



CAIRT

Issue 7
June 2005

Newsletter of the Scottish Maps Forum

In this issue:

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- Map-related talks, exhibitions and publications
- Notes and queries – *The Fisheries Revived*
- Recent acquisition – Thomas Jefferys' *Map of the River Forth*.

SCOTTISH MAPS FORUM

The Forum was initiated by the National Library of Scotland in January 2002:

- ♦ To stimulate and to encourage multi-disciplinary map use, study and research, particularly relating to Scottish maps and mapmakers
- ♦ To disseminate information on Scottish maps and map collections
- ♦ To record information on maps and mapmaking, particularly in a Scottish context
- ♦ To liaise with other groups and individuals with map related interests
- ♦ To build on, and to continue, the work of Project Pont

CAIRT

The newsletter is issued twice a year. "Cairt" is Gaelic & 17th century Scots for map.

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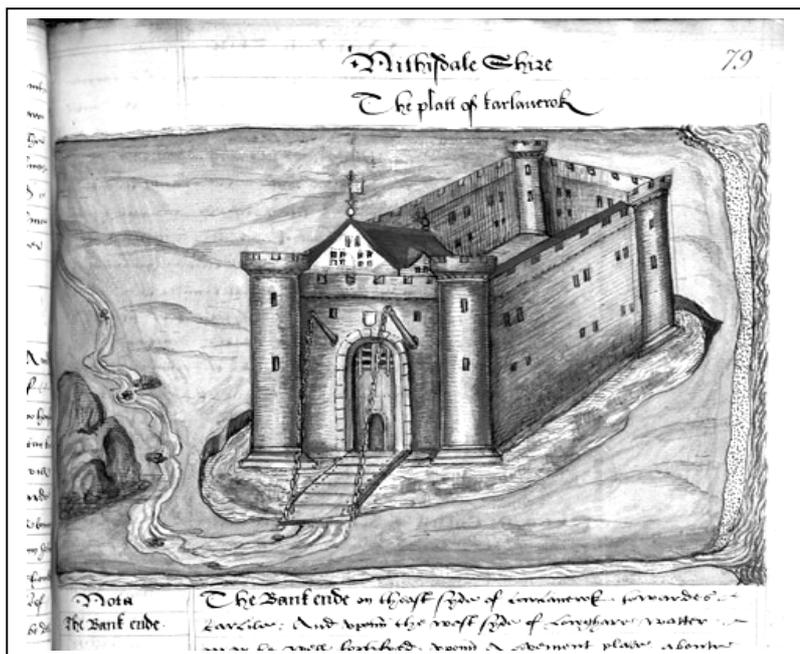
UNVEILING SCOTLAND

The British Library has launched several exciting new websites, under the banner title **Collect Britain**. These include many manuscript and printed maps, views and photographs of Scotland.

With items dating from 800-1600, **The Unveiling of Britain** displays over 800 zoomable images of the earliest manuscript and printed maps of the British Isles, often little known. Many are early general maps of Britain, but several relate to conflicts with the 'Auld Enemy', so do not have a counterpart in Scotland.

The earliest map displayed, a simple circular world map of the 9th century, includes the name 'Orcaides' (Orkney) while ignoring the rest of Britain. About 1250 Matthew Paris's maps give a rudimentary outline of Scotland, but more information on England (he was a monk based in St Albans). John Harding's maps of Scotland in 1450 are dramatic colourful illustrations of the relationship of maps and political power, created in support of the English king's claim to rule Scotland.

Contd. on Page 2



Caerlaverock Castle 1558

Reproduced by permission of the British Library

A 1544 birds' eye view of Edinburgh relates to the English attacks in 1544-7 when the betrothal of Mary Queen of Scots to Prince Edward, son of Henry VIII, was broken. *A Plan of Aymouth, or Eyemouth* in 1557, the year it was fortified by Henri Clutin, Sieur d'Oysell et de Ville Paris and a bird's eye view of Berwick-upon-Tweed c.1570, show the significance of these towns when attacking the eastern flank of Scotland.

