G/-/-25 | 0 | 1 | 0 |
| G/-/-26 | 0 | 0 | 1 |
| | 43 | 91 | 1 |
| Pottery from Inverness Museum collection | | | |
| Location | Fabric 1 | Fabric 2 | Fabric 3 |
| Dune blow | 41 | 113 | 2 |
| Pottery from Tayport collection | | | |
| Square | Fabric 1 | Fabric 2 | Fabric 3 |
| D/4/-/1 | 2 | 0 | 0 |
| D/4/-/2 | 0 | 1 | 0 |
| D/4/-/3 | 0 | 1 | 0 |
| D/4/-/4 | 0 | 0 | 1 |
| D/4/-/7 | 0 | 7 | 0 |
| G/-/-59 | 0 | 0 | 3 |
| G/-/-60 | 1 | 0 | 0 |
| X/-/-43 | 0 | 0 | 6 |
| X/-/-49 | 2 | 0 | 0 |
| X/-/-52 | 237 | 0 | 0 |
| X/-/-109 | 72 | 0 | 0 |
| X/-/-119 | 1 | 0 | 0 |
| X/-/-120 | 1 | 0 | 0 |
| Y/-/-42 | 1 | 0 | 0 |
| X/-/-46 | 2 | 0 | 0 |
| Y/-/-118 | 0 | 1 | 0 |
| | 319 | 10 | 10 |

Table 8: Pottery from other collections

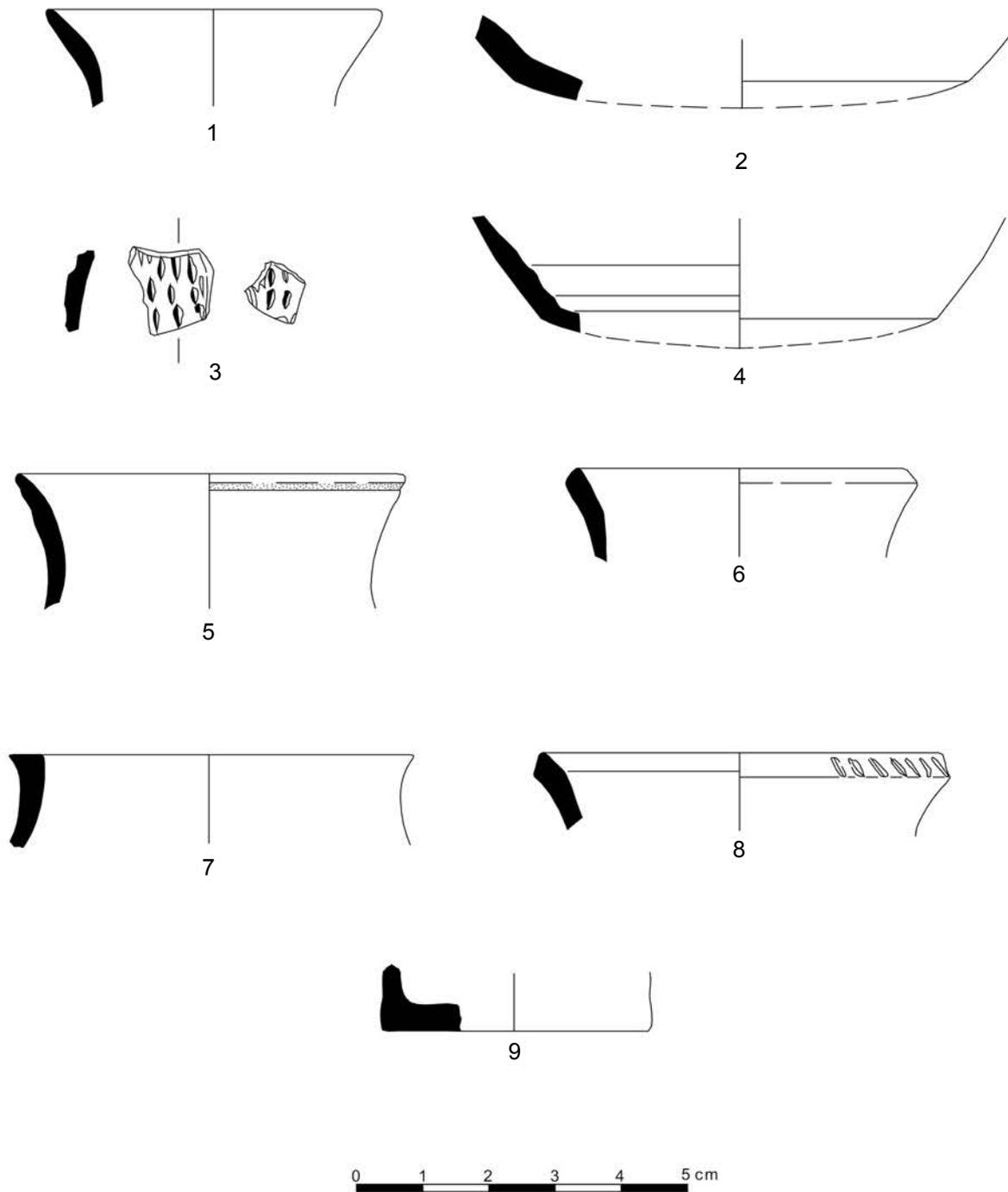


Figure 5: Organic Tempered fabrics from other collections.

NMS: 1. Rimsherd from handmade cooking vessel with slight traces of internal and external smoke blackening, Square D/-/-/7; 2. Basal angle from cooking vessel with slight traces of external smoke blackening, Square G/-/-/23.

Inverness Museum: 3. Body sherds from cooking vessel decorated with slash marks, N Site (A) old occupation horizon in dune blow-out; 4. Basal angle from cooking vessel with traces of internal and external smoke blackening, 1985.115.97.

Tayport: 5. Flared rim sherd with slight groove below rim, Square G/-/-/60; 6. Slightly flared rim sherd, Square D/4/-/4; 7. Flat topped rim sherd, Square X/-/-/49; 8. Rim sherd decorated with diagonal slashes below top of rim, Square G/-/-/59; 9. Basal angle from flat bottomed vessel, Square X/-/-/43.

Coarseware sherd Find No 33

By Beverley Ballin Smith

Among the unstratified material found in the dunes between areas 2 and 3 was a plain coarseware pottery rim, Find No 33 (Plate 18). The fabric is heavily tempered with steatite (a soft mineral), with some mica and a little quartz. Some of the steatite fragments measure c. 2 mm by 2 mm and give the piece a soapy feel. The small rounded cavities in the fabric are probably due to the loss of quartz grains but other voids are the result of the burning away of organic filler. The sherd is heavy for its size, which is indicative of a high percentage of steatite within the clay matrix. The vessel seems to have been well fired.



Plate 18: Pottery sherd Find No. 33. © D W Hall.

The vessel was handmade with coil or slabs and an examination of the sherd edges indicate the fabric has been folded smoothed where the rim has been joined to the body of the vessel. (Pottery of this type has a tendency to split at the coil joins if subject to water and root infiltration). All surfaces are mid-grey in colour, suggesting the colouring is partly a product of the depositional context and processes. A freshly broken area reveals that the original colour of the vessel was dark grey. All other surfaces and edges are abraded as a result of sand blasting and some iron staining is noted.

The sherd has a slightly everted but unevenly moulded and angled rim with an internal chamfer. Measurement of the rim suggests that the diameter of the vessel was c. 180 mm. It had an average thickness of 8 mm and weighed 31.4g. The rim has been pushed slightly out of shape in the finishing process by smoothing along its edge. The sherd is from a bowl-shaped vessel.

Although the surfaces are abraded it is possible to identify thumb indentations on the outer surface from the manufacturing process, and there is an indentation below the rim on the interior surface due to forming or smoothing. There are no indications of the finishing of the vessel's surface due to the abrasion of the sherd.

Comparisons and dating

The use of steatite for querns and other objects has been noted at Achnahaird (see Forster, below) and therefore it was a resource that could have been used for a filler in pottery manufacture during later prehistory and into the historic period. The nearest source of steatite to the site on mainland Scotland is Loch na h'Oidhche (Bray 1994, 19, Figure 1.2), although this site has not been tested as the origin of the material. Waste material from the manufacture of steatite items near to the site could have been exploited as an easily available resource for use in pottery making.

The form of rim Find No 33 is very similar to examples from the recently identified pottery assemblage from the isle of Iona, where many rims are unevenly moulded and have an internal chamfer (Ballin Smith forthcoming). Although steatite temper was not found in the Iona assemblage, the Achnahaird sherd resembles most the form of those sherds considered to be Iron Age in date, such as Vessel 20. Find No 33 is comparatively well made and is unlike the local handmade coarsewares of such sites as the Biggings, Papa Stour, Shetland (Ballin Smith 1999), that are early and later medieval in date. An Iron Age date is therefore most likely for this unusual sherd.

Clay tobacco pipes

By Dennis Gallagher

The pipe fragments from surface collection include a number of fragments that demonstrate the diverse sources of pipe supply in the west of Scotland. One is a product of Thomas Banks of Edinburgh of c. 1660-80. Pipes with the same prominent mould flaw on the side of the bowl were excavated at Pittenweem (Martin 1987, 197, No. 74 and 207). Another is a London type 25 bowl, c. 1720-80, marked on one side of the heel with a crown and W, the other side being missing (cf Atkinson and Oswald 1969, 186 and 187). There is also a wall fragment of nineteenth century date stamped with a star and SANGS..AB within an oval. No pipe-maker with a similar name has been identified and the stamp may advertise an Aberdeen business such as a tobacconist. The four pipe stems from stratified contexts may be dated, on the basis of stem bore diameter, pre-1800.

The metal artefacts

By Adrian Cox

Introduction

This report discusses an assemblage of artefacts recovered from the excavation at Achnahaird Sands, along with selected finds recovered from the surface of the site during recent years. Collections of material from the site held by the National Museums of Scotland, Inverness Museum, Will and Marion MacLean (Tayport) and Frances Ross, have been included in this study. The finds appear to lend weight to the suggestion that this site has been occupied over a long period, perhaps from the late prehistoric to post-medieval periods. Many of the finds attest to occupation during the seventeenth century, particularly during the period c. 1630s-1680s, although both earlier and later material is present in smaller quantities. The excavation, and the accompanying surface collection of material, has yielded a diversity of artefact types which provides some insights into the daily lives of the site's inhabitants.

The artefacts are discussed below within material categories. The catalogue entry for each artefact includes a reference to the assemblage or collection to which it belongs at the time of

writing. Measurements have generally been expressed to the nearest 1 mm.

Copper alloy objects

The assemblage of copper alloy artefacts encompasses a diverse range of types, including not only high quality finished items but also evidence of artefact repair or fabrication at the site. The wide range of costume accessories is discussed first, followed by small groups of finds and individual objects representative of particular activities.

Costume accessories

Two decorated, circular brooches (No's 1 and 2, Figure 6) are among the large group of surface-collected artefacts from the site. In both these brooches, the frame has been fabricated from a single, parallel-sided strip with overlapping terminals, the form of which allows the overlap to be secured by the brooch pin, which, in both cases, is of iron. In the case of the larger brooch (No 1), the overlapping terminals are further secured by a narrow copper-alloy strip, functioning as a staple. The large surface area of the face of this brooch allowed scope for the maker to apply attractive, decorative designs, and its face is highly ornamented by incised designs, dividing it into a complex, asymmetrical pattern of decorated zones.

The smaller brooch (No 2) is decorated by a series of equally-spaced, incised, radial grooves. In this example the pin is missing, but associated corrosion products around the constriction at the apex of the frame confirm that it was of iron. A medieval annular brooch from Freswick Links is also decorated by radial grooves (Batey 1995, 121-2, Fig 94B) but has a copper alloy pin and is not a close parallel.

Buckles and buckle components are also represented among the surface-collected assemblage. No 3 is a rectangular, double-looped buckle. While buckles of this general form were in use from at least the beginning of the fourteenth century, it was in the late sixteenth century that the range of forms represented became very wide, and many examples appeared with elaborate, decorative frames. No 4, in contrast, is a plain, utilitarian form and is probably of nineteenth century or possibly early twentieth century date. It would probably have

been used on a strap rather than a belt. The rear of this buckle exhibits some surface irregularities derived from the casting process. There are also traces of these on the upper surface, although here they have been worn almost smooth. The broken ends exhibit slight abrasion, possibly indicating some post-depositional disturbance of the object's burial environment.

A buckle or brooch pin (No 5, Figure 6) has a seam running along its central axis, revealing that it was fabricated from sheet rather than cast. The loop at the upper end of the pin is distorted, giving rise to the possibility that it was accidentally damaged in use and lost, rather than discarded. No 6, a brooch pin, is decorated by two sets of parallel grooves on its looped terminal. No 7 is a

larger pin, clearly fabricated by the same method as No 5. This example is incomplete but probably also incorporated a looped terminal. It is most probably from a brooch rather than a buckle.

Two bosses of entirely different form (Nos 8 and 9) were recovered from the surface of the site. No 8, although in poor condition, is a highly decorated boss with a central dome bordered by a flange. The flange is perforated by equally-spaced rivets and bears a decorative pattern of stamped annulets between them. The surviving traces of gilding suggest that the entire boss was once gilded and would have been highly ornamental. No 9 is a small, domed boss of sub-rectangular outline. It has a central, iron rivet, possibly for attachment to a belt or strap.

