# NOT SEEING THE WOOD : AN ARMCHAIR ARCHAEOLOGY OF SHETLAND

**Noel Fojut**

## Introduction

Twenty years ago, as one of his geography students at Aberdeen University, the author followed Dr Coull around Shetland, a first visit which was to lead to a fascination with the islands, and in particular their rich archaeological heritage, and indirectly to a career as an archaeologist, albeit increasingly from the office chair.

One of the usual problems in preparing an account of the archaeological background for a gathering of non-specialists is that it requires the summarising and codification of large quantities of excavation reporting and specialist analyses. For Shetland the situation is somewhat different. Although there have been a good number of recent excavations, very little of this material is published in other than interim summary form. So it is necessary to present an account based on what little has been published, supplemented with personal knowledge and communications from unpublished sites and their excavators, plus the observations of some 20 years fieldwork, first as a research student and nowadays with Historic Scotland.

In research into Shetland's past, in particular the Iron Age brochs and the economic requirements of their inhabitants, it rapidly became clear that the question of land, its availability, ownership and control, were factors which stretched back into the Neolithic and forward to the present. So matters such as the history of the islands' vegetation, and its inter-relationship with climatic changes, or the pattern of coastal change since the Ice Age, are almost as important to the archaeologist as is the human evidence. Environmental determinism may be outmoded as an academic fashion, but that does not necessarily imply that its basic principles do not apply, especially in a landscape and climate such as Shetland's, where one can be environmentally determined on a regular basis.

In many ways, the ideal popular archaeology of Shetland might take the form of a prospectus, the work of an estate agent trying to sell to Shetland settlers through the ages: what had the islands to offer, how could they be developed, what particular building plots were available, what desirable properties could be sympathetically converted, what skills and trades were in demand locally, and what business opportunities were to be opened up. Unfortunately, we are still far from this goal, and it has to be said that the archaeological part of the necessary inter-disciplinary approach seems to be further away than the geomorphological or the palaeoenvironmental.

What follows is a brief summary of the archaeological story of Shetland, with a number of asides pointing out where favoured assumptions are based on less than stable ground. As will be seen, such an exercise requires almost as many asides as summary, so sketchy is most of received archaeological 'knowledge'. (For a more expansive summary, see Fojut 1994).

## Cairns and crops: the Neolithic

Archaeologically, dead Shetlanders come first, by a long way. The first dated site in Shetland was the multiple burial at Sumburgh radiocarbon dated to around 3100 BC (Hedges and Parry 1980). Conventional wisdom would put the chambered tombs also early in the sequence of sites, although in Shetland there is only the evidence of field survey to rely upon, for not a single chambered tomb has provided reliable dates, the earliest cairn dated being at Brouster, where a Late Bronze Age kerbed cairn stands (interestingly enough) within a settlement which may have been abandoned by the time of the cairn (Whittle 1986).

Shetland has its own type of chambered tomb, the 'heel-shaped' cairn, and most chambered cairns with discernible plans belong to this group. There are exceptions, round and square chambered cairns without the elaborate facade. These seem to be direct fore-runners of later cairns, ascribed to the Bronze Age, where the burial is in cists or pits below a usually round, usually kerbed, cairn. Shetland has no proven surviving examples of the long cairns so common in Orkney (Henshall 1963), although two unconvincing contenders exist.

Of course, dead Shetlanders had to be Shetlanders first, and dead second. Somewhere they must have had settlements. So far we have failed to date any of the settlements as early as the Sumburgh cist. But there are plenty of opportunities left. About 160 individual house sites of the typical oval plan, often incorporating very large boulders as dividers and roof supports, have been dated to the Neolithic and Bronze Age periods by the simple fact that they lie on old soil horizons below the blanket peat. Around these house sites are irregular fields and scatters of cairns of field-gathered stones (Calder 1958, Calder 1965, Winham 1980). This is, with the possible exception of parts of the West Coast of Ireland, the richest upstanding prehistoric landscape in Britain. Not rich in the sense of the individual set-piece monuments (although one or two are superb in their own right) but rich in the assemblages and inter-relationships of sites. However, interpreting this evidence is fraught with problems.

The first problem is when people first reached Shetland. By about 3300BC we must assume there was agricultural settlement, on the basis of Sumburgh and Scord of Brouster. In the absence of dated sites we cannot push the date back earlier.

