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Supplementary Information

Previously Unknown Migration into Britain in the Context of a Peak of Mobility in Late Bronze Age Europe

SI Section 1: Archaeological context

AUSTRIA

Pottenbrunn, St. Pölten municipal area, Lower Austria, Austria

The cemetery is located in the south-west of Pottenbrunn, on plot "Steinfeld" (15°41´05"/48°13´55"). Discovered in 1930, it had already yielded objects dating to the early La Tène period. In 1981, road construction revealed further finds which initiated rescue excavations by the Bundesdenkmalamt (State Office for Protection of Historical Monuments) under the guidance of J.-W. Neugebauer (Ramsl 2002a, 13) in 1981 and 1982. A total of 42 graves with 45 burials (single and double inhumations, and cremations) have been documented. Some burials were severely disturbed (by ancient activities such as grave robbing and/or contemporary construction work), and some were set within fenced enclosures ("Grabgärten"). Three (of 22) samples of charcoal and bone fragments taken by Peter Stadler (Department of Prehistory, Natural History Museum Vienna) in the course of the FWF-project "Absolute Chronology for Early Civilisations in Austria and Central Europe" returned AMS dates of 410–200 cal BCE (grave 520), 550–200 cal BCE (grave 565) and 380–350 cal BCE (grave 1005) (Ramsl 2002b, 359).

The cremation burials were not included in the initial osteological analysis, but 31 inhumed individuals were studied (Gerold 2002). Petrous bones from three of these were successfully analyzed for aDNA. Sample I11699 (female) derived from an individual (inv. no. 26.238) aged c. 20 years in grave 89 which, despite disturbance in antiquity, was accompanied by fibulae and ceramic vessels.

Sample I11701 (male) derived from an individual (inv. no. 26.249) aged c. 18 years in grave 570, which also included shears, fibulae, and ceramic vessels. Evidence for bone porosity in the mandible and maxilla suggest possible Vitamin C deficiency, while enamel hypoplasia points to malnutrition or illness during childhood.

Sample I11708 (female) derived from an individual (inv.no. 26.250) aged c. 25–35 years in grave 574/2, who was richly adorned with fibulae, bronze, iron and silver-rings, an amber ring, a bracelet, a glass bead, and a worked bone artefact.

Source of samples: Maria Teschler-Nicola (samples taken by Ron Pinhasi), Department of Anthropology, Natural History Museum Vienna
Author of entry: Maria Teschler-Nicola
References:

Gerold, F. 2002. Anthropologische Auswertung der latènezeitlichen Skelettreste des Gräberfeldes Pottenbrunn (Niederösterreich) unter besonderer Berücksichtigung der krankhaften und degenerativen Veränderungen, in P.C. Ramsl, *Das eisenzeitliche Gräberfeld von Pottenbrunn. Forschungsansätze zu wirtschaftlichen Grundlagen und sozialen Strukturen der latènezeitlichen Bevölkerung des Traisentales, Niederösterreich. Fundberichte aus Österreich, Materialheft A 11*, 303–331. Vienna: Berger.

Ramsl, P.C. 2002a. *Das eisenzeitliche Gräberfeld von Pottenbrunn. Forschungsansätze zu wirtschaftlichen Grundlagen und sozialen Strukturen der latènezeitlichen Bevölkerung des Traisentales, Niederösterreich. Fundberichte aus Österreich, Materialheft A 11*, 11–248. Vienna: Berger.

Ramsl, P. C. 2002b. Die Radiocarbondaten aus dem Gräberfeld von Pottenbrunn, in P.C. Ramsl, *Das eisenzeitliche Gräberfeld von Pottenbrunn. Forschungsansätze zu wirtschaftlichen Grundlagen und sozialen Strukturen der latènezeitlichen Bevölkerung des Traisentales, Niederösterreich. Fundberichte aus Österreich, Materialheft A 11*, 359–361. Vienna: Berger.

CHANNEL ISLANDS

The Common, Herm, Channel Islands

A number of megalithic sites on the Common at the north end of the island of Herm were investigated by the Lukis family in the mid-nineteenth century (Kendrick 1928, 198–221). More recently Professor Chris Scarre carried out four seasons of fieldwork on the Common, combining excavation with a programme of coring, soil sampling, micromorphology, palynology and OSL dating (Scarre and French 2013). His work suggests that the oldest of the tombs date to the fifth or early fourth millennium BCE, contemporary with similar monuments in Brittany and Normandy (Scarre and French 2013, 14). Evidence for settlement and agricultural practices was spread widely across the Common, in some cases very close to the megalithic monuments, and there were indications of attempts to improve the quality of the soil by manuring with midden-derived material persisting from the fourth to the late second millennium BCE (Scarre and French 2013, 10).

A tooth (GMAG 3167a) from a mandible recovered during Lukis's excavation of the 'new cromlech at foot of Petit Monceau' in 1841 yielded sample I16435 (male); this is Kendrick's tomb no. 12 (1928, 208–210), better known now as Robert's Cross (Scarre and French 2013, 12–13). Scarre (pers. comm.) obtained a radiocarbon date of 4817±28 BP (MAMS-14945; 3655–3526 cal BCE) for the mandible from which this tooth was extracted. The sample has been excluded from the analysis due to low data coverage.

DNA was also successfully extracted and analysed from a tooth (GMAG 3171d) from a mandible excavated by Lukis on Le Grand Monceau in 1840, which yielded sample I16436 (male). This appears to be Kendrick's tomb no. 6 (1928, 205–206). The mandible from which this tooth originated was radiocarbon dated to 5050±29 BP (MAMS-14949; 3941–3795 cal BCE; Scarre pers. comm.). The sample has been excluded from the analysis due to low data coverage.

Source of sample: Phil de Jersey, Guernsey Museum
Author of entry: Phil de Jersey
References:

Kendrick, T.D. 1928. *The archaeology of the Channel Islands. Volume I: The Bailiwick of Guernsey.* London: Methuen & Co.
Scarre, C. and French, C. 2013. The palaeogeography and Neolithic archaeology of Herm in the Channel Islands. *Journal of Field Archaeology* 38, 4–20.

Le Déhus, Vale, Guernsey, Channel Islands

The passage grave of Le Déhus was first excavated by Frederick Corbin Lukis, and other members of his family, between 1837 and 1847. Lukis left a reasonably detailed account of his investigations and upwards of two hundred pieces of human bone from his work are preserved in Guernsey Museum (Schulting et al. 2010, 149–158). Five pieces of bone, all of adults, from the Lukis excavations were radiocarbon dated for the programme described by Schulting et al. (2010, 160). Three mandibles from chambers C and D – and a tooth, sampled to confirm the date for mandible sample 98 – relate to the primary use of the tomb, in the late fifth millennium BCE. A cranium from chamber B is from one of two skeletons which were

reportedly found in a kneeling position, and is clearly later, falling within the Late Neolithic. Pottery from the tomb also indicates that it was still in use at this time. Palaeogenetic samples included in this study come from eight disarticulated teeth: I16434 (206; male); I16444 (97; male); I16425 (65; female); I16443 (116; female); I16438 (61; male); I16437 (101; female); I16429 (63; male); and I16427 (119; male). None of these samples have been dated directly but their position in the tomb and state of articulation suggests they date to the primary use of the tomb in the late fifth millennium BCE (c. 4300–3900 BCE).
Source of sample: Phil de Jersey, Guernsey Museum
Author of entry: Phil de Jersey
Reference: Schulting, R., Sebire, H., and Robb, J. 2010. On the road to Paradis: new insights from AMS dates and stable isotopes at Le Déhus, Guernsey, and the Channel Islands Middle Neolithic. *Oxford Journal of Archaeology* 29, 149–173.

Longis Common, Alderney, Channel Islands
In June 2017 contractors digging an electricity cable trench along the Rue des Mielles, on the south-west side of Longis Common, Alderney, began to uncover quantities of human bone. A team of archaeologists from Guernsey Museum cleaned up the trench and identified numerous features in situ, including several stone cists, a cremation burial and an inhumation (Monaghan and de Jersey 2017–18). The inhumation (context LON17/86) was radiocarbon dated to 174–19 cal BCE (Beta-476135) and the cremation (context LON17/98) to 198–47 cal BCE (Beta-476136).
Palaeogenetic data from three other burials are included here, a sample from an infant or neonate humerus (LON17/45): sample I16431 (male; 200–50 BCE); a petrous portion of a temporal bone in a partial cranium removed from a damaged stone cist (LON17/83, Skull 1; 200–50 BCE): sample I16430 (female; 200–50 BCE); and a 1st metatarsal from another inhumation (LON17/60): sample I16505 (female; 200–50 BCE).
Excavation in the field adjacent to the cable trench took place in 2018 and 2019, and confirmed the presence of a substantial Iron Age cemetery, overlain by Gallo-Roman settlement dating from the early second century to the late fourth century CE (de Jersey 2018–19; 2019–20).
Source of sample: Phil de Jersey, Guernsey Museum
Author of entry: Phil de Jersey
References:
de Jersey, P. 2018–19. Excavations in Paddock by Coastguards, Longis. *Alderney Society Bulletin* 53: 69–83.
de Jersey, P. 2019–20. Excavations in the Paddock Field, Longis, 2019. *Alderney Society Bulletin* 54: 87–104.
Monaghan, J., and de Jersey, P, 2017–18. Discoveries from the Longis cable trench. *Alderney Society Bulletin* 52: 78–81.

ENGLAND, UK
Amesbury Down, Wiltshire, England, UK
Amesbury Down comprised a rich and extensive prehistoric mortuary landscape (c. 1.15km north–south and 1km east–west) immediately east of the Stonehenge World Heritage Site. Small groups of graves or dispersed single graves lay within six topographic zones and included several extraordinarily rich burials ('Amesbury Archer', 'Companion' and 'Boscombe Bowman'). The mortuary deposits recovered included the remains of a minimum of 32 in situ inhumation burials and one partial articulated body, and six cremation burials. Other material was redeposited, accidentally or by design, in various graves and pits, and one ditch. A minimum of 57 individuals are represented in the overall assemblage (MNI): three

Late Neolithic (two unburnt and one cremated), 39 Beaker–Early Bronze Age (31 unburnt and eight cremated), five Middle and one Mid–Late Bronze Age (unburnt), four Early and four Middle Iron Age (unburnt), and one unphased prehistoric (unburnt). Remains were dated on the basis of artefactual material (recovered from 17 graves) and via a substantial programme of radiocarbon analysis undertaken on 38 samples of unburnt human bone and eight of cremated bone. Mortuary activity included the use of 'communal' or 'shared' graves, grave reuse, the revisiting of graves with human manipulation of remains including curation, rearrangement, removal and replacement of skeletal elements. The small groups of Iron Age inhumation graves were found in relatively close proximity to earlier prehistoric single graves in two of the topographic zones.

