

The walling inserted across the chambered tomb showing the edge of the Bronze Age cairn

remains indicates an Early Bronze Age date, as expected (1890–1701 cal BC at 95.4 % confidence: SUERC-90646, 3488 \pm 27). A cache of cobble tools found on the surface near the cist may also have originally come from within it.

The overall shape of Tresness had been previously commented upon. Davidson and Henshall, in their 1989 classic *The chambered cairns of Orkney*, noted that 'a later circular structure was placed centrally giving the site its present appearance of a round cairn overlying a rectangular monument' (p. 163). Our excavations confirmed this observation, revealing two poorly built walls that appear to encircle the central cist. Significantly, these walls also reference the Neolithic architecture, with each wall overlying and following the orientation of a pair of orthostats extracted for the cist. The laying of multiple ard points and flaked stone bars across the uppermost surface of the remodelled cairn may also have indicated the 'laying to rest' of this site. However, there is one final phase of activity documented at Tresness. As already noted, the cist was greatly disturbed and its lid smashed into pieces. These, along with other large stones, were tipped back into the cist, but only partly filled it and a significant depression was visible prior to the excavation. The character of this disturbance indicates that it was most likely caused by an antiquarian excavation in the 18th or 19th century. No records relating to this intervention have been located, but a communication in the New Statistical Account of Scotland (1845, 136) from Dr William Wood, the island's physician and an antiquarian barrow digger, states 'Tressness [sic...] contains several tumuli, which have never been examined'. Later antiquarian activity is, however, documented on the peninsula at the Broch at Wasso (Wasshow) which is just 500 m to the north of Tresness cairn. This was excavated by the prolific Orcadian antiquarian George Petrie in 1868. It is possible that he also examined the cist while he was there, although no reference has so far been found in his diaries.

Examination of the site's Neolithic components will continue as soon as circumstances permit. In the meantime, a 3D model of the site can be viewed at: https://skfb.ly/6RNPz

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New light on the Covesea Caves, north-east Scotland

The sandstone cliffs flanking the south shore of the Moray Firth, north-east Scotland, conceal numerous sea caves. The best known is the Sculptor's Cave, named after the Pictish symbols carved around its distinctive twin entrance passages. This cave has been excavated twice, first by Sylvia Benton in the late 1920s, and later by Ian and Alexandra (Lekky) Shepherd in 1979. Over recent years, a project led by two of the present authors (IA and LB) has brought together the results of these two excavations for analysis and publication.

Historically, the Sculptor's Cave is best known for its metalwork, which formed the basis for John Coles' 'Covesea Phase' of the Scottish Late Bronze Age. Human remains, including evidence for decapitation and the possible display of juvenile heads, were also thought to be associated with this Late Bronze Age activity. Records suggested that more than 1600 bones were recovered during Benton's excavations, though almost all had been discarded after cursory examination. Later activity was evidenced by the presence of Roman Iron Age personal and votive objects, including over 200 coins. Little was known, however, about the nature of this activity, its chronology and duration.

One major result of the recent work has been to radically overhaul the chronology of the site. Instead of two disconnected episodes in the Late Bronze Age and Roman Iron Age, AMS dating and Bayesian analysis have revealed that the cave was visited continuously from around 1000 cal BC to cal AD 400. During this time, deep deposits built up in the entrance passages, including numerous ephemeral structures controlling access to the cave. Nonetheless, two remarkable episodes still stand out. Between c. 1000 and 800 cal BC, juvenile remains were brought to the cave. Careful analysis of 'bone lists' compiled during the early excavations suggests that their bodies had been curated elsewhere, during which time they had decayed significantly, often losing small bones of the hands and feet. Indeed, when brought to the cave, they can best be thought of as mummy-bundles, adorned with bronze ornaments and gold-covered hair rings. Once



The Covesea Caves lie on the north-facing shore of the Moray Firth, with long views up the coast of Caithness and Sutherland. The caves are cut off from each other at high tide and are hard to access either by land or sea. Excavations have so far identified prehistoric activity in Caves 1 and 2, the Laird's Stable, and the Sculptor's Cave

in the cave they seem to have been kept (perhaps displayed) on stake-built structures in the twin entrance passages.

Yet funerary activity was not confined to the Late Bronze Age. Around 1000 years later, human remains once again entered the cave, but this time the mortuary rite was different. Instead of children, the Roman Iron Age bodies were predominantly adults, again associated with small items of personal adornment like pins and beads. The 'bone lists' suggest that these bodies entered the cave intact, but that certain bones, notably skulls and long bones, were subsequently removed. This provides a remarkable mirror image of the situation on Iron Age settlements, where the same large bones frequently appear as isolated deposits. Indeed, the Sculptor's Cave may represent the first discovery of an *in situ* Iron Age excarnation site, where bodies were laid out to decay before bones could be selectively removed for ritual use in the world of the living. In addition, cut-marked vertebrae attest to the beheading of at least nine individuals inside the cave during the mid-third to early fourth centuries AD (see also Armit and Schulting in *PAST* 55).

The story of the Sculptor's Cave is certainly extraordinary, but recent work along the same coastline indicates that it is by no means unique. Archival work at National Museums Scotland and Elgin Museum identified human bones provenanced generally to 'the Covesea Caves', many from unrecorded excavations carried out in the 1960s. These discoveries led us to establish the Covesea Caves Project in 2014, which has carried out extensive excavations on several of the caves, as well as creating 3D digital models of these fragile environments (see a digital recreation of the Sculptor's Cave here: https://www.youtube.com/ watch?v=GnallHPh3Ts&feature=youtu.be). So far, the most striking results have come from Covesea Cave 2, *c*. 100 m west of the Sculptor's Cave.

