



SCOTTISH SALT SYMPOSIUM 2021

ONLINE PROGRAMME

the archaeology and history of
the sea salt industry and artisan
sea salt making in Scotland today

S C A P E



SPEAKERS AND ABSTRACTS

Scotland's medieval and post medieval salt industry



Chris Whatley

Historian and Emeritus Professor Christopher A Whatley OBE, FRSE, has been at the University of Dundee since 1980, other than a few years at St Andrews. Along with over 100 articles, chapters and books, he is the author of the first book length study of the salt industry in Scotland, *The Scottish Salt Industry, 1560-1850: An Economic and Social History* (1987).

The Scottish Salt Industry revisited

The paper will begin with an outline of the history of the sea salt manufacturing industry in Scotland. It is a story of a relatively high-status industry in the medieval period and, notwithstanding its rather cursory treatment by historians, was an important one too, until the later eighteenth century. Although it declined thereafter and eventually ceased production, it is now being revived. The paper incorporates work done by others since I first began publishing on salt in the early 1980s, but will also include new findings of my own, as on the salt workers and the hitherto largely neglected tax collectors - salt officers, who during the 18th century were stationed at each of the country's saltworks. Evidence relating to the officers reveals much about day-to-day salt making operations.



Richard Oram

Professor Richard Oram is a Scottish historian and Dean of the Faculty of Arts and Humanities at the University of Stirling. His research focus is on medieval history and the environmental history of the North Atlantic region. The use of resources is amongst his wide-ranging interests, and related to this, he has carried out a comprehensive study of the archaeological and historic evidence for salt making in medieval Scotland.

Scotland's medieval salt industry

Salt-production was probably the first major industry to be developed in medieval Scotland, providing a staple essential necessary for the bulk preservation of meat, fish and dairy products. Record evidence for salt-production survives from the first quarter of the twelfth century, but the production sites identified seem to have been already long established by that date. Early sites were concentrated on the carselands of the Forth, Solway, feeder estuaries of the Firth of Clyde, Montrose Basin and Laich of Moray, probably all sleeching operations where salt was flushed from the silts and the brine boiled in pans over peat-fuelled fires, but direct boiling of seawater seems to have been established early where shallow coal seams could be accessed easily. This paper examines the development of the industry through the twelfth to mid-fourteenth centuries, exploring the little-researched Laich of Moray production sites in the context of the East Coast Scottish sleeching operations, and its relationship to the salmon fisheries on the Spey, Lossie and Findhorn. The second half of the paper considers the consequences of fuel shortages on the traditional sleeching saltworks and the transition to larger-scale coal-fired direct seawater boiling in the later Middle Ages, concluding with a discussion of the dominance of the outer Firth of Forth coal-and-salt producers in the fifteenth century and their business networks with herring and salmon processing and exporting operations around Scotland's coasts.

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Salt making sites and stories around Scotland



Tom Dawson

Tom manages the SCAPE Trust and is a principal research fellow at the University of St Andrews where he teaches courses in documentary filmmaking and archaeology. He has published widely on coastal archaeology and climate change and has made a great many films that tell the stories of peoples' relationship with their coastal heritage.

“It’s very salty”: the return of sea salt making in Brora after 200 years

A short documentary film following the progress of Brora’s journey to re-introduce traditional sea salt making in the village, from the construction of the pan at Macduff shipyard in 2020 to the first firing in August 2021.



Jacqueline Aitken

Jacque Aitken is Museum and Digital Heritage Curator at Timespan. She has a background in archaeology, museums and immersive technology and a lifelong interest in researching Highland history, landscapes and communities. Jacque initiated interest in the archaeological remains of Brora’s salt industry over twenty years ago and now co-coordinates the Brora Salt Pans research group.

Rebuilding Brora’s salt making heritage: reflections of a community project

In 1999, Jacque first noted eroding walls and middens on the Back Shore at Brora. This sparked a journey of community research and excavation that has involved hundreds of volunteers, researchers and archaeologists. In 2010 the project won best community fieldwork award from the Association of Industrial Archaeology. In the same year the team spoke at the Scottish Parliament. The Brora Salt pans research group was set up 2018 and in 2020, a milestone was reached with the construction of a replica 18th century salt pan, in which this year local volunteers made the first salt in Brora for nearly 200 years!



Joanna Hambly

Joanna Hambly is an archaeologist with the SCAPE Trust and University of St Andrews and managed the community excavations at the Brora salt pans from 2009. Her interest in the archaeology and history of salt was born during her 10 years with the Heritage Trust of Lincolnshire and has evolved into something of an obsession in her current role managing SCAPE’s coastal public research projects.

The anatomy of a 17th century salt girnel

Buried in the dunes for nearly 400 years, the well-preserved remains of a salt girnel was excavated in community excavations of the Brora salt pans over 2010 and 2011. The girnel was part of the salt house of Jane Gordon Countess of Sutherland and her son John 12th Earl of Sutherland. The site is the earliest known for the manufacture of sea salt by the direct boiling method to be excavated in Scotland. This paper will explore the girnel building and its contents, which embodied the resources of the Sutherland Estate, the reach and connections of the family, and the craft, labour and domestic lives of those that worked and lived in it.