The alternative route into Scotland to the west at Nithsdale is featured by a colourful and detailed view of Caerlaverock Castle in 1558, in preparation for laying siege to the castle. The disputed territories of the debatable lands are shown in 1590 and 1592 in William Cecil, Lord Burghley's manuscript map '*A Platt of the opposete Borders of Scotland to ye west marches of England borders of Scotland*'

Other Scottish-related maps items are 1586 John Leslie's enlarged map '*La vraye et entiere description du tresancien royaume pays et isles d'Escosse*', and Pieter van den Keere's manuscript text descriptions of 1605 include several pages on Scotland.

Although it is simple to see details on the maps by using the zoom feature, with 90,000 images in the whole *Collect Britain* site, it is not easy to navigate.

On a first visit the serendipity factor of browsing reveals many unexpected and exciting discoveries, but keyword searching with a site of this size is a frustratingly blunt tool and it is difficult to find particular items. It is probably best to go to the *Unveiling of Britain* site and scroll through the chronological list. (Dates are given with the Scottish highlights described above, to make it easier to find these.)

Other *Collect Britain* sites relating to maps include: ***On the Trig***, the story of the trigonometrical survey of England and Wales, including original drawings by the surveyors; ***Streets of London***, 1200 maps and plans from the Crace Collection; ***Military alert***, the original large-scale drawings made for the Ordnance Survey's first one-inch-to-the-mile maps of England and Wales between the 1780s and 1840. Topographic prints, views and photographs (such as Thomas Annan's photographs of Victorian Glasgow) add another dimension in other themed collections.

In June, BL launch their first cartographic Turning-The-Pages display, with a fully digitised ***Mercator Atlas of Europe***, featuring Mercator's 1564 depiction of Scotland.

Find all these sites at www.collectbritain.co.uk

MAPS ON TV

Maps seem to be a current trend for TV programmes, as National Library staff have recently assisted TV producers with information and illustrations on several map-related topics.

A second series of **Mapman** programmes, with Nick Crane as the roving presenter (complete with large umbrella) will be aired 'in the Autumn' on BBC2. Three of the topics covered involve Scottish material (Tern TV, the production team, just happens to be based in Glasgow). One programme deals with Timothy Pont's late 16th century maps, with Sutherland as the location for Crane's wanderings. Orkney is the focus for a presentation on Orcadian Murdoch Mackenzie, who first used triangulation to survey hydrographic charts in the 1740s. More up-to-date is a programme, based in the Lake District, about Bartholomew's maps for cyclists around 1900.

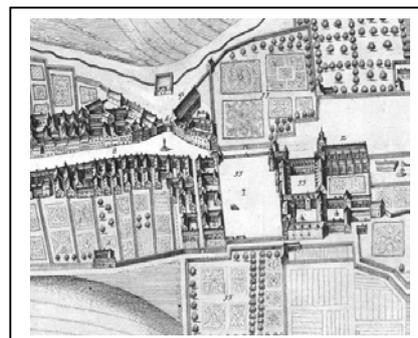
The BBC themselves are producing a series about the British coastline called (at time of writing) '**Coast**'. The series starts transmission on BBC2 in the middle of July. Each programme around the coast has a different theme, with Alexander Lindsay's rutter and sea chart c.1540 included in programme on the west of Scotland (Fri. 12 August at 9pm on BBC2). Other Scottish programmes (not about maps) are the north of Scotland (Sun. 14 August, 9pm) and the east coast (Fri. 19 August, 9pm).

MAP TALKS IN THE NATIONAL LIBRARY

There is another chance to hear Pat Dennison's talk on how maps revealed the history of the Parliament site at Holyrood (first given in April 2005). This popular topic was over-subscribed so is being offered again on **3 November**.

Charles Withers commemorates the bicentenary of Mungo Park's death with his talk on **17 January 2006**, *Mungo Park and the mapping of the Niger*.

Contact events@nls.uk or 0131-623 3845 if you wish to attend – advance booking is essential. Talks are at 7pm in George IV Bridge.



Stuart Nisbet highlights an early 18th century land surveyor whose work deserves to be more widely known.

Maps are often treasured as much for their artistic impact as for their geographical value. It is perhaps unconventional for surveys to be valued simply for their content. However such is the work of John Watt, a land surveyor operating in west central Scotland in the 1720-1735 period. Watt's papers survive in Birmingham as part of the family collection of his more famous nephew, James Watt¹. Attention was first drawn to his surveys by John Moore in 1995².