Three human teeth and one long bone deriving from individuals dating to the Early Bronze Age were successfully analyzed for aDNA. The teeth yielded sample I14200 (male) from individual 50875_1291 ('Archer'), dating to 3895±32 BP (OxA-13541; 2480–2280 cal BCE); sample I2565 (male) from individual 50875_1238 ('Companion'), dating to 3829±38 BP (OxA-13562; 2470–2140 cal BCE); and sample I2598 (male) from individual 56244_12134, dating to 3664±30 BP (NZA-32494; 2140–1940 cal BCE). The long bone yielded sample I2419 (female) from individual 56240_10288, dating to 3812±25 BP (NZA-32486; 2340–2140 cal BCE).

Four human teeth and one petrous bone deriving from individuals dated to the Iron Age were successfully analyzed for aDNA. The petrous bone yielded sample I19287 (female) from skeleton 62020, dating to 2468±26 BP (SUERC-53039; 670–400 cal BCE). The teeth yielded sample I16600 (male), from skeleton 61409, dating to 2358±34 BP (SUERC-49184; 520–380 cal BCE); sample I16602 (female), from skeleton 62017, dating to 2415±25 BP (SUERC-53042; 540–400 cal BCE); sample I16599 (male), from skeleton 61394, dating to 2303±34 BP (SUERC-49183; 490–350 cal BCE); and sample I16601 (female), from skeleton 61508, dating to 2111±34 BP (SUERC-49181; 350–40 cal BCE).

Source of samples: Wessex Archaeology
Author of entry: Jacqueline McKinley, Pippa Bradley and Ian Armit
References:

Powell, A.B. and Barclay, A.J. forthcoming. *Between and Beyond the Monuments: Prehistoric Activity on the Downland South-East of Amesbury.* Salisbury: Wessex Archaeology Monograph 36.

Fitzpatrick, A.P. 2011. *The Amesbury Archer and the Boscombe Bowmen: Bell Beaker burials at Boscombe Down, Amesbury, Wiltshire*. Salisbury: Wessex Archaeology Report 27.

ARES site, Babraham Research Campus (ARC05), Cambridgeshire, England, UK

An excavation undertaken as part of the continued expansion of the Research Campus, to the south of Cambridge, exposed the remains of riverside settlement established during the Late Iron Age/Conquest period and continuing throughout the Roman period (Armour 2007). Samples were taken from two inhumation burials dated to the early–mid first century CE. Burial F.137 was accompanied by two complete vessels (a Late Iron Age pedestalled tazza and a mini carinated cup) and a Colchester-type brooch was positioned on the sternum (Evans et al. 2008, 12, fig. 1.10). Burial F.138 was not accompanied by any grave goods. Other potentially contemporary features excavated at the site included a short-lived rectangular building within a ditched enclosure, with a well and rubbish pits located nearby. A human

petrous bone from F.137 yielded sample I11155 (female), whilst a phalanx from burial F.138 yielded sample I19047 (male).

Source of samples: Cambridge Archaeological Unit
Author of entry: Jonathan Tabor
References:
Armour, N. 2007. *The ARES Site: Babraham Research Campus, Cambridgeshire. An Archaeological Excavation*. Unpublished, Cambridge Archaeological Unit Report No. 752.

Evans, C., with Mackay, D. and Webley, L. 2008. *Borderlands: The Archaeology of the Addenbrooke's Environs, South Cambridge*. CAU Landscape Archives: New Archaeologies of the Cambridge Region Series Vol. I. Cambridge: Cambridge Archaeological Unit.

Aveline's Hole, Somerset, England, UK

Aveline's Hole is a cave located near the village of Burrington in the Mendip Hills of northern Somerset. The cave was first discovered in 1797. The presence of a large assemblage of human remains was noted from the time of its discovery and it is clear that this deposit was disturbed and diminished until it was excavated by the University of Bristol Spelaeological Society (UBSS) in 1912–1914. As well as human bones, the deposit included stone tools and faunal remains, some of which showed signs of butchery. Perforated periwinkle shells were found scattered through the deposits and may have been grave goods. Post-excavation assessments of the human remains suggested that there were around 50 individuals represented. Unfortunately, the UBSS collections were damaged by an air-raid on Bristol in 1940, destroying a large proportion of the Aveline's Hole assemblage. The extant human bone assemblage represents the remains of at least 21 individuals. Early accounts may be of questionable reliability, but indicate that at least some skeletons were in correct anatomical articulation, suggesting that fleshed bodies had been placed in the cave soon after death. There was also some suggestion from early accounts describing discovery of the cave that a large stone slab had sealed the entrance.

One programme of radiocarbon dating produced results that are consistent with one continuous phase of Early Mesolithic burial activity from 8460–8290 cal BCE to 8260–8140 cal BCE (95% probability), lasting only 70–180 years (68% probability). The number of bodies that were deposited in Aveline's Hole over this relatively short period of time had suggested that the site was a place where disparate groups met to inter their dead. However, further radiocarbon dating of human bones suggests that Aveline's Hole was later reused for the deposition of human remains, possibly limited to crania, in the early fourth millennium BCE (the Early Neolithic). Palaeogenetic data from four bones, two dating to the Early Mesolithic and two dating to the Early Neolithic, were reported by Brace et al. (2019). Sample I3007 (female) reported in this paper was taken from a femur (SB347B2, 1A.115) which probably belonged to the Early Mesolithic phase of deposition.

Source of sample: Linda Wilson and Graham Mullan, University of Bristol Spelaeological Society
Author of entry: Tom Booth
References:
Schulting, R.J. 2005. 'Pursuing a rabbit in Burrington Combe': new research on the Early Mesolithic burial cave of Aveline's Hole. *Proceedings of the University of Bristol Spelaeological Society* 23(3): 171–265.

Schulting, R.J., Booth, T., Brace, S., Diekman, Y., Thomas, M., Barnes, I. and Meiklejohn, C. 2019. Aveline's Hole: an unexpected twist in the tale. *Proceedings of the University of Bristol Spelaeological Society* 28(1): 9–63.

Barton-Stacey Pipeline, Hampshire, England, UK

Three Middle Iron Age inhumation graves were excavated in Mitigation Area 5, during archaeological works associated with the construction of a pipeline from Barton Stacey to Lockerley in Hampshire (HMCMS:A2006.92; McKinley 2013). A human petrous bone from Skeleton 25043 was successfully analyzed for aDNA, yielding sample I13717 (female), dating to 2270±30 BP (SUERC-26240; 400–200 cal BCE).

Source of sample: Wessex Archaeology
Author of entry: Ian Armit
Reference: McKinley, J.I. 2013. Human bone, in R. De'Athe, R., *Early Iron Age metalworking and Iron Age/Romano British settlement evidence along the Barton Stacey to Lockerley gas pipeline: finds and environmental reports to accompany publication text in Hampshire Studies 68,* 8–11. Wessex Archaeology: online report: https://www.wessexarch.co.uk/sites/default/files/field_file/Barton%20Stacey.pdf

Bevendean, Brighton, Sussex, UK

In 1931, workmen digging a trench by the roadside on the Bevendean Estate in Brighton uncovered a grave containing the skeleton of a male aged 25–30 years, and buried in a highly flexed position on his right side with his head to the south, facing north. No grave goods were recorded. The petrous portion of the temporal bone of this burial (R3428) yielded sample I6619 (male), which produced a Middle Iron Age date of 2173±31 BP (SUERC-76361; 361–118 cal BCE).

Source of Sample: Andy Maxted, Brighton Museum
Author of entry: Tom Booth and Andy Maxted

Blackberry Field, Potterne, Wiltshire, England, UK

The site of Blackberry Field, Potterne, Wiltshire, forms part of an extensive midden dating to the Late Bronze Age/Early Iron Age (Lawson 2000). It is one of a series of such sites that appear to relate to communal gatherings and feasting in this part of Wessex, and may represent depositional activity for up to 500 years. Radiocarbon dating of charcoal distributed through the midden produced dates from the Middle to Late Bronze Age (Lawson 2000). Disarticulated human remains (alongside large quantities of faunal remains) were recovered from midden deposits up to 2m deep, extending over an area of more than 3.5 ha (of which only around 0.75% has been subject to excavation). Recent radiocarbon dating of human bone from the earlier deposits has produced dates in the Late Bronze Age (Booth and Brück 2020); a cranial fragment dating to 2768±27 BP (BRAMS-1590; 996–837 cal BCE), a human frontal fragment dating to 2701±26 BP (BRAMS-1582; 901–809 cal BCE), a mandible fragment dating to 828±27 BP (BRAMS-1298; 1054–908 cal BCE), and a frontal bone dating to 2689±27 BP (BRAMS-1587; 897–806 cal BCE). Apart from a single burial, the assemblage is represented by disarticulated bones or bone fragments (McKinley 2000). Several of the bones from the assemblage of 139, especially skulls and long bones excavated from the same spit, represent joining fragments.

Seven human teeth and one long bone fragment were analyzed for aDNA. The teeth yielded sample I12608 (female; SF901), dating to 2828±27 BP (BRAMS-1298; 1054–908 cal BCE);

sample I12610 (male; SF1119), dating to 2475±20 BP (PSUAMS-7611; 764–516 cal BCE); sample I12614 (female; 2951); sample I12611 (female; 314); sample I12612 (female; SF1921); and sample I12613 (female; 2979). The latter three samples have been excluded from the analysis due to their low coverage, while sample I12609 (indeterminate sex; SF462) has been excluded from analysis due to its low yield. The long bone, from an infant, yielded sample I12624 (female; 2747). An adult human frontal bone (818) from the same context has been radiocarbon dated to 2689±27 BP (BRAMS-1587; 897–806 cal BCE).

Source of samples: Wiltshire Museum
Author of entry: Ian Armit
References:

Booth, T. J. and Brück, J. 2020. Death is not the end: radiocarbon and histo-taphonomic evidence for the curation and excarnation of human remains in Bronze Age Britain. *Antiquity* 94(377): 1186–1203.

Lawson, A. 2000. *Potterne 1982–5: animal husbandry in later prehistoric Wiltshire* (Wessex Archaeology Reports No. 17). Salisbury: Wessex Archaeology.

McKinley, J.I. 2000. Human bone, in Lawson, A., *Potterne 1982–5: animal husbandry in later prehistoric Wiltshire* (Wessex Archaeology Reports No. 17), 95–101 . Salisbury: Wessex Archaeology.

Black Rock, Brighton, Sussex, UK

In 1931, workmen digging a sewer trench near the old Blackrock Coastguard Station in Brighton uncovered a burial containing the skeleton of a female probably aged less than 25 years. The skeleton had been buried at least three feet into the chalk and covered by a layer or cairn of flint nodules. The woman had been buried in a crouched position with her head to the south. No grave goods were reported from the site. A tooth from this skeleton (R3330) yielded sample I16617 (female), which has produced an Early Iron Age date of 2496±30 BP (SUERC-70743; 784–519 cal BCE).