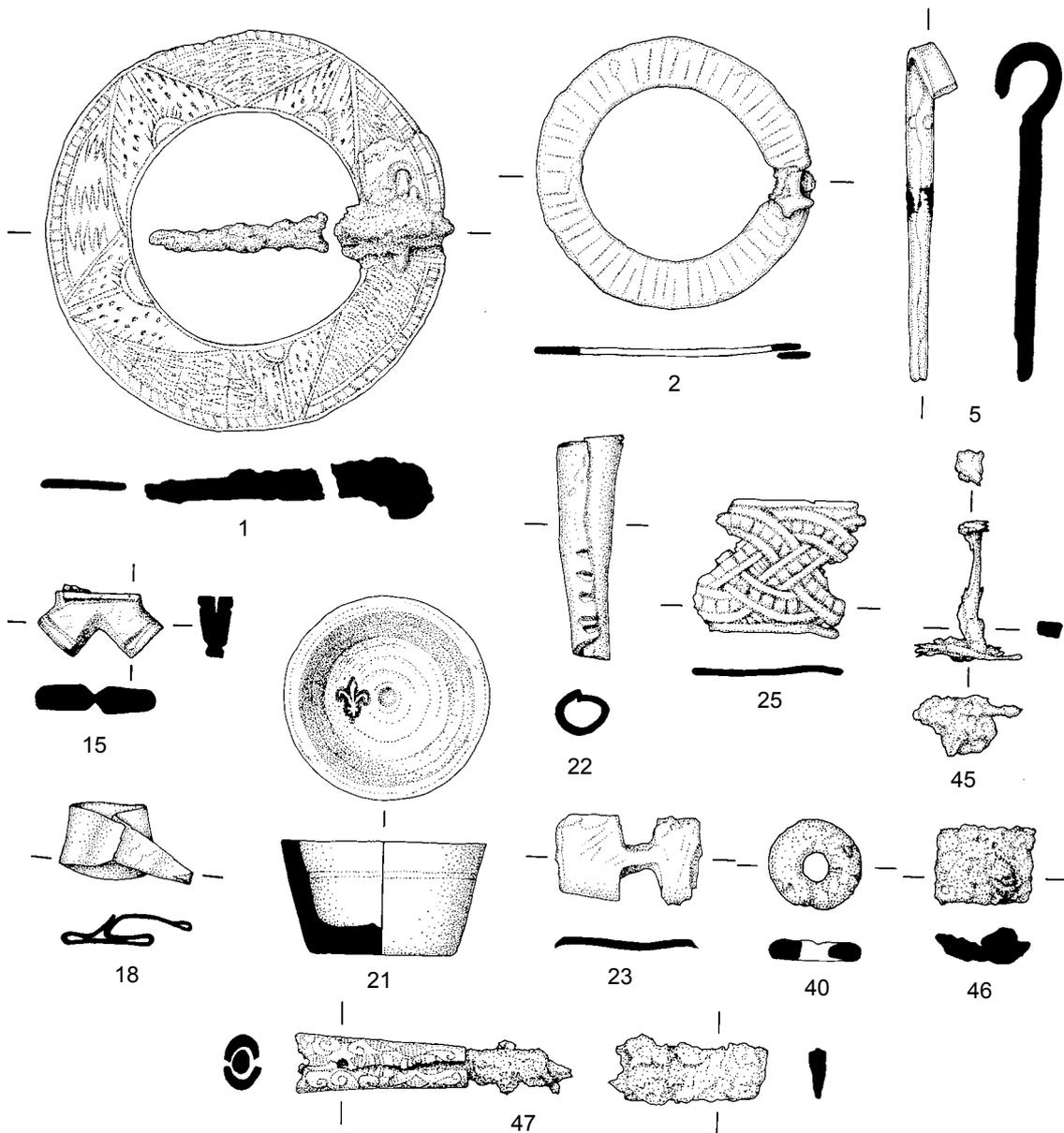


Figure 6: Copper alloy: 1 and 2, brooches, 5, buckle or brooch pin, 15, knife pommel, 18, rivet, 21, weight, 22 and 23, offcuts, 25, decorated sheet; Lead alloy: 40, weight; Iron: 45, clench bolt, 46, rove, 47, knife.

1. Brooch (Figure 6)

Circular brooch made from a parallel-edged strip, the terminals of which overlap. A constriction is formed in the area of the overlap, and this was formerly occupied by an iron pin, only remnants of which (parts of the loop and shaft) now survive. Beneath the loop of the brooch pin, the overlapping parts of the frame terminals are secured by a narrow copper alloy strip, functioning as a staple. The face of the brooch is highly ornamented by incised designs, forming an asymmetrical pattern of decorated zones. These include four roughly triangular zones enclosing semi-circular arcs and twin radial lines. The spaces both within and outside the triangles are decorated by stabbed indentations and finely-incised zig-zag patterns on different alignments. Concentric lines near the outer edge of the frame define a narrow border, divided by radial incisions into small rectangles. The rear of the brooch is undecorated.

Diameter 56 mm, width of frame 12 mm, thickness of frame 1 mm. F Ross collection, Unstratified, Find No 10.

2. Brooch (Figure 6)

Frame of a circular brooch, made from a parallel-edged strip, the terminals of which are narrowed and overlapping, forming a constriction at the point where a pin was formerly attached. The pin is missing, but traces of corrosion products around the constriction indicate that it was of iron. Opposite the constriction there is a small depression in the frame, where the tip of the pin rested. One side of the frame is decorated by equally spaced, incised lines, in a radial pattern. The opposite face is plain.

Diameter 38 mm, thickness of frame 0.6 mm. NMS, Area G, NC018133, Find No 6.

3. Buckle (Figure 7)

Double-looped buckle with a plain, rectangular frame of concavo-convex form with unequal divisions. The pin is made from circular cross-sectioned wire and loops simply around the bar.

Length 29 mm, width 25 mm, max thickness 5 mm. F Ross collection, No 18.

4. Buckle frame (Not illustrated)

Fragment of the frame of a cast, double-looped buckle of sub-rectangular form. The upper surface of the frame has a bevelled edge but the object is otherwise undecorated.

Length 30 mm, width 15 mm, thickness 3 mm. Tayport, X/-/-/14: Find No 7.

5. Buckle or brooch pin (Figure 6)

Complete buckle or brooch pin of sub-rectangular cross-section, with a simple loop at the broader end and a straight, tapering shaft with a blunt terminal. The loop is distorted.

Length 48 mm, max width 3 mm, max thickness 2 mm. NMS, X/-/-/2, Find No 24.

6. Brooch pin (Not illustrated)

Complete brooch pin with a sub-rectangular cross-sectioned shaft and a looped terminal, decorated by two parallel grooves at the shoulder and a further two nearer the apex of the loop.

Length 64 mm, max width 7 mm, max thickness 3 mm. NMS History and Applied Art, H.1992.177.

7. Possible brooch pin (Not illustrated)

Pin made from tightly rolled sheet, with a roughly oval cross-sectioned shaft, becoming circular in cross-section and tapering towards the pointed tip. The upper end is flattened and curved, with a broken end. This probably formed a loop when complete.

Length 81 mm, max width 4 mm, max thickness 4 mm. NMS, Area E, NC 0160 1320.

8. Boss (Not illustrated)

Approximately circular boss mounting with a central, convex dome bordered by a riveted flange which is decorated by stamped annulets. Four domed rivets survive, along with a hole to accommodate a fifth. Traces of gilding survive, predominantly on the flange. Two associated fragments are decorated by a pattern of radiating grooves.

Diameter 45 mm. NMS History and Applied Art, H.1992.176.

9. Boss (Not illustrated)

Domed, sub-rectangular boss with traces of a central iron rivet.

Length 11 mm, width 10 mm, max depth 4 mm. NMS Archaeology, X.HR.1460.

Three lace tags (Nos 10-12) were recovered during the recent excavation of the site, and another eight examples (including Nos 13 and 14) have been surface-collected. The excavated examples are all from unstratified contexts. Lace tags were used to terminate laces or thongs to prevent their ends from fraying and to facilitate threading. They were used on a wide variety of clothing throughout the late medieval period and into the seventeenth century. The number used on an individual doublet and hose, for example, varied from two to twelve pairs (Cunnington and Cunnington 1969, 108). Examples have been recovered from numerous excavations in Scotland (Cox 1996a, 56).

Each lace tag was made from copper alloy sheeting, rolled tightly around the end of a lace and forming a tapering tube. Most of the recovered examples have edge-to-edge seams, although No 13 has an overlapping seam and that of No 10 overlaps slightly at its upper end. No 10 (and possibly also No 12) contains a small remnant of the lace or thong it terminated.

10 Lace tag (Not illustrated)

Almost complete lace tag, made from a rolled sheet. The tag tapers slightly and has an edge-to-edge seam, overlapping slightly at the upper end. The tag is broken at the lower end. A remnant of lace or thong is enclosed.

Length 28 mm, width 3 mm, thickness of sheet 0.3 mm. Excavation, Find No 6, Unstratified.

11 Lace tag (Not illustrated)

Lace tag fragment, representing the terminal (closed end) of the tag. The object tapers, has an edge-to-edge seam and is broken at the wider end.

Length 15 mm, width 2 mm, thickness of sheet 0.4 mm. Excavation, Find No 15, Unstratified.

12 Lace tag (Not illustrated)

Lace tag fragment, broken at one end and along its edges. No part of the full circumference survives. A small enclosed deposit may represent remains of a lace or thong.

Length 13 mm, width 2 mm, thickness of sheet 0.2 mm. Excavation, Find No 27, Unstratified.

13 Lace tag (Figure 7)

Fragment of a lace tag, made from tightly rolled sheet, with an overlapping seam. The tag tapers slightly and is broken at the narrower end. It has been flattened by partial crushing.

Length 19 mm, width 2 mm. NMS, Area G, NC 0177 1317.

14 Lace tag (Not illustrated)

Lace tag, probably complete, made from a tightly rolled sheet with an edge-to-edge seam. The tag tapers slightly.

Length 17 mm, width 2 mm. NMS, Area X.

Number 15 is a small pommel (sometimes referred to as a butt cap) of bi-lobed form. This type of fixture decorated the end of the handle on scale-tang knives of the sixteenth and seventeenth centuries. Some examples found in archaeological contexts may represent accidental losses, as the pommel could become detached from the knife handle.

15 Knife pommel (Figure 6)

Bi-lobed pommel, decorated by single grooves near to the base and lobe terminals.

Length 8 mm, max width 18 mm, thickness 4 mm. Tayport, D/4/-/26, Find No 19.

Number 16 represents the tip of a needle. It was made from a tightly rolled sheet of copper alloy, with the seam line visible along the surviving part of the shaft. Needles manufactured in this way have been recovered from other Scottish medieval sites, for example St John's Tower, Ayr, where four of the five needles recovered exhibit seam lines on their shafts (Cox 2012).

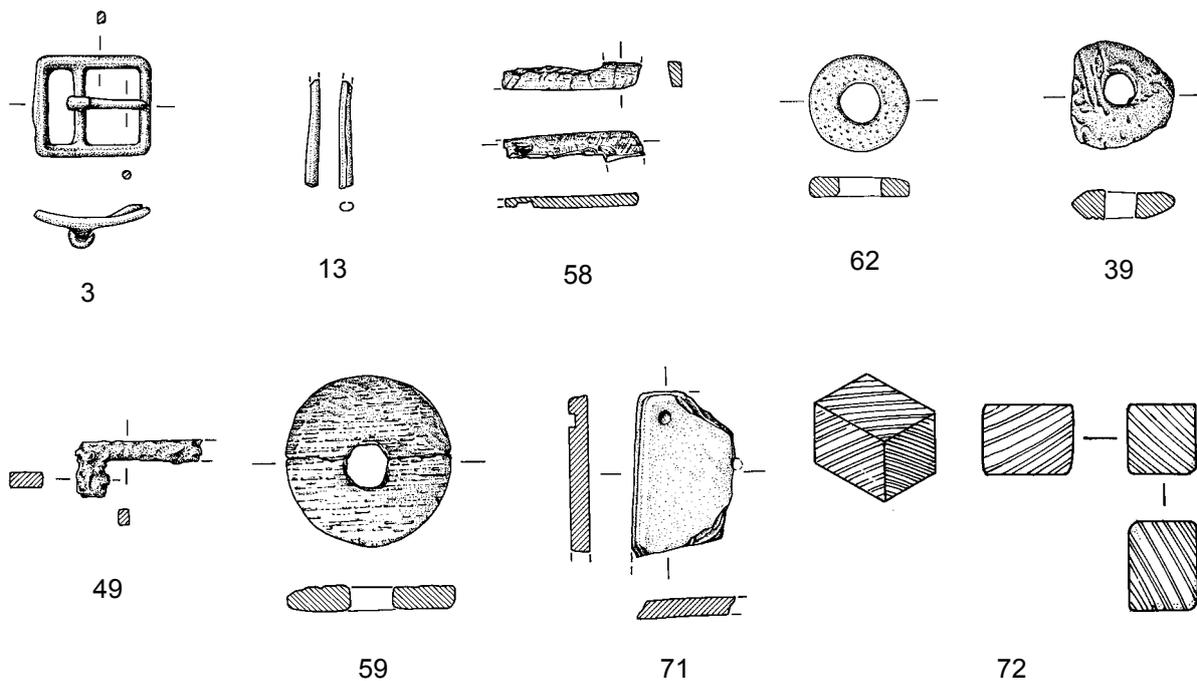


Figure 7: Copper alloy: 3. buckle, 13. lace tag; Lead alloy: 39. weight or whorl; Iron: 49. key; Antler: 58 fragment; Whale bone: 59. spindle whorl; Stone: 62. spindle whorl, 71. worked fragment, 72. rectangular block.

16 Needle (Not illustrated)

Tip of a needle, of tapering, circular cross-section, made from a tightly rolled sheet. It is broken at the broader end.

Length 30 mm, max diameter 2 mm. NMS, Arch .DB. 2001/14.

Rivets like Nos 17-19, made from folded sheets, were commonly used to repair copper alloy vessels. They are sometimes known as 'paperclip' rivets. Similar rivets were excavated from the Viking period settlement site at Freswick (Curle 1938, 102, Plate L, No 8) and numerous examples been found in medieval contexts at Scottish sites, including Perth and St Andrews (Cox 1996b, 768, Illus 19, Nos 115-6 and 144; Caldwell 1996, 636, Illus 26, No 11). They are sometimes found *in situ* on vessel repair patches (see No 20, below), and appear to have been used well into the post-medieval period. They were used singly to fill small splits in sheet vessels, and together with sheet alloy patches to repair larger areas of damage.

Nos 17-19 are typical of the small group of rivets recovered from this site, some of which are broken in the manner of Nos 18 and 19, with one terminal missing. The shape of the original sheets from which rivets were made varies from lozenge-

shaped to triangular. Some examples were made from almost rectangular strips, tapering only slightly towards each end. The rivets, along with the numerous sheet offcuts (see Nos 22-3, below) were concentrated mainly in Area G, although they also occur in Areas D, F and X. Curle (1938, 102) notes a general distribution across the site at Freswick rather than a concentration in any particular area.