Watt was born in the 1690's in the Greenock area. Initially he made his living as a teacher of mathematics and navigation. He also speculated in colonial trade and latterly co-owned at least two ships. In 1719 he moved to Glasgow and developed a reputation as a land surveyor among the most prominent merchants and the landed class.

Around half of Watt's surveys cover the County of Renfrew, in the fertile 'Cart Basin' or catchment of the principal rivers. These papers had only been catalogued loosely under estate headings, but local knowledge and fieldwork by the author over

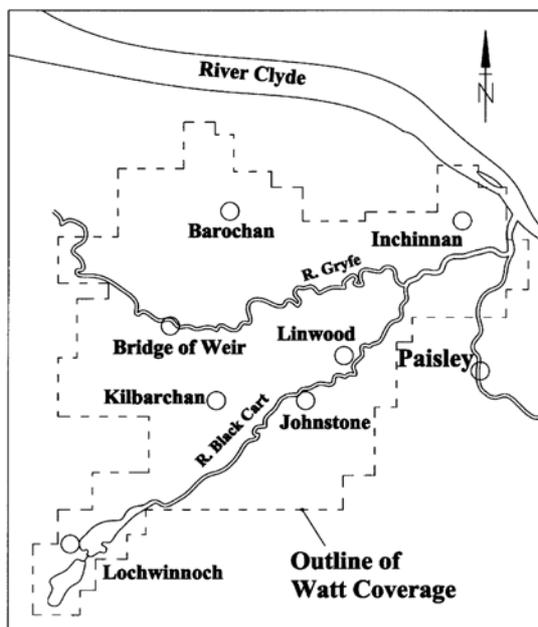


Figure 1

the past five years has located all of them on the landscape (Figure 1). They present a remarkably detailed picture of the pre-improvement landscape in the 1720's and early 1730's.

Most of Watt's plans are field survey sheets, not formal finished plans, and each bundle represents a commission by a landowner. From each group of field surveys it is likely that Watt would have drawn up a formal estate plan. However as the finished plans were given away to his clients, very few survive in the collection. Many of his finished plans would have been valuable estate management tools for decades, but eventually were worn out or lost. One exception is Watt's finished plan of Quarrelton, which survives among the Houston of Johnstone estate papers in the National Archives³. The formal plan is partly damaged and the original field sheets enable lost detail to be filled in.

The Renfrewshire surveys comprise nearly a hundred A3-sized line drawings. No space on the surveys is wasted, and they are surrounded by calculations and notes in Watt's hand. Paper was very expensive at the time and the cost of a drawing paper order could exceed Watt's income from a full field survey commission.

Most surveys were drawn at a scale of approximately 1:4,500 (5 Scots chains to one inch). This is a very large scale for such an early period, nearly ten times the scale of Roy's surveys twenty years later. It also falls between the scale of the 1:2,500 and 1:10,560 Ordnance Survey maps, 120 years later. The precision is such that if scanned and matched in scale, they can be overlain accurately on the Ordnance Surveys.

More than Maps

A number of additional elements in the papers come together to fully illuminate each survey. Watt's notebooks provide the clients' names, estate name, date when commission was carried out and fee paid. Lists of crofts and mailings in each survey are often accompanied by descriptions of land usage. Categories range from single words (eg meadow, pasture, arable, moss, 'bogging', low ground, hill, wood), to statements (eg 'a good deal of moorish rocky ground'). The scale is large enough for specific features such as the Elderslie oak and the Celtic cross at Barochan to be indicated by small sketches.

¹ Birmingham City Archives, Boulton & Watt Collection, MS 3219/2.

² Moore, J.N. *The Maps of Glasgow* (Glasgow 1995) p.9; Moore, J.N., 'John Watt an 18th Century Scots Surveyor' *Renfrewshire Local History Forum (RLHF) Journal*, Vol.10 (1999), p.5.

³ National Archives of Scotland, Register House Plan No.22280: Survey of Quarrelton by John Watt (1733).

The lists and plans often include tenants' names, allowing comparison with the Poll Tax Roll, only a generation earlier.

An additional dimension is provided by angle sightings or bearings, radiating from vantage points throughout Renfrewshire and the Glasgow area. Such readings were measured to fractions of a degree, and were the key to the wider spatial accuracy of the surveys. The triangulation picks out hundreds of prominent features, including castles, houses, towers, and steeples on the landscape, many of which are now demolished or lost.