Source of Sample: Andy Maxted, Brighton Museum
Author of Entry: Tom Booth and Andy Maxted

Bradley Fen, Whittlesey, Cambridgeshire, England, UK

Two inhumations, both mature adult males, were excavated on a fen-edge settlement dating to the beginning of the Middle Iron Age. The context of the burials was a linear occupation scatter that skirted the south-eastern margins of the Flag Fen Basin, a small fen-embayment. The settlement was characterized by a swathe of roundhouses, four-post structures and watering holes. One of the burials (F.613, 331) was interred in the top of the posthole of a dismantled four-post structure, whilst the other (F.781, 445) was found prone in a shallow grave (Knight and Brudenell 2020, 303–377). As with the majority of the settlement-related features, the fills of the posthole and the shallow grave included metalworking debris.

Human petrous bones were sampled from each of two inhumation burials: Burial F.613 (331) yielded sample I11156 (male), dating to 2223±26 BP (BRAMS-1695; 377–211 cal BCE); and Burial F.781 (445) yielded sample I11997 (male), dating to 2213±26 BP (BRAMS-1691; 367–202 cal BCE).

Source of samples: Cambridge Archaeological Unit

Author of entry: Mark Knight
Reference:
Knight, M. and Brudenell, M. 2020. *Pattern and Process, Landscape Prehistories from Whittlesey Brick Pits: The King's Dyke and Bradley Fen Excavations 1998-2004*. CAU Must Farm/Flag Fen Basin Depth & Time Series Vol. I. Cambridge: McDonald Institute for Archaeological Research.

Broom Quarry, Bedfordshire, England, UK
Excavations at Broom Quarry, Bedfordshire, identified extensive Middle Iron Age settlement remains dating to 425–200 BCE. Six crouched inhumations had been deposited in grain storage pits (Tabor 2013; Evans et al. 2018, 295, fig. 4.85). Two human petrous bones and a tooth from three of these inhumations were successfully analyzed for aDNA. Petrous bones from burials 610 and 1858 respectively yielded samples I11150 (male), dating to 2215±28 BP (SUERC-86441; 371–202 cal BCE), and sample I11151 (male). The tooth, from burial 1971, yielded sample I16597 (male), dating to 2288±28 BP (SUERC-86447; 405–232 cal BCE).

Source of samples: Cambridge Archaeological Unit
Author of entry: Rob Wiseman
References:
Evans, C., Lucy, S. and Patten, R. 2018. *Riversides: Neolithic Barrows, a Beaker Grave, Iron Age and Anglo-Saxon Burials and Settlement at Trumpington, Cambridge*. CAU Landscape Archives/New Archaeologies of the Cambridge Region Series, Vol. I. Cambridge: McDonald Institute for Archaeological Research.

Tabor, J. 2013. *Archaeological Investigations at Broom Quarry, Bedfordshire, Phases 11-13*. Unpublished, Cambridge Archaeological Unit Report No. 1213.

Bury Wood Camp, Wiltshire, England, UK
Bury Wood Camp is a large multivallate Iron Age hillfort on the southern edge of the Cotswolds in Wiltshire. Small-scale excavations in 1959–60 by Denis Grant King recovered a small number of human remains amongst a much larger faunal assemblage (Grant King 1962). A human tooth was successfully analyzed for aDNA, providing sample I13686 (male), dating to 2185±26 BP (SUERC-95001; 360–176 cal BCE).

Source of sample: Wiltshire Museum
Author of entry: Ian Armit
Reference: Grant King, D. 1962. Bury Wood Camp, Colerne, excavations, 1960. *Wiltshire Archaeological and Natural History Magazine* 58: 185–208.

Cadbury Castle, Somerset, UK
The multivallate hillfort of South Cadbury was occupied throughout the Iron Age and abandoned probably in the second century CE (Barrett et al. 2000). There is evidence for violent conflict with the Roman army towards the end of the site's occupation. Many disarticulated human remains are associated with this period, frequently displaying signs of violence (Jones 2008). Aside from this 'massacre' deposit, human remains, including burials, have also been identified on other parts of the site. It is currently not possible to relate the individuals sampled for aDNA analysis to specific excavated contexts.

A human petrous bone from a perinate (2209) was successfully analyzed for aDNA, yielding sample I11995 (female), dating to 2409±30 BP (SUERC-94992; 736–401 cal BCE).

Three further petrous bones from 76.AA.165/4086, and from Group V burials 76.AA.165/3674 and SCK 614 (76AA165/3557), belonging to the Episode X reconstruction of the ramparts in the second half of the first century CE (Barrett et al. 2000, 108), have been sampled for aDNA but have not yet been analyzed.

Source of samples: Somerset Museums Service
Author of entry: Ian Armit
References:

Barrett, J.C., Freeman, P.W. and Woodward, A. 2000. *Cadbury Castle Somerset: the later prehistoric and early historic archaeology*. London: English Heritage.

Jones, S. 2008. *Slain at the gate: a reassessment of the 'massacre' deposits from Cadbury Castle*, *Somerset.* Unpublished MSc dissertation, Bournemouth University.

Carsington Pasture Cave, Brassington, Derbyshire, England, UK

Carsington Pasture Cave is located in the southern Peak District, around 1km east of Brassington village, Derbyshire (Chamberlain 1999; 2001; Papakonstantinou 2004). The cave was originally explored and excavated in 1998 by members of the Pegasus Caving Club and archaeologists from the University of Sheffield, revealing three successive chambers joined by near-vertical passages. More recent explorations by cavers have periodically produced more finds.

Large quantities of disarticulated human and faunal bone have been recovered from all chambers and adjoining passages. The human bone was mostly concentrated in the second chamber and represents the remains of at least 20 individuals, mostly mature adults and neonatal infants. The neonatal infant remains were found mostly complete, in partial articulation and concentrated in the centre of the second chamber, suggesting that this area was reserved for primary deposition of young infants. The adult bones were dispersed through the three chambers although skeletal part representation suggested that whole bodies were originally interred, with sediment and carnivore action (as indicated by gnaw marks on a small proportion of bone surfaces) distributing the remains through the chambers over time. Very few dateable finds were recovered from the cave, but a bone pin and a worked antler fragment dating typologically to the Bronze Age and Neolithic respectively were found in the second chamber. Radiocarbon dating of human remains from the cave have produced Early Neolithic, Early Bronze Age and Iron Age dates. All of the neonatal skeletons that have been dated so far have produced dates in the Early to Middle Iron Age, suggesting that they represent a specific depositional horizon. Two disarticulated adult human bones from the second chamber have also produced Iron Age dates.

Palaeogenetic data obtained from twelve petrous portions of temporal bones were included in this study. Six of these petrous temporals belonged to partially articulated and articulated neonatal skeletons included as part of the deposit in the second chamber: I12778 (male; CPC98-011), dating to 2230±20 BP (PSUAMS-8289; 380–206 cal BCE); I12781 (male; TB109; CPC15-051; 400–100 BCE); I12775 (male; TB103, CPC-98-018), dating to 2200±20 BP (PSUAMS-8287; 360–200 cal BCE); I12776 (female; TB104; CPC15-058), dating to 3515±20 BP (PSUAMS-8288; 1907–1765 cal BCE); I12779 (female; TB107; CPC98-018b), dating to 2210±20 (PSUAMS-8290; 361–203 cal BCE); and I12770 (female; SB476; CPC02Y3-039), which has been directly dated to 2217±44 BP (UBA-30798; 389–184 cal BCE).

The other six samples came from disarticulated adult temporal bones recovered from various parts of the cave. Two have been radiocarbon dated to the Middle Iron Age, contemporary with the infant burials: I12774 (male; CPC-02-Y-062, 500–100 BCE); I12773 (male; CPC-99-31; 500–100 BCE); I12780 (male; CPCY-08-093; 500–100 BCE); I12777 (male; CPC03-070; 500–100 BCE); I12771 (male; SB479; CPC99-029), dating to 2321±36 BP (UBA-32284; 490–232 cal BCE); and I3014 (female; CPC-2014), dating to 2209±31 BP (UBA-30432; 371–198 cal BCE).

Palaeogenetic data included here add to data from three individuals from Carsington Pasture Cave dating to the Neolithic and Bronze Age which were published in Olalde et al. (2018) and Brace et al. (2019).

Source of Sample: Andrew Chamberlain, University of Manchester
Author of entry: Tom Booth
References:

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Catcote, Hartlepool, County Durham, England, UK

Catcote is an Iron Age and Romano-British settlement site which lies on a south-east facing slope near Hartlepool. It was discovered in the 1960s during landscaping work for a school playing field. Excavations were carried out by Cliff Long of the University of Durham (Long 1988) and again in the 1980s by Cleveland County Archaeology Section (Vyner and Daniels 1987). More recently (between 1998 and 2008) Tees Archaeology ran a series of excavations as training exercises for Durham University students. The latter campaign of excavation is as yet unpublished and it was during this work that the sampled skeleton was discovered.

The settlement seems to have been established in the later Iron Age and on numismatic evidence continued into the early 4th century CE. The settlement comprised a series of enclosures containing roundhouses, with a transition to the construction of rectilinear buildings by the 4th century CE. While the quantity and quality of artefacts is not exceptional, the site has yielded a significant number of coins when compared to other regional indigenous settlements. On the basis of this, and the longevity of the settlement, it is suggested that it may have had a significant administrative role locally and been engaged in trade with Roman vessels landing on the sandy beaches less than 2miles (2.89km) away.

Fourteen inhumations and one cremation are known from the site to date. These are distributed around the settlement site and there is no defined cemetery. The petrous portion of a temporal bone from the Skeleton 2 (context 23) found in Grave 21 yielded sample I16620 (female). This represents one of two burials found close together to the immediate south-west of the main settlement. Grave 21 was sub-rectangular with steep sides and a flat base, except at the north end where there was a deeper, rounded profile. It measured 1.16m by 0.7m and was 0.14m deep, increasing to 0.22m in the deeper north end. The fill of the grave (context 22) was a pale grey brown sandy silt containing occasional small pebbles. The skeleton was in a crouched position on its left side with the head at the south end, and its feet on the edge of the deeper part of the grave. A bronze fibula was found adjacent to the feet and may have been fastening something deposited in the deeper part of the grave, rather than an item of clothing around the body. The burial has not been radiocarbon dated but the associated bronze pin would suggest a date in the 1st century CE.

Source of Sample: Tees Archaeology

Author of entry: Robin Daniels, Tees Archaeology

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Long, C.D. 1988. The Iron Age and Romano-British Settlement at Catcote, Hartlepool. *Durham Archaeological Journal* 4: 13–36.

Vyner, B.E. and Daniels, R. 1989. Further excavations at the Iron Age and Romano-British Settlement at Catcote, Hartlepool, Cleveland 1987. *Durham Archaeological Journal* 5: 11–34.