Is there any inherent reason why visits, perhaps seasonal encampments, could not have been taking place for many centuries previously? What did Shetland have to offer nomadic hunter-gatherers of the pre-agricultural mesolithic period? Rich coastal fishing, extensive seabird colonies, seals, perhaps small whales, wildfowl, shellfish: but all of these were available on the Scottish mainland coast at this early date. Shetland apparently lacked the larger mammals, particularly the herds of red deer which seem to have been central to at least some mesolithic economies. These were forest animals, and Shetland had no forest, or at best one which, except for a few sheltered groves, a well-nourished red deer might have looked down upon. If there were mesolithic visitors to, or residents in, Shetland they would have come not because of any special attractiveness in Shetland but because of pressure from behind, on the mainland, where their seasonal round was capable of being sustained only at low population densities. To date there is no archaeological evidence for a pre-agricultural human presence.

[Since this paper was given, Niall Sharples has drawn my attention to a recent study of the vegetation record showing a decrease in herbage during the period 5500-3500 BC which might be consistent with grazing, and it has been tentatively suggested that red deer were, indeed, introduced and that there was mesolithic settlement for well over a millennium, with the deer finally being wiped out by disease, over-exploitation or inbreeding not long before the arrival of agricultural settlers (Bennett et al, 1992).]

When agriculturally-skilled groups began to explore, and settle, northern Scotland, perhaps sharing their skills with the inhabitants in return for local knowledge and partnership, the balance in favour of Shetland swung decisively into the positive. What these early agricultural groups seem to have practised was something akin to slash-and-burn, although perhaps slash-and-rot was more likely, even given a marginally better climate. Without dense forest cover, Shetland would have been very attractive. The likely absence, at that date, of vermin and larger predatory animals would have been a bonus.

There is a possibility, based on the way in which the land appears to have been divided early on with large dykes and earthen banks, that this Neolithic settlement was in numbers and with some degree of organisation. This should not be a surprise: a society which could build boats capable, reliably, of reaching and returning from Shetland could probably cope with allocation of land, especially with no pre-existing settlement pattern or land-holders.

Crops were cereals, especially barley, with domestic animals. What was the balance: was it cereal farming with stock, stock farming with cereals, a mixed regime or something half-Mesolithic: fishing or seal-hunting with a crofting sideline? There is no hard evidence. While the evidence certainly demonstrates that these settlers were farmers, we would be wrong to assume they were only farmers. They were skilled quarrymen, they worked in

polished stone, flint and quartz. By analogy (if it is permitted), they probably had just as varied a lifestyle as recent crofter-fishermen. One of their more high-value products, stone axes, appeared on the 'international', or at least 'furth of Shetland' market. One of the best-preserved artefact-working areas in Britain lies on the barren rocky slopes of Beorgs of Uyea, north of Ronas Hill.

Surviving evidence for the agricultural and domestic centres of these people's lives, in the form of ruined stone buildings, clearance cairns and walls, is spread unevenly throughout Shetland, being particularly rich in the West and North Mainland and in Whalsay. It appears mainly in areas which have been cut over for peat (not surprisingly, since it was burial below peat which preserved most of these sites), and is particularly rich in areas where extensive cutting has been relatively recent. Most of the surviving sites are on marginal land, used only for sheep grazing.

However, we should assume that the earliest settlers took the best land first, and that would have been the coastal land: low-lying, probably more fertile, and without a dense forest cover to remove. The relative absence of archaeological remains in these areas is a result of partial survival, because this same coastal land has continued to be the focus of settlement ever since. That said, the surviving pre-peat settlement sites are not necessarily atypical, because there are a few examples near to the shore where peat was never cleared, and these seem to be much the same, in terms of house size and field patterns, as the more upland sites. But a distribution map of recognised sites might suggest that early settlers preferred to live in the uplands, and this was not the case.

## A slow fade: The Neolithic-Bronze Age transition

Looking at points on a map, it is easy to fall into the error of assuming that each is equivalent. It cannot be the case that the entire Neolithic and Bronze Ages were homogeneous. There must have been changes over time, in farming methods, in architectural styles, almost certainly in burial rites. But the number of dated, well-excavated, sites is so small that only the most generalised of statements are possible: houses seem to have become more circular in plan over time, and perhaps began to be grouped into small villages; the higher hillslopes were gradually abandoned as peat grew, so settlement would have become more concentrated onto the coast. The climatic and environmental processes which brought this about are described elsewhere in this volume.