No 20, collected from the surface of the paved area, contains a sheet rivet of similar form to those described above, and probably represents part of a repair patch. A sheet fragment found with it has a circular recess for a pin or rivet, and a number of sheet fragments collected at various times from across the site's surface bear linear perforations to accommodate sheet rivets.

17 Rivet (Not illustrated)

Almost complete sheet rivet, made from an elongated lozenge-shaped sheet.

Length 18 mm, max width 16 mm, thickness of sheet 0.3 mm. Unstratified, from dunes.

18 Rivet (Figure 6)

Rivet made from an elongated, approximately triangular sheet. One terminal is broken.

Length 19 mm, max width 11 mm, thickness of sheet 0.3 mm. NMS, G/-/-/5, Find No 20.

19 Rivet (Not illustrated)

Rivet made from an elongated, approximately triangular sheet. One terminal is broken. Length 12 mm, max width 8 mm, thickness of sheet 0.3 mm. NMS, G/-/-/5, Find No 21.

20 Riveted sheet (Not illustrated)

Fragment of sheet with roughly broken edges, with a sheet rivet inserted through it. Heavily corroded.

Length 25 mm, max width 18 mm, max thickness 4 mm. F Ross collection, Paved area, No 12/13.

A weight in the form of a tapering cup (No 21) represents one of a series of nested weights. Nested weights were usually of cup-like form and fitted into each other, requiring a minimum of space. Although the earliest forms of nested weights are known from Roman and Byzantine contexts, their manufacture achieved a high degree of precision during the sixteenth to nineteenth centuries, and they played an important role in commerce as well as in pharmacies and in domestic contexts. In these compact sets, the largest cup (or master cup) usually incorporated a hinged lid, and weighed the same as the sum of the smaller cups. The second largest weighed half as much as the master cup and the sum of the weights of the remaining cups. This ratio continued from weight to weight.

Nested weights are depicted in early sixteenth century paintings of money-changers and jewellers (Kisch 1965, 127), and from at least the sixteenth century until the eighteenth century, the city of Nuremburg, well known for the high standards of its coppersmiths and other craftsmen, enjoyed a monopoly on their manufacture. From there, they were widely exported (Stengel 1918, 107-55). Nuremburg's nested weights became increasingly elaborate during the seventeenth century, their master cups frequently engraved with hunting scenes and bearing carrying handles. They became simpler in the eighteenth and nineteenth centuries, as their common use in businesses and households

necessitated simpler and less costly designs. By this time, nested weights were also being produced in several other countries, including England, France, Italy and Sweden. A fleur-de-lis motif, an example of which appears on the interior base of No 21, appears to depict a weight manufactured in France. Similarly stamped examples were made in Lille and other French cities in the seventeenth and early eighteenth centuries (Kisch 1965, 158).

21 Weight (Figure 6)

Tapering, circular cross-sectioned weight, decorated on its external and internal surfaces by twin parallel grooves, and internally on the base by a stamped fleur-de-lis motif (length 4 mm). There are several scratches externally on the base.

External diameter at rim 28 mm, diameter at base 20 mm. Tayport, X/-/-/13, Find No 14.

Offcuts

An assemblage of small offcuts was surface-collected, the largest group coming from Area X (44 pieces, including Nos 22 and 23). Some pieces are of an elongated lozenge shape, or fragments of lozenges, and probably represent 'blanks' or unfinished versions of sheet rivets like Nos 17-19, described above. Other pieces may represent offcuts from the edges of sheets, from which other shapes have been cut, and a small number of pieces have been rolled (e.g. 22) or folded, probably intended for recycling. The overall characteristics of the assemblage would appear to indicate workshop activities involving the repair of copper alloy vessels and other objects. While cold sheet metal working is the main activity represented by the artefactual evidence. A possible ingot (No 26, below) and a piece of once-molten waste (No 27) attest to the melting and possibly casting of copper alloy.

22 Offcut (Figure 6)

Sheet of approximately trapezoidal outline, rolled to form a tapering tube. There are five short nicks or grooves at one edge of the sheet, near the narrower end of the object. These nicks occur at the edge of the sheet and appear to have been made before the sheet was rolled, since there is no trace of them on the overlapped edge.

Length 32 mm, width (rolled) 10 mm, thickness 0.8 mm. Tayport, X/-/-/15, Find No 22.

23 Offcut (Figure 6)

Probable offcut of roughly rectangular outline, with two opposing, rectangular cuts (widths 4-5 mm) into its long edges, leaving a narrow central spine. The rectangular cuts have slightly bevelled edges. Length 20 mm, width 20 mm, thickness 0.9 mm. Tayport, X/-/-/15, Find No 23.

Miscellaneous

Number 24 is a small fragment with decorated edges. It is possibly from a buckle frame, in which case the edge decorated by grooves would represent the outer edge of the frame. It was found in close association with a buckle frame (No 4, above).

Number 25 is a fragment of sheet, decorated by an incised pattern of interlace. This repeating pattern consists of three broad, interlaced bands, each of which is divided lengthwise into three equal zones. The central zone of each is then crossed by equally-spaced, transverse incisions, creating a series of squares. The gaps between the interlace are filled by closely-spaced hatched, incised lines, and there is a narrow, plain border along each edge. A possible rivet hole near one of the broken ends of the fragment may indicate that it was attached to an underlying surface by means of small pins or rivets. It may be part of a decorative strip, possibly used as inlay, attached to leather or wood, for example on a book cover or a box or casket. The rough nature of the break at either end indicates that the strip may have been deliberately detached and broken up for intended recycling.

24 Decorated fragment (Not illustrated)

Fragment decorated on one edge by incised or moulded grooves and on the opposite edge by a concave recess.

Length 15 mm, width 8 mm, thickness 3 mm. Tayport, X/-/-/14, Find No 8.

25 Decorated sheet (Figure 6)

Fragment of sheet, decorated on one face by an incised interlace pattern. Two parallel edges

survive, but the sheet is roughly broken across both ends. Near one broken edge is a small, angular perforation that may have formerly accommodated a pin or a rivet.

Length 21 mm, width 19 mm, thickness 0.4 mm. NMS T Cowie, Find No 16.

A possible ingot of rectangular cross-section (No 26) and a larger piece of once-molten waste (No 27) indicate that the melting of copper alloy took place at the site. No 27, found in an area of shell midden in two conjoining fragments, appears to have formed in a broad, shallow crucible of approximately oval outline. A small number of offcuts and sheet fragments from the site have been rolled or folded (e.g. No 22, above), possibly for recycling, and it seems possible that scrap metal was melted down and recycled at the site.

26 Ingot or bar (Not illustrated)

Ingot or bar of slightly tapering, rectangular cross-section. At least one of its ends appears to have been roughly broken.

Length 30 mm, width 7 mm, max thickness 6 mm. NMS, C/-/-/1, NC 0162 1337.

27 Waste (Not illustrated)

Piece of once-molten waste in two conjoining fragments. The underside forms a shallow, convex curve, while the upper surface is approximately level, incorporating irregularities. Overall length 116 mm, max width 67 mm, max thickness 12 mm. NMS Archaeology, X.HR.1211.

Number 28 is a small fragment, either from a loop or the frame of a buckle. Nos 29-34 are sheet fragments. No 29, a plain fragment with broken edges, found on the floor level of Building 2, is the only stratified example among this group. Nos 30 and 31 both incorporate right-angled corners but, apart from this, the fragments exhibit few diagnostic features. They probably represent fragments of broken sheet alloy objects or waste from the fabrication or repair of sheet objects. The sheet rivets and repair patch fragment (Nos 17-20, above) point to the likelihood that repair work was carried out at the site, possibly associated with the paved area.

28 Loop fragment (Not illustrated)

Fragment from a loop or the frame of a small buckle, originally of sub-rectangular outline. There are two small grooves worn into one edge of the fragment.

Length 15 mm, width 15 mm, thickness 3 mm. Tayport, X/-/-/14, Find No 9.

29 Sheet fragment (Not illustrated)

Plain sheet fragment with broken edges. Heavily corroded.

Length 36 mm, width 16 mm, thickness c. 0.5 mm. Excavation, Context 9, Find No 38.

30 Angled fragment (Not illustrated)

Plain sheet fragment incorporating a right-angled corner. All edges are broken.

Length 12 mm, width 7 mm, thickness 1 mm. Excavation, Find No 26, Unstratified.

31 Sheet fragment (Not illustrated)

Plain sheet fragment incorporating a right-angled corner. All edges are broken.

Length 12 mm, width 9 mm, thickness 0.3 mm. Excavation, Find No 2, Unstratified.

32 Sheet fragment (Not illustrated)

Plain sheet fragment with one straight edge and a slight curvature.

Length 11 mm, width 8 mm, thickness 0.8 mm. Excavation, Find No 11, Unstratified.

33 Sheet fragment (Not illustrated)

Folded sheet fragment with broken edges.

Length 17 mm, width 7 mm, thickness 0.2 mm. Excavation, Find No 31, Unstratified.

34 Sheet fragments (Not illustrated)

Two plain sheet fragments. One is flat and has a single straight edge, although the remaining edges are irregularly broken. The other also has irregularly broken edges, and has a slight curvature and a short projection from one edge,

folded back against the sheet. Largest: Length 14 mm, max width 7 mm, thickness 0.4 mm. Excavation, Find No 52, Unstratified.

Lead alloy objects

A variety of lead alloy artefacts was recovered. These are mainly from the recent excavation, although a small number (including Nos 38, 40 and 41) was recovered from the surface of the site. No 35 represents a group of eight small shot, varying slightly in size. They were recovered during cleaning above the paved area. No 36 is a single object, of a rather larger diameter, possibly representing an unused musket shot. No evidence survives of a mould seam, although this may have been removed by trimming or filing, and the object is slightly abraded. Shot may have been used in musket and fowling pieces.

A distorted object of approximately rectangular outline, No 37 appears to have a rectangular impression in one face, although the opposite face is very uneven. It may represent caulking, applied to the end of a rectangular-ended object (such as a rectangular cross-sectioned iron bar), to secure it in place, possibly within stonework. No 38 represents waste derived from the melting of lead alloy, possibly spilt onto a rough, uneven surface.

An object of approximately D-shaped outline, cut across at one end (No 39) was possibly used as a spindle whorl or weight. It could potentially have functioned as a spindle whorl, although it would have been slightly unbalanced as it has a greater mass on one side of its central perforation than on the other. In addition to the cut across one edge of the object, there is a series of linear cuts. These appear to represent knife cuts and were probably made in a single episode, probably when a larger object was trimmed down to produce this one. A likely interpretation is that the object began life as a cast net-weight or fishing line weight of oval form, which was subsequently modified by trimming to produce a more evenly balanced weight or whorl. The surface indentations may represent use-related wear while performing its earlier function.

Number 40 is a circular weight with a central, circular hole. The wear around the hole indicates that a cord was attached and that the object has been used. It probably represents a fishing

weight, although other functions involving weighting a cord are conceivable. An object apparently derived from a section of thick-walled pipe or tubing, beaten flat (No 41), may also have been utilised as a weight. It appears to have been nearly cut across at both ends, resulting in a triangular outline, and it has two small holes lying in a line parallel to the cut ends. No 42 is a curved fragment, broken at both ends.

35 Shot (Not illustrated)

A group of eight roughly spherical shot.

Diameters 3-4 mm. Excavation, Context 2, Find No 3.

36 Shot (Not illustrated)

Spherical shot.

Diameter 11 mm. Excavation, Find No 4, Unstratified.

37 Waste or caulking (Not illustrated)

Piece of waste or caulking with an approximately rectangular impression in one face. Distorted. Length 26 mm, width 16 mm, max thickness 8 mm. Excavation, Find No 50, Unstratified.

38 Waste (Not illustrated)

Piece of waste with an irregular outline, a slightly concave upper surface and a rough lower surface. Length 20 mm, max width 11 mm, thickness 1 mm. NMS, Area G, NC 0177 1317

39 Weight or whorl (Figure 7)

Object of irregular outline (approximately D-shaped), convex face on one side and flat on the other, with an off-centre, circular hole (diameter 9 mm) through it. One edge has probably been cut across, and at least three further linear cuts lie between this edge and the hole. The object's surface also bears small indentations.

Length 27 mm, width 27 mm, max thickness 7 mm. Excavation, Find No 7, Unstratified.

40 Weight (Figure 6)

Circular weight with a central, circular hole. The object has one slightly convex face, while

the opposite face is flat. The edge of the hole is greatly worn on two sides.

Diameter 25 mm, thickness 5 mm, diameter of central hole 8 mm. NMS, Area E, NC 0160 1320, Find No 13.

41 Weight? (Not illustrated)

Possible weight, of rectangular outline, made by beating flat a section of pipe or tubing with a 3 mm thick wall. Two small, roughly circular holes (width c. 2 mm) have been cut near the end of one face.

Length 59 mm, width 30 mm, thickness 9 mm. F Ross collection, No 2, Structure 2.

42 Fragment (Not illustrated)

Plain fragment with an even curvature, broken along one edge and at both ends. Length 27 mm, max width 6 mm, thickness 1 mm. Excavation, Find No 21, Unstratified.

Iron objects

Only a small group of iron artefacts was recovered during the recent excavation. However, a larger number have been collected from the surface of the site, and, altogether, the range of artefacts represents a wide variety of activities. Although the copper and lead alloy objects from the site have generally survived in excellent condition, this coastal environment has favoured the iron objects less well, and they have suffered more greatly from corrosion and fragmentation.

Fragments of a barbed and socketed arrowhead (No 43) represent rare evidence for hunting activities. This object is in very poor condition, and is probably medieval in date. A single button (No 44) was recovered from the surface of the site. This is heavily corroded but intact, and its face appears plain. It is probably of eighteenth or nineteenth century date.

43 Arrowhead (Not illustrated)

Barbed and socketed arrowhead with a tapering shaft of slightly irregular (almost triangular) cross-section and slender barbs. The object is in poor condition and survives as fragments.

Length c. 45 mm, max diameter of shaft 11 mm.

Tayport, D/3/-/4, Find No 29.

44 Button (Not illustrated)

Button with a possibly plain, circular face and a circular eye positioned slightly off-centre.