For Watt's wider survey work, such as for the town of Glasgow, only fragments of his field surveys survive. Renfrewshire is much more fortunate, and complete sets survive, which can be joined like jigsaws to define a complete estate. The land usage suggests that Renfrewshire is already a step ahead of other areas, with many estates already partly divided. In all the surveys there is not a single mention of infield/outfield, whereas for areas north east of Glasgow, the old system is still widespread.

Although Watt originated in Renfrewshire, he lived in Glasgow from 1719 and the reason why Renfrewshire dominated his survey work goes far beyond parochialism. In Glasgow he was mixing with the most prominent colonial merchants and landowners of the period, and they chose to focus on Renfrewshire. Changes which occurred in this region in the eighteenth century are particularly significant, as it was the first area in Scotland to rise from subsistence agriculture to factory industrialisation. Later in the century, the region had the highest rate of population increase in Scotland, and by the mid-1790's the Cart Basin would support half of Scotland's large water powered cotton mills⁴. Thus the surveys in the late 1720's are important tools for assessing early changes to the landscape and settlement pattern, which led to early industry.

Readers may be interested to note that, apart from Renfrewshire and the Glasgow area, Watt's surveys also cover parts of Hamilton, Lesmahagow and smaller parts of other areas.

Watt's Commissions

In several cases Watt's surveys document the actual division and enclosure process. They

provide a unique picture of the pre-improvement landscape, showing land-use and other features which disappeared in the following decades.

Watt's Renfrewshire surveys were timely, as they coincided with the period when several incoming colonial merchants were purchasing large estates from the traditional landowners. One example is Major James Milliken, a soldier serving in the West Indies, who married a sugar heiress on St. Kitts. He returned to Scotland a very rich man, and in 1727 purchased the traditional Renfrewshire estate of Johnstone from George Houston. With Watt's assistance, Milliken transformed the landscape, superimposing a massive 2km x 1km grid over the old random settlements to create a formal estate. This grid pattern still marks the alignment of fields and roads today.

The first house of Milliken (1733) was destroyed by fire in 1801 and rebuilt on a different site, and the surveys define the original location. Much more importantly, they also show the lost location of the old castle of Johnstone, which according to Pont was one of the largest in the region.

Watt was much more than a simple land measurer, providing advice on the laying out of avenues and parks in accordance with the latest fashion. His papers define his philosophy of improvement, with notes such as: 'whatever lies open to view ought to be regular, but nature is to be followed not strained'. He favoured 'a variety and diversity of composition, not swerving from reason, but constantly submitting and conforming to what suits the natural position'.

Watt also carried out survey work for the estate of Elderslie, of William Wallace fame, between 1728 and 1731. His client was Archibald Campbell, a lawyer who had married the daughter of the last Wallace of Elderslie. Written tradition suggests the existence of a large rectangular moated enclosure on the site, which has been loosely attributed to the time of William Wallace. This is apparently supported by the later surveys of Roy and the Ordnance Survey, which also indicate circular bastions on the corners of a rectangular enclosure. However Watt's earlier surveys give no indication of such features, backing up recent archaeological investigation which also failed to find evidence for towers⁵. The 'bastions' may simply be garden features added in the mid eighteenth century (Figure 2).

⁴ Nisbet, S.M., *The Rise of the Cotton Factory in Eighteenth Century Renfrewshire*, Unpublished PhD Thesis, University of Paisley (2004).

⁵ Alexander, D., 'Excavation of a Medieval Moated Site, Elderslie, Renfrewshire', *Scottish Archaeological Journal* Vol.22 (2) p.155-177.