By the end of the Bronze Age, at the depth of the climatic gloom (helped on, recent research suggests, by spectacular volcanic eruptions in Iceland creating or assisting climatic deterioration), life was certainly harder than at the time of the first settlement. The factors persuading people to

remain were the inertia of established settlement and, doubtless, that nowhere else within reach was any more attractive.

Only the burnt mounds survive as a numerous monument class ascribed to the Bronze Age, and although how these worked as water-boiling points is well-known, just what they were — kitchen, bake-house, sauna — is not proven. Nor, as Brian Smith has recently observed, are we secure in the assumption that they are communal: they appear to be about as numerous as ruined 'Norse' mills, they were built over no longer a span of time, and the mills were not in general communal, although they were frequently the focus of social intercourse in the winter months. Might a similar ancillary social function be adduced for burnt mounds?

Whatever the inner meanings of burnt mounds (and the ubiquitous suburban barbecue of recent years springs to mind as analogy), it seems on the basis of present evidence that by the start of the Iron Age, around 600 BC, the broad pattern of use of the land that we know today was established. Indeed, the picture of prosperous-looking coastal farmland with rough grazings spreading onto the hill, often incorporating the ruins of earlier settlements and traces of their fields, was remarkably like the recent scene in many areas, but for the different shapes of the houses and byres.

## Celtic cowboys: Iron Age preconceptions

Archaeologists have for many years been confident that Iron Age Shetland was primarily cattle-raising country, with small arable acreages and a fair bit of fishing and wild-fowling on the side. The evidence for this, especially in quantitative terms, is scanty. True, excavations at Jarlshof (Hamilton 1956) and more recently at Upper Scalloway broch (Sharples, pers comm) detected many bird-bone fragments: great auk, puffin, cormorant, and so on. They also indicated the use of cattle and sheep meat. But the total number of actual individual birds or animals recovered would not have fed a large family for much more than a week. There is actually no hard evidence that Iron Age Shetlanders were 'Celtic cowboys' rather than smallholders who kept the odd cow.

We have been misled over the years by circular argument: the archaeologist has a preferred picture, the palaeoenvironmentalist tells him that it can be sustained by the evidence. Then the archaeologist thinks he is being told his preconception is the correct answer, and the palaeoenvironmentalist, reading archaeological accounts based on these preconceptions, designs his research accordingly. Few archaeologists have put any real effort into searching out patterns of life which challenge preconceptions, and the Iron Age preconceptions by which Shetland is interpreted are from southern Scotland at best, southern England more usually. Is it not remarkable that the understanding of the society which produced some of the most spectacular prehistoric remains in Britain, if not Europe, should be interpreted in the light

of Wessex hillforts? It was in the north that exciting things were happening in the Iron Age, and Shetland was in the swim (Hingley 1992).

Polemic aside, how did the brochs, and their lesser cousins the forts, not to mention the unenclosed Iron Age settlement sites which are increasingly being discovered, fit into everyday life? Are they the strongholds of an egalitarian society, united in strength and equipped to ward off those of more militant tendency, or are they the castles of a native aristocracy, the bloated plutocrats of the export tammie-norie cartels? [Non-Shetland speakers note: tammie-norie = puffin.] Are they, in modern jargon, the fashionable residences of the upwardly mobile, or simply desperate bolt-holes against slave-raiders?

Has archaeology helped to answer these questions, which we might characterise as "what people want to know"? In practical terms, no. Almost all it has told us so far is that the inhabitants of brochs had a diet based on agricultural products with some non-farmed contribution: surely any Shetlander could have told us that.

The nearest we have come to understanding broch society, at least the economics, has come not from digging brochs but from looking around them, at the land, its relationships with the sea, and trying to imagine what the best, most stable, economic base would have been (Fojut 1980, Fojut 1982). And so far as this research has gone, it appears that arable land ranks higher up in the scale of importance and grazing land lower, with the sea very important. But then again, perhaps the arable land was growing hay for the cattle of the Celtic cowboys....