Cleevelands, Bishop's Cleeve, Gloucestershire, England, UK

Two areas totalling 5.3 hectares were excavated in Cleevelands in the village of Bishop's Cleeve by Cotswold Archaeology on behalf of Persimmon Severn Valley (Cotswold Archaeology 2019). A ditched enclosure dating to the late first to second century CE was located in the south-eastern part of the site. A group of three burials was recovered within 9m of each other near the ditch forming the western extent of the enclosure. The burials were all positioned parallel with the ditch in a north-east/south-west alignment. Sample I2927 (male; Skeleton 11323) came from the petrous temporal of an adult male in a crouched posture on his left side. The burial was accompanied by a Colchester-derivative brooch dating typologically to the late first–second century CE. Sample I12932 (female; Skeleton 10538) came from the petrous temporal of the highly flexed skeleton of an older adult placed on her left side. Sample I12931 (male; Skeleton 10540) was taken from the petrous temporal of a highly flexed individual placed on his left side. The presence of nails in the grave of Skeleton 10540 suggest that the body had been placed in a coffin.

Source of sample: Sharon Clough, Cotswold Archaeology
Author of entry: Tom Booth
Reference: Cotswold Archaeology. 2019. *Cleevelands (Phase 1a/2a, Phase 1–4b, Pond D and Swales), Bishop's Cleeve, Gloucestershire: Archaeological Excavation*. Unpublished Cotswold Archaeology report 18495.

Cliffs End Farm, Kent, England, UK

Cliffs End Farm was a later prehistoric mortuary complex on the Isle of Thanet, Kent, with three distinguishable phases of funerary activity in the eleventh–ninth, fifth and fourth–third centuries BCE (McKinley et al. 2014). The site comprised three main features (themselves set amongst a series of Early Bronze Age barrows): two (Northern and Central) enclosures, which seem to have facilitated communal gatherings, and a 'Mortuary Feature' where most of the human bone was concentrated. The human bone assemblage falls into four main groups: in situ articulated remains recovered from graves and pits, partial articulated remains, dispersed semi-articulated remains and isolated skeletal elements or parts thereof. The remains represent those of at least 42 individuals (13 articulated skeletons and 39 amongst the disarticulated and commingled bones). The in situ burial remains date to all three periods of mortuary activity (Late Bronze Age, Early Iron Age and Middle Iron Age). Seven of these were located within 'Burial Pit 3666' in the northern part of the Mortuary Feature, which was the focus for deposition in the Late Bronze Age, with the rest—deposited in the Early–Middle Iron Age— forming a dispersed E–W group across the width of the southern portion of the Mortuary Feature. The majority of disarticulated redeposited bone recovered predominantly from Burial Pit 3666 and midden-like deposits associated with the Northern Enclosure, appear to date to the Late Bronze Age, with a few outliers of Early and Middle Iron Age date dispersed across the southern section of the Mortuary Feature.

Sixteen human petrous bones and four human teeth were successfully analyzed for aDNA; two further teeth produced too low a yield for inclusion in the analysis, while a sample from an additional tooth was found to contain evidence of contamination and was also excluded.

Late Bronze Age: Northern Enclosure

Sample I14742 (tooth; male), derived from a cranium recovered from the remodelled terminal (3699) of the enclosure ditch. The fill of the original terminal (2469) contained pottery dating to 2807±29 BP (PR784; OxA-18447; 1040–890 cal BCE). Other finds from the terminal fills included worked bone objects and a copper alloy pin as well as human and animal bone.

Late Bronze Age: Burial Pit 3666

Sample I14745 (tooth; female), dating to 2677±30 BP (OxA-17805; 900–790 cal BCE), derived from in situ burial remains 3675. This elderly woman represented the earliest surviving in situ remains within Burial Pit 3666 and had suffered extensive peri-mortem sharp force weapon trauma to the back of her head. There was some formality to her deposition, since in her left hand she held a piece of chalk up to her face, while the index finger of her right hand appears to have been placed to point south-west towards one of the barrows. Two neonatal lambs were also placed in her lap. Sample I14744 (tooth; indeterminate sex), dating to 2754±27 BP (OxA-18597; 980–820 cal BCE), which has been excluded from the analysis due to low yield, was derived from burial remains 3674. This was a non-local individual of around 10–11 years of age whose left foot and elbow overlay the right arm of the elderly female (3675). Sample I14864 (petrous; female), dating to 2750±35 BP (GrA-36002; 979–818 cal BCE), derived from burial remains 3680. The head of this individual had been laid on an articulated cattle skull whilst her torso overlay the feet of the elderly woman (3675). Sample I14862 (petrous; female), dating to 2745±35 BP (GrA-36000; 980–810 cal BCE), derived from the remains of a juvenile (burial remains 3676). The hands of this individual may have been tied under the chin, and the head had been manipulated to 'face' a large fragment of pottery. Sample I14358 (petrous; male), dating to 2710±30 BP (GrA-37966; 920–800 cal BCE), and sample I14377 (petrous; female), dating to 2790±30 BP (GrA-37751; 1020–840 cal BCE), derived from discrete deposits of disarticulated human remains recovered from one of the fills overlying the in situ burial remains. The isotopic signatures for both individuals represented by these bones suggest (different) non-local origins. Sample I14861 (petrous; male), dating to 2713±29 BP (OxA-17804; 920–800 cal BCE), derived from the bundled remains of articulated body parts (3673) comprising the head, part of the axial skeleton/?thorax and left upper limb. With an isotopic signature suggesting a non-local origin, the remains had been deposited on top of an articulated cattle foot (ON 627) and were associated with a composite polished bone and copper alloy pendant (ON 607). Sample I14379 (petrous; female), dating to 2698±27 BP (OxA-18429; 910–800 cal BCE), derived from burial remains 3649, the burial apparently having been made within the shallow ring ditch (3703) cut through the upper fills of burial pit 3666 to mark the main focus of its location. Sample I14865 (petrous; female), dating to 2735±30 BP (GrA-37713; 970–810 cal BCE), derived from a fragmentary cranium; ON 556) recovered from the area adjacent to burial pit 3666 amongst a group of other redeposited bone.

Early Iron Age: Mortuary Feature

Sample I14381 (petrous; female), dating to 2405±27 BP (OxA-18430; 730–390 cal BCE), derived from complete in situ burial remains 3656. The isotopic signature of this mature adult woman suggests that she might have been born non-locally but moved to the area during her lifetime. Sample I14857 (petrous; female), dating to 2365±35 BP (GrA-35980; 520–380 cal BCE), derived from burial remains 3616 (a teenager). Sample I14746 (tooth; indeterminate sex) derived from a mandible fragment forming part of a bone deposit. This sample has been excluded from the analysis due to its low yield. Sample I14743 (tooth; male), dating to 2502±30 BP (SUERC-95002; 755–412 cal BCE), derived from the semi-articulated dispersed skeletal remains (3614) of an adult, comprising parts of the skull, axial skeleton and upper limbs. The sample was found to contain evidence of contamination and is not included in the analysis.

Middle Iron Age: Mortuary Feature

Sample I14378 (petrous; female), dating to 2275±30 BP (GrA-37911; 400–210 cal BCE), was taken from burial remains 3563, which lay at the far east of the group of graves stretching E–W across the southern half of the Mortuary Feature. Sample I14866 (petrous; male), dating to 2215±30 BP (SUERC-24071) and 2244±27 BP (OxA-20795), with a weighted mean of 2231±21 BP (390–200 cal BCE), derived from the disarticulated remains (context 243204) of an apparently non-local individual. Sample I14747 (tooth; female), dating to 2375±25 BP (OxA-20796) and 2350±30 BP (SUERC-24072), with a weighted mean of 2365±20 BP (415–390 cal BCE), derived from bone deposit 203007. Sample I14860 (petrous; female), dating to 2225±30 BP (GrA-37686; 390–190 cal BCE), was from burial remains 3662. Isotopic analysis suggests that she was non-local. Sample I14859 (petrous; male), dating to 2250±35 BP (GrA-35998; 400–200 cal BCE), derived from burial remains 3660, whose isotopic signature suggests a non-local origin. This individual was placed in the grave over the partial remains of a horse. Sample I14380 (petrous; male), dating to 2237±28 BP (OxA-17802; 400–200 cal BCE), was taken from burial remains 3651. This individual, whose isotopic signature suggests that he was non-local. Sample I14858 (petrous; female), dating to 2265±30 BP (GrA-37707; 400–200 cal BCE), was taken from burial remains 3644; this woman's isotopic signature suggests a non-local origin. Sample I14863 (petrous; female), dating to 2198±26 BP (OxA-18432) and 2205±30 BP (GrA-37687), with a weighted mean of 2201±20 BP (370–195 cal BCE), derived from burial 3677. This individual, possibly of non-local origin.

Source of samples: Wessex Archaeology
Author of entry: Lindsey Büster and Jacqueline McKinley
Reference: McKinley, J.L., Leivers, M., Schuster, J., Marshall, P., Barclay, A.J. and Stoodley, N. 2014. *Cliffs End Farm, Isle of Thanet, Kent. A mortuary and ritual site of the Bronze Age, Iron Age and Anglo-Saxon period* (Wessex Archaeology Report 31). Wessex Archaeology: Salisbury.

Constantine Island, St Merryn, Cornwall, England, UK

Excavations at Constantine Island revealed a barrow containing an adult male crouched inhumation burial and some disarticulated bones. The barrow seems to have been constructed in the Early Bronze Age but the inhumation burial appears to be from the Middle Bronze Age, a time for which very few human remains are known from Cornwall and no other barrow-associated burials are currently recorded. The petrous temporal of the crouched inhumation yielded sample I16454 (male; Cist 8), dating to 2985±35 BP (SUERC-16818; 1378–1089 cal BCE).

Source of sample: Andy Jones, Cornwall Archaeology Unit and Sophie Meyer, Royal Cornwall Museum
Author of entry: Claire-Elise Fischer
Reference: Jones A. 2009–2010. Excavation of a barrow on Constantine Island, St Merryn, Cornwall. *Cornish Archaeology* 48–49: 67–97.

Cow Down, Longbridge Deverill, Wiltshire, England, UK

The site at Cow Down is an Early Iron Age settlement consisting of a series of enclosures and associated roundhouses dating broadly to between the ninth and sixth centuries BCE, and a large number of pits, dating to approximately the fifth to early third centuries cal BCE (Brown 2012, 67). Several of these pits contained human remains, which appear to have been largely disarticulated, although some articulated burials were recovered. A human tooth from

a disarticulated mandible fragment found in Pit 21 was successfully analyzed for aDNA: sample I16595 (female), dating to 2238±27 BP (SUERC-95000; 387–206 cal BCE).

Source of sample: Wiltshire Museum
Author of entry: Ian Armit
Reference: Brown, L. 2012. The Enclosure II pits, in Hawkes, C., Brown, L. and Hawkes, S. C. 2012. *Longbridge Deverill Cow Down: an early Iron Age settlement in West Wiltshire*, 65–73. Oxford: Oxford University School of Archaeology.

