

## THE BUILT AND ARCHAEOLOGICAL HERITAGE OF THE FORTH

P. J. Ashmore, Historic Scotland and I. Oxley, Maritime Fife

### Introduction

At the coastline of the Firth of Forth many interests converge which involve the cultural heritage. There are human pressures on it, such as commercial and industrial developments, aggregate dredging, fishing, defence works, pollution, and treasure hunting. Natural processes such as erosion, subsidence, sedimentation and sea level rise can damage sites and buildings. Recreation and tourism both depend in part upon and affect the cultural heritage, as does our sense of belonging. They are important to our understanding of what underlies Scotland's sense of identity.

In recent years, in order to understand this complexity, various coastal assessment surveys have been sponsored by Historic Scotland. They have been carried out from Dunbar to Stirling on the south shore, and from Stirling to the border of Fife on the north shore by Glasgow University Archaeological Research Division (GUARD 1996); and within Fife by Maritime Fife (Robertson 1996). This work has shown that some 800 known archaeological sites lie within a coastal strip 50 m wide in the Lothians, Falkirk, Stirling, Clackmannan, and

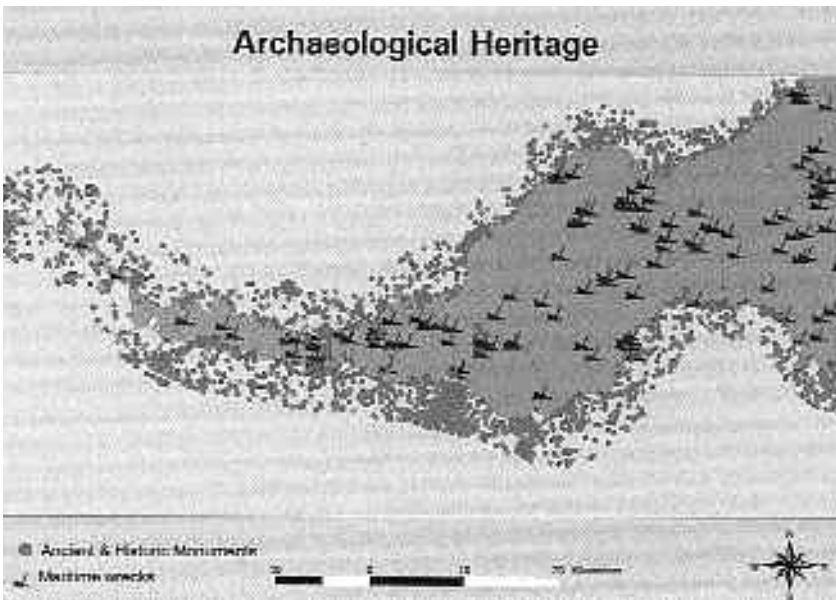


Figure 1 Archaeological heritage of Forth – map.

100 m wide on the Fife coast (Figure 1). Some 70 of these have been scheduled for protection under the Ancient Monuments and Archaeological Areas Act 1979. In addition, fossil landscapes of considerable antiquity and importance survive buried by later sediments both inland and on the sea floor. There are more than 500 listed buildings (listed as worthy of protection under the Planning (Listed Buildings and Conservation Areas) (Scotland) Act 1997) within 50 m of the coast and many other structures important to the rich maritime and defensive history of the Firth of Forth. It has over 150 wrecks recorded in the National Monuments record (dating mainly to the last 200 years) but it is likely to contain many more sites, and much earlier sites if recent work in comparable estuaries such as the Thames and the Severn is any guide.

### **A little prehistory and history**

The complex shoreline history of the Firth of Forth, following melting of the glaciers, is partially preserved in raised beaches, and in sediments and buried land surfaces. Hunter-gatherer sites under marine deposits at the head of the Forth Estuary, including finds of whale skeletons and antler tools, are potentially of international significance. One of the two earliest hunter gatherer settlements in Scotland, dating in round terms to 7500 BC, has recently been found near Fife Ness. Hunter-gatherers and (from about 4000 BC) farmers left mounds of marine shells, and flint tools, on raised beaches, sites commonly referred to as 'middens'.

There is a curious lack of information firmly dated to the period from 4000 to 3000 BC, apart from exciting recent discoveries at Chapelfield, Cowie (Figure 2), which reaffirm the potential of sites not normally visible. Flat middens on the Lothian coast contain finds of kinds commonly associated with major ceremonial sites and settlements of the period from 3000 to 2500 BC.