Diameter 19 mm, thickness including eye 10 mm
NMS, Area D, Find No 3

Clench bolts like No 45 were used to secure double thicknesses of timber and consist of a nail, which was driven through the timbers, and a rectangular or diamond-shaped plate called a rove (see No 46), which was placed over the tip of the nail. The nail was then clenched to secure the fastening. Although commonly associated with ship- and boat-building, as outlined by McGrail (1973, 102-3), clench bolts may also have been used in the building of carts and had a number of structural uses within buildings. Examples were reported in the ledge and batten door from Stillingfleet, North Yorkshire (Addyman and Goodall 1979, 90, Fig 9) and in a well cover from Lyford Castle, Devon (Geddes 1980, 165, Fig 17). Clench bolts have also been known to occur in boat timbers, doors and other structural timbers re-used in buildings or as firewood. They have been excavated from settlement and castle sites throughout Scotland (e.g. Dunning et al 1958, 138; Caldwell 1981, 116; Cox 1996b, 779).

Roves like No 46 were manufactured in strips, with the edges of each defined by a cut or groove so that individual roves could be detached as required. Unused strips of roves have been found in St Andrews (Maxwell 1997, 76, Illus 39, No 115), in Perth (Cox 1997, 750, No 69) and at Carrick Castle (Franklin 1998, 967, Illus 18, No 35).

45 Clench bolt (Figure 6)

Clench bolt consisting of a nail with a rectangular cross-sectioned shaft and a remnant of a probably circular head, and part of an originally lozenge-shaped rove. Corroded.

Length 40 mm, max surviving width of rove 31 mm, surviving width of nail head 11 mm.
Tayport, D/2/-/25, Find No 17

46 Rove (Figure 6)

Lozenge-shaped rove with the clenched tip of a nail inserted through its central perforation. Corroded.

Parts of a knife, including its bone handle (No 47) were found on the site's surface. The knife appears to be straight-backed, possibly incorporating a choil, and the handle bears incised decoration of swirls and hatched, teardrop-shaped zones. Several conjoining blade fragments, probably from a knife (No 48) were also found.

Length 34 mm, width 30 mm, max thickness 10 mm. Tayport, Find No 18

47 Knife (Figure 6)

Parts of a knife including a bone handle and remnants of the iron tang and blade. Part of the blade is attached to the handle, while another blade fragment (not conjoining), is separate. The handle tapers, narrowing towards the blade, and appears to be almost complete, although it is broken across a rivet hole near its terminal. There are three pairs of rivet holes, and that nearest the blade is occupied by a circular cross-sectioned iron rivet.

The handle bears incised decoration of swirls and hatched teardrop-shaped zones. It has four longitudinal splits along its length, two of which coincide with the lines of rivet holes. The tang has a rectangular cross-section and a short section appears to project beyond the handle before the blade begins. The surviving blade components indicate that it was probably straight-backed and tapered only gently towards the missing tip.

Handled fragment: Length 78 mm, max width (handle) 16 mm, max thickness (handle) 12 mm.
Blade section: Length 43 mm, width 16 mm, thickness 4 mm. NMS T Cowie, Find No 26

48 Blade fragments (Not illustrated)

Several conjoining fragments of a blade, probably from a knife. The blade has a straight edge, and the back slopes gradually towards the tip, dipping more sharply close to the tip. No part of a tang or handle survives. Heavily corroded.

Surviving length (overall) 147 mm, max depth 22 mm, thickness 3 mm. Tayport, D/4/-/8, NC 0170 1312

Possibly the earliest of the iron artefacts among the excavated group is part of the shank and bit of a small key (No 49), found in an unstratified context. This key probably opened a cupboard or box, rather than a door. It is of simple form, with a single ward cut and a rectangular cross-sectioned shank. Fragments of a door key (No 50) came from the surface of the site. Despite being heavily corroded, the basic features represented by these fragments can be recognised. The key has a broad, oval or D-shaped bow and a rectangular cross-sectioned shaft. The bit is of broad, rectangular form.

49 Key (Figure 7)

Part of the shank and bit of a small key. The shank is rectangular in cross-section, and the centrally-positioned, rectangular cross-sectioned bit appears to have a single ward cut. Heavily corroded. Length 33 mm, depth of bit 15 mm, thickness 4 mm. Excavation, Find No 9, Unstratified.

50 Key (Not illustrated)

Key with an oval or D-shaped bow, set centrally on a rectangular cross-sectioned shaft. The detailed form of the rectangular bit cannot be discerned. Heavily corroded.

Length 76 mm, surviving depth of bit 19 mm. NMS, Area E, NC 0160 1320, Find No 5.

Two curved binding strips (No 51) were probably used on a cask or butter churn, possibly to secure the rim. Several similar strips would have been used end-to-end, the holes at each end of the strips joining to form complete rivet holes for attachment to the sides of the cask or churn. These two strips indicate a vessel diameter of approximately 490 mm.

51 Binding strips (Not illustrated)

Two curved binding strips of elliptical cross-section, each with a circular cross-sectioned rivet through the centre and a countersunk hole at either end.

Length 194 mm, width 13 mm, thickness (excluding rivets) 7 mm. Tayport, D/2/-/6, NW of Building 1.

An object in the form of a flat-ended, tapering strip (No 52) may have functioned as part of a catch. A variety of similar components was used in conjunction with window catches and with latches fitted to doors and cupboards during the seventeenth and eighteenth centuries.

Number 53 is a small fitting of triangular outline, designed to be fixed onto wood or leather, and secured by a small rivet at its broader end. It may date from as late as the eighteenth or nineteenth century. A cylindrical object from an unstratified context (No 54) is of unknown function. It may represent a weight, although lead alloy is more often utilised for such a function. There is no means of suspension, and the object may have been sewn into textile (e.g. curtains or a sail). Alternatively, it may represent a rolling device in a mechanism of some kind. The absence of substantial corrosion indicates that it may be of recent date.

52 Catch? (Not illustrated)

Catch or fitting in the form of a flat-ended, tapering strip, hooked over at the narrower end.

Length 33 mm, max width 21 mm, thickness 2 mm. NMS, Area G, NC 0177 1317, Find No 4.

53 Fitting (Not illustrated)

Fitting of elongated triangular outline, made from a thin strip. A small, circular cross-sectioned iron rivet is hammered through one side of the fitting at the broader end.

Length 33 mm, max width 14 mm, thickness 8 mm. Unstratified (from dunes).

54 Cylindrical object (Not illustrated)

Object of approximately cylindrical form, but with convex rather than flat ends. The surface is irregularly cracked.

Length 21 mm, diameter 12 mm. Excavation, Find No 13, Unstratified.

Perhaps surprisingly, very few nails were recovered. The most complete example (No 55), from the dunes area, is a type often used in conjunction with flooring and roofing timbers. Two wrought nails from Area E (Nos 56 and 57) are typical of most of the nails found at the site.

55 Nail (Not illustrated)

Nail with a narrow, faceted head and a rectangular cross-sectioned shaft. Heavily corroded.

Length 80 mm, width of head 9 mm. Unstratified (from dunes).

56 Nail (Not illustrated)

Nail with a tapering, rectangular cross-sectioned shaft and a head of irregular outline.

Length 37 mm, width of head 6 mm. NMS, Area E, NC 0160 1320, Find No 1.

57 Nail (Not illustrated)

Nail with a tapering, rectangular cross-sectioned shaft and a head of irregular outline. Bent below mid-shaft.

Length 36 mm, width of head 9 mm. NMS, Area E, NC 0160 1320, Find No 2.

Coins and a coin-weight

By Nicholas M McQ Holmes

The finds comprised seven base metal coins recovered during the course of the excavation, and a further seven, together with one coin-weight, found nearby. The contents of the two groups were of a generally similar nature, but they are discussed separately here.

Excavation group

The earliest coin was a billon penny of James IV, from his latest issue. These coins are common, and seem to have formed the bulk of the 'small change' in circulation during the first half of the sixteenth century. The example is fairly worn, and had probably circulated for some while, but is likely to have been lost before 1550. It is therefore an outlier from the remainder of the assemblage, which comprised copper turners of the reigns of Charles I and II, minted between 1632 and 1668. The varying dates of issue and degree of wear on

these coins indicate coin loss on the site between the 1630s and the latest years of the seventeenth century, but it is worth noting that there is no example of Charles I's third issue, minted 1642-50.

56 James IV billon penny, second issue, type IVa (c. 1500-10).

0.82 g, die axis 1.0, fairly worn. Find No 30: Unstratified.

57 Charles I copper turner, second issue (1632-9).

0.66 g, die axis 7.0, heavy patina, fairly worn. Find No 1: Unstratified.

58 Another similar Charles I copper turner, second issue (1632-9).

0.46 g, die axis 6.0, moderate wear. Find No 8: Unstratified.

59 Another similar Charles I copper turner, second issue (1632-9). (Figure 8)

0.77 g, die axis 6.0, slight wear. Find No 18: Unstratified.

60 Another similar Charles I copper turner, second issue (1632-9).

0.63 g, die axis 12.5, some surface corrosion, slight wear. Find No 19: Unstratified.

61 Charles II copper turner (1663-8).

2.70 g, die axis 3.5, heavy patina, worn. Find No 5: Unstratified.

62 Another similar Charles II copper turner (1663-8).

2.44 g, die axis 6.5, fairly worn. Find No 17: Unstratified.

Non-excavation group

Only three of the seven coins were fully identifiable, these again belonging to the reigns of Charles I and II. The other four were too corroded for any diagnostic surface detail to be distinguished, but their size and general appearance suggests that all are likely to be copper issues of the late sixteenth or seventeenth century. Also found was an English brass coin-

weight for a silver shilling of Charles I. It had suffered little wear, and although the surfaces were oxidised, the difference between its actual (5.40 g) and theoretical weight (6.01 g) is larger than might have been expected.

63 Charles I copper turner, second issue (1632-9).

0.66 g, die axis uncertain, highly corroded. F Ross collection: paved area (not recorded).

64 Charles II copper turner (1663-8).

2.51 g, die axis 6.0, worn. F Ross collection: No 2, D/4/-/29.

65 Charles II copper bawbee (1677-9).

7.10 g, die axis 6.0, some surface corrosion, probably fairly worn. F Ross collection: No 4, D/4/-/31.

66 Unidentifiable copper, possibly a turner of Charles I or II.

1.93 g, die axis uncertain, much surface corrosion, very worn. F Ross collection.

67 Unidentifiable copper fragment, probably late sixteenth or seventeenth century.

1.13 g, die axis uncertain, highly corroded. F Ross collection: No 3, D/4/-/30.

68 Unidentifiable copper, probably seventeenth century

2.06 g, die axis uncertain, highly corroded. F Ross collection: No 5, D/4/-/32.

69 Another similar Unidentifiable copper, probably seventeenth century

1.81 g, die axis uncertain, highly corroded. F Ross collection: No 6, D/4/-/33.

70 English brass coin-weight for a Charles I silver shilling, type as Withers (1993), 1051 (Figure 8)

5.40 g, die axis 12.5, heavy patina, slight wear. F Ross collection: No 7, D/4/-/34.

Comment on the coins by SF

Although the area has produced coins, most notably turners of Charles I and II. it is recorded

that these coins were mass-produced and may have been of little value hence the numbers found. It has been suggested (Bateson 1997) that an estimated 11 million Charles I tuners were minted (ibid, 141) whilst an estimated 23 million turners of Charles II (ibid, 144) were produced. With all these coins in circulation would they have been worth much? Further work is needed on the coins in relation to local economy of this period, especially if it is recorded in the historical record (see above) that Coigach was able to pay its rent in cash to the Cromartie Estate rather than in kind.



Figure 8: Coins and coin weights: 59. Charles I copper turner, 70. brass coin weight.

Industrial waste

By Ray Chadburn

The following is a morphological analysis of the metal working debris recovered. The samples for analysis consist of 20 individual representative specimens from larger groups from two areas of the site. For the analysis the specimens were given a research number (from 1 to 20) and described on morphological criteria for texture, colour, size, weight, magnetism and inclusions. After the primary examination each specimen was assigned to a group category (A to E) within the ranges of crystalline, dense cinder, cinder, round cinder and fused stone. The group categories were as below:

| | |
|----------------------|--------------------------|
| Group A - 5 samples. | Typical sample number 13 |
| B - 8 | Typical sample number 7 |
| C - 1 | Typical sample number 15 |
| D - 5 | Typical sample number 16 |
| E - 2 | Typical sample number 5 |

This produces 21 finds from 20 specimens, sample No 8 was composed of two separate materials.

The criteria for the group categories are as follows:

Group A: crystalline. The term crystalline was given to the group of debris formed in the hottest part of the metal working environment, a dense compact grey coloured brittle slag material that broke easily into angular blocks, the internal surfaces indicated small crystal structure with small tube shaped gas bubbles, average size approximately 1 mm wide and 5 mm long.

Group B: dense cinder. This has a similar internal colour to group A but less crystalline structure and more gas bubbles of a more rounded shape that formed slag shells on the surface, the oxidation colours were more pronounced.

Group C: cinder. This is an extension of Group B with a rough and sintered appearance with rusty oxidation colours.

Group D: round cinder. Mainly composed of a rounded vitreous glassy matrix the surface of which has many sand grains incorporated.

Group E: fused stone. Stones that have been partly or wholly melted with gas bubbles and vitrified surfaces.

Of special interest is sample No 8 from area 218. This represents the debris from a small metal working operation in two parts. The top section is a discoid approximately 70 mm in diameter and 20 mm thick and is the result of the last stage of a smithing or forge operation, probably shaping a small iron work piece. The time taken for this work allowed the slag to form this distinctive shape and consistency. This debris was formed on the top of an earlier operation that produced a cinder of approximate size 30 mm by 30 mm by 30 mm that is more vesicular than the top

section and in the group form this comes within the classification as cinder. The debris from this find shows marked similarity to the other finds in the rest of the specimens and a common origin can be ascribed to the finds in total.

The surface geology of the area of the excavation is in the area classed as Torridonian sandstone and this is reflected in the small rocks and pebbles found in the samples, in particular within the Group E classification, also some of the glassy slag debris could also be a product of the intentional or accidental inclusion of sand in the metal working operations, for instance sand fluxing. There is no indication of metal ores in the samples provided so the smelting of ores and other primary techniques has been discounted. There is also no evidence for furnace structure or intensive workshop areas, and therefore the conclusion is that simple ground level hearths were used to work or repair small iron objects for the use of a small community. The requirements for this are a small hollow in the ground with possibly a ring of stones to contain the charcoal fuel, with bellows used to increase the working temperature. The lack of hammer-scale precludes the identification of the type of iron in use (cast, wrought or steel) but the low magnetism throughout the samples suggests wrought to be the main iron in use. If the samples provided are a good representation of the two areas indicated, i.e. 218 and 215, then there is a distinction pointing to area 218 as mainly a metal working area and 215 as a more domestic situation. The specimens provided do not have worn surfaces and indicate that after deposition they remained close to the area of production.

