

South East Scotland Archaeological Research Framework: The Neolithic period

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Introduction

In South East Scotland, as elsewhere in Britain and Ireland, the appearance of farming as a way of life marked a significant change from the hunting, fishing and foraging way of life that had been practised for millennia – early evidence of which includes the relatively substantial Early Mesolithic house at East Barns near Dunbar (for which, see the Mesolithic chapter). In this part of Scotland the evidence suggests that the first farmers appeared in the first two centuries of the fourth millennium BC. Thanks to ancient DNA (aDNA) analysis of human remains from elsewhere in Scotland, and more broadly in Britain and Ireland (e.g. [Brace et al. 2018](#)), we can confidently state that farming was introduced by immigrant groups of farmers from the Continent; in this part of Scotland, these farmers will have come from the Nord-Pas de Calais region of northern France, and we call the strand of Neolithisation that saw their arrival the ‘Carinated Bowl Neolithic’, named after the distinctive type of pottery that they used. (In a Continental context, this pottery represents one of several regional groupings of pottery that shares features of both Chassey and early Michelsberg-type pottery: [Sheridan 2007; 2016](#).)

Along with agro-pastoral farming (for which the ‘nuts and bolts’ – domesticated cows, sheep and goats and pigs and cereals [wheat, barley and oats] – will have been brought over in boats from northern France), the immigrant farmers brought a whole range of novelties, from pottery as a wholly new technology, to leaf-shaped arrowheads, ground and polished stone axeheads and Continental beliefs and practices. While these newcomers had a profound effect on the genetic makeup and lifestyle of the Mesolithic inhabitants of Britain and Ireland, we are not dealing with a wipeout or catastrophic disease among those Mesolithic inhabitants. The question of precisely what happened to them, and how long they continued to practise their way of life in this part of Scotland, is one of the research questions that can be posed.

Conventionally, we define the Neolithic period as starting with the appearance of this new way of life, and ending with the appearance of further Continental novelties and immigrants during the 25th century BC – the beginning of what we call the Chalcolithic (Copper Age) period. While the aDNA evidence shows that these immigrants had a major effect on the genetic makeup of the occupants of Britain and Ireland, we are once more not dealing with a wipeout of the population, any more than had been the case with the Mesolithic inhabitants. Again, the question of how the by-then indigenous farmers of South East Scotland reacted to the appearance of these fascinating foreigners is one of our research questions.

Our knowledge of the Neolithic archaeology of South East Scotland is based on a relatively small number of research excavations (not all directed at investigating known Neolithic sites), on numerous stray finds over the last 200+ years, on evidence (much of it needing to be ground-truthed) from aerial photography and other remote sensing methods, and increasingly from developer-funded excavations, including the

extensive work undertaken by GUARD on the upgrades to the A1 in East Lothian between 2001 and 2004 (Lelong and Macgregor 2007). One very significant recent development has been Professor Ian Ralston's re-evaluation of the results of Brian Hope-Taylor's 1960s excavations of two large houses ('halls') at Doon Hill, East Lothian, where he has been able to demonstrate that both are of Early Neolithic date, not of first millennium AD date as Hope-Taylor had claimed. A further significant contribution to our understanding of the Neolithic in South East Scotland (and Britain and Ireland more widely) has been the international, French-led research project on 'jade' axeheads from the Alps, *Projet JADE* (e.g. Sheridan and Paillet 2012; Sheridan *et al.* 2022). This has pinpointed the source of the jadeitite used for the magnificent, special-purpose axeheads such as the one from Greenlawdean, Scottish Borders (Fig. 1); this axehead originated in a valley below the imposing peak of Monte Viso in the North Italian Alps, for example.



Fig. 1. Jadeitite axehead from Greenlawdean, Scottish Borders. Length 250 mm. Photo © NMS

One issue in collating information about the Neolithic period in this part of Scotland is that much of the evidence from recent excavations remains unpublished and is hard to get in 'grey literature' form. What would be very useful would be for the constituent HERs and Canmore to upload all the existing grey literature onto the records for the sites in question.