Dalton Parlours, West Yorkshire, England, UK

Dalton Parlours is the site of an extensive Iron Age settlement complex, later replaced by a Roman villa and its outbuildings (Wrathmell and Nicholson 1990).

A crouched burial (Burial 2; SF602) in a shallow grave without grave goods was recovered from the north-west corner of Enclosure III (ibid., 17). A human tooth from this burial was successfully analyzed for aDNA and yielded sample I14837 (female), dating to 2140±70 BP (HAR-6715; 378–2 cal BCE).

Source of samples: Leeds Museums and Galleries
Author of entry: Ian Armit
Reference: Wrathmell, S. and Nicholson, A. 1990. *Dalton Parlours Iron Age Settlement and Roman Villa*. Yorkshire Archaeology 3. Wakefield: West Yorkshire Archaeology Service.

Danebury, Nether Wallop, Hampshire, England, UK

Danebury (HMCMS:A1979.1) is an Iron Age hillfort in Hampshire, southern England. The site was excavated by Professor Barry Cunliffe in 1969–1988 and yielded large numbers of roundhouses, rectangular structures and storage pits. Moreover, about 300 individual deposits of human remains were found, most frequently placed in disused grain storage pits. The human remains fall into six categories of deposition ranging from whole bodies, placed singly or in groups, to individual bones or bone fragments (Cunliffe 1995; Cunliffe et al. 2015).

Ceramic typology (corroborated by later radiocarbon dating) showed that there were four broad phases of Iron Age activity at Danebury, each separated by significant events. The first phase (470–310 BCE) ended in destruction by fire; the second phase (310–270 BCE) ended with blocking of the western gate; the third phase lasted from 270–50 BCE, followed by a period of abandonment; with the fourth and last phase dating to 50 BCE–CE 50 (Cunliffe et al. 2015). Direct radiocarbon dates were obtained from six human bones from the site. Five of the bones produced dates ranging from 363–55 cal BCE (Cunliffe et al. 2015), whilst the sixth (from deposit D3) was slightly older, producing a date of 716–395 cal BCE (OxA□ 25953) (Cunliffe et al 2015, Table 1).

Here we report aDNA data from six individuals. Samples I16612 (female; A1979; Deposit 3; pit 37) and I16613 (male; DA76; Deposit 33; pit 923) were obtained from molars. The other four samples were obtained from petrous bones and correspond to samples I17263 (female; DA75; Deposit 27; pit 807), I17624 (male; DA75; Deposit 28; pit 829), I17266 (female; DA82; Deposit 214; pit 1993) and I17267 (female; DA76; Deposit 40; pit 923). A femur from Deposit 214 has been radiocarbon dated to 2162±27 BP (OxA-25956; 359–111 BCE; Cunliffe et al 2015: Table 1).

Source of samples: Ross Turle, Hampshire Cultural Trust

Author of entry: Claire-Elise Fischer

References:

Cunliffe, B. 1995. *Danebury: An Iron Age Hillfort in Hampshire. Vol. 6: A Hillfort Community in Perspective.* York: Council for British Archaeology.

Cunliffe, B., Farrell, P. and Dee, M. 2015. A happening at Danebury hillfort – but when? *Oxford Journal of Archaeology* 34: 407–414.

Dibbles Farm, Christon, Somerset, England, UK

Dibbles Farm, Christon was excavated on the route of the M5 motorway in 1970, revealing a farmstead dated to the Early and Middle Iron Age associated with a series of burials (Morris 1988). Six human petrous bones and three teeth were successfully analyzed for aDNA. The petrous bones yielded sample I17015 (female) from Pit XLVI(b), dating to 2215±27 BP (SUERC-94983; 369–202 cal BCE); sample I17014 (male), dating to 2213±30 BP (SUERC-94982; 371–201 cal BCE), from an individual lying face down in Pit XVII and wearing an iron spiral armlet; sample I11148 (female), from Pit XXXVII, dating to 2297±30 BP (SUERC-94981; 406–233 cal BCE) and buried with a perforated boar tusk; sample I11147 (female) from Pit X, dating to 2248±30 BP (SUERC-94978; 384–232 cal BCE) and buried with a small bronze hook; sample I17017 (female) from Pit XXI, dating to 2087±30 BP (SUERC-94988; 194–41 cal BCE) and buried with a pottery vessel; and sample I17016 (male) from Pit XVI, dating to 2210±30 BP (SUERC-94984; 371–199 cal BCE). The three teeth yielded sample I16591 (male) from Pit A, dating to 2305±27 BP (SUERC-94979; 401–374 cal BCE); sample I13685 (female) from Pit XLIV, dating to 2276±30 BP (SUERC-94980; 402–211 cal BCE) and buried with two dogs; and sample I16592 (male) from Pit XXXIX(b).

A further sample (petrous; I17018) was found to be from the same individual as sample I16592 (a juvenile male around 12–14 years of age at death), and produced an AMS date of 2227±30 BP (SUERC-94989; 381–204 cal BCE), though curiously, it derived from a different pit (XIII).

Source of samples: Somerset Museums Service

Author of entry: Ian Armit

Reference:

Morris, E. L. 1988. The Iron Age occupation at Dibbles Farm, Christon. *Proceedings of the Somerset Archaeological and Natural History Society* 132: 23–81.

Ditchling Road, Brighton, Sussex, UK

Widening of the eastern side of Ditchling Road, Brighton in 1921 encroached on a small platform barrow, around 500m south of Old Boat Corner. Excavation of the barrow uncovered a central grave. Fragments of human skull, parts of a humerus, an ulna and the head of a femur representing at least one individual were found strewn through the grave fill. It was assumed that the burial had been disturbed in antiquity, resulting in the scattering of human remains from the primary burial through the fill. The association with the platform barrow suggests that the burial probably dated to the Chalcolithic or Early Bronze Age (2450–1600 BCE). The petrous portion of a temporal bone found amongst the skull fragments (R2315/2) yielded sample I14543 (female). The data from this individual adds to that obtained from another Bronze Age burial near Ditchling Road reported in Olalde et al. (2018).

Source of sample: Andy Maxted, Brighton Museum

Author of entry: Tom Booth and Andy Maxted

East Kent Access Road, Kent, UK

Oxford Wessex Archaeology (OWA) Joint Venture undertook 48ha of archaeological excavations in advance of construction of the East Kent Access Road (Phase II) predominantly between November 2009 and September 2010 (Andrews et al 2015). The road cut a substantial transect across Thanet, which (as the result of inundation of the Wantsum Channel in the Late Mesolithic) existed effectively as an island from perhaps the Early Bronze Age to the fifteenth century CE. The multi-period landscape included Early Bronze Age ring-ditches, Middle Bronze Age inhumations, at least three Late Bronze Age settlements, together with a cremation cemetery and four metalwork hoards, and extensive evidence for Iron Age activity in the form of settlements (including pit burials), enclosures, field systems and trackway. Roman trackways respected the former Iron Age landscape and were again associated with settlements, enclosures and field systems, but now also cemeteries. A substantial ditch was too dug in the first century BCE to enclose this strategically important area, possibly in response to the threat of conquest. Two areas of early-mid Saxon settlement (and associated cemeteries; sixth–eighth centuries CE) were also identified, as were several Medieval farmsteads dating to the eleventh–fourteenth centuries CE.

A total of twenty-one petrous bones and two teeth were sampled for aDNA.

Middle and Late Bronze Age Graves

Seven human petrous bones from Middle/Late Bronze Age individuals were successfully analyzed for aDNA. Sample I13710 (male), dating to 3040±35 BP (SUERC-40714; 1410–1200 cal BCE), derived from burial 126181 (in grave 126180), which occupied a central position within barrow 232168 in Zone 21.

Samples were also taken from a series of Middle Bronze inhumations placed in and between the ditches of the Early Bronze Age barrows in Zone 13. Sample I19915 (female), dating to 3210±30 BP (SUERC-40300; 1530–1410 cal BCE), derived from and 35–45-year-old individual in burial 221016 (grave 221014) located between the ditches of Barrow 1. The partially-silted ditch of Barrow 2 was cut by grave 200090, containing the burial (200089) of a 60–80-year-old, who yielded sample I19913 (female), dating to 3055±30 BP (SUERC-40297; 1420–1220 cal BCE). Sample I13714 (male), dating to 3210±35 BP (SUERC-40723; 1610–1410 cal BCE) derived from a mature individual (burial 290482), aged >55 years, in grave 290481, which had been inserted into the north-eastern part of the ditch surrounding Early Bronze Age barrow 193123 (Andrews et al. 2015, 60).

Six unaccompanied inhumation burials in Zone 21 (five attributed to the Late Bronze Age and one dated to the Early Bronze Age) lay on a north-east/south-west alignment (Andrews et al 2015, 102 and Fig. 3.19); significantly, all contained the single burials of adult males. Three of these were sampled for aDNA. Burial 136102 (in grave 136103) yielded sample I13711 (male), dating to 2830±20 BP (PSUAMS-7667; 1044–922 cal BCE). Sample I13712 (male) derived from an individual aged over 50 years in burial 153065 (in grave 153066), dating to 2815±15 BP (PSUAMS-7613; 1008–919 cal BCE). Sample I13713 (male), dating to 2810±35 BP (SUERC-40719; 1060–840 cal BCE), derived from a 24–29-year-old individual in burial 275009 (in grave 275007).

One further petrous bone from a mature adult (aged >55 years) in burial 198244 (grave 198245) in Zone 24 yielded sample I13715 (female), dating to 2840±35 BP (SUERC-40724; 1120–910 cal BCE) but is not included in the analysis due to low coverage.

Early–Middle Iron Age Isolated Graves/Pit Burials

Six human petrous bones and four teeth from Iron Age individuals were also successfully analyzed for aDNA.

A series of pits and quarry scoops lay to the north-west of trapezoidal enclosure 134099 in Zone 13. Interspersed with these were a series of grave-cut and pit burials. Sample I13730 (male), dating to 2240±30 BP (SUERC-40301; 390–200 cal BCE), derived from the petrous of an individual aged >45 years in burial 246012 (grave 246011) located within an intercutting complex of pits and quarry scoops. To the west of burial 246012, and also located within the pit/quarry scoop complex, was grave 126127, containing the burial (126128) of an individual aged 25–33 years, whose petrous yielded sample I19912 (female), dating to 2200±30 BP (SUERC-40289; 380–180 cal BCE). Sample I13731 (male), dating to 2255±30 BP (SUERC-40302; 400–200 cal BCE), derived from the petrous of an individual (burial 248091) aged 15–16 years in pit 248090, to the east of the quarry scoops. Sample I13616 (female), dating to 800–200 cal BCE, derived from the tooth of a flexed inhumation in burial 200066 (pit 200062). The pit burial, which also contained c. 0.8g of cremated remains from, an individual aged >13 years, was accompanied with a biconical pottery vessel (ON583), two clay spindlewhorls (ON1500, ON1504), a shale armlet (ON1501), a shale armlet fragment (ON4654), and an iron rod (ON1503) (ibid., Fig. 3.51). Sample I19914 (female), dating to 2230±30 BP (SUERC-40299; 390–200 cal BCE), derived from the petrous of an individual aged 14–16 years (burial 220093) in grave I220092, located among another cluster of pits to the north of the trapezoidal enclosure.