There is abundant evidence for burials in the period from 2500 to 750 BC, and abundant artefacts imply as yet unlocated coastal settlement. Judging by other parts of Scotland there will have been increasing agricultural exploitation of all available land towards the end of this period, including sandy coastal strips.

Native forts and burials from the period between 750 BC and AD 650 are found all along the south coast. It seems highly likely that close examination of the coast edge will reveal evidence of field systems and even settlements. There are many cropmark settlements of the pre-Roman part of this period. Remains left by the Romans include the Antonine Wall (Figure 3), with the Roman fort and settlement at Carriden and several temporary camps. No Roman harbour structures have yet been revealed (although there should be remains of Roman ports at Cramond and Inveresk, and presumably a Roman bridging, fording or ferry point somewhere near Stirling).

In addition to (probable) use or reuse of native forts in the post-Roman period, several settlement and burial sites are known. There were Anglian coastal settlements along the south coast near the sea. In addition there are

many cemeteries with burials in long cists near the coasts of Lothian and Fife. It is very likely that other important coastal remains of the Picts, Britons, Angles, Scots and the Norse between AD 650 and AD 1000 survive, as yet unlocated.

From about AD 1000 to the Reformation the shores of the Forth reflect both the hierarchical lay society and the powerful church of the Medieval Kingdom. Many castles and tower houses survive, some of exceptional merit (e.g. Alloa Figure 4), with a few sites of medieval villages. In addition there are many chapels, churches and, on the north side, unusually many monastic establishments (e.g. Cambuskenneth Abbey Figure 5). The late medieval parish churches of coastal Fife are exceptionally rich and complex. Most of the coastal burghs, centring around harbours, had their origin in the period, towards the end of which coastal artillery fortifications were built. From after the Reformation there are interesting succession of parish churches in many coastal towns. Cromwellian forts were built. The cores of the burghs expanded into small towns.

The industrial revolution happened early in Falkirk (e.g. Carron Ironworks), Fife and Lothian, and its remains are beginning to be recognised as of considerable importance. The Forth boasts a rich industrial heritage including, notably, salt works, coal mining, potteries, grain mills, agriculture, naval installations, harbours (e.g. Alloa Figure 6), lighthouses, gasworks, power stations, transport and bridges. Many such sites would have been cleared as derelict a few decades ago, but are now beginning to be recognised as of great importance to our understanding of Scotland. Great houses were built or created from smaller dwellings. Holiday resorts became common and ports and towns expanded. Regency, Victorian and recent remains include the Martello tower at Leith and twentieth century batteries, together with pill boxes, glider traps and many other martial relics. A wave of innovative post-war social housing redevelopment considerably altered the cores of many old Fife burghs.

### **Current work**

Much work is being undertaken to record this rich heritage. The Royal Commission on the Ancient and Historical Monuments of Scotland (RCAHMS) has recently extended the remit of the National Monuments Record of Scotland out to the 12 miles territorial waters limit – approaching 200 sites have been recorded. The majority are late nineteenth and twentieth century wrecks. New research into the post-war redevelopments of the coastal burghs of Fife and the Lothians is being undertaken. Burgh Surveys sponsored by Historic Scotland include new surveys of coastal burghs and updates of old ones in the Forth area; and an education pack has been created. The Defence of Britain project aims to record all late 19th century and later fortifications. It is under the aegis of the Council for British Archaeology and is administered in the Forth Estuary by the Council for Scottish Archaeology. *The Survey of 20th Century Defences* for the old Fife Region (1996) and Lothian Region (1997),

prepared by John Guy for Historic Scotland, is being used by volunteers to enhance the record. Copies are available in major local libraries. A survey for the 'Central Region' area should be completed in 1998. RCAHMS is developing the air photographic resource with a particular emphasis on the islands of the Forth.

Maritime Fife, a project team based in the Scottish Institute of Maritime Studies of St Andrews University, aims to survey, record and research the maritime historical and archaeological resource preserved in the coastal, foreshore and seabed areas of Fife (Oxley *nd*). It has received funding from Fife Council and from Historic Scotland. The project combines academic research with fieldwork (ranging from shore walks to evaluations of underwater sites) which involve members of the public, local and national organisations. Maritime Fife is also involved in focal studies of important coastal sites in Fife, including the north banks of the Forth, sponsored by Historic Scotland through Fife Council. These have been incorporated in the Fife Shoreline Management Plan recently commissioned by Fife Council.