Note that the headings for the sections in this chapter have been determined by ScARF and do not always use the terms that the author would use.

Settlement and Domesticity

There are traces of Neolithic settlement in South East Scotland, and it is easiest to deal with these in chronological order (by Early Neolithic, c. 3800–3500 BC; Middle Neolithic, c. 3500–3000 BC and Late Neolithic, c. 3000–2500 BC).

Early Neolithic

This part of Scotland has evidence for the existence of two (or rather three – the Doon Hill site has one built on the remains of another) large houses or ‘halls’, at Doon Hill, East Lothian (Fig. 2) and at Sprouston, Scottish Borders (Fig. 3).

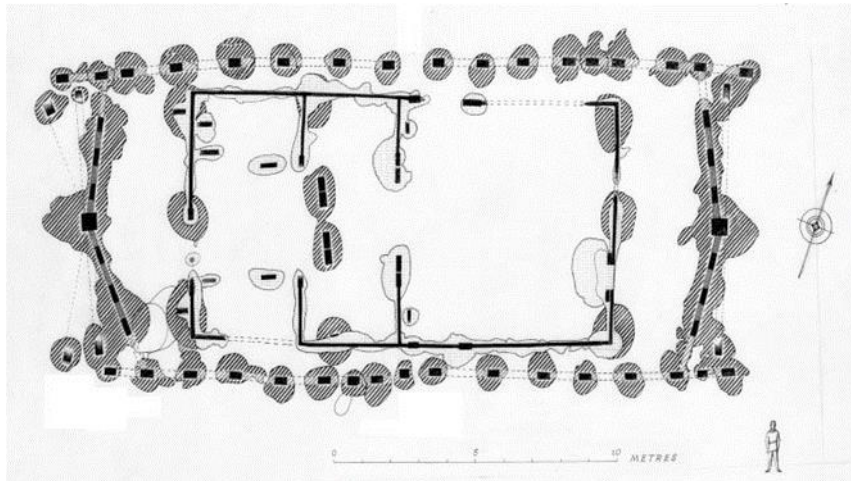


Fig. 2. The two Early Neolithic ‘halls’ at Doon Hill, the smaller one built within the footprint of the burnt-down remains of the larger one. From the Hope-Taylor Archive

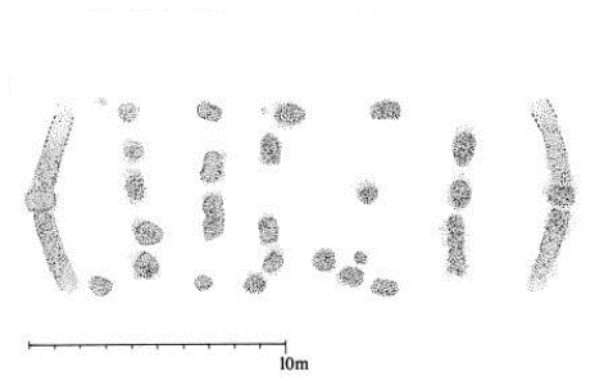


Fig. 3. Plan of ‘hall’, almost certainly of Early Neolithic date, at Whitmuirhaugh, Sprouston, Scottish Borders (formerly Roxburghshire), plotted from aerial photo. From Smith 1991

These are very substantial timber buildings, the larger of the two at Doon Hill measuring 23 x 10.4 m and the Sprouston example measuring around 21.5 x 7.3 m. Both are not far from the coast, with Sprouston located close to the Tweed a few kilometres upstream, not far from Coldstream.

Recently-obtained radiocarbon dates for the Doon Hill structures demonstrate that they were both constructed within the 38th–37th centuries BC time frame. Both had been deliberately burnt down (Fig. 4), and unusually for such structures, they were

enclosed by a ditch containing a timber palisade – though this is not as angular as Hope-Taylor had argued (and as the concrete poured into the position of the ditch by the predecessor of Historic Environment Scotland c. 1973 implies).



Fig. 4 Artist's impression (which appears on the visitor panel at Doon Hill) of the burning down of one of the 'halls' at Doon Hill. © HES

Several other Early Neolithic 'halls' are known from Scotland, mostly close to the coast or along major rivers (Fig. 5).