Antler and whale bone objects

By Adrian Cox with species identification by Catherine Smith

Recovered from the floor level of Building 2, No 58 is a small, worked fragment of rectangular cross-section, broken at both ends. It was possibly derived from antler. An angle or notch at one end indicates that it may be part of a clip or fastening device.

Both wool and flax were spun with the distaff and spindle, the latter weighted by a spindle whorl such as No 59. This example was made from probable whale bone. Spinning by this method

continued into the early years of the twentieth century in more remote, rural communities.

Whale bone artefacts are well-known from northern Scotland, Orkney and Shetland, tending to be found in locations where the raw material is locally available. Many of those found at Iron Age sites are vessels, lids, cups and chopping blocks (Ballin Smith 1994, 182-3), while perforated tools or mattocks have been excavated at Howe (ibid), Burrian, North Ronaldsay (MacGregor 1974, 86) and the Brough of Birsay (Curle 1982, 77). A whale bone spindle whorl, rather larger than No 59 and decorated by a series of concentric rings, was excavated at Dunbar from an Iron Age or Anglian context (Cox 2000, 157, Illus 105, No 466). Bone bone spindle whorls were more commonly derived from the femur heads of cattle, as at Burrian (MacGregor 1974, 88). These required relatively little modification to suit the purpose.

58 Fragment (Figure 7)

Rectangular cross-sectioned fragment, possibly derived from antler. File marks are visible on one face.

Length 36 mm, max width 7 mm, thickness 3 mm. Excavation, Context 9, Find No 39.

59 Spindle whorl (Figure 7)

Spindle whorl of discoid form, derived from probable whale bone, with a central, circular hole, in two conjoining fragments. The object's thickness varies slightly; it is thickest adjacent to the hole and tapered towards the outer edge. Six differently-shaped, but equally-spaced, indentations on one face may represent decoration. The other face is plain.

Diameter 45 mm, diameter of hole 12 mm, max thickness 7 mm. F Ross collection, 37 D/S/-/7, adjacent to Building 2.

Ceramic object

By Adrian Cox

A broken spindle whorl (No 60) is the only ceramic artefact recovered from the site. The surviving fragment represents approximately half of the original whorl, which has broken across its central hole. It was fabricated from a pottery sherd, and its fairly flat faces indicate that a base

of a vessel may have been used. The differences in the fabric colour are due to localised differences in atmospheric conditions during the firing of the original pottery vessel.

60 Spindle whorl (Not illustrated)

Fragment of a whorl of discoid form with a central, circular hole, across which it has broken. The fabric is coarse and mainly of orange to brown colouration. One face of the object is grey where the fabric is reduced.

Diameter 48 mm, max thickness 10 mm, diameter of central hole c. 10 mm. Tayport, X/-/-/39, Find No 15.

Glass and stone objects

By Adrian Cox

Glass

Among the surface-collected finds there is a very small quantity of glass fragments, notable among which is a bottle base fragment (No 76). This represents a mould-formed kick-up from the base of a wine bottle. It is of nineteenth or early twentieth century date. Exaggerated, mould-formed kick-ups persisted in wine bottles well into the twentieth century and were a prominent feature of French wine bottles (Dumbrell 1983, 132).

76 Bottle base fragment. (Not illustrated)

Slightly water-worn fragment from the base of a bottle in green glass. This fragment represents part of the kick-up.

Max surviving diameter 52 mm, surviving depth 39 mm. F Ross collection, No 19, Grid ref 265/7.

A wide variety of stone artefacts was recovered from the site. Some have been carefully fashioned to perform specific functions (for example the spindle whorls and a triangular weight), while others represent examples of readily-available pebbles that were adapted for short-term episodes of use. A range of diagnostic wear traces attest to the use of a small group of objects as pounders. Several other pebbles collected from the surface of the site appear to have no use-related wear traces and can be considered as non-artefactual.

A roughly circular disc with a tapering profile, derived from a pebble (No 61) was among the surface-collected material. The broader of its faces is very slightly convex, and this face appears to have been more carefully finished to form a circular outline. The narrower face is slightly concave and less circular. Similar discs are common finds on sites of the Viking period. A disc of very similar form and size was excavated at Mounthoolie Lane, Kirkwall (Ross 1982, 418, Fig 11, No 5) and others have been found at Freswick in Caithness and at Jarlshof and Kebister in Shetland (Curle 1938, 107, Plate XLIX, Nos 9 and 10, Hamilton 1956; Clarke 1999, 157). Curle interprets these objects as pot-lids, and the deliberately tapered profile of No 61 lends support to this interpretation. Other functions, as gaming pieces and as plugs for skin containers (Hamilton 1956) have also been suggested.

61 Disc (Not illustrated).

Roughly circular disc, derived from a smooth-faced pebble by chipping around its edge. It has been given a tapered profile.

Length 55 mm, width 52 mm, max thickness 15 mm. Tayport, Unstratified, Find No 12.

Two small, discoid spindle whorls (Nos 62 and 63) were recovered from the site's surface. No 62 was found adjacent to Building 2. Perhaps significantly, it is one of two spindle whorls found near to this building (see also No 59, above), possibly an indication of spinning activity associated with this structure.

62 Spindle whorl (Figure 7)

Spindle whorl of discoid form, with a central, circular hole. Undecorated.

Diameter 26 mm, diameter of hole 11 mm, thickness 5 mm. F Ross collection, No 39, D/S/-/2, Adjacent to Building 2.

63 Spindle whorl (Not illustrated)

Spindle whorl of discoid form, with a central, slightly waisted, circular hole. The outline of the whorl is slightly irregular, as is its thickness.

Diameter 28 mm, diameter of central hole 7 mm, max thickness 7 mm, min thickness 5 mm. NMS Archaeology, X.HR.1459

Numbers 64-7 were utilised as pounders. These are stones that could be held in the palm of the hand and are abraded at one or both ends from grinding intractable materials. Among other uses, they could be used in conjunction with querns for processing foodstuffs, especially cereals. Rounded or elongated cobbles were generally used, and continuous pounding produces a pecked or pockmarked surface, often at both ends. At least two of these examples are derived from Torridonian sandstone. Fine- and medium-grained sandstones such as this were often used for this type of tool. Although the ends of the pebbles are worn and abraded, they are otherwise unmodified. Their forms readily recommend themselves as pounders, and suitable sea-worn cobbles for this purpose may have been abundantly available locally. The abrasion on No 66 is limited to only part of the surface of the stone's terminal, apparently indicative of short-term use. While the other examples are from unstratified contexts, No 65 was excavated from a blackened part of the paved area.

Several pounders, incorporating smoothed faces in addition to their worn ends, were among the finds from St Kilda (Senior 1996, 127). The large assemblage of stone implements from Burrian, North Ronaldsay, includes both hammer stones and pounders, and also two whetstones with abraded ends indicating that they had also been used for pounding or grinding (MacGregor 1974, 93). Other excavated groups of pounders from across Scotland those from Kebister in Shetland (Clarke 1999, 157) and Green Knowe settlement and Harehope Cairn, Peebleshire (Jobey 1980, 89, Figs 9 and 10).

64 Pounder (Not illustrated)

Smooth cobble of Torridonian sandstone with an elongated, oval-shaped outline. One end, in particular, is heavily worn, and the opposite end is also slightly worn.

Length 132 mm, max width 59 mm, max thickness 29 mm. Excavation, Find No 48, Unstratified.

65 Pounder (Not illustrated)

Smooth cobble of Torridonian sandstone, of elongated, slightly tapering, almost cylindrical form, with heavily worn ends.

Length 181 mm, max width 56 mm, max thickness 49 mm. Excavation, Context 16, Find No 37.

66 Pounder? (Not illustrated)

Possible pounder, derived from a cobble of tapering, elongated form and oval cross-section. One end exhibits abrasion.

Length 133 mm, width 56 mm, thickness 36 mm. Tayport, Find No 11.

67 Pounder (Not illustrated)

Pounder, derived from a cobble of elongated form with an irregular cross-section. Both ends are abraded.

Length 182 mm, max width 45 mm, max thickness 36 mm. Tayport, Find No 27.

The form of No 68, a sandstone weight, appears to have originally been very regular, and the object was probably derived from a pebble, modified by grinding to form an elongated triangular shape. The oval perforation through the object has a maximum width of only 4 mm but the width of the countersinking on each face extends to 19 mm in one case and 16 mm in the other. The perforation is evenly worn, and the entire object abraded, and no evidence survives as to which way the weight would have hung. It may have been used as a net weight or a line sinker, although a domestic function must also be a possibility. Curle (1938, 107) noted that, in the Viking settlement at Freswick, larger ovoid pebbles had grooves cut in opposite faces to hold a cord or rope, in the manner used in modern times for weighting lobster creels.

68 Weight (Not illustrated)

Weight, originally of elongated triangular outline, with its two narrower corners broken and abraded. The surviving corner is smoothly rounded. The object has a centrally-positioned perforation, countersunk from both faces.

Length 90 mm, max width 38 mm, thickness 18 mm. Tayport, X/-/-/40, Find No 25.

A pebble of roughly oval outline (No 69) was possibly used as a rubbing stone, as one face is smooth and slightly concave, possible due to use-

related wear. The single slate pencil fragment recovered from the site (No 70) appears to have been used at both ends.

No 71 is of unknown function. It appears to be deliberately worked, having a circular recess, apparently drilled, near one corner, although the stepped appearance of its edges may be due to differential erosion of the rock. It is possible that the flatness of its faces is also a consequence of the nature of the rock itself. If artefactual, it was probably intended to serve a decorative function, possibly as a mount or even a pendant. It may represent an unfinished object.

Among the surface-collected material is a small, rectangular cross-sectioned block of steatite (soapstone) (No 72), bearing file marks on all faces, although otherwise plain. Steatite was in widespread use in the Viking period, and the richest artefact assemblages of that date are to be found in Shetland, where close proximity to the source of the raw material enabled a variety of artefact types to be produced (Graham-Campbell and Batey 1998, 223). The function of this object is uncertain. It is carefully finished and may have been used as a gaming piece, or it may represent a weight (although it weighs only c. 4g or c. ¼ oz).

The form of No 73 is very similar to that of the upper stone of a small rotary quern; however the stone itself is quite soft and friable, and would appear quite unsuitable for use as a quern. However, the friability may, in part, be a result of weathering action upon the stone. From an unstratified context, No 74 is a small, water-worn, tabular fragment of jet or shale, bearing no evidence of modification.

69 Rubbing stone? (Not illustrated)

Pebble of approximately oval outline with mainly convex surfaces, but including a slightly concave face which may be artificially smoothed.

Length 96 mm, max width 50 mm, max thickness 31 mm. Tayport, Find No 28.

70 Slate pencil (Not illustrated)

Fragment from the tip of a slate pencil, sharpened to a point at one end and rounded at the other. Length 25 mm, diameter 4 mm. NMS, Area D, NC 01701312, NW of Building 1.

71 Worked fragment? (Figure 7)

Possibly worked fragment, with flat faces and surviving parts of two edges. These edges form an angle only a little over 90°, and have a stepped appearance. A circular recess has been drilled into the stone, near the surviving corner. The remaining edges are broken.

Length 44 mm, max width 26 mm, thickness 5 mm. Excavation, Find No 24, Unstratified.

72 Rectangular block (Figure 7)

Small, rectangular cross-sectioned block of steatite, bearing file marks on all faces but otherwise unmarked.

Length 13 mm, width 10 mm, thickness 10 mm. F Ross collection, No 40, D/4/-/14, Paved area.

73 Worked fragment (Not illustrated)

Fragment of mica-schist, broken across a drilled, tapering hole. The fragment is thickest at the centre, around the hole, reducing in thickness towards its broken outer edge. One face is flat, the other slightly convex.

Length 144 mm, max width 106 mm, max thickness 31 mm. Excavation, Building 2, Find No 47.

74 Fragment (Not illustrated)

Tabular fragment of jet or shale with an irregular outline, possibly water-worn.

Length 21 mm, max width 12 mm, thickness 6 mm. Excavation, Find No 49, Unstratified.

Imitation Jet

A spiral ring from the excavation (No 75) has the superficial appearance of jet or shale, but is slightly flexible and appears to be made from plastic. Jet-like plastics were developed during the nineteenth century as cheap imitations, as the popularity of jet for mourning jewellery rose (Fraser Hunter pers. comm.). The only piece of jet or shale recovered from the site is an unworked fragment (No 74, above).

75 Ring (Not illustrated)

Spiral ring with D-shaped cross-sectioned sides and overlapping terminals. Only one terminal survives intact, its outer edge trimmed to form a point. The other terminal is broken. The ring is slightly flexible. The surface bears numerous small scratches and is slightly abraded.

External diameter 15 mm, internal diameter 12 mm, surviving (overall) thickness 7 mm. Excavation, Find No 23.

Steatite

By Amanda Forster

Steatite or soapstone is a general term used to describe metamorphic rocks composed primarily of talc. The stone has a low coefficient of thermal expansion and can therefore be subject to heat without a high risk of fracturing (Bray 1994, 4; Braun 1983, 114). In addition, steatite is a soft rock and can be worked easily using metal or stone tools. Due to its physical properties, the stone has been utilised throughout prehistory and the historic period, as a raw material for the manufacture of artefacts including vessels, lamps and bakeplates. In Scotland, steatite was used during the Iron Age for the manufacture of lamps (e.g. Steer 1958, 243f.; Close-Brooks 1974, 295f.; Curle 1916, 252; Callander 1921, 120), though its use was most extensive during early prehistory in the Northern Isles and on a wider North Atlantic scale during the Viking period (see Buttler 1984; Forster and Bond, 2004).