One thing we do know about Shetland brochs, and that is that they were not isolated, a group of structures standing splendidly apart. There were other sorts of forts: small island duns with thin walls, fortified promontories, blockhouses (if these were forts at all) (Lamb 1980, Fojut 1985). And there was plenty of Iron Age settlement in slight oval or round houses similar to those of earlier periods. Because we cannot distinguish it in the field it is found only by accident, when digging sites which on surface indications could equally well be Neolithic or Bronze Age, as at Mavis Grind (Cracknell and Smith 1983) or at Kebister (Owen, pers comm). Taking these, the only two dated sites together, there might be a case for a small sub-circular thick-walled early Iron Age house-type.... but that is a classic example (saving the pun) of circular argument: these two were Iron Age, therefore all unexcavated sites which appear to be almost circular in plan are Iron Age. Two similar sites can so easily equal one generalisation.

One of the interesting aspects of recent Iron Age research has been a tendency for workers in the Western Isles to look past Orkney to Shetland for parallels (Armit 1990). It has, to date, been less common for Shetland researchers to look west, despite the fact that Audrey Henshall remarked, many years ago, that Shetland's Neolithic pottery had more of the Hebridean about it than the Orcadian (pottery report in Calder 1958). There has been a

rather blinkered, Shetlandocentric, approach from many workers, the present author not excepted.

**Are the Picts hidden in the same place as the Vikings ?**

It is perhaps not with great expectations that the archaeological evidence for the Pictish period in Shetland is examined. This is not the place for yet another examination of 'who were the Picts'. The term is used simply as a label for a period between the end of the monumental roundhouses, brochs and wheelhouses, and before the Norse settlement.

At Jarlshof there are the 'passage houses', and at Sandwick in Unst there are two burials (Hamilton 1956, Bigelow 1985). There are unimpressive little hutments around the brochs at Clickhimin and at Upper Scalloway (Hamilton 1968, Niall Sharples pers comm). It appears that both forts (at Scatness) and brochs (at Eastshore) may have been in use, at least in some modified form, as late as the sixth and seventh centuries AD (Steven Carter, pers comm). There were circular houses of pre-Norse date at Jarlshof and Underhoull (Hamilton 1956, Small 1966). There are a few carved stones, mainly of later types (probably mid eighth to early ninth century, although a few fragments may be as early as the late seventh) (RCAHMS 1946). There is placename evidence which is taken to suggest there were pre-Norse Christian establishments, and at some sites (which except for Papil in West Burra do not coincide with the placename evidence) there are physical remains of ecclesiastical structures which are definitely pre-Norse, albeit only marginally so.

Above all, there is the magnificent St Ninian's Isle treasure, which we have recently been encouraged to see as hidden in the church not so much in fear of marauding Norsemen but precisely because Norsemen might have respected the church in their depradations. Thus is proto-history woven out of scraps of archaeology.

We can be sure that the Viking settlers would not have found the islands empty of population, but so far the evidence for a numerous Pictish farming population is slight. This problem has been dismissed as unimportant. Alan Small dealt with the problem of an apparent shortage of Norse houses many years ago, when he pointed out that the specifications for a Viking house plot were much the same as those for a nineteenth century croft: above farmland, overlooking a good landing beach, with access to plenty of rough grazing (Small 1969). Since then there has been a tendency, not least on the part of the present author, to push the argument back in time. The Picts lived a similar lifestyle, so used similar house-sites, therefore the Vikings built over the Pictish houses and later crofters built over those of the Vikings.

It was partly to examine this largely untested theory of the repeatedly-used house site that Olwyn Owen recently excavated the site at Kebister, beside Dales Voe, north of Lerwick. A typical ruined post-medieval settlement site with nearby burnt mounds suggested that the area had been

occupied over a long period. Here was an opportunity to test for continuity of Bronze Age > Iron Age > Pictish > Viking > Medieval > Recent. The results? A limited extent of Bronze Age settlement activity, extensive Iron Age unenclosed settlement, a trace of an Early Christian presence followed by no Viking or other remains, but instead a beautiful post-medieval teind barn, complete with the owner's coat of arms, and the most northerly circular-plan corn drying kiln so far identified.

Clearly, the excavation was not a failure, even though neither Viking nor Pictish farms were found. Much important information was gathered about a range of periods, particularly the Iron Age and the later Medieval. The information about prehistoric ploughing was particularly exciting, with broken stone plough-shares embedded in the ground.