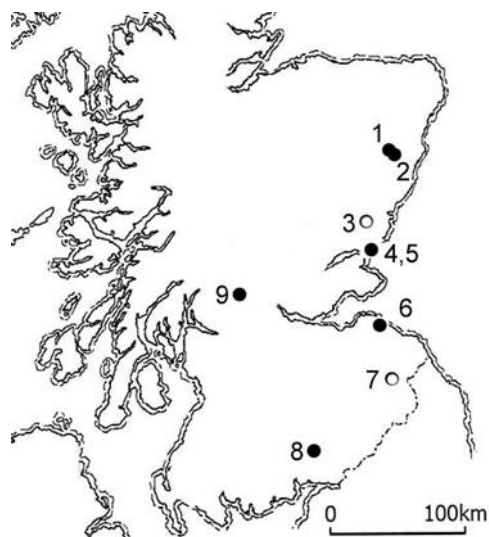


Fig. 5. Distribution of Early Neolithic 'halls' in Scotland (from Sheridan 2013, with additions)

These extraordinary structures, which could have housed several tens of people, are a relatively short-lived phenomenon of the Early Neolithic. As argued elsewhere (e.g. [Sheridan 2013](#)), it is most likely that they were built by pioneering groups of immigrant farmers when they arrived in an area. Having sought and found good agricultural land, they worked together to create a communal place in which they could all live until they felt sufficiently well established to 'bud off' into individual farmsteads, building smaller versions of the rectangular houses. The act of building will have underpinned their sense of communal identity, and the deliberate burning down – no mean feat, as it is hard to set light to a massive oak-built structure – will have symbolised their setting forth into independent living in individual farmsteads, in a kind of 'burning of bridges' gesture.

The narrative of what happened in specific localities varies. At Doon Hill, for whatever reason, some people decided to stay in the area and build a marginally smaller version of a 'hall' in the footprint of the burnt-down larger 'hall', and ceramic and radiocarbon dating evidence confirms that some kind of activity there persisted into the third quarter of the fourth millennium (though the second 'hall' will have been burnt down well before then).

The contrast between these massive structures and the dwelling places of the indigenous Mesolithic communities could no have been starker, and these statements of identity and presence will no doubt have impressed and probably also puzzled and even intimidated local hunter-fisher-foragers. As for the questions of how many immigrant farmers arrived, and how many Mesolithic people were living in South East Scotland in the centuries around 4000 BC, these are hard to answer. It is likely that the Mesolithic population will have been small and sparsely distributed, with people living in small, semi-nomadic bands. Genetic studies have concluded that considerable numbers of farmers arrived in Britain from the Continent, but it is hard to put a precise number on how many thousands of people came ([Brace and Booth 2023](#); [Sheridan and Whittle 2023](#)). It will have taken at least 30 people (at a conservative estimate) working together to build a 'hall', so it is safe to assume that at least several hundred immigrant farmers will have arrived in South East Scotland overall.

As for other evidence indicating where and how Early Neolithic farmers lived in South East Scotland, the evidence is sparse and limited to a few sites with pits, such as at West Edge, Long Loan, Gilmerton (City of Edinburgh), where modified Carinated Bowl pottery, hazelnut shells and a stone pounder or grinder were discovered during recent excavations by GUARD Archeology, or at Newbridge and Maybury Business Park, City of Edinburgh ([Sheridan 2007](#), 484). Plough (and other) truncation may well have destroyed traces of houses, leaving only the remains of pits. At Ratho Quarry ([Smith 1995](#)), there was a hint of a hearth, while at the Hirsell near Coldstream ([Cramp 2014](#)) there were hints of ephemeral structures, suggesting perhaps seasonal rather than year-round occupation. As noted elsewhere (e.g. [Sheridan 2013](#)), the range of Early Neolithic habitation structures included those associated with seasonal or short-term activity; this does not, however, mean that farmers had a semi-nomadic life. Rather, it indicates that some members of the community may have left permanent settlements on a temporary basis (e.g. for transhumance – admittedly probably not required in this part of Scotland – or hunting expeditions).