Steatite has a limited provenance and is most often associated with Shetland, where relict quarry deposits indicate intensive prehistoric use (see Turner 1998; Buttler 1984). Smaller deposits are known throughout Scotland and, to a lesser extent, the British Isles (see Bray 1994; Roy Ritchie 1984). There are no known steatite outcrops near Achnahaird Sands, and the closest source appears to be in the Western Isles, in Scalpay and Harris (see Bray 1994, 19, 37) or on Mainland Scotland at Sheildaig Forest, Glenelg and Bray, Sutherland (ibid.). Geochemical analysis of artefacts and sources from Scotland have demonstrated that at least some of these smaller outcrops were utilised as early as the Iron Age (ibid., 221). During later periods, when Norse settlers came to Scotland, the recovery of steatite

is more often seen as evidence of contact or trade (with Shetland or Norway) rather than utilisation of local resources (e.g. Forster 2009, 58).

The Achnahaird steatite assemblage consists of 34 objects, the majority, 12 objects each were recovered from areas X and MC. Due to the provenance of the artefacts, there is little contextual data giving an indication of possible date. In addition, the nature of the artefacts themselves is not typical of a particular period, thus an indication of chronology cannot be given based on the assemblage alone. The use of steatite in the area has not been investigated to this author's knowledge, and one has to look to the Western Isles, Northern Isles and Caithness discussions of steatite artefacts from archaeological contexts. Within the Achnahaird assemblage, however, there are few artefact types represented which are easily paralleled to those from other areas.

The majority of the objects making up the assemblage are particularly abraded, often too poorly preserved to allow reconstruction of complete artefact types. Within a settlement complex, abraded objects can be an indication of an open situation (e.g. floor deposits where objects could be easily roughened), as opposed to less accessible areas such as midden deposits (where artefacts may be less abraded). In the case of Achnahaird sands, however, such an interpretation is impossible due to the context of the finds, many of which have been recovered from eroding sand deposits which are likely to produce similar artefact wear. Table 9 gives a breakdown of the artefact types found within the assemblage alongside contextual information.

The material from which the artefacts have been manufactured is a coarse steatite with large

inclusions. Though some of the artefact types represented are more commonly manufactured from other types of stone (such as schist), the texture and hardness of the material used is consistent with steatite. The nature of the stone is uniform throughout the assemblage, suggesting a common provenance. The sourcing of steatite in Britain has gained some attention from past researchers (e.g. Moffat and Buttler 1986) and recent geochemical work has shown some success, especially with non-Shetlandic sources (Bray 1994). Attempts to provenance the stone using non-analytical techniques (such as petrological examination e.g. Hamilton 1956, 206f.) has been demonstrated by recent studies to be unreliable owing to inhomogeneity within sources. Without the aid of geochemical investigation, therefore, it is impossible to suggest a likely quarry for the source of the Achnahaird Sands steatite artefacts.

Artefacts

As illustrated in Table 9, a number of artefact types are represented in the Achnahaird Sands assemblage. The use of steatite for querns is apparently unique to this assemblage, with no other examples being recorded elsewhere. The majority of the remaining fragments are either unworked, or worked but unrecognisable as an object. It is interesting to note the distribution of different artefacts across the site, with the majority of artefacts from MC being worked or unworked, and the majority of those from X being rotary querns. The presence of unworked fragments and those with some working may be an indication that the raw material was brought onto, and worked at, the site. The higher numbers of such objects from Area MC perhaps suggest that the working of steatite mainly occurred in this area.

| Context | Lug/Handle | Mould | Cube | Quern fragment | ?Quern | ?Quern/platter | Worked (Misc.) | Unworked | Total |
|--------------------|------------|----------|----------|----------------|----------|----------------|----------------|----------|-----------|
| Building 2 | | | | 1 | | | | | 1 |
| NGR area D/1 | | | | | | | | 1 | 1 |
| NGR area D/4 | | | 1 | | | | | | 1 |
| NGR area E | | | | 1 | | | 1 | | 2 |
| NGR area G | | | | 2 | 1 | | 1 | | 4 |
| Maclean Collection | | | | 1 | 1 | | 5 | 5 | 12 |
| Old Dorney Bay | 1 | | | | | | | | 1 |
| Unprovenanced | | 1 | | 5 | 2 | 1 | 2 | 2 | 12 |
| Total | 1 | 1 | 1 | 9 | 4 | 1 | 9 | 8 | 34 |

Table 9: Worked steatite objects from the site

Querns In all, nine querns were identified with a further five possible examples. All of the objects are fragmentary, to the extent that none can be fully reconstructed. Some of the artefacts included in this group have been identified purely on the evidence of wear pattern consistent with rotational grinding (e.g. SF 65, SF 66 and SF 30). Owing to the poor preservation of the artefacts, it has not been possible to postulate the number of querns represented, or identify possible working pairs. The manufacture of the stones is quite rough and the design of them variable.

The occurrence of off-centre perforations on two of the fragments indicates their use as upper stones (e.g. SF 8 and SF 47, Figure 9), while the collared central perforation and use-wear of SF 69 (Figure 10) may indicate a third. Off-centre perforations facilitate the use of a handle on the upper stone to enable rotation, the central perforation being used a feeder. There is no evidence for a slot across the central feeder, an attribute which provides an alternative method of rotation.

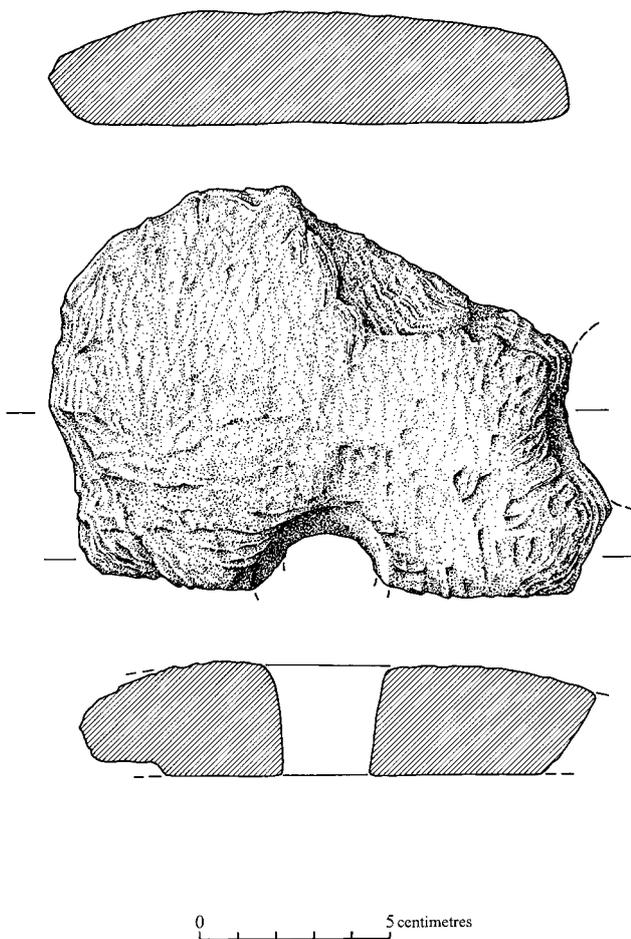


Figure 9: Steatite quern, SF 47.

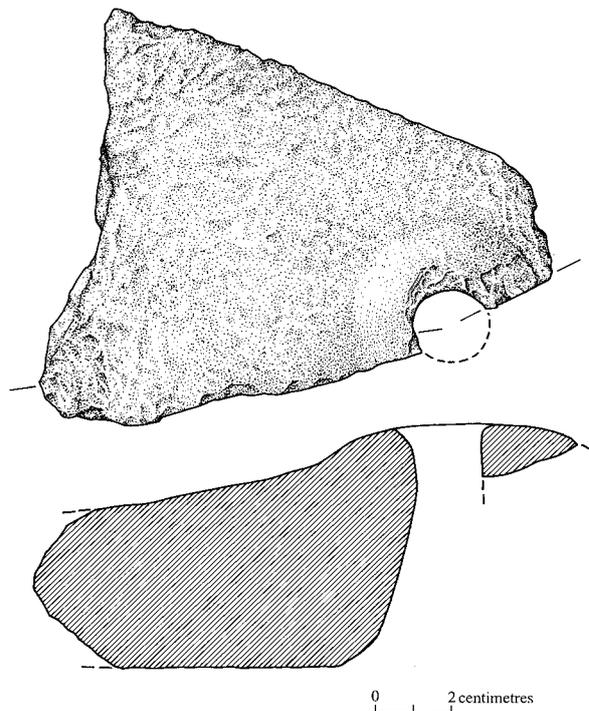


Figure 10: Steatite quern, SF 69.

A couple of the artefacts seem to have been used for grinding, but are unusual in design. The profile of SF 31 (Figure 11) describes a concave face, with a band c. 45 mm thick around the edge, again slightly concave and showing the same rotational grinding wear as the central dish of the stone. The workface surface is most readily compared to the surface of a dinner plate. SF 8, has an off centre perforation indicating an upper stone but has a very narrow working surface, c.70 mm from the assumed edge of the artefact. Though the central perforation is not extant, the profile indicates a conical feeder, widening towards the working face. It is possible, however, that secondary working has occurred and the profile does not accurately represent the original design.

Finally, a fragment from what is possibly a lipped platter but more likely to be a form of grinding stone was recovered from Area X (SF 58, Figure 12). The fragment is relatively thin (c.12 mm) and discoidal in shape with a slightly curved profile and a raised lip around the circumference. The concave surface has been ground and an area of polishing around the inside of the lip suggests that such grinding may a result of use-wear rather than manufacture. The convex surface has been roughly worked with a narrow tool, probably a chisel, with uniform shaping towards the edge. Though lipped bake plates, of a similar

form to this fragment, have been recognised in assemblages from the Northern Isles (Sharman, nd.), in the context of this assemblage this fragment is perhaps more likely to be another form of grinding stone. A similarly thin stone thought to be a medieval rotary grinding stone was recovered from excavations at Crosskirk Broch, though in this case the worked surface was convex (Fairhurst 1984, 128).

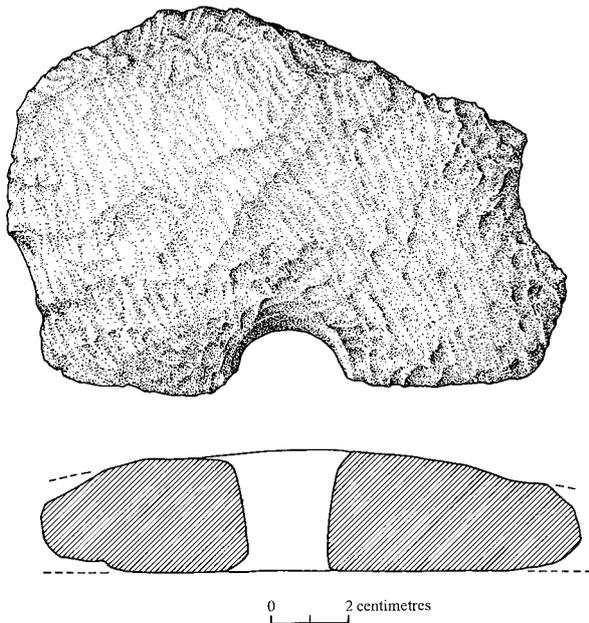


Figure 11: Steatite quern, SF 81.

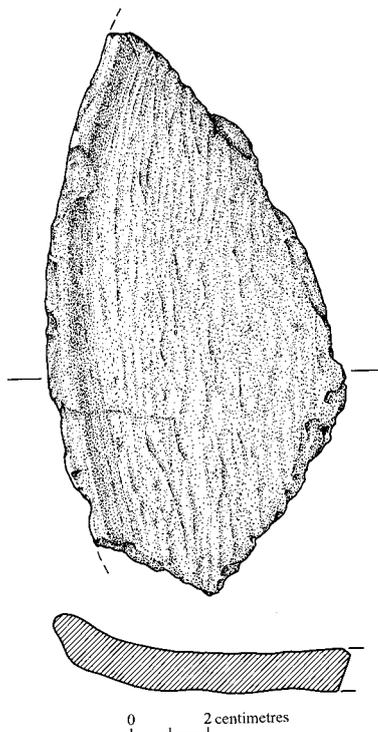


Figure 12: Steatite lipped platter SF 58.

Steatite is particularly unsuitable for the manufacture of the rotary querns and it is therefore surprising that they represent the largest find group within the assemblage. The density and the coarse nature of the particular steatite used at this site would perhaps make it function adequately, though its softness would be a distinct disadvantage. The stone would wear quickly and a high inclusion of grit and powder would be present within any ground produce. This use of an inappropriate material may be an indication that the source of the stone is a local (though unrecorded) outcrop of steatite of sufficient proximity to outweigh its deficiencies as a suitable material for quern manufacture. Further work looking into the range of raw materials available near to the site may shed light on this issue.

Lug/handle (Figure 13) A lug or handle from a vessel (NSF) was recovered from Building 1 at Old Dorney Bay. The artefact is quite roughly worked although the vessel wall is relatively thin (c. 13mm). Chisel marks can be seen on the internal face of the wall, the surface of which has been left rough with no evidence of smoothing. Tooling can be seen around the lug, which suggests the use of a knife in shaping the artefact. The vessel appears to have been circular or oval, though the rim itself is not extant. The size or morphology of the vessel cannot be estimated. No signs of burning or sooting can be seen on either internal or external surfaces, and the artefact is very worn.

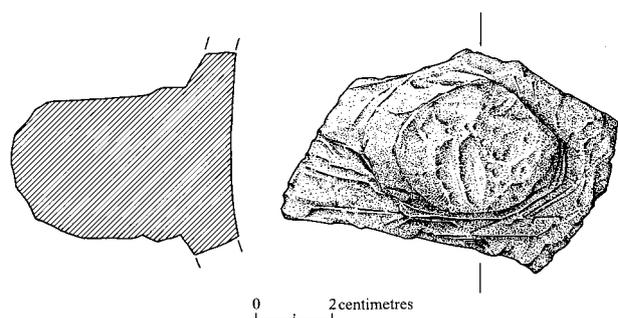


Figure 13: Steatite lug/handle.

The lug is the only example of a steatite vessel from Achnahaird Sands and is not particular to any period. Lugged vessels have been recovered from both Iron Age and Norse sites within Scotland (e.g. Steer 1958, 243f.; Close-Brooks 1974, 295f.; Curle 1916, 252; Callander 1921, 120; Hamilton 1956, 113, Plate XXXVIII) and, without knowing the form of the attached bowl it is impossible to suggest a date for the artefact.