Historic Scotland is carrying out a national resurvey of Listed Buildings. In the Forth area it has recently been active in Granton, Pilton, Dalmeny and Kirkcaldy. It is also assessing the threat to the coastal cultural heritage from marine erosion.

Coastal Assessment Surveys form an important part of an initiative to characterise the coastal archaeological and historic buildings resource by itemising archaeological sites and areas, historic buildings, and the geomorphology and erosion status of the areas in which they lie. Glasgow University Archaeological Research Division (GUARD) was sponsored to produce a survey of the Lothian, Falkirk, Stirling and Clackmannan shores of the Forth and Maritime Fife was sponsored by Historic Scotland to produce a report for the coastline from the boundary of Fife Region in the west to Fifeness.

The surveys have shown that evidence for a rich archaeological resource survives in the coastal and intertidal areas of the Forth. The discovery of such remains as middens at Alloa, Anstruther, Crail and Elie; early burials at Lundin Links and the Wemyss Caves under threat from coastal erosion; shoreline hulks at Alloa, North Queensferry and Kincardine (Wood 1997a and Figure 7); a possible inter-tidal stone structure at Crombie (Wood 1997b); and early post-medieval coastal defences on the margins of designed landscapes such as that at Dalmeny are but an indication of the full archaeological potential of this area.

### **New ideas**

Discussions are taking place on a further initiative, Shorewatch, to provide a structure within which local community based groups can monitor the affects of erosion on the cultural heritage. Fife Council and Maritime Fife are involved in heritage aspects of Fife Coast Watch while the Council for Scottish Archaeology, sponsored by Historic Scotland, is assessing Health and Safety

issues with a view to the involvement of Young Archaeologist Clubs and other community-oriented groups.

### **What next?**

The main issues are the need to ensure that the cultural heritage is considered in all decision making processes, that the inventory of the cultural heritage resource, both above and below the shoreline, is adequate; and that the value and importance of the cultural heritage are promulgated. Judgements on what should be preserved in the face of threats from natural forces and development, and on what should be promoted for peoples education and enjoyment, should be soundly based on generally accepted criteria.

Timely consideration of the cultural heritage is important. If the cultural heritage is dealt with fully in strategic and local development control plans, and if its value and vulnerability is taken into account in proposals for individual developments, costly or inadequate mitigation measures can be avoided. In schemes to protect the coast, the early consideration of the implications for the natural heritage and for downstream areas should be matched by those for the cultural heritage.

Crucial to this is a proper information base. Archaeological sites are constantly being discovered and despite rapid recent progress the inventory of dry land, intertidal and submerged sites is incomplete. In addition to targeted surveys, there is a requirement for a better understanding of the various environments of the Forth in which sites can be expected to survive – particularly of the nature, condition, extent, vulnerability and importance of completely submerged sites.

### **Why we should care**

The value and importance of the cultural heritage are considerable. Although it is usually hard to assess the contributions of individual heritage sites and buildings, the cultural heritage provides a major economic benefit through its contribution to quality of life and through the attraction of tourists. In addition it helps to give the region its unique character and contains much hidden evidence for its history. The cultural heritage is a non-renewable resource because, although the form of an archaeological or historical site can be partially recreated, scientific and historical information within its layers cannot. Continued preservation most often depends upon objects, structures and deposits remaining buried and undisturbed. Underwater, in the right physical and chemical conditions, the range and quality of preservation of any organic materials can be far better than that on most land sites. However, these sites can be correspondingly sensitive to disturbance.

### **Threats and opportunities**

The built heritage is an irreplaceable resource which helps give Scotland its unique character. Its preservation and sympathetic, sustainable exploitation

will help to ensure that the Forth has a sound economic and cultural future. There is a constant need to make informed judgements about what should be preserved. Provided that important sites and buildings have been recognised through survey, possible responses to proposed change and to natural threats include preservation, recording of various intensities, and doing nothing.

There are plentiful opportunities to continue promotion of the Forth area through its heritage in a sustainable way. The Forth has a rich maritime history which may be found in academic institutions, local archives and in the memories of local people whose experiences involved the sea in any form. Documentary sources include Admiralty Court Records, Burgh Records, private muniments and early cartographic records. There is also great value to be found in maritime-related collections in national and local museums.

There are already successful key entry points to the area, and there are many intermediate sized sites and many smaller scale sites to provide foci for initiatives such as visitor centres or locations for film, television and other media (e.g. the historic docks of Alloa and Bo'ness, and Forthside in Stirling). The emphasis of Local Agenda 21 Plans on community involvement and wise use of non-renewable resources can be translated directly into plans for use of the heritage for economic development.