Distribution maps of Early Neolithic pottery (Fig. 6) and of Alpine axeheads (shown in the Material Culture section) provide further clues as to where Early Neolithic people were active, though the Alpine axeheads tend to have been deposited in special places, rather than in settlements. One example of a seemingly isolated find of a Carinated Bowl is the one found during gravel quarrying at Oatslie Sandpit, Roslin (Stevenson 1948); this may well have been the only material spotted from a Neolithic settlement that was being destroyed through quarrying. The distribution patterns of other artefact types – other stone (including flint) axeheads and leaf-shaped arrowheads – will give a slightly more generalised picture of Neolithic activity, as neither artefact type's use is exclusive to the Early Neolithic period (but see Ballin 2021 on the dating of Neolithic arrowhead types).

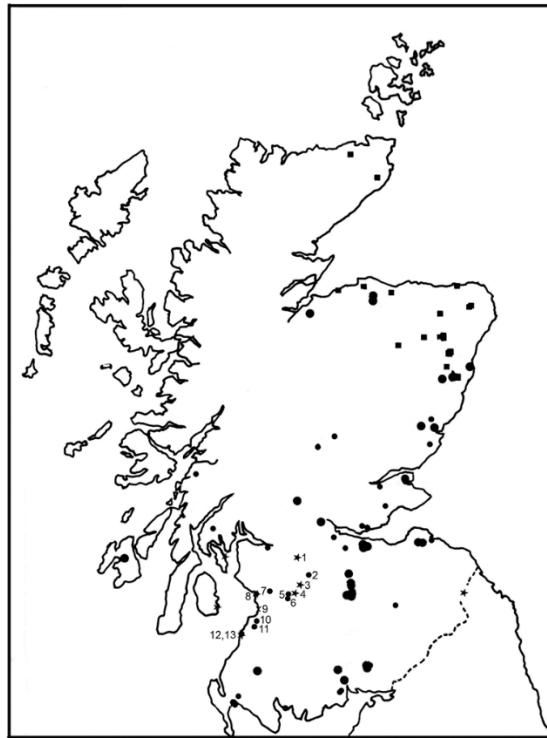


Fig. 6. Distribution of Carinated Bowl pottery (of 'traditional' and 'modified' type) in Scotland as of 2020; note that the most recent finds from South East Scotland (e.g. from Gilmerton) need to be added, and there are one or two earlier omissions (e.g. Oatslie sand pit, Roslin). © Alison Sheridan

The distribution pattern for Carinated Bowl pottery (which comes not only from settlement sites but also from funerary sites) in the South East echoes the broader pattern within Scotland (and Britain and Ireland as a whole) in having a close correlation with areas of good agricultural land, with many findspots being near the coast or along major rivers. The incoming farmers will have arrived by boat and settled near the coast, and will also have followed major river valleys, which will have served as important arteries of travel and communication.

Middle Neolithic

Evidence for Middle Neolithic settlement in South East Scotland is sparse, especially if one excludes the enclosure at Meldon Bridge which is more likely to be a periodic gathering place than a place of habitation. The most useful information currently available comes from the GUARD excavations along the A1 in the early Noughties, with Middle Neolithic settlements at Knowes Farm (Lelong and MacGregor 2007, ch. 3) and Overhailes (ibid., ch. 4), both in East Lothian, being explored and radiocarbon dated. The same work also uncovered a further probable assemblage of Middle Neolithic pottery at Pencraig Wood (Lelong and MacGregor 2007, 92 and fig. 4.23).

The Knowes Farm settlement evidence is in the form of a dozen pits in a line, along level ground, with some pits clustering. Pottery was the only artefactual find, with three pits containing sherds of three pots that had broken shortly before the sherds' deposition. Charcoal in the pits is thought not to come from posts – there was no clear evidence that the pits had contained posts – but from burning activity (e.g. from cooking nearby). It can only be assumed that the pits belonged to a settlement, rather than to a pit-alignment monument. The type of pottery present is Impressed Ware – a term used in preference to 'Peterborough Ware' since, even though it is comparable to much pottery labelled as such further south in England, it is not identical. Identifiable vessel shapes are a bowl with a heavy rim and 'cavetto' hollow below the rim (constituting a southern Scottish version of the 'Mortlake style Peterborough Ware' pots found south of the Border), and a tall, flat-based jar, both with various kinds of impressed decoration; illustrations can be found in the 'Material culture' section. The radiocarbon dates, from short-lived species charcoal, range from 3620–3360 cal BC (SUERC-7524) to 3360–3090 cal BC (SUERC-7522).