Mould (Figure 14) The mould fragment (SF 68) is incomplete, with remnants of two sub-rectangular ingot moulds present. The dimensions of the moulds are: 85 mm by 14 mm by 10 mm deep and 65 mm by 13 mm by 7 mm deep. Both ingot moulds are roughly worked with only minimal effort made to smooth or shape them. Steatite is an ideal material for the manufacture of moulds, owing to its thermal properties and the fact it can be easily carved.

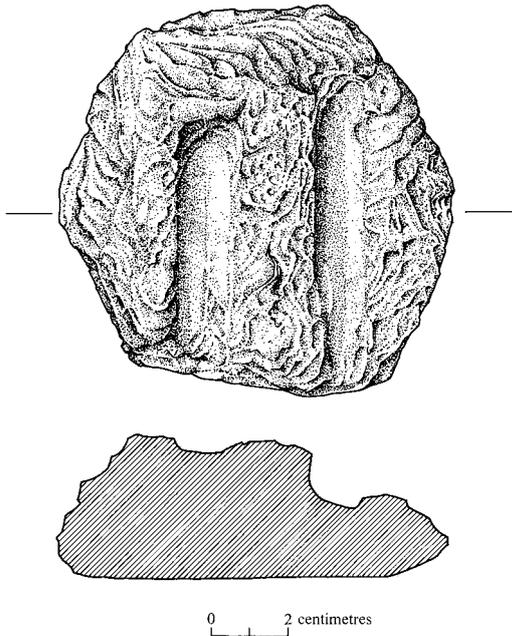


Figure 14: Steatite mould SF 68.

Cube (Figure 7) A small cube (Cat. 72, SF 14) measuring approximately 10 by 10 mm, recovered from Area D, represents the only small, portable object found within the Achnahaird steatite assemblage. The stone is of a less coarse variety of steatite than the rest of the group, green in colour and slightly translucent. The cube has been well manufactured, with scouring on the surface perhaps indicating the use of a file for this purpose.

Lithic artefacts

By Torben Bjarke Ballin

Introduction

Investigation of a house site in the sand dunes of Achnahaird on the Scottish west coast produced a small collection of lithic artefacts (22 pieces). Only four pieces came from excavated contexts, with the remainder of the finds being unstratified. This small assemblage is supplemented by a slightly larger assemblage (134 pieces), collected

on the site by members of the public. These finds are all unstratified. With most of the finds from Achnahaird Sands being uncontexted, little can be said about the two assemblages and, as a consequence, this report will be restricted to a brief presentation of the lithic finds and a discussion of their possible dates.

The excavated assemblage

Raw Material

With 20 pieces, flint dominates the lithic collection (91%), supplemented by one piece of quartz and one indeterminate type of raw material. The flint represents a number of different colours and varieties, from fine-grained vitreous types to coarse-grained opaque types. The coarser varieties (CAT 12, 15, 16, 19, 21) frequently contain impurities resulting in inferior flaking properties. The colour spectrum includes light grey, creamy, light orange, brown, and dark brown to black. A single piece (CAT 13) of worked quartz was found. This raw material is black and slightly saccharoidal. The piece of indeterminate raw material (CAT 22) is heavily weathered, almost disintegrated, and it is probably baked mudstone, hornfels or mylonite; it is uncertain whether the piece is worked.

None of the artefacts is burnt, and only four of the flint pieces have some cortex-cover. Five flint artefacts (CAT 1, 4, 5, 6, 12) are slightly to heavily water-rolled; they are all unstratified finds from the excavation, or surface collected specimens. The cortex of CAT 2 and 14 is battered and abraded, suggesting collection at a beach source.

Definitions

In the presentation of the two lithic assemblages the following definitions are applied:

An end-scraper is defined by having a working-edge approximately perpendicular to the longest of the two dimensions L and W (L being the dimension proximal end to distal end), whereas a side-scraper has its edge on the longest of the two dimensions. If $L > W$ (elongated blank) the working-edge of the end-scraper will be distal (sometimes proximal) and the edge of the side-scraper will be lateral. If $W > L$ (broad blank) the working-edge of the end-scraper will be lateral and the edge of the side-scraper will be either proximal or distal.

Flakes: All lithic artefacts with one identifiable ventral (positive/convex) surface, GD > 10 mm and L < 2W (L = length, W = width).

Indeterminate pieces: Worked lithic artefacts (GD > 10 mm) which cannot be unequivocally identified as either flakes or cores. Generally the problem of identification is due to irregular breaks, frost-shattering or fire-crazing. *Chunks* are larger indeterminate pieces, and in, for example, the case of quartz, the problem of identification usually originates from a piece flaking along natural planes of weakness rather than flaking in the usual conchoidal way.

Blades and microblades: Flakes where L ≥ 2W. Blades W > 8 mm and microblades W ≤ 8 mm.

Cores: Artefacts with only dorsal (negative/concave) surfaces – if three or more flakes have been detached, the piece is a core, if fewer than three flakes have been detached, the piece is a split or flaked pebble.

Tools: Artefacts with secondary retouch (modification).

Assemblage composition (see Table 10)

Debitage: A total of 14 pieces ofdebitage was found at Achnahaird. Twelve pieces are flakes and two are indeterminate pieces. The assemblage does not include blades or microblades. Five flakes were detached by the application of hard technique, four by the application of bipolar technique, and in three cases the reduction technique could not be determined. CAT 2 has slight use-wear at the distal end of the right lateral side and may have been used as a knife. All flakes are in flint. One of the two indeterminate pieces is in black quartz, whereas the other piece is in flint.

Cores: One small bipolar core in flint (CAT 5) was recovered (GD 17 mm). It has four crushed ridges or terminals, demonstrating that the piece was re-orientated during production (Ballin 1999).

Tools: The six tools from the site include two piercers, one piece with a retouched notch, two pieces with edge-retouch, and a combined tool. All tools are in flint. Both piercers are rather crude

implements with robust tips. CAT 4 is a thick flake with a triangular outline; the right distal corner forms a definite piercer tip, with the other distal corner forming a possible secondary tip. CAT 14 is a flake piercer with a long four-sided tip at the proximal end, and a shaped ‘handle’ at the other end. The tip has coarse dorsal retouch on both lateral sides, and one lateral side has additional flat (invasive) ventral retouch. The tip’s two dorsal ridges have been blunted by plain rubbing. The edges and corners of the ‘handle-end’ have been blunted by retouch from the dorsal and ventral faces.

CAT 15 is a flake with a large retouched notch (chord = 12 mm) in the left lateral side and some additional uneven retouch in the opposite side; the retouch is relatively steep, and most likely both sides of the piece were used for scraping. The function of the two retouched pieces is uncertain. CAT 1 is a relatively thick flake with some flat proximal and distal removals on the dorsal face and additional sporadic retouch at the distal end and left lateral side. The flat opposed removals suggest attempts at using the flake as a bipolar core; as this was unsuccessful, the flake was subsequently modified for other use. CAT 17 is a small (GD 12 mm) flake fragment with some regular steep retouch on one edge.

| Category | Type | Total |
|-----------------|-------------------------------|-------|
| Debitage | | |
| | Flakes | 12 |
| | Indeterminate pieces | 2 |
| | Sub-total,debitage | 14 |
| Bipolar cores | | 1 |
| Tools | | |
| | Piercers | 2 |
| | Pieces with a retouched notch | 1 |
| | Pieces with edge-retouch | 2 |
| | Combined tool | 1 |
| | Sub-total, tools | 6 |
| Other artefacts | | 1 |
| Total | | 22 |

Table 10: Excavation. General lithics artefact list

The combined tool (CAT 21) is a scraper-piercer, with a slightly convex, steep scraper-edge at the proximal end, and a piercer tip (most of which has broken off) at the distal end. The corners of the scraper-edge are sharp (shouldered scraper-edge). The piercer tip was formed by three-sided retouch, that is, by retouching both lateral sides and the dorsal ridge.

Other artefacts: CAT 22 is possibly the disintegrated remains of a tool. The raw material may be either mudstone, hornfels or mylonite.

Surface collected lithic finds

Raw material

Like the above assemblage, this collection is dominated by flint (118 pieces or 88%), supplemented by six pieces of quartz (4%), five pieces of chalcedony (4%), 3 pieces of agate (2%), one piece of quartzite (1%), and one piece of pitchstone (1%). All the chalcedony and pitchstone are natural, and two of the three pieces of agate are natural. Thirteen pieces of flint (11% of the 118 pieces) are also natural.

From an archaeological perspective, the natural pieces are irrelevant, apart from the pitchstone (Ballin 2009; Ballin and Faithfull 2009). This piece (CAT 126) is a small rounded nodule with a greatest diameter of 22 mm; it is black with distinct green inclusions, and the surface is abraded like a beach pebble. However, pitchstone is not naturally occurring in the northern part of the Scottish west coast, with the island of Raasay being the most northerly known natural occurrence (Williams Thorpe and Thorpe 1984, 4-5). As glacial movements cannot explain the presence of CAT 126 on this location (Johnstone and Mykura 1989, 165), the piece most likely represents importation. Williams Thorpe and Thorpe (1984, 16-17) analysed a number of pitchstone artefacts and concluded that they all most probably came from outcrops on the island of Arran. Statistically, this means that CAT 126 is most likely to have derived from this source, but one must bear in mind that archaeologically occurring pitchstone is usually worked. In contrast, this piece is not, and as it is almost certainly too small to have been intended for knapping by prehistoric people the question is whether it may simply be a 'souvenir' brought back from visits to neighbouring islands, such as Raasay or Skye?

The flint sub-types correspond to the sub-types described above. Five flakes (CAT 193, 196, 213, 214, 215) are in good quality chalk flint, and they are dark brown-and-grey, large (up to GD 35 mm), sharp-edged, and two flakes have fresh powdery cortex. This variety of flint is exotic to Scotland and represents importation. It corresponds to the so-called 'ballast flint' from Aberdeen, which

includes plain flakes, cores and tools and possibly represents a late prehistoric industry (Ballin 2001).

The quartz (CAT 207-212) varies between homogeneous milky quartz and light saccharoidal quartz (Ballin 2008). All quartz pieces have been worked. The quartzite piece is a flake (CAT 117), and it is light with a decidedly grainy structure. The chalcedony (CAT 121, 194, 195, 201, 202) and the agate (CAT 118, 122, 123) form a continuum, with all the chalcedony and the two natural pieces of agate being bluish-grey (Ballin 2018). It has been chosen to distinguish between these two raw materials by their patterning, with chalcedony being homogeneous, and agate displaying concentric bands. The retouched piece of agate (CAT 118) is red with alternating light and dark concentric bands. It is quite possible that the red hue of this specimen is due to heating.

Apart from the pitchstone and the dark brown-and-grey flint, all other pieces of flint, as well as the quartz/quartzite, chalcedony, and agate are likely to be local. Within each category several pieces display abraded surfaces and they were probably collected at a beach source. Ninety-three pieces (c. 70%) are naturally rolled, and seven pieces of flint (CAT 110, 127, 147, 161, 220, 227, 229) are fire-crazed.

Assemblage composition (see Table 11)

Debitage: The supplementary assemblage includes 58 pieces of debitage: one chip, 47 flakes, two blades, one microblade, six indeterminate pieces, and one crested flake. Twenty-six of the 50 flakes and blades were detached by the application of bipolar technique, with six having been detached by hard technique and one by soft technique; in the remaining cases the applied technique was defined as 'uncertain'. Two flakes and one blade show signs of having been used: CAT 106 has macroscopic use-wear along one lateral edge and may have been used as a knife; CAT 181 and 182 have macroscopic use-wear along various lateral edges and edges of breaks and may have been used for *ad hoc* cutting, graving and shaving purposes. The crested flake (CAT 185) is a rather plain piece with a unilateral crest (small flakes detached to one side of the dorsal ridge). Four flakes are in quartz/quartzite, and one indeterminate piece is in quartz; all other pieces of debitage are in flint.

| Category | Type | Total |
|----------|--------------------------|-------|
| Debitage | Chips | 1 |
| | Flakes | 47 |
| | Blades | 2 |
| | Microblades | 1 |
| | Indeterminate pieces | 6 |
| | Crested flakes | 1 |
| | Sub-total,debitage | 58 |
| Cores | Single-platform cores | 1 |
| | Irregular cores | 1 |
| | Bipolar cores | 1 |
| | Sub-total, cores | 3 |
| Tools | Short end-scrapers | 8 |
| | Side-scrapers | 1 |
| | Side/end-scrapers | 4 |
| | Other scrapers | 1 |
| | Piercers | 12 |
| | Burins | 1 |
| | Bifacial pieces | 2 |
| | Pieces with truncations | 1 |
| | Pieces with edge-retouch | 18 |
| | Combined tool | 2 |
| | Other tools | 2 |
| | Sub-total, tools | 52 |
| | Total | 134 |

Table 11: Surface-collected lithic finds. General artefact list

Cores: Three flint cores were found. CAT 168 is a plain single-platform core retouched on the entire circumference; the platform is fully corticated, and the apex is slightly crushed from the application of bipolar technique. CAT 197 is an irregular core; flakes were detached from four different directions. CAT 169 is a bipolar core with two pairs of crushed terminals; this proves that at some point of time the core was re-orientated.

Tools: Fourteen of the 52 tools are scrapers. The scraper group consists of eight short end-scrapers, one side-scraper, four side/end-scrapers and one other scraper. The short end-scrapers form a heterogeneous category. The largest (CAT 207) is a quartz scraper with some supplementary retouch of the lateral sides (GD 49 mm). All other end-scrapers are in flint, with CAT 177 being relatively large (GD 35 mm), and the remaining pieces being of approximate thumbnail size (GD c. 15-25 mm). CAT 135 and 150 are slightly elongated, CAT 127 and 154 are roughly circular, and CAT 107 and 136 have a semi-circular scraper-edge at one end and a straight, partly blunted edge at the other end.

The side-scraper (CAT 134) was manufactured on a medial fragment of a flint flake with a straight scraper-edge along one lateral side, with the other lateral side being blunted by simple ‘rubbing’ with a hammerstone. The side/end-scrapers are all in flint and form an exceedingly varied group. They are made on plain flakes (CAT 104, 145, 166) and one abandoned core (CAT 164), and they have scraper-edges on a combination of sides and edges. Their scraper-edges are convex, straight, slightly concave, and denticulated. The fragment of one scraper has been classified as an ‘other’ scraper as, due to its size, it was not possible to determine whether it is a side- or end-scraper.