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Malcolm Bangor-Jones

Malcolm Bangor-Jones is a retired civil servant who manages a woodland croft in Sutherland. He has maintained an interest in Highland history for many years. His most recent articles cover the resettlement of Strathnaver by the Congested Districts Board in 1901 and Sutherland emigration to Prince Edward Island. He is chair of the voluntary organisation ARCH (archaeology for communities in the Highlands).

Coal and salt in Brora in the 18th century

The paper tells the history of coal mining and salt production in Sutherland from the 1730s to the 1770s. The interest shown by successive Earls of Sutherland is explored in the light of their financial resources and the involvement of the Commissioners for the Annexed Estates. Particular focus is placed on the involvement of John Williams, the challenges faced by him and the precariousness of the enterprise.



John Blair

Professor John Blair is a historian and archaeologist of medieval England. His publications include *The Church in Anglo-Saxon Society* (2005) and *Building Anglo-Saxon England* (2018). In retirement he is delighted to acquire a completely different historical interest, stimulated by the discovery that his ancestor made salt in eighteenth-century Portsoy.

Making salt in Portsoy, 1793 (or earlier) to c.1810

A small and transient salt-works at Portsoy was one of the series around the north-east coast that come into view after 1790. It was converted from a failed salmon-curing house and may initially have been intended to provide salt for the faltering Spey salmon industry. The salter, Alexander Blair, is mentioned as such in 1798 but was in Portsoy by 1784. Despite attempts from 1803 onwards to improve and market the works, it had been abandoned by c.1810. The site has recently been located on the north-west corner of the old harbour. The inlet channel, the bucket-pot, and foundations of the pan-house and an adjoining building are visible, and well-preserved archaeology may survive.

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John Pickin

Formerly curator at Stranraer Museum, John Pickin has an interest in the archaeology of early industries, especially prehistoric and medieval extractive industries. He is an active member of the Early Mines Research Group.

Peat-fuelled salt works in the Rhinns of Galloway

There were a number of peat-fuelled saltworks operating in the Rhinns of Galloway during the 17th and 18th centuries. This talk will provide an account of the history of salt production in this isolated part of S W Scotland and will also look at the archaeology of the local salt industry.



Nic Coombey

As a Landscape Architect for 30 years, Nic has increasingly specialised in the management of heritage projects in Dumfries and Galloway. Currently delivering coastal projects for Solway Firth Partnership he is working on a series of projects promoting the rich heritage found along the Rhinns of Galloway Coast Path

Rascarrel and other Scottish Solway salt works

Salt works recently came under the spotlight during the Solway Coastwise Project which used coastal place-names and the stories behind them to share an inspirational coastline. There is little physical evidence of salt manufacture on the Scottish Solway coast and place-name research provided the impetus to take a closer look. This talk presents the findings of a search by volunteers for evidence of salt works on the northern side of the Solway.



Gareth Jones

Gareth is a Conservation Architect and one of the founders of The Waggonway Project. He joined the practice of W A Cadell in Linlithgow and became fascinated by Scotland's salt industry while working on a project in Bo'ness and realising that the remains of the industry were to be found strung out all along the shoreline of his current home in Port Seton, East Lothian.

A 17th Century Pan House from Cockenzie

Cockenzie and its near neighbour Port Seton were at the forefront of salt production and were a centre for innovation and improvements in the technologies used to extract salt from sea water using coal. There is however little evidence of the industry left now and the villages are known largely for their fishing heritage. Gareth will describe the fragmentary remains of salt manufacture on the shoreline of the villages and look in more detail at the recent excavations of a mid 17th century pan house undertaken by The Waggonway Project.

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Colin Martin

Dr Colin Martin is a retired Reader in Maritime Archaeology at St Andrews University. He has specialised in the excavation of historic shipwrecks, notably of the Spanish Armada, and has a parallel interest in the archaeology of maritime landscapes. This has included, in partnership with Paula, the investigation of the saltpan complex at St Monans, its associated coal-mining hinterland and the wagonway to Pittenweem harbour.



Paula Martin

After degrees in Classics and classical archaeology Dr Paula Martin came to St Andrews as Research Assistant at the Institute of Maritime Archaeology. After working with Colin Martin on several shipwreck excavations she moved on to local history, leading to a PhD. She has also worked with Colin on maritime landscape studies, including the St Monans saltpans.



Robin Murdoch

Robin is a former electronics engineer (mainly aerospace) and first became involved in archaeology in 1972. He has specialised in the study of glass from archaeological sites since 1978 and is particularly interested in industrial sites. Elected FSA Scot in 1976, he is a trustee of the Scottish Ironwork Foundation.