The Overhailes settlement, near East Linton, consisted of evidence for a lightly built, sub-circular or horseshoe-shaped wattlework building around 6 m across, with a sub-circular yard to the south and, inside that, two pits. This was located on a terrace. The pottery, while belonging to the Impressed Ware (Peterborough Ware) tradition, is slightly different from that at Knowes Farm of a style known as 'Fengate Ware' – one of the sub-styles of Peterborough pottery. Sherds from a dozen pots were present. Flint tools, including a flake from a polished flint axehead, and coarse stone tools were also found, as well as charcoal and mammal bones. Radiocarbon dates place this activity within the 3350–2900 cal BC bracket.

Apart from these sites, settlement evidence relies largely on interpreting artefact finds. Middle Neolithic pottery has been found in the sandhills at Hedderwick (Callander 1929, 67–72 and figs. 51–6; Anon. 1947, 189; Stevenson 1946; note that some of the sherds are curated at the Institute of Archaeology, University College London while others are in NMS) and at the Woodburn Housing Estate, Dalkeith, sherds from a trunconic pot with incised and impressed decoration were perceptibly compared by Audrey Henshall to a pot from Ford, Northumberland (Henshall 1966; see also Sheridan 2016 for the distribution of trunconic Middle Neolithic pottery in Scotland). No round-up survey has yet been made of all the finds of Middle Neolithic pottery in the South East, so the creation of such a *corpus* should be an action point arising from this Research Agenda.

The Hedderwick finds raise the question of what was the nature of the activities at this coastal location – some kind of short-term activity, perhaps? – and, in turn, raise broader questions of subsistence activities. Shell middens are known in the sandhills of East Lothian, yet it is not known whether any may include activity of Neolithic date. While human remains evidence from Early Neolithic Britain points firmly to the earliest farmers not eating marine food, it is known that later on during the Neolithic, fish was consumed in some parts of Scotland (as attested, for example, by lipids preserved in an incised Hebridean Neolithic pot from Barpa Langais, North Uist).

The distribution of non-ceramic artefacts provides further clues as to Middle Neolithic activity (and possibly settlement) areas in the South East, and a remarkable concentration of flint artefacts of this date (many made from Yorkshire flint) around the henge at Overhowden, Scottish Borders (Ballin 2011), suggests that people were certainly present in these areas. (The question of the relationship between these lithic finds and the henge will be discussed in the section on ‘Religion, ritual and funerary practices’.)

Late Neolithic

Evidence for Late Neolithic settlement is as sparse as that for Middle Neolithic settlement, and the evidence relies largely on finds of Grooved Ware ([Tracing the Lines: Uncovering Grooved Ware Trajectories in Neolithic Scotland | The Scottish Archaeological Research Framework \(scarf.scot\)](#)). These are located in the coastal sandhills on the Archerfield Estate at Gullane (Curle 1908) and at Hedderwick (Callander 1929; Stevenson 1946); in a posthole at Kinegar Sand Pit, Cockburnspath, Scottish Borders (Conolly 2000; 2001; 2002); in a pit at Monktonhall (Jorge 2014); from a light timber structure and pits or stakeholes at Lamb’s Nursery, Dalkeith, Midlothian (Cook 2000); in a pit alignment (probably a monument rather than a settlement) at Eweford East, East Lothian (Sheridan 2006; Lelong and MacGregor 2007).

Subsistence & farming (as appropriate for period – to include food, health and diet where possible)

Environment and landscape (see separate docs)

Craft/Industry/trade (as appropriate for period)

Material culture

Religion, ritual and funerary practices

Transport

Conflict