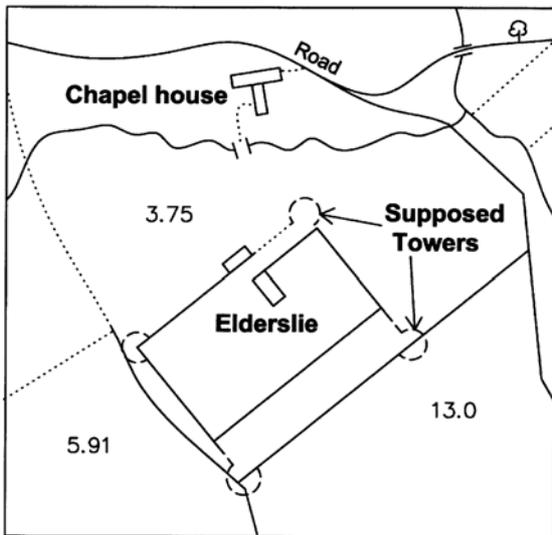


Figure 2

The most common features on Watt's landscape are fermtouns and mailings, consisting of a group of rectangular longhouse-type buildings, each within a small enclosure. These provide new evidence for the interpretation of Roy's surveys a generation later, which indicate similar features, but to a much smaller scale. As the surveys are large enough to show individual buildings, they provide tantalising plans of lost castles. These include Inchinnan place (or palace) for the Duke of Montrose (Figure 3), Boghall Castle near Bishopton, Bogton Castle at Cathcart, and Castle Semple.

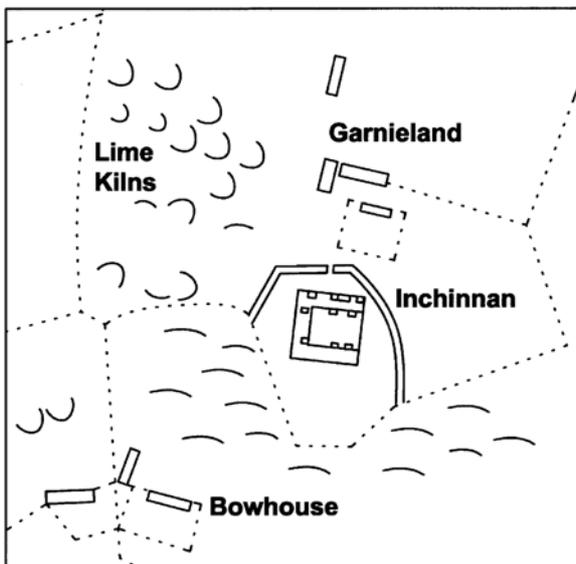


Figure 3

Industry on the Landscape

Despite the early date of the surveys, industry is quite extensive on Watt's landscape. He shows numerous grain, waulk and lint mills, and the plans are accurate enough to define their dams, lades and ponds. He also documented water powered engines for draining lime and coal works.

At Quarrelton a diverted burn filled a reservoir which supplied a water engine to drain the extensive coalfield. By the 1850's this reservoir had become an estate pond, and is now built over. Lime kilns are numerous, often in groups of a dozen or more clamp kilns, challenging the idea that widespread liming was a feature of improvements much later in the eighteenth century.

Watt's practical skills extended to advice on the management and drainage of lochs such as Castle Semple Loch and Hogganfield Loch (near Glasgow)⁶. At both sites he carried out practical experiments by damming the lochs and measuring precise water levels, with the wind blowing in various directions. Beyond Renfrewshire, Watt advised on the layout of the two earliest bleachfields in the west, at Gray's Green (north east of Glasgow) and Dalquhurn, (on the Leven upstream of Dumbarton). At both sites he prepared detailed plans and cross sections, giving written instructions on how to lay out the new fields and their canal systems.

Summary

Despite working for the most prominent landowners and merchants of his day, Watt remains little-known. Fame has deserted him, probably because most of his commissions were for private clients, and not formally published. His only widely known work is a chart of the Clyde, published posthumously in 1759. This is not typical of his land surveying work, which was completed by his relatives, and continues to be dogged by controversy⁷.

Watt's health was poor, possibly as a result of tramping the moors and mosses of western Scotland for much of his adult life. He was also dogged by tragedy, marrying twice, each time to daughters of Glasgow merchants, but both his wives and his children predeceased him.

John Watt deserves to be better known. His early eighteenth century surveys demonstrate the true purpose of maps, not as wall hangings, but as practical tools for managing and improving the landscape. The added benefit of large scale surveys from such an early period is the potential to solve many landscape mysteries.

Stuart Nisbet

⁶ Nisbet, S. M., 'Early Drainage of Castle Semple Loch', *RLHF Journal*, Vol. 13 (2004).