St Phillips Saltworks, St Monans

In the late 18th century, Sir John Anstruther developed salt making on an industrial scale at the St Phillips salt pans in St Monans, Fife. The excavated remains of his nine pan houses and ancillary features, including a wind-pump tower, are remarkable survivors in their own right, but are only part of a now lost and largely invisible industrial landscape stretching from St Monans to Pittenweem Harbour.

This paper will use archaeological evidence and documentary sources to reveal the technological, social and economic story of the St Phillips salt pans and reconstruct the wider industrial landscape from a combination of documentary and cartographic evidence and air photography. Through this evidence we can trace the layout of a pre-enclosure landscape, the effect on it of early bell-pit mining, the development of 'room-and-space' deep mining in the 18th century with its consequent drainage requirements, and the construction of a waggonway which linked the main pits to a coal pier at Pittenweem Harbour, with a branch line to the saltworks. Few such landscapes have survived elsewhere because of later exploitation of the coal resource. An underground fire fossilised this one in its early 19th century configuration and so saved it for posterity.

SPEAKERS AND ABSTRACTS

Salt making in England and Ireland



Wes Forsythe

Dr Wes Forsythe is a maritime archaeologist, and senior lecturer at Ulster University with interests in the activities and economies of coastal communities in the medieval and post-medieval eras. His long-running research on the archaeology of salt production in post-medieval Ireland has recently been published in *World Archaeology* and *Post-Medieval Archaeology*.

Pots and Panns: the archaeology of salt in post-medieval Ireland

This paper reviews the origins and fortunes of the production of salt in Ireland exploring the material remains of salt works and their evolution. It will examine the central role salt making had in servicing the country's predominantly agricultural economy; and the opportunities provided by an expanding overseas trade network.



Tom Lane

Tom Lane's long career in archaeology, has almost exclusively been spent in Lincolnshire. During the Fenland Project Tom spent seven winters fieldwalking arable former wetlands. Among the many sites discovered were over 300 salt making areas from prehistoric through to medieval date. The work was published in a series of monographs. Subsequently, Tom managed contract archaeology at Heritage Lincolnshire while maintaining his interest in all things salt. Since retirement, Tom has brought together the Fenland and coastal zone salt making evidence to complete an up-to-date picture of an industry that spanned some three thousand years.

Mineral from the marshes: coastal salt making in Lincolnshire

Lincolnshire's coasts and fens have seen salt making from the Middle Bronze Age to the 17th century AD. The story of salt is inevitably tied up with landscape changes, coastal erosion removing some sites, alluvial depositions burying others. Despite these changes a widespread salt industry can be detected in Lincolnshire and attempts made to understand the methods of manufacture through time and the logistics of the processes.



Andrew Fielding

Andrew Fielding was project director of the restoration of the Lion Salt Works, the last open-pan salt works in Cheshire. He contributed to English Heritage's Monument Protection Programme for the salt industry and wrote the Shire Book on The Salt Industry. He was part of a team in an EU project, Ecosal-Atlantis, looking at traditionally operated salinas along the Atlantic coast of Portugal, Spain and France. As a legacy of that project, he established Ecosal-UK to study and promote traditional salt making processes in the UK.

Considerations and thoughts associated with salt making processes - seeking perfection

This presentation provides an overview of the processes of historical salt making in England and brings the story up to the present with a review of technologies employed in the modern salt making industry. I outline the development of the technology for the direct boiling of brine in metal pans, giving examples of different historical pan house arrangements across England. In Cheshire, the discovery of brine wells and then rock salt caused the salt industry to develop at a scale not achieved elsewhere with significant and dramatic impacts to the local environment and landscape.

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Artisan salt makers in Scotland today



Gregorie Marshall, Blackthorn Salt

Gregorie carries a legacy of family involvement with salt since 1874. He has dealt with an eclectic mix of salt companies, projects and connoisseurs in over 35 countries across 6 continents. Gregorie's knowledge spans salt in all its guises - from food to water softening, de-icing or cosmetic - as well as championing for innovation and sustainability within the industry.

Contemporary Scottish salt making using the graduation tower process

We have revived and perfected the Graduation Thorn Tower technique: we gather seawater, then trickle it gently down and through a large tower packed tightly with blackthorn bundles. This evaporates around 90% of the water, purely due to the wind and sun working their magic, and uses 85% less energy than the usual applied heating methods. When the concentration of the remaining liquid is salty enough, we gently warm it in the panhouse to draw off the crystals by hand: it is a patient process, genuinely all about making the best we can.



Chris and Meena Watts, Isle of Skye Sea Salt Company

Chris and Meena Watts founded the Isle of Skye Sea Salt Company in 2011, the first to produce sea salt on the island for 300 years. Chris used his extensive experience in sustainable design to develop a solar evaporation process that would rely only on the sun and wind to evaporate the sea water and produce the salt. The company was the first in the UK to develop and implement this process and has led the way in sustainable and environmentally friendly salt production.

Sustainable sea salt production in Scotland today

An explanation of how and why we make Isle of Skye Sea Salt the way we do, emphasising the innovations required to produce solar evaporated sea salt on the northwest coast of Scotland.

THANK YOU