An inhumation burial (205108; grave 20511) was made in a disused bell-shaped storage pit (205106) in Zone 19 and contained the remains of an individual, aged 45–55 years, accompanied by a polished and pierced cattle carpal (ON1808; possibly an amulet). A petrous bone from this individual yielded sample I13732 (male), dating to 2280±30 BP (SUERC-40712; 410–200 cal BCE).

Middle Iron Age Cemetery

The remains of a Middle Iron Age (c. 400–200 BCE) cemetery were found in Zone 12, comprising a group of ten inhumations (five adults, two adults/subadults, two juveniles and an infant) aligned and adjacent to hollow-way 190163 (which must have been in use at the time) and a further three more isolated graves (Andrews et al 2015, 154–5, Fig. 3.45). Sample I19872 (female), dating to 2285±30 BP (SUERC-40287; 410–210 cal BCE), derived from the petrous of an individual (burial 136034), aged 25–29 years, in grave 136033; a small iron nail was recovered from the grave fill. Sample I19907 (female) derived from the petrous of an individual (burial 166004), aged 45–55 years, in grave 166005. This individual wore an iron armlet (ON2) around their left humerus, and the grave fill contained iron nail fragments. Sample I19911 (male), derived from the petrous of an individual (burial 153054), aged 35–45 years, in grave 53055. Sample I19909 (male), dating to 2215±30 BP (SUERC-40288; 380–200 cal BCE), derived from the petrous of an individual (burial 153027), aged 40–50 years, in grave 153028, which lay to the south-west of the main group of graves. Isotopic analysis on teeth from individuals yielding samples I19872, I19907, I19911 and I19909 suggest that they spent part of their childhood elsewhere (ibid., 156).

Sample I19873 (male) derives from the petrous of a c. 7–9-year-old (burial 153039) in grave 153040, which lay on an east–west alignment, at the far north of the main grave group. Sample I19874 (female), derives from the petrous of a c. 11–13-year-old (burial 153042) in grave 153043. Sample I19908 (female), derived from the petrous of a c. 13–14-year-old (burial 153012) in grave 153011. Sample I19910 (female), derived from the petrous of an individual (burial 153047), aged 40–50 years, in grave 153048, which lay to the south-west of the main group of graves, east of grave 153028. Sample I13615 (male), derived from the tooth of an individual (burial 126013), aged 21–25 years, in grave 136049.

Source of samples: Wessex Archaeology
Author of entry: Lindsey Büster
References:

Andrews, P., Booth, P., Fitzpatrick, A. P. and Welsh, K. 2015. *Digging at the Gateway: Archaeological Landscapes of South Thanet (2 volumes)*. Oxford Archaeology: Oxford.

Kent Highway Services (KHS). 2008. *East Kent Access Phase 2, Vol. 2f Archaeology (3rd Revision, 27 February 2009).* Unpublished report, Kent County Council, Maidstone.

Oxford Wessex Archaeology. 2011. *East Kent Access (Phase II), Thanet, Kent, Post-excavation Assessment.* Unpublished report, Oxford Wessex Archaeology.

Elbolton Cave, Cockerham, North Yorkshire, England, UK

Elbolton cave was excavated in the late nineteenth century and in the early twentieth century, and yielded pottery and human remains corresponding to at least 11 inhumations and one cremation. Three substantially complete articulated skeletons were found in seated positions, covered by stone cairns and accompanied by fragments of food vessels of likely Neolithic date (Gilks 1973). Some of the disarticulated human bone showed evidence for carnivore scavenging, possibly indicating the subaerial exposure of bodies (Lord and Howard 2015). Sample I16643 (male) derives from the petrous temporal of one of the seated burials (Individual 1), while sample I16402 (male) derives from a disarticulated petrous temporal (F208).

Source of sample: Rachel Terry, Craven Museum
Author of entry: Claire-Elise Fischer
References:

Gilks, J.A. 1973. The Neolithic and Early Bronze Age Pottery from Elbolton Cave, Wharfedale. *Yorkshire Archaeological Journal* 45: 41–54.

Lord, T. and Howard, J. 2013. Chapter 16: Cave archaeology. In T. Waltham and D. Lowe (eds.), *Cave and Karst in the Yorkshire Dales: Volume 1*, 239–251. Buxton: British Cave Research Association.

Fin Cop Hillfort, England, UK

Fin Cop hillfort occupies a commanding position on the crest of a hill with a deep and steep-sided limestone valley wrapping around two of its sides. It has a long period of occupation with evidence for Mesolithic, Neolithic, Bronze Age, Iron Age and post-medieval activity (Waddington 2012; Waddington and Montgomery 2017). The hillfort defences date to the mid-Iron Age, having probably been constructed 435–390 cal BCE (68% probability) (Waddington 2012, 201). The human remains from the site were all recovered from within the same destruction deposit within the main hillfort ditch. The bodies had been thrown, or

fallen, into the ditch, and the walls of the fort were then systematically destroyed, with the stone thrown on top of the bodies. The people had all entered the ditch from its outer lip, suggesting people had been lined up along its outer edge before being killed. The evidence for bruising on some of the bones and no healing suggests some of the bodies entered the ditch with warm blood, perhaps not yet dead, when the large rocks from the fort wall were thrown onto them. This points to a massacre event following an attack on the hillfort. For each metre of ditch excavated a human body was found. Given that there is at least 400m of ditch, it is likely that several hundred people are buried within it.

A total of 14 skeletons were excavated, with osteological analysis showing that some skeletons were broadly complete individuals, while others were represented by commingled bones where they had fallen through voids in the rock fill or been moved by small mammals, scavengers or predators. Following osteological analysis, it was realised that the remains of Neonate 6 in fact represented at least two individuals due to certain bone duplications, hence the division between Skeletons 6(1) and 6(2). Seven of the skeletons (1, 3, 4, 5, 6(1), 6(2), 7 and 8) have been radiocarbon dated.

Fifteen human bones and teeth, one from each of the burials within the hillfort ditch, were analyzed for aDNA, of which fourteen yielded sequence data for further analysis. A tooth from Skeleton 1 (CE052), aged 25–35 years, yielded sample I20620 (female), and produced AMS dates of 2198±27 BP (OxA-21387) and 2285±35 BP (SUERC-26419), with a combined calibration of 403–174 BCE; a cranium from a neonate/young infant (Skeleton 2; CE053) yielded sample I20621 (female); a left petrous from Skeleton 3 (CE054), aged 20–25 years, yielded sample I20622 (male) dating to 2165±30 BP (SUERC-31494; 375–59 cal BCE); a right petrous from a perinate/neonate (Skeleton 4; CE055) yielded sample I20623 (female); a tooth from Skeleton 5 (CE056), aged 20–30 years, yielded sample I20624 (male) dating to 2166±24 BP (OxA-23358; 355–108 cal BCE); a long bone from neonate Skeleton 6(1) (CE057) yielded sample I20625 (male), dating to 2120±30 BP (SUERC-31498; 342–49 cal BCE); a long bone from neonate Skeleton 6(2) (CE058) yielded sample I20626 (male), dating to 2135±23 BP (OxA-23359; 345–54 cal BCE); a left petrous from a young infant (Skeleton 7; CE059) yielded sample I20627 (female), which produced AMS dates of 2247±24 BP (OxA-23360) and 2190±30 (SUERC-40141), with a combined calibration of 388–165 BCE); a right petrous from Skeleton 8 (CE060), aged 15–16 years, yielded sample I20628 (male) dating to 2140±30 BP (SUERC-31499; 350–51 cal BCE); a tooth from Skeleton 11 (CE062), aged 25–35 years, yielded sample I20630 (indeterminate sex); a left petrous from a perinate (Skeleton 12; CE063) yielded sample I20631 (female); a long bone from a perinate/neonate (Skeleton 13; CE064) yielded sample I20632 (male); a left petrous from a perinate/neonate (Skeleton 14; CE065) yielded sample I20633 (indeterminate sex); and a long bone from neonatal Skeleton 15 (CE066) yielded sample I20634 (male).

A long bone from adult Skeleton 10 (CE061) yielded sample I20629 (indeterminate sex), which was excluded due to low coverage.

Samples I20632 (Skeleton 13; CE064) and I20633 (Skeleton 14; CE065) are genetic duplicates. This could suggest that they represent material from the same individual, but since they appear to derive from two different neonatal skeletons, it could also indicate the presence of identical twins. For the purposes of the current analysis, the data have been merged under sample I20632. Samples I20623 (Skeleton 4; CE055) and I20627 (Skeleton 7; CE059) are second or third degree relatives.

Source of samples: Buxton Museum
Authors of entry: Clive Waddington and Ceiridwen J. Edwards
References:
Waddington, C., P. Beswick, J. Brightman, C. Bronk Ramsey, A. Burn, G. Cook, L. Elliot, L. Gidney, S. Haddow, A. Hammon, K. Harrison, K. Mapplethorpe, P. Marshall, J. Meadows, R. Smalley, A. Thornton and Longstone Local History Group. 2012. Excavations at Fin Cop, Derbyshire: An Iron Age hillfort in conflict? *Archaeological Journal* 169: 159–236.

Waddington, C. and Montgomery, J. 2017. Further excavations at Fin Cop and Stable Isotope analysis of the skeletons. *Derbyshire Archaeological Journal* 137: 22–65.

Gargrave, North Yorkshire, England, UK

Archaeological excavations in advance of development on High Street in Gargrave, North Yorkshire uncovered evidence of a Late Iron Age/Early Roman inhumation cemetery comprising six burials. Iron Age inhumation cemeteries are unusual in this part of Britain, and the female burials from Gargrave are particularly unusual in showing evidence for having been very tightly bound, with two burials having been placed on top of one another. Four samples were collected and successfully analyzed for aDNA. Sample I16042 (female) derives from the petrous temporal of Skeleton 11, which produced a radiocarbon date of 2020±60 BP (Beta-187628; 189 cal BCE–cal CE 117); this individual was tightly flexed and may have been bound for burial. Sample I16506 (female) derives from a petrous temporal of Skeleton 12, who was placed on their right side in a flexed position, with their head towards the north-west. Sample I16440 (female) derives from the petrous temporal of Skeleton 3, which dated to 1950±40 BP (Beta-187626; 41 cal BCE–cal CE 129) and which may also have been bound. Sample I16399 (male) derives from Skeleton 4, a flexed burial with head to the north, which dates to 2050±70 (Beta-187627; 351 cal BCE–cal CE 86).

Source of sample: Rachel Terry, Craven Museum
Author of entry: Claire-Elise Fischer
Reference: McCluskey, B. and Martin, L. 2004. *Land at High Street, Gargrave, North Yorkshire. Archaeological Evaluation and Excavation. Report No. 1234*. Leeds: Archaeological Services WYAS.