⁷ Another draft survey of Renfrewshire, attributed to Watt but in a different hand, is also controversial, see Moore, *John Watt*.

TALKS 2005-6

1 September – Plymouth – British Cartographic Society

Chris Fleet: *Digitising the Scottish Victorian paper landscape : scanning and delivering the OS six-inch maps of Scotland (1840s-1880s).*

27 September – Dumfries – Dumfries & Galloway Family History Society

Diana Webster: *Planting your roots on the map*

3 November – Edinburgh – National Library of Scotland

Pat Dennison: *Maps – the way to an understanding of the Scottish Parliament site.*

10 November – Motherwell – Lanarkshire Family History Society

Diana Webster: *Planting your roots on the map*

1 December – Forfar - Forfar and District Historical Society

Chris Fleet: *Exploring the past through early maps of Forfar and beyond.*

2006

16 January – Lanark - Lanark and District Archaeological Society –

Chris Fleet: *The archaeological value of Timothy Pont's mapping of Lanarkshire.*

17 January - Aberdeen - Saltire Society

Jeffrey Stone: *Early Maps of Scotland.*

17 January – Edinburgh – National Library of Scotland

Charles Withers: *Mungo Park and the mapping of the Niger*

EXHIBITIONS – 2005

8 July-31 October **Scotland's Secret War.**

National Library of Scotland, George IV Bridge, Edinburgh.

With the 60th anniversary of the end of World War 2, the National Library's summer exhibition takes the theme of secret contributions to the war effort, by Scots or in Scotland. Several displays are accompanied by maps, and a section of the exhibition illustrates the contribution of John Bartholomew & Son Ltd, who provided mapping for the early 'silk' escape maps, and carried out printing for the War Office throughout the war.

14-24 October 2005 **Historic maps of Perthshire at Blair Castle.**

An exhibition of maps and plans from Blair Castle Archives. Reproductions of selected maps for sale. Grounds and exhibition admission £2.20. Opening hours 9.30-4.30.

Blair Castle has some splendid estate plans, for example by James Stobie, as well as printed and embroidered 'sampler' maps.

December 2005-February 2006 **'A Poke O' Soor Plooms'**

National Library of Scotland, George IV Bridge, Edinburgh.

Some maps illustrate the theme of markets, shops and shopping in Scotland from early times to the mid 20th century.

RECENT PUBLICATIONS ON SCOTTISH MAPS

KERR, John. 'Pont in the Atholl landscape.' (*Transactions of the Gaelic Society of Inverness*, LXII, 2000-2, 426-441).

SMART, Lez. 'The last battle: the battle of Culloden' in *Maps that made history: the influential, the eccentric and the sublime*. Richmond: National Archives, 2004, pp.122-127.

The following items are not specifically about maps but shed light on the background to some military maps and drawings.

SCHOENHERR, Douglas E. 'Paul Sandby: Dumbarton Castle', item 9 in: *British drawings from the National Gallery of Canada*. Ottawa: National Gallery of Canada, 2005. pp.42-43.

MUNRO, Jean. 'Special forces in the little rising: how the Munros took to the field for the last time in the battle of Glenshiel.' (*Clan Munro Magazine*, 24, 2005, 25-29).



NEW PHONE & FAX NUMBERS

As well as a new logo, NLS has new phone & fax numbers.

Map Library:

Tel . 0131 623 3970

Fax. 0131 623 3971

General enquiries (not maps) are now at:

Tel. 0131 623 3700

Fax. 0131 623 3701.