Apart from ‘pieces with edge-retouch’, piercers dominate the tool category with 12 specimens. They are all in flint. Like the scrapers, they form a heterogeneous tool group with a tip manufactured on whatever corner or pointed part the knapper found suitable. One piece (CAT 128) is a fairly regular piercer; it is on a good macroblade with a distal tip and some supplementary blunting of both lateral sides. Five pieces are on simple flakes or flake fragments (CAT 112, 138, 149, 184, 219), two are on indeterminate pieces (CAT 167, 176), and four pieces are on discarded irregular cores (CAT 141, 148, 165, 198).

One burin (CAT 144) is an angle-burin on a fragment of a bipolar flint flake; the corner of the burin-edge displays macroscopic use-wear. Two bifacial pieces cannot be defined more precisely; they are both in flint. CAT 103 is a bipolar flake with partial invasive retouch of the dorsal and ventral faces. CAT 133 is the fragment of a flat bifacial piece. CAT 130 is the distal fragment of a thin regular flake; at the distal end a short stretch of a truncation survives, but as the left corner of the distal end has broken off, it is not possible to define the character of the truncation.

Two combined tools are both scraper-piercers in flint. CAT 146 is on an unspecified flake with a piercer tip at one end and a convex scraper-edge at the other end; CAT 170 is on a bipolar flake with a piercer tip at one end and a concave scraper-edge at the opposite end. The category ‘other tools’ includes two pieces, CAT 120 and CAT 143. The former is a flat pebble with an elongated drop-shaped outline. At the pointed end it has a retouched tip formed by ‘propellar retouch’ (one lateral side retouched from one

face, the other side from the other face). It may be an unusually shaped piercer, but the fact that the two lateral retouches are symmetrically denticulated suggests that the piece may have had some other function – it may be an amulet or pendant? CAT 143 is a thick flake with an approximately triangular cross-section. It has been worked on all three surfaces, and one end has broken off. Heavy use-wear on the edges of the break shows that the piece has been used in graving or shaving activities. Eighteen pieces with edge-retouch cannot be defined more precisely; they probably represent a number of different functions.

Technology

Technologically, the two assemblages presented above can be divided into three categories: 1) simplistic lithic reduction based on locally available raw materials, 2) an equally plain industry based on imported chalk flint, and 3) production of robust macroblades.

The vast majority of pieces belong to category 1. This industry is a flake technology, characterized by an almost total lack of core preparation. The reduction method is a combination of hard-hammer technique and bipolar technique, and the modification of tools was carried out by the application of robust retouch and ‘rubbing’ with a hammerstone. In three cases (CAT 14, 103, 133) the modification included crude invasive retouch.

Five pieces differ from the main bulk of finds from Achnahaird Sands. They are in good quality, dark fine-grained flint, and several of these pieces have soft, or even powdery, cortex, suggesting a provenience in Britain’s southern chalk region. Contrary to most other pieces from the site, they are not naturally rolled, and their edges are sharp. They have all been detached by the application of bipolar technique.

One tool (piercer CAT 128) was manufactured on a regular macroblade and, as the only piece of the two Achnahaird assemblages presented above, it represents a blade industry.

Dating

There are no diagnostic core or tool types amongst the lithic material from Achnahaird, and the main chronological indicator is the technological profile

of the assemblages (technological profiling is discussed in Ballin 2004).

Combined, the above technological attributes suggest a late date of the two assemblages. CAT 128 is definitely the product of an early prehistoric blade industry, either early Mesolithic or early Neolithic, whereas the simplistic operational schema of the remaining finds suggests activities at Achnahaird Sands in the later Bronze Age, or even the earlier part of the Iron Age (Young and Humphrey 1999; Ballin 2011). The three pieces with crude invasive or bifacial retouch cannot be dated more precisely, but they are certainly post-Mesolithic. The presence of worked chalk flint is interesting as it supports the case from the Carmelite Friary in Aberdeen (Ballin 2001). At this location an industry characterized by a crude operational schema and imported chalk flint (previously identified as ‘ballast flint’; Kenworthy 1982) has been tentatively dated to later prehistory, based mainly on technological attributes. The above technological categories 1 and 2 may represent different aspects of the same industry.

Selected catalogue

34 Hard-hammer flake with edge-retouch, flint, 22 by 30 by 9 mm. Unstratified, Find No 10. (Figure 15)

35 Hard-hammer flake with use-wear, flint, 30 by 18 by 7 mm. Unstratified, Find No 16.

36 Hard-hammer flake, flint, 9 by 15 by 5 mm. Unstratified, Find No 20.

37 Piercer on hard-hammer flake, flint, 17 by 23 by 10 mm. Unstratified, Find No 25. (Figure 15)

38 Bipolar core, flint, 17 by 17 by 7 mm. Unstratified, Find No 28. (Figure 15)

39 Bipolar flake, flint, 20 by 29 by 7 mm. Unstratified, Find No 29.

40 Bipolar flake, flint, 17 by 22 by 2 mm. Context 5, Find No 32.

41 Medial fragment of flake, uncertain technique, flint, 10 by 12 by 1 mm. Unstratified, Find No 35.

42 Distal fragment of flake, uncertain technique, flint, 11 by 29 by 4 mm. Context 13, Find No 36.

43 Medial fragment of flake, uncertain technique, flint, 19 by 17 by 4 mm. Context 9, Find No 41.

44 Hard-hammer flake, flint, 27 by 44 x by 7 mm. Context 9, Find No 43.

45 Bipolar flake, flint, 32 by 23 by 13 mm. Surface find.

46 Indeterminate piece, black quartz, 18 by 15 by 7 mm. Surface find.

47 Piercer on a platform flake, flint, 31 by 23 by 13 mm. Surface find. (Figure 15)

48 Hard-hammer flake with a retouched lateral notch, flint, 28 by 21 by 9 mm. Surface find. (Figure 15)

49 Indeterminate piece, flint, 24 by 12 by 6 mm. Surface find.

50 Hard-hammer flake with edge-retouch, flint, 9 by 12 by 4 mm. Surface find.

51 Hard-hammer flake, flint, 15 by 22 by 3 mm. Surface find.

52 Hard-hammer flake, flint, 13 by 15 by 8 mm. Surface find.

53 Bipolar flake, flint, 26 by 11 by 9 mm. Surface find.

54 Combined tool (scraper-piercer) on hard-hammer flake, indeterminate flint-like raw material, 20 x 22 x 10 mm. Surface find. (Figure 15)

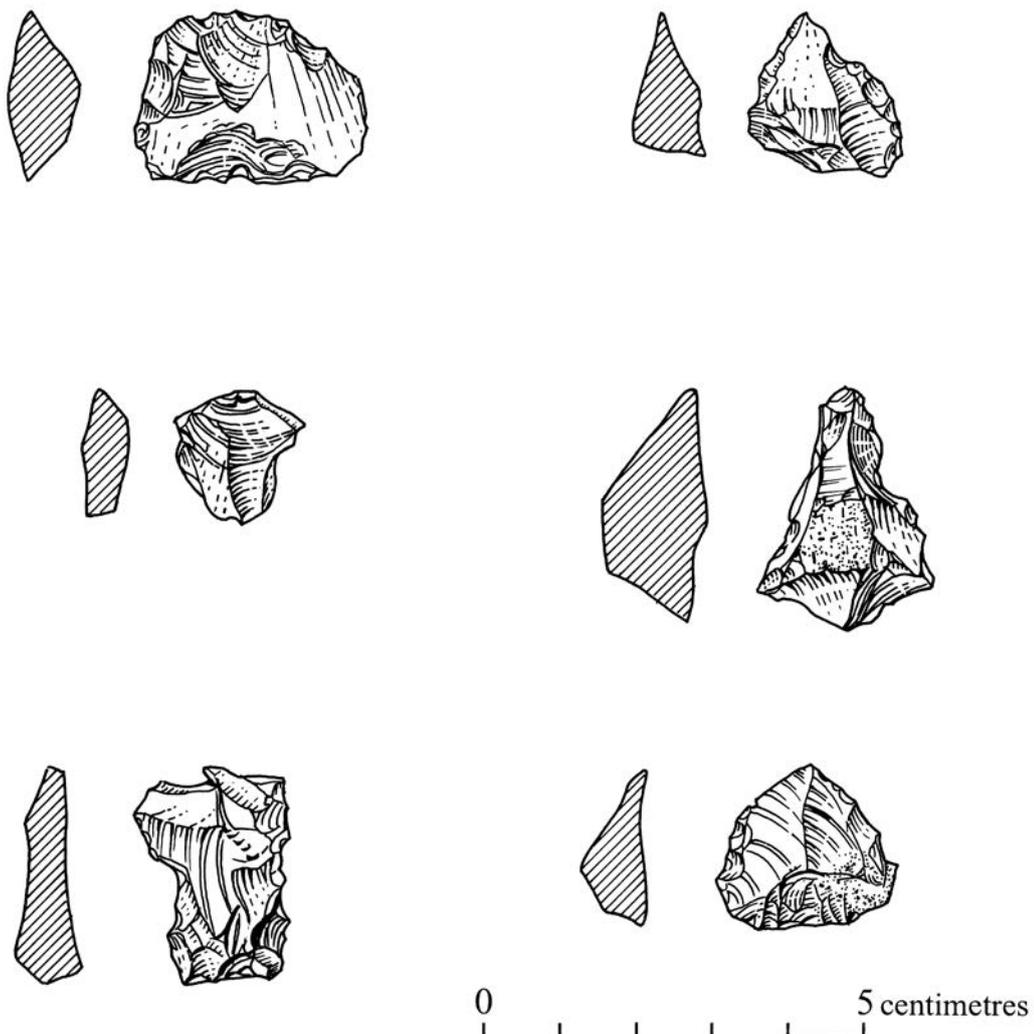


Figure 15: Flint: 34. flake with edge-retouch, 37. piercer, 38. bipolar core, 47. piercer, 48. flake with retouched lateral notch, 54. scraper-piercer.

55 Possibly worked, heavily disintegrated piece, indeterminate raw material (probably mudstone, hornfels or mylonite), 25 by 17 by 13 mm. Surface find.

General Discussion

By Stuart Farrell

The buildings at Achnahaird in 2000 are likely to date from the mid-seventeenth to the early eighteenth century given the date of the finds of material culture. Even with their style of construction, both being different, they should be seen as being contemporary following a local building tradition with the orientation of both the buildings relating to prevailing wind conditions. Unfortunately, comparative sites excavated of this style of buildings in the north-west of Scotland are lacking in the archaeological record. The study of medieval or later rural settlement in this area of Scotland is rare with the excavation of such sites being non-existent.

What can be said is that the excavated buildings provide evidence for a diverse occupation and economy through the evidence of fishing, smithing, animal husbandry and trade (coins). It has been suggested that these buildings may be part of the township of Achnahaird as depicted on Peter May's map of 1758 (Long, forthcoming) but further detailed study of the area will be needed to confirm this. When the buildings were abandoned is unknown, probably prior to Peter May's Map and had probably started to be covered over (especially Building 2) with the great storm of 1771 (pers comm. Frances Ross), which probably covered much of the area of Achnahaird with sand.

The recovery of prehistoric flint, together with the fact that the enclosure incorporates a number of recumbent stones, may indicate that the enclosure is a reuse of an earlier structure possibly a hut circle. A number of hut circles are recorded to the south-east towards Achiltibuie, although further work may be required to resolve this. However, no evidence was found in the excavation of the paved area of any prehistoric deposits.

The presence of steatite objects suggests that somewhere in the area there should have been Norse settlement. However, there was no direct evidence for this related to the two buildings. Two finds were made in the dunes towards Area 3 (Find 33 a rim sherd of pottery with steatite temper and Find 48 worked stone object) which added to the number of steatite sherds found in the past indicate that a Norse site must lie close by.

Steatite comment BY SF – The small amount of steatite found in the area of the excavation does give strength that there was some kind of Norse settlement here in the medieval period, though now has possibly been lost due to erosion.

It must be emphasised that this archaeological project is only the start of the understanding of the rich and largely unknown archaeological heritage of Coigach of which Achnahaird plays a small but important part.

2019 Update

Nearly twenty years have passed since this excavation and the comments made above still to some extent remain the same and it must be recognised the suggestion of a 'Norse settlement' is still as elusive now as it was before we started.

In recent years a number of excavations of domestic house structures have been published which give a seventeenth/eighteenth century date for their use (Adamson and Baillie 2015, Adamson and Baillie 2019, Atkinson 2016 and White et al 2009) and in particular the farmstead of East Kirkdale in South Uist (Parker Pearson 2012) which had similar structures and layout to those found at Achnahaird with bowed walls and enclosing walls between the structures.

Overall studies and particular the excavation of houses in the north-west of Scotland to the medieval or post-medieval periods is still severely lacking. Building 1 at Achnahaird probably had an A-frame for its roof but studies are dominated by 'cruck' buildings, and therefore the excavations at this site are just problematic as they were back in 2000.

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Abbreviations

ULM GEN REF - Ullapool Museum Genealogical Reference

ULM REF - Ullapool Museum Reference

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GD 305/1/1/4 Instrument of sasine proceeding upon a precept in charter by Colin McKenzie of Kintail dated 10th May 1588 in favour of Tarquill

Makcloyd, apparent heir of the Lewes, of the half davach land of Achachall.

GD305/1/1/5 Charter of confirmation by King James VI of a charter by Torquil McCloyde of Lewis to Margaret Nyne Angus Mc Alexander his spouse.

GD305/1/162/286 Tack by Sir George McKenzie of Tarbat Knight Baronet to Murdon McCleod in Achnaard of the Town and Lands of Drumvaich and others for 5 years on the terms etc. therein mentioned.

GD305/1/64 Titles to Additional Lands at Tain 1785-1784.

Milford Manuscript (Record of the Privy Council 11 February 1596/97).

NRS = National Records of Scotland

RHP 3429 – William Morrison’s plan of the farm of Achiltibuie 1775

RHP 85395 – Peter May’s plan of Coigach 1758

National Map Library of Scotland

Gordon, Robert or James 1640s *Map of Coigach*

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