Gravelly Guy, Stanton Harcourt, Oxfordshire, England, UK

Gravelly Guy is a multi-period settlement in the Thames Valley with occupation from the Late Neolithic to the Saxon period (Lambrick and Allen 2005). One of the major features of the site is an extensive Iron Age settlement comprising roundhouses, enclosures and numerous pits. Human remains were recovered from a minority of these pits and appear to cover the whole period of Iron Age settlement. They comprise principally neonatal individuals and mature adults.

Three human petrous bones were successfully analyzed for aDNA, all dating to around 800–400 BCE. These yielded sample I20582 (female), dating to 2190±30 BP (SUERC-95003; 361–178 cal BCE), from a crouched adult burial (502/B/1) with a copper alloy strip; sample I20583 (infant, male), dating to 2231±30 BP (SUERC-95004; 366–98 cal BCE), from the crouched burial (1220/C/1) of a baby around 1–2 months old at death, deposited towards the base of a pit; and sample I20584 (female), dating to 2153±30 BP (SUERC-95008; 357–92 cal BCE), from the disarticulated bones of a neonatal individual (2118), found in a pit with a perforated dog tooth.

Source of samples: Oxford Archaeology
Author of entry: Ian Armit
Reference: Lambrick, G. and Allen, T.G. 2005. *Gravelly Guy*: *Excavations at Stanton Harcourt*. Oxford: Oxford University School of Archaeology.

Greystones Farm, Bourton-on-the-Water, Gloucestershire, England, UK

Greystones Farm is located within the Salmonsbury Camp hillfort, on the north-eastern edge of Bourton-on-the-Water. Salmonsbury Camp was excavated in the 1930s, with smaller excavations taking place from 2003. Two of the recent excavations were conducted by Cotswold Archaeology and Rubicon Heritage as part of plans to develop the site into a Conservation Site of Excellence (Barclay et al. in prep). These excavations focused on the interior of the hillfort and uncovered the remains of a roundhouse, several storage pits, and other features dating to the Roman period. Pottery recovered from the storage pits suggests that the site was occupied in the later Middle Iron Age, specifically the first–second centuries BCE. Articulated and disarticulated human remains were also recovered from some of the storage pits.

The petrous portions of temporal bones from two of these individuals were successfully analyzed for aDNA. Sample I12785 (male) derives from Skeleton 285: a complete articulated individual aged 6–11 years, who was deposited in a shallow pit with their hands over their pelvis and flexed so that their legs splayed awkwardly (with ankles pressed against lower legs). Sample I12791 (male) derives from Skeleton 259, belonging to an individual aged 33–46 years who was deposited within the fill of a storage pit, with their head touching the pit side and their legs drawn up to their chest. Neither of the skeletons have been directly dated using absolute methods but, based on their associations, they are thought to date to the first–second centuries BCE.

Source of sample: Sharon Clough, Cotswold Archaeology
Author of entry: Tom Booth
Reference: Barclay, A., Busby, P. and Roper, S. in prep. Greystones Farm, Bourton-on-the-Water, Salmonsbury, Gloucestershire. *Transactions of the Bristol and Gloucestershire Archaeological Society*.

Ham Hill

Ham Hill, near Yeovil in Somerset, is the largest hillfort in Britain (>88ha). The hill was enclosed as early as 800 BCE; its major multivallate ramparts were established around 400 BCE, with at least three phases of remodeling until the Early Roman Period. Human remains were recovered from the hill's north 'spur' during quarrying in the nineteenth century and in excavations by Harold St George Gray in the early twentieth century (Brittain 2016). More human remains have been recovered elsewhere from recent excavations of the hillfort's ramparts and interior, mostly dating to the Middle to Late Iron Age, around 400–100 BCE (McKinley 1999; Brittain et al. 2016).

Five samples (four human petrous bones and a tooth) obtained from the antiquarian excavations were successfully analyzed for aDNA. Samples I19854 and I11994 derive from Gray's excavations but were archived as miscellaneous bone and their trench derivation is not known. The remainder come from the hill's north 'spur' quarry works for which general locations are recorded, but as incidental *ex situ* finds. The petrous bones yielded sample I19854 (female); sample I11993 (female); sample I11994 (female) and sample I19855 (male). An archival note attributes the latter sample to an 'infant found with pot in stone cist'

(see Hensleigh Walter 1924). The tooth yielded sample I16593 (female), dating to 2216±30 BP (SUERC-94990; 375–201 cal BCE).

Seven petrous bones and a tooth from the recent excavations of the hillfort's interior were also successfully analyzed for aDNA. Six of the petrous bones derived from semi-articulated and disarticulated body elements from the backfill of an enclosure ditch and yielded sample I19652 (female; context 5627; SF1296), dating to 2257±32BP (SUERC-73829; 397–209 cal BCE); sample I19653 (male; context 5627; SF1299) and sample I19654 (female; context 6116), both dating stratigraphically to around 400–200 BCE; sample I19655 (female; context 5867) dating to around 400–1 BCE, which has not been included in the analysis due to mitochondrial contamination; and sample I19656 (male; context 6115) dating to 2226±30 BP (SUERC-73828; 203–48 cal BCE), with evidence of blunt-force trauma. The remaining human petrous bone derived from a crouched inhumation cutting the basal silts of the enclosure ditch, and yielded sample I19657 (female; context 1061), dating to 2163±29 BP (SUERC-73827; 359–112 cal BCE). The tooth, from the backfill of the enclosure ditch (context 1057) that overlay the inhumation, yielded sample I13680 (male), dating to 2203±26 BP (SUERC-73822; 362–199 cal BCE). The petrous bone that yielded sample I19856 (female; context 58) came from a storage pit within a cluster of pits near to the enclosure and is dated by pottery to around 400–200 BCE.

A further petrous bone from a crouched inhumation (context 5631) from within another cluster of pits, dating to 2080±27 BP (SUERC-74473; 181–39 cal BCE), awaits analysis.

Source of samples: Somerset Museums Service/Cambridge Archaeological Unit
Author of entry: Marcus Brittain
References:

Brittain, M. 2016. *Iron Age Human Bone in the Somerset Heritage Centre. An Interim Assessment*. Unpublished report.

Brittain, M., Sharples, N. and Evans, C. 2015. *Excavations at Ham Hill, Somerset 2011–2013. Post-Excavation Assessment*. Unpublished Cambridge Archaeological Unit Report No. 1318.

Hensleigh Walter, R. 1924. Some recent finds on Ham Hill. *The Antiquaries Journal* 4(1): 51–53.

McKinley, J.I. 1999. Excavations at Ham Hill, Montacute, Somerset 1994 and 1998. *Proceedings of the Somerset Archaeology and Natural History Society* 142: 77–137.

Harlyn Bay, St Merryn, Padstow, Cornwall, England, UK

Harlyn Bay is the site of an Iron Age stone cist cemetery excavated between 1900 and 1906. Although not fully published, the site can be approximately dated from between 800 BCE and CE 43 based on the style of brooches recovered from the graves. The cemetery is exceptionally large, containing around 100 individuals buried in stone cists. Radiocarbon dating of two of the skeletons as part of this project produced Early Iron Age dates.

Later excavations, in 2014, exposed an Early Bronze Age cist containing the skeleton of a young woman. The cist was stone capped and possibly covered by a low mound of earth and sand (Jones and Mikulski 2015). No artefacts were recovered, but a large quartz-rich stone was found in the pit into which the cist was set.

Here, we report data for nine individuals: one Bronze Age and eight Iron Age in date. A petrous temporal from Skeleton 1, dating to 3751±32 BP (SUERC-55908; 2284–2038 cal BCE), yielded sample I16424 (female). The Iron Age individuals yielded samples I12772 (petrous; male; SB553; 1900-36-9); I16439 (petrous; female; TRURI 1900-36-15); I16442 (neonatal or infant petrous; female; TRURI 1900-36-12); I16441 (petrous; female; TRURI 1900-36-14); I16440 (petrous; male; TRURI 1900-36-10); I16388 (petrous; female; TRURI 1900-36-11); I16380 (petrous; male; TRURI 1900-36-13); and I6769 (neonatal or infant petrous; male; SB511A; TRURI 1900-36-5; 2455±25 (BRAMS-1321; 754–415 cal BCE)).

Source of sample: Sophie Meyer, Royal Cornwall Museum; Andy Jones, Cornwall Archaeology Unit
Author of entry: Claire-Elise Fischer
References: Jones M.A. and Mikulski R. 2015. After the storm: an Early Bronze Age cist burial at Harlyn Bay, Cornwall, 2014. *Cornish Archaeology* 54, 139–156.

Hazleton North, Cheltenham, Gloucestershire

Hazleton North is a lateral chambered long cairn (SP 0727 1889) and is one of a pair of monuments (with Hazleton South). The northern long cairn was fully excavated between 1979 and 1982 (Saville 1990). Each of its two L-shaped chambers (northern and southern) were connected by short passages to entrances in the side wall (Meadows et al. 2007).

Modelling of the radiocarbon dates by Meadows et al (2007: 61) suggests that activity associated with the construction and use of the stone cairn began in *3710–3655 cal. BCE* (*95% probability*), or in *3705–3670 cal. BCE* (*68% probability*). The end of the principal Neolithic use of the monument for burial was in *3635–3605 cal. BCE* (*95% probability; end of cairn phase*: Fig. 8), or in *3635–3615 cal. BCE* (*68% probability)*, probably in the 3620s cal. BCE. Burial occurred in the chambers for *15–75 years* (*95% probability*), or for *30–65 years* (*68% probability*), probably for two or three generations.

Over 9000 human bones and bone fragments were recovered from the Hazleton North excavations, representing a minimum number of 41 individuals (22 adults and 19 children). These comprised 8 adults and 8 children from the north chamber (including two articulated male skeletons, together with the burnt bones of at least one other adult male and a sub-adult in the north entrance), and 14 adults and 11 children from the south chamber (Rogers in Saville 1990: 182–7). The sub-adults from the chambers included one foetus each (Meadows et al. 2007: 46).

The predominant burial rite, until the later phases of activity, appears to have been the inhumation of complete bodies, which were periodically disturbed and disarticulated as subsequent bodies entered the tomb (Saville 2010: 13). Two skeletons from the north entrance were the only articulated bodies from the site: one was virtually complete (Skeleton 1; aged 30–40 years), while the other was missing large portions of the torso and the mandible (Skeleton 2) (Rogers 1990: 182). During post-excavation, loose bones in and around Skeletons 1 and 2 were attributed to a further adult (Individual A) and a child of six months (Individual B) (ibid.: 184).