NOTES & QUERIES

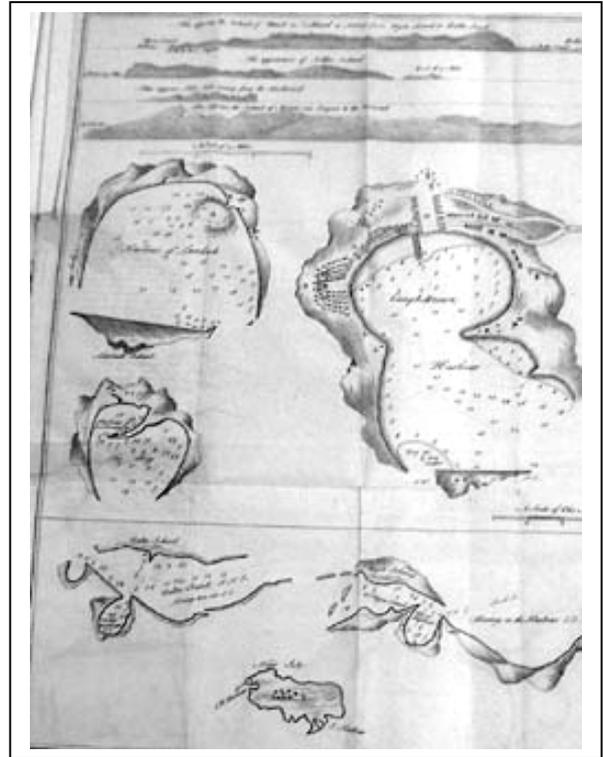
Means, motive and opportunity: whose chart is in *The Fisheries Revived* (1750)?

An eagle-eyed colleague preparing pamphlets for repair in the National Library of Scotland, alerted Map Library staff to a small folded printed chart within *The fisheries revived: or, Britain's hidden treasure discovered...* (London: printed for J. Robinson... and J. Millan, 1750). The chart bore no information about its surveyor, or engraver but the style was familiar. Was this a previously unknown chart by hydrographer Murdoch Mackenzie (1712-1797)?

In his text the anonymous pamphleteer provides some clues to the origin of the chart, quoting extensively from *'the Journal of a Gentleman who went upon a Survey of the Orkney, Zetland and Western Islands last Summer'*, ie. in Summer 1749.

Means: Mackenzie improved British sea charts by introducing the use of triangulation from a land-based survey. He spent 1744-1747 surveying the first detailed sea charts of Orkney, then in 1748 he prepared a quick and less accurate survey of Lewis. From 1748-9 he was supervising the engraving of his charts by Emanuel Bowen in London; the volume of charts entitled *Orcades* was published in 1750.

Opportunity: Mackenzie's surviving correspondence places him in London on 15 May 1749; the Gentleman *'left Gravesend on the 24th of June 1749, and touched at Leith, where contrary winds delayed him about twelve days, during which he found that the thoughts of having that inestimable trade the Fishery revived, had diffused an universal joy among all ranks of people, and in none more conspicuous than among the merchants of Glasgow and Edinburgh, who are by far the most considerable traders of that part of Britain.'*



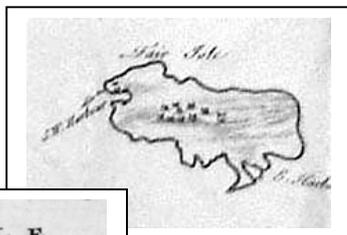
The chart includes Fair Isle, Balta & Uyca Sounds (Shetland), Campbelltown [sic], Lochranza, & Lamlash.

In the introduction to *Orcades* Mackenzie indicates that the three charts of Lewis were compiled partly from verbal reports of the natives, without the careful measurement of his Orkney charts. He mentions that he had intended to return to Lewis to improve the charts, but the weather was unfavourable. This corresponds with the statement in the *Fisheries Revived*: *'On 23rd August he departed with an intention to stop at the Isle of Lewis and Harris, but the weather not favouring him, he bore away for the other islands...'*

Motive: Mackenzie's original 1742 proposal to survey Orkney indicated his intention to proceed with surveying further parts of Scotland if the Orkney venture were successful. He lists Shetland and the West Coast as the next locations to be surveyed: this journal follows almost exactly the itinerary set out in the proposal, and leads on to his later work for the Admiralty, when he was commissioned to survey the West Coast of Scotland from 1751-1757 (and later to survey the coasts of Ireland and the west of England). Thus this voyage would have been a preliminary reconnaissance of his next project, no doubt subsidised by undertaking the report on the fisheries for the writer of the pamphlet.

Diana Webster

from *The Fisheries Revived* (1750) ▶



Similarities of style are evident in these two versions of Fair Isle.