However, we cannot argue that Small's theory is invalid, because it was never stated that *every* medieval croft was underlain by a Viking farm. What has been interesting is the considerable effort that has been made by those commenting on the absence of a Viking-period farm in the area excavated. With the benefit of hindsight we can see that the site was not promising: north-facing slope, waterlogged ground..... all ignoring the fact that the hillside supported a flourishing Bronze Age and Iron Age settlement, as well as post-medieval farming settlement.

This defence of the vanishing Viking farm theory is all the more remarkable because there are only three sites where there actually *is* evidence for a predecessor Viking farm: Underhoull (Small 1966), Jarlshof (Hamilton 1956) and da Biggins (Crawford 1985). What is most interesting about these sites is that all three offer glimpses, at da Biggins an almost complete view, of an alternative technology which has been almost ignored in the settlement archaeology of 'treeless' Shetland, although it is so central to the studies of colleagues in marine archaeology: timber construction.

No-one has looked systematically in Shetland for houses of turf or wood: if Iceland had them in the tenth and eleventh centuries, why not Shetland? Small's elegant solution to the absence of Viking farms, while doubtless valid in large degree, has lulled archaeologists into a false sense of understanding, and diverted searches for alternatives. Not only may much, if not most, of the architecture of Pictish Shetland have been in turf and timber (if there was enough timber to equip Iron Age brochs, there was enough to roof turf houses), but in this period and the succeeding Viking period it may well be that the very finest, and highest status, buildings were of wood, not stone. This is perhaps the single greatest unexplored possibility of Shetland archaeology.

One last diversion, before looking to the future: Norse mills. Not until the last few years has anyone succeeded in finding a Norse mill in the northern Isles which actually dates into the Norse period, when Chris Morris excavated one from the tenth or eleventh century at Orphir in Orkney. Unfortunately for the theory of Norse importation of mill technology from the

Mediterranean, a much more sophisticated direct-drive horizontal tide-driven mill has recently been dated, in Ireland, by radiocarbon and tree-rings, to the seventh century. But rather than considering a pre-Norse origin throughout Scotland, including Shetland, for such mills, it seems to be acceptable to assume that they were still brought by the Vikings, only now from Ireland.

## A prospectus

What is it, then, that needs to be done to place Shetland's archaeology onto a firmer footing ? The answers are conventional, but no less valid for that: build up survey, environmental and artefactual data-bases, publish excavation and research results, undertake new research targetted on emerging patterns and problems, and repeat this prescription regularly.

First, we need a thorough, detailed, survey of the whole of Shetland to the same standards as Bradford University's work in Fair Isle and South Nesting. This is a programme of work which will take many years, and cannot be left to the efforts of the islands' lone official archaeologist, whose task should be to collect, collate and direct.

Unlike the researchers who used to materialise from 'Sooth' in the thirties, forties and fifties, and as mysteriously disappeared again, the surveyors of the nineties and of the next century need to be seen and known locally, they must talk to the local residents as they survey, and seek to share their results. The return will be an enhanced understanding of what the structures and systems they are recording may have meant in terms of the functioning of communities. On this first objective, progress looks promising.

Second, all those boxes of stray finds in the Shetland museum, and in universities and Scottish (and English) museums, (and in archaeologists' garages and attics) need to be dug out, and people must be encouraged to bring in their own mantelpiece collections, so that corpora of artefacts can be compiled and related to the remains of structures and to more recent parallels. There is material here for any number of PhD theses. A particular effort needs to be made to interest researchers from as far afield as possible, not just Scotland and northern England. Perhaps some researchers might be attracted from Scandinavia or Ireland?

Third, thumbscrews need to be oiled, the oxen and wain-ropes prepared, and the outstanding excavation reports, and conference proceedings, dragged from excavators, contributors and editors. Many excavations since the mid-1970s have been paid for by public funds, and the results should be made available to the public. What excuse is there for excavations, of modest scale, in the late seventies and early eighties still to remain unpublished? And when they are published, could this not be done in some format, and vehicle, accessible and available locally, not in Glasgow or Edinburgh-based journals? Let us have local publication, so that all of the pensioners who visited the sites as schoolchildren will be sure to see the reports. But let us also have

national, or international publication, so that researchers elsewhere can have access to, and be attracted by, the fascinating material coming out of studies in Shetland. But let us have publication.