Excavations in Cave 2 began by exposing, cleaning and extending a large irregular trench dug by amateur archaeologists in the 1960s. This provided not only a preview of the complex stratigraphy, but also yielded many human bones, broadly contemporary with those in the Sculptor's Cave. Furthermore, trenches in both the Main Chamber and the recently discovered Wolf Chamber (entered via a low crawl space at the rear of the cave) revealed that Cave 2 has an even longer chronology of use than its neighbour. This begins with Early/Middle Neolithic mortuary activity, evidenced by juvenile skull fragments from the Wolf Chamber and a human tooth dating to 3892-3701 cal BC (4980±22 BP; SUERC-90587). Faunal and artefactual assemblages from this period have also been recovered, as well as a collapsed timber structure exposed at the base of the 1960s trench. Early Bronze Age activity is indicated by human remains redeposited in Late Bronze Age levels and by fragments of Beaker pottery, although no cultural deposits of this period have yet been found.

Late Bronze Age deposits, by contrast, are extensive throughout the Main Chamber, containing significant quantities of disarticulated human remains, some associated with arc-like, stake-built structures similar to those at the Sculptor's Cave. The level of processing and fragmentation seems quite unlike that at the Sculptor's Cave however; perhaps these bones belonged to a different community with distinct mortuary traditions, or perhaps the caves form complementary parts of a more extended landscape of funerary processing.

The Cave 2 faunal assemblage is also unusual, comprising a high proportion of red deer remains from the Neolithic onwards. Evidence for butchery shows that these do not represent natural deaths, and the deposition of a very large deer calvarium and (disassociated) mandible may suggest the special significance of red deer in the earliest phases of the cave's use.

Cave 2 also saw (at least sporadic) human activity in medieval and later periods. One tiny pit (only *c*. 20 cm deep by 30 cm long) contained 65 faunal bones, including sheep, deer, herring gull, guillemot, cormorant, jackdaw, great auk and Atlantic cod. This motley collection was capped by a human pelvis fragment dating to the Early Bronze Age (2463–2236 cal BC; 3870±24 BP; SUERC-90582), presumably recovered from the earlier deposits. Might this reflect witchcraft or magic being practised in the cave during the seventeenth or eighteenth centuries AD?



Neolithic leaf-shaped arrowhead and sherd of Beaker pottery (top) retrieved from spoil of the 1960s excavations in Cave 2. The skull fragment (bottom) belongs to a Middle Neolithic juvenile individual. This image shows how close to the surface these deposits are



Late Bronze Age human remains from Cave 2. The juvenile pelvis fragment (top left) displays five radiating cutmarks, probably made using a flint tool. The adult mandible (top right) has fine cutmarks associated with defleshing. The metacarpal (bottom) represents one of several bones with surviving soft tissue (in this case ligaments, indicated by the red square), reflecting the extraordinary preservation within the cave



This red deer calvarium from Cave 2 (left) appears to have been deliberately deposited, while the large red deer mandible (bottom right) shows the size of Neolithic specimens compared to a modern deer mandible (photos: Alex Fitzpatrick)

From Neolithic funerary ritual to early modern magic, the Covesea Caves represent a remarkable and fragile resource. A new monograph by Ian Armit and Lindsey Büster, detailing the results of work at the Sculptor's Cave, is now available from the Society of Antiquaries of Scotland: *Darkness Visible: the Sculptor's Cave, Covesea, from the Bronze Age to the Picts* (https://www.socantscot.org/product/darkness-visible/), while further fieldwork and analysis by the Covesea Caves Project continues to shed light on the biographies of these extraordinary sites.

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Archaeology on Furlough: archaeology in the time of COVID-19

When COVID-19 forced the UK into shutdown in March 2020, thousands of archaeologists found themselves unable to work. But when the government furlough scheme provided support for people, I realised there was a huge opportunity for volunteer archaeology projects of a kind currently not possible in either commercial units or academia. Over two weeks in April, I developed a suite of online projects for out-of-work archaeologists: Archaeology on Furlough (AoF).

In the two days after launch, over two thousand people visited the AoF website (www.archaeology-on-furlough.com), and over a hundred registered to volunteer. Participants included commercial field archaeologists and specialists, museum curators, retired archaeologists and postgraduate students.

For many, AoF was an opportunity to research and discuss unfamiliar topics. For some, it developed research skills they did not get to use in their day jobs. For a few, AoF was their first chance to write a report.

As I write this at the end of August 2020, the projects are coming to an end and the first teams have delivered their reports. Several groups are now preparing articles for formal publication. All the project outputs are progressively being made available via the AoF website, and will be permanently accessible via the Cambridge University Library's Apollo repository (https://www.repository.cam.ac.uk/).

Four of the AoF projects will be of particular interest to prehistorians.

Aurochs in Britain

Aurochs were a species of large wild cattle which became extinct in Britain during the Bronze Age. This project compiled a gazetteer of aurochs remains in Britain to shed new light on the environments aurochs preferred, and the types of ecological and hunting pressures that led to their disappearance.

The team has more than tripled the number of known sites of aurochs remains in Britain, finding over seven hundred locations – including several dredged from the Channel and North Sea. Some of the extraordinary finds include one animal with a stone axe embedded in its skull; a barrow containing 184 cattle skulls, among them curated aurochs ones; and two Roman sites and an Iron Age broch with skulls which must have been curated for some 1500 years. The team's dataset will form a benchmark for decades to come, and they are now preparing an article and gazetteer for publication.