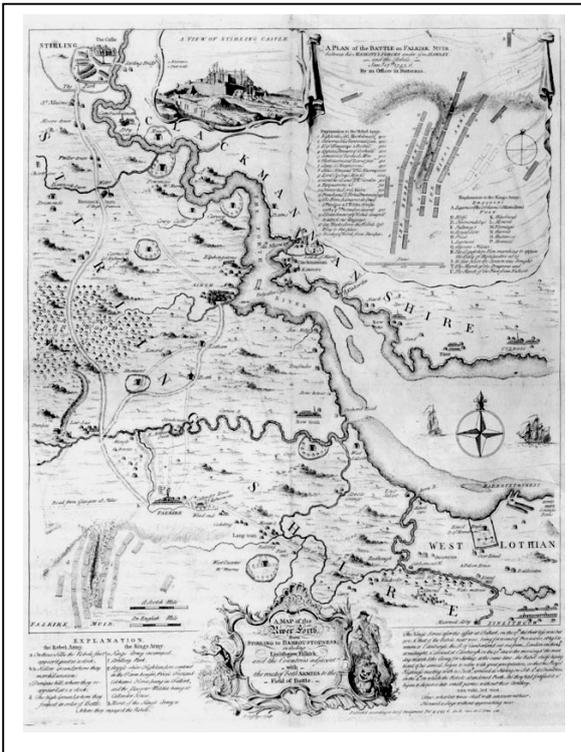
◀ from Map IV in *Orcades* (1750)

NOTES & QUERIES

Calendar Confusion: Both items on this page highlight the difficulty of dating material before 1752. There is a useful summary of the vagaries of the Scots (and English) calendars at www.scottishrecordsassociation.org/newsrkv004.htm

Comment : Referring to the note in Issue 6 of Cairt about the *Hail universall see kart*, mentioned in Aberdeen council records for January 1597, Prof. David Stevenson writes: *'In conventional historical dating, the presentation was in January 1598. 1597 was the usage of the time, for the new year did not start until 25 March (though Scotland was to change to 1 Jan. new year's day in Jan. 1600 – 152 years before England). The other piece of business the council did on 25 January was agree to support the building of a new clock invented by David Anderson. The council was in a modernising mood that day.'*

RECENT ACQUISITION



◀ **Jefferys, Thomas (c.1710-1771)**
A Map of the River Forth, from Stirling to Barroustouness, including Linlithgow, Falkirk, and the countries adjacent, with the route of both armies to the field of battle.

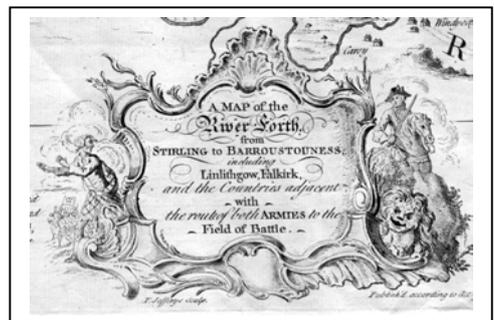
Scale [ca. 1:47 520]. 3/4 mile to an inch.
 [London]: Published according to Act of Parliament Feb.15 1745.6 for E. Cave at St. John's Gate, [ie. 1746].



◀ *This detail, from the later variant, shows where the plan of the battle of Culloden was inserted.*

In the cartouche, the leering lion and triumphant officer, in pursuit of a fleeing kilted clansman, reflect the huge relief felt in London when the Jacobite forces retreated from Derby and were defeated at Falkirk. ▼

The date for copyright registration for Thomas Jefferys' map is 15 February 1746, within a month of the Battle of Falkirk. The insets show *A view of Stirling Castle* and *A Plan of the Battle on Falkirk Muir between his Majesty's Forces under Gen. Hawley and the Rebels, Jan. 17th 1745.6*. Edward Cave (1691-1754) was editor and publisher of the *Gentleman's Magazine* and Jefferys provided many maps for the periodical, meeting popular demand for information about newsworthy events.



The National Library of Scotland already had a later version of this map, with an additional inset of the battle of Culloden (16 April 1746), but copies of this earlier variant are rare, as the circulation period was so brief: there is even a suggestion that the map was first issued to the public on the day of Culloden. The date is given as 1745.6, because, until 1752, the English year began on 25 March, and thus the date of the Battle of Falkirk was 1745 in England and 1746 in Scotland. The later variant, with Culloden, is unambiguously 1746.

Published according to Act of Parliament Feb. 15 1745.6.

The earlier imprint

Published according to Act of Parliament 1746.

The later imprint