Attracting others is important. Using the ammunition supplied by the three processes above, we need to tempt people. We need to tempt the period and specialist experts on the rest of Scotland who have 'never quite managed to get to Shetland', we need to tempt teachers to include archaeology in developing curricula (and here Val Turner has made a splendid start) and we need to tempt schoolchildren to become archaeologists, amateur or professional, extracting the knowledge stored in their own families as much as in the landscape. We need to tempt tourists to appreciate more than the set-piece monuments. We need to tempt environmentalists to take into account the human dimension. Regrettably, we need to tempt some archaeologists to do the same.

What will be achieved, at the end of the day, will never be perfect. It will be full of biases and individual idiosyncracies, quirks and special pleading. It will have written all over it 'this came from Charles Calder' or 'this was done by Peter Winham'. But it will be a living body of archaeological theory based on a growing framework of real knowledge. It will be accessible to people at all levels of interest and expertise, both as a resource to draw upon and as a repository to deposit within. And it need not cost the earth: indeed there is a good case against undertaking too much large scale digging for years to come, while survey, synthesis and publication catch up.

All of this will take commitment, but I am confident that in Shetland, largely due to the efforts of the Islands' Archaeologist, together with the assistance of the Shetlanders she is increasingly drawing into archaeology and the archaeologists she is drawing into Shetland, this Utopian vision of a truly popular archaeology is perhaps closer to being realised than anywhere else in Scotland.

## Appendix

*Excavations in Shetland*

As a small contribution to the process of encouraging openness, here is a list of those excavations of which the author is aware. Only sites with elements pre-dating AD 1469 are listed. The status of publication is given thus:

F = full report (to standards of the time)
A = full report in archive form, not published
Y = full report at press at end of 1994
* = full report in active preparation at end of 1994
\- = no full report: interim report or note only

| *Site* | *Type* | *Year* | *Director* | *Pub* |
|---|---|---|---|---|
| Benie Hoose | Neo house | 1954-5 | Calder | F |
| Da Biggins | Norse farm | 1980-90 | Crawford | * |
| Breckon | Norse/medieval | 1983 | CEU | Y |
| Byrelands | BA house | 1986 | Exton | Y |
| Catpund | steatite/ house | 1988 | Smith,Carter,Turner | * |
| Clickhimin | multi-period | from 1850 | Hamilton | F |
| Clugan | IA house | 1970-1 | Beveridge | - |
| Clumlie | broch | 1888 | Goudie | F |
| Cross Geos | steatite/IA midden | 1987 | Buttler | - |
| Eastshore | broch | 1983 | CEU | Y |
| Fair Isle | survey | 1984-6 | Hunter | Y |
| Fethaland | IA ? house | 1904 | Abercromby | F |
| (Gravlaba) | chambered cairn/house | 1957 | Calder | F |
| Gruting School | Neo/BA houses | 1950 | Calder | F |
| Grutness | medieval burial etc | 1982 | Smith | A |
| Hestensgot | BA/IA house | 1960-3 | Rae | - |
| Islesburgh | chambered cairn | 1959 | Calder | F |
| Islesburgh | Neo/BA house | 1959 | Calder | F |
| Jarlshof | multi-period | from 1897 | Hamilton | F |
| Kebister | multi-period | 1983-7 | Owen | * |
| Kirkigeo | IA midden | 1983 | CEU | Y |
| Levenwick | broch | 1869-70 | Goudie | F |
| (Loch of Brindister) | dun | 1888 | Goudie | F |
| (Loch of Huxter) | IA fort | 1863 | Mitchell | F |
| March cairn | chambered cairn | 1949 | Calder | F |
| Mavis Grind | BA houses | 1978-9 | Cracknell, Smith | F |
| (Mousa) | broch | 1919 | Paterson | F |
| Ness of Burgi | IA fort | 1935 | Mowbray | F |
| Ness of Gruting | Neo/BA houses | 1950 | Calder | F |
| Ness of Sound | burnt mound | 1972 | Small | - |
| Outnabreck | Neo cairn | 1990 | Hamilton | F |
| Papa Stour | survey | 1980-3 | Allen | A |
| PettigarthsField | chambered cairn | 1954-5 | Calder | F |