Heritage provides an exceptionally effective tool for teaching about Scotland's complex history and the background to its current success. There is a growing awareness of the extent to which it can enrich the curriculum and an increasing number of teaching packs which emphasise the fieldwork and site-oriented aspects of exploring the built heritage of the Forth.

**The highest priorities are –**

- to increase awareness, particularly amongst decision makers, of the importance and value of the cultural heritage;
- to improve information about all sites, monuments and buildings of architectural or historic interest;
- to improve enjoyment of all sites, monuments and buildings of architectural or historic interest;
- to improve accessibility to all sites, monuments and buildings of architectural or historic interest;
- to improve standards and methodologies for recording sites in advance of threats;
- to develop responses to marine erosion and damage to the built and archaeological heritage.

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Figure 2 Neolithic House, Chapelfield, Cowie.

(GUARD)



Figure 3 Antonine Wall, Forthlet – Kinneil House in background.

(L. Main and Falkirk Museum)



Figure 4 Alloa Tower.

(A. Conoboy)





Figure 5 Cambuskenneth Abbey, Bell Tower, foundations of cloister and nave.  
(L. Main)



Figure 6 Alloa Harbour.

(L. Corbett)

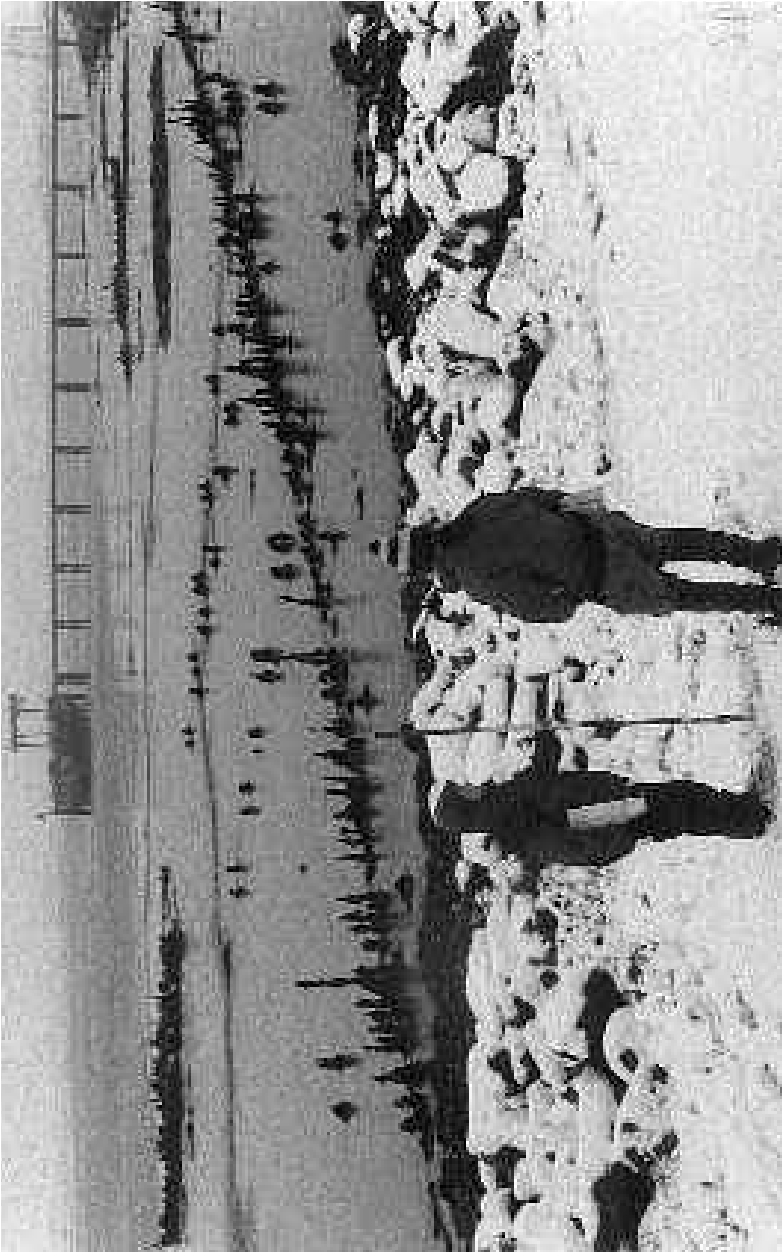


Figure 7 Marine archaeology at Kincardine.

(I. Oxley)