| *Site* | *Type* | *Year* | *Director* | *Pub* |
|---|---|---|---|---|
| Punds Water | chambered cairn | 1959 | Calder | F |
| Quendale Bay | Neo/BA house | 1957-8 | Rae | - |
| St Ninian's Isle | Early medieval, etc | 1955-7 | O'Dell | F |
| Sae Breck | broch | 1949 | Calder | F |
| Sandwick Unst | Norse farm/Pict grave | 1978-80 | Bigelow | - |
| Scatness | IA fort | 1983 | CEU | Y |
| Scord of Brouster | Neo/BA settlement | 1977-9 | Whittle | F |
| Shetland | survey | 1930-6 | RCAHMS | F |
| Shetland | Neo/BA survey | 1949-59 | Calder | F |
| Shurton Hill | field wall | 1977 | Whittington | F |
| South Nesting | survey | 1991- | Dockrill | - |
| Stanydale | Neo/BA hall & house | 1949 | Calder | F |
| (Sulma Water) | chambered cairn | 1957 | Calder | F |
| Sumburgh | Neo houses | 1974 | Lamb | - |
| Sumburgh Airport | Neo burial cist | 1977 | Hedges, Parry | F |
| Tougs | BA house, burnt mound | 1977 | Hedges | F |
| Trondra | BA/IA house | 1965-6 | Goodlad | - |
| Trowie Knowe | chambered cairn | 1904 | Abercromby | F |
| Trowie Loch | burnt mound | 1991 | Dockrill | * |
| Underhoull | Pictish/Norse houses | 1962-5 | Small | F |
| Upper Scalloway | burials, broch | 1989 | Smith, McCullagh | * |
| Upper Scalloway | broch, outbuildings | 1990 | Sharples | * |
| West Burra | survey | 1877 | Parry | F |
| Wiltrow | BA house/ smithy | 1935 | Curle | F |
| Yoxie | Neo house | 1954-5 | Calder | F |

( ) indicates a site cleared of stone but not excavated
CEU = Central Excavation Unit, Scottish Development Department, now AOC (Scotland)
RCAHMS = Royal Commission on the Ancient and Historical Monuments of Scotland

## Bibliography

***Text references plus excavation and survey reports.***


Abercromby, J., 1905: 'Excavations at Fethaland and Trowie Knowe'. *Proceedings of the Society of Antiquaries of Scotland* 39, 171-184.

Armit, I. (ed.), 1990: *Beyond the Brochs: Changing Perspectives on the Later Iron Age in Atlantic Scotland*. Edinburgh.

Bennett, K.D., Boreham, S., Sharp, M.J., Switsur, V.R., 1992: 'Holocene history of environment, vegetation and human settlement on Catta Ness, Lunnasting, Shetland'. *Journal of Ecology* 80, 241-73.

Bigelow, G.F., 1985: 'Sandwick, Unst and late Norse Shetland economy'. In: Smith, B. (ed.) 1985 (below), 95-127.

Calder, C.S.T., 1952: 'Report on the excavation of a neolithic temple at Stanydale in the parish of Sandsting, Shetland'. *Proceedings of the Society of Antiquaries of Scotland* 84, 185-205.

Calder, C.S.T., 1953: 'Report on the partial excavation of a broch at Sae Breck, Shetland'. *Proceedings of the Society of Antiquaries of Scotland* 86, 178-186.

Calder, C.S.T., 1958: 'Report on the discovery of numerous Stone Age house-sites in Shetland'. *Proceedings of the Society of Antiquaries of Scotland* 89, 340-397.

Calder, C.S.T., 1963: 'Excavation in Whalsay, Shetland, 1954-5'. *Proceedings of the Society of Antiquaries of Scotland* 94, 28-46.

Calder, C.S.T., 1965: 'Cairns, Neolithic houses and burnt mounds in Shetland. *Proceedings of the Society of Antiquaries of Scotland* 96, 37-86.

Cracknell, S. & Smith, Beverley, 1983: 'Archaeological investigations at Mavis Grind, Shetland'. *Glasgow Archaeological Journal* 10, 13-39.

Crawford, Barbara, 1985: 'The Biggins, Papa Stour - a multi-disciplinary investigation'. In: Smith, B. (ed.), 1985 (below), 128-158.

Curle, A.O., 1936: 'Account of the excavations of an iron-smelting workshop and of an associated dwelling and tumuli at Wiltrow in the Parish of Dunrossness, Shetland'. *Proceedings of the Society of Antiquaries of Scotland* 70, 153-69.

Fojut, N., 1980: *The Archaeology and Geography of Shetland Brochs*. Ph.D. thesis, Glasgow University.

Fojut, N., 1982: 'Towards a geography of Shetland brochs'. *Glasgow Archaeological Journal* 9, 38-59.

Fojut, N., 1985: 'Some thoughts on the Shetland Iron Age'. In: Smith, B. (ed.), 1985 (below), 47-84.

Fojut, N., 1994: *A Guide to Prehistoric and Viking Shetland. Lerwick* (3rd edition).

Goudie, G., 1872: 'Notice of excavations in a broch and adjacent tumuli near Levenwick in the parish of Dunrossness'. *Proceedings of the Society of Antiquaries of Scotland* 9, 212-219.

Goudie, G., 1889: 'Notice of some recent broch excavations in Shetland'. *Proceedings of the Society of Antiquaries of Scotland* 23, 246-253.

Goudie, G., 1904: *The Celtic and Scandinavian Antiquities of Shetland*. London.

Hamilton, J.R.C., 1956: *Excavations at Jarlshof, Shetland*. Edinburgh.

Hamilton, J.R.C., 1968: *Excavations at Clickhimin, Shetland*. Edinburgh.

Hamilton, J., 1991: 'Excavation of a cairn at Wind Hamars, Outnabreck Hill, Scalloway, Shetland'. *Proceedings of the Society of Antiquaries of Scotland* 121, 45-49.

Hedges, J.W., 1984: 'Gordon Parry's West Burra survey'. *Glasgow Archaeological Journal* 11, 41-60.

Hedges, J.W., 1986: 'Bronze Age structures at Tougs, Burra Isle, Shetland'. *Glasgow Archaeological Journal* 13, 1-43.

Hedges, J.W. & Parry, G.W., 1980: 'A Neolithic multiple burial at Sumburgh Airport, Shetland'. *Glasgow Archaeological Journal* 7, 15-26.

Henshall, Audrey S., 1963: *The Chambered Tombs of Scotland*, 1. Edinburgh.

Hingley, R.C., 1992: 'Society in Scotland from 700 BC to AD 200'. *Proceedings of the Society of Antiquaries of Scotland* 122, 7-53.

Lamb, R.G., 1980: *Iron Age Promontory Forts in the Northern Isles*. Oxford.
Lamb, R.G., 1985: 'Sumburgh: prehistory under sand'. In: Smith, B (ed.) 1985 (below), 27-46.
Mitchell, A., 1881: 'Notice of Buildings designed for defence on an Island in a loch at Hogsetter, in Whalsay, Shetland'. *Proceedings of the Society of Antiquaries of Scotland* 15, 303-315.
Mowbray, Cecil L., 1936: 'Excavation at the Ness of Burgi, Shetland'. *Proceedings of the Society of Antiquaries of Scotland* 70, 381-386.
Paterson, J.W., 1922: 'The Broch of Mousa: a survey by H M Office of Works'. *Proceedings of the Society of Antiquaries of Scotland* 56, 172-183.
RCAHMS = Royal Commission on the Ancient and Historical Monuments of Scotland, 1946: *Inventory of Monuments in Orkney and Shetland*, vols i and iii. Edinburgh.
Small, A., 1966: 'Excavations at Underhoull, Unst'. *Proceedings of the Society of Antiquaries of Scotland* 98, 225-248.
Small, A., 1969: 'The distribution of settlement in Shetland and Faeroe in Viking times'. *Sagabook of the Viking Society* 17, 145-155.
Smith, B. (ed.), 1985: *Shetland Archaeology*. Lerwick.
Thomas, C. & Wilson, D.M., 1973: *St Ninian's Isle and its Treasure*. (2 vols). London.
Whittington, G., 1980: 'A sub-peat dyke on Shurton Hill, Mainland, Shetland'. *Proceedings of the Society of Antiquaries of Scotland* 109, 30-35.
Whittle, A., 1986: *Scord of Brouster: An Early Agricultural Settlement on Shetland*. Oxford.
Winham, R.P., 1980: *Site Morphology, Location and Distribution: a survey of the settlement archaeology of Shetland, investigating man-environment interaction through time*. M.Phil. thesis, Southampton University.