In the north chamber, the children ranged from 6 months to 3–4 years, whilst in the south chamber they ranged from 1–15 years (Saville 1990: 186 and table 53). Meanwhile, in the north chamber, adults ranged from 17–45 years and in the south chamber from 25–45+ years

(ibid: 196 and table 55). Sex was difficult to determine within such a disarticulated assemblage, but a combination of pelvic and cranial assessment suggests the presence of between 2 and 3 males and 1 or 2 females in the north chamber, and 8 males and 2 females in the south chamber (ibid: tables 57 and 58).

Fifteen petrous bones and four teeth were successfully analysed for aDNA. The petrous bones yielded samples I12437 (male; 4684); I12438 (male; 8754); I12439 (male; 5907); I12440 (male; 10192); I13888 (female; 9851); I13890 (male; 7403); I13891 (male; 11062); I13895 (male; 4018); I13897 (male; 5120); I13899 (male; 8336); and I13889 (female; 10213), which derived from a correctly juxtaposed skull and mandible in the south chamber (context 412; ibid.: 95).

Sample I13896 (female) from a petrous bone, and sample I20819 (female), from a tooth, both derived from the skull (12527) of a child, aged 6–9 years, which displayed evidence of *cribria orbitalia* (Saville 1990: Fig. 193), and was embedded in pre-cairn soil on the floor of the south chamber. The mandible lay adjacent to the skull, with the left condyle and coronoid process lying inside the right eye socket, indicating that the bones had been deliberately placed in this position after disarticulation of the mandible from the skull; a serrated-edge flint tool lay close by (ibid.: 94). Since the samples represent genetic duplicates they have been merged for the purposes of reporting and analysis.

Samples I13893 (male; 5037-1), from a petrous, and sample I20820 (male; 5037), from a tooth, both derive from Skeleton 1 (5307; context 267) in north entrance, while sample I13898 (male; 5199) derived from Skeleton 2 (ibid.: Fig. 118, 119), the lower portion of a disturbed crouched inhumation, also located in the north entrance (see above). A right femur (5037-32) from Skeleton 1 returned dates of 4600±120 BP (OxA-643) and 4820±70 BP (OxA-902) (Saville 1990: 237, Fig. 179), which, together with a further date of 4800±50 (GrA-24504; Meadows et al 2007: Table 1), combine to give a calibration of 3650–3380 cal BCE. Meanwhile, a left femur (6672-16) from Skeleton 2 returned a date of 4840±60 BP (OxA-903) which, together with a further date of 4850±50 BP (GrA-24508; Meadows et al 2007: Table 1), combine to give a calibration of 3700–3530 cal BCE. Sample I13892 (male; 5142), derived from Individual G (aged 3–4 years) in the north chamber (context 336) (Saville 1990: Fig. 130 and Appendix 10), whose right femur (5463) yielded a date of 4940±50 (GrA-24506; 3910–3630 cal. BCE) (Meadows et al. 2007: Table 1). Since samples I13893 and I20820 represent genetic duplicates they have been merged for the purposes of reporting and analysis.

The remaining two teeth yielded sample I20821 (male; 7656); and sample I20818 (male; 4077/4169), from an articulated mandible (4077) and maxilla (4169) in the south entrance, adjacent to the fragmentary remains of an associated skull (4228; context 354) (ibid.: 95).

Eleven of the individuals represented by the samples have genetic relationships with other sampled individuals: I12437 and I13888 are father and daughter, and both are second or third degree relatives of I12438, I12439, I13891 and I12440 (who are all second or third degree relatives of each other. I12437 is a second or third degree relative of I13896 (who is a second or third degree relative of I13890, I12438, I13891 and I12440) and I13898 (who is a second or third degree relative of I13888) and I13892 (who is a second or third degree relative of I13890) and I13895. I13890 is also a second or third degree relative of I12438.

Source of samples: James Harris (Corinium Museum) and Vicki Cummings

Authors of entry: Lindsey Büster and Vicki Cummings
References:
Meadows, J., Barclay, A. and Bayliss, A. 2007. 'A short passage of time: the dating of the Hazleton long cairn revisited', *Cambridge Archaeological Journal* 17(1): 45–64.

Saville, A. 1990. *Hazelton North, Gloucestershire, 1979–82: The Excavation of a Neolithic Long Cairn of the Cotswold-Severn Group.* Swindon: English Heritage Archaeological Report no 13.

Saville, A. 2010. 'Anatomising an archaeological project: Hazelton revisited', *Transactions of the Bristol and Gloucestershire Archaeological Society* 128: 9–27.

Hay Wood Cave, Mendip, Somerset, England, UK

Excavations at Hay Wood Cave yielded artefacts from the Mesolithic to the Romano-British periods along with 560 identifiable human bones corresponding to at least to ten individuals (eight adults, one adolescent under 15 years old and one child). The human remains were, however, not directly associated with the artefacts. The results of an AMS dating programme (Hedges et al. 1997; Schulting et al. 2013) place the human remains in the Early Neolithic period. Here we report data for sample I6748, a juvenile right tibia associated with Cranium 1 (male; SB410B3), dating to 5052±32 BP (OxA-19914; 3955–3775 cal BCE), though the data are excluded from the analysis due to mitochondrial contamination.

Source of sample: Margaret Chapman, Axbridge Museum
Author of entry: Claire-Elise Fischer
Reference:
Hedges, R.E.M., Pettitt, P., Bronk Ramsey, C. and van Klinken, G.J. 1997. Radiocarbon dates from the Oxford AMS system: Archaeometry datelist 24. *Archaeometry* 39: 247–262.

Schulting, R.J., Chapman, M. and Chapman, E.J. 1991. AMS 14C dating and stable isotope (Carbon, Nitrogen) analysis of an earlier Neolithic human skeletal assemblage from Hay Wood Cave, Mendip, Somerset. *Proceedings of the University of Bristol Spelaeological Society* 26(1): 9–26.

Highsted, Sittingbourne, Kent, UK

Highsted is a large Late Iron Age inhumation cemetery excavated by D.T.A. Ponton in 1955. The excavation took place under emergency rescue conditions due to the imminent threat of chalk quarrying, with contemporary local newspaper articles recording that 20 inhumations and six cremation burials were recovered (Anon 1955). Shortly after excavation, however, most of the records, site photos, and associated finds were stolen (Kelly 1978, 267). The site was never published and the human remains were thought to be lost (Whimster 1981, 326). In 1987, the human remains were located and sent to Kent County Museums service, an accompanying letter outlining a provisional assessment of the material (Baxter 1987), but this too was never published and the material again forgotten. During data collection for doctoral research, however, skeletal remains from multiple individuals were identified at Maidstone Museum and reanalyzed (Legge forthcoming). The remains were boxed, but had become mixed, with an MNI of 18 based on right femora.

Five human bones were successfully analyzed for aDNA: sample I18598 (petrous; male; K2114/G); sample I18600 (petrous; male; K2114/i), dating to 1915±20 BP (PSUAMS-7859; cal CE 30–130); sample I18599 (metacarpal; female; K2114/H), dating to 1990±25 BP

(PSUAMS-7826; 44 cal BCE–cal CE 64); sample I19567 (phalanx; female; K2114/GII); and sample I19566 (phalanx; female; K2114/B1). This last sample (I19566) is not included in the analysis due to low coverage.

A phalanx (K2114/10) was also analysed and found to represent the same individual as sample I18598 (K2114/G).

Source of sample: Maidstone Museum
Author of entry: Michael Legge
References:

Anon. 1955. Quarry yielded 26 skeletons: late discovery prolonged excavation work. *East Kent Gazette*, 9th September 1955.

Baxter, R. 1987. *Letter to Miss J. Vale of Kent County Museums service, from Dr. R. Baxter of Sittingbourne Archaeological Group*. 29th July 1987. Maidstone Museum archives.

Kelly, D.B. 1978. Archaeological notes from Maidstone Museum, researches and discoveries in Kent. *Archaeologia Cantiana* 94: 255–278.

Legge, M. forthcoming. *The Lost, the Buried, the Scattered and the Curated: A Multidisciplinary Approach to the Uncremated Dead in the Iron Age of Eastern England*. Unpublished PhD thesis, Cardiff University.

Whimster, R. 1981. *Burial Practices in Iron Age Britain: A Discussion and Gazetteer of the Evidence c. 700 BC–AD 43*. Oxford: British Archaeological Reports (British Series) 90.

Kingsdown Camp, Mells Down, Somerset, England, UK

Kingsdown Camp is a small, univallate, quadrilateral enclosure at Buckland Dinham, Somerset (Lewis and Mullin 1997, 177). Excavations during the 1920s indicated occupation during the Iron Age and early Roman periods, terminating in the second century CE (Gray 1930). Human remains were recovered from the ditch and elsewhere, some representing formal burials, along with a significant number of pre-Roman Iron Age objects. A burial was also found under a mound outside the hillfort (Gray 1930). A human tooth from this latter context (Skeleton M4) was successfully analyzed for aDNA: sample I13682 (male), dating to 2527±30 BP (SUERC-94972; 796–543 cal BCE).

Source of samples: Somerset Museums Service
Author of entry: Ian Armit
References:

Gray, H. St G. 1930. Kingsdown Camp, Somerset, 1927. *Proceedings of the Somerset Archaeological and Natural History* 73: 130–132.

Lewis, J. and Mullin, D. 1997. Buckland Dinham, Kingsdown Camp, in Webster, C.J. and Croft, R.A. 1997. Somerset Archaeology. *Proceedings of the Somerset Archaeological and Natural History* 141: 171–192(177).

Margett's Pit, Kent, England, UK

Margett's Pit is an extensive site with evidence for human activity spanning a broad temporal range from the Neolithic (a single pit), though the Middle to Late Bronze Age (mortuary and industrial activity), and into the Late Iron Age/Romano-British period, with evidence for

settlement. The remains of both cremation and inhumation burials of Bronze Age date were recovered; samples were taken from three of the inhumation burials for aDNA analysis.

A human petrous bone and tooth were successfully analyzed for aDNA. The petrous bone, from burial 984, yielded sample I13716 (female), dating to 3019±31 BP (SUERC-49774; 1391–1131 cal BCE); and the human tooth, from burial 409, yielded sample I13617 (female), dating to 2946±27 BP (SUERC-49770; 1260–1050 cal BCE) and 2920±25 BP (PSUAMS-7561; 1210–1028 cal BCE).

A metacarpal from Skeleton 412 was also successfully analyzed for aDNA: sample I13618 (female), dating to 2956±28 BP (SUERC-49769; 1260–1056 cal BCE). This sample has been excluded from the analysis due to its low coverage.

Source of samples: Wessex Archaeology
Authors of entry: Jaqueline McKinley, Matt Leivers and Ian Armit

Marshall's Jaguar Land Rover New Showroom (JLU15), Cambridgeshire, England, UK
Excavations on the eastern side of Cambridge recorded the remains of a significant Early–Middle Iron Age settlement site (Evans et al. 2018, 427–30, fig. 6.22; Tabor 2019). Potentially representing an unbroken sequence of occupation, at least three distinct phases of activity representing a shift from Early Iron Age open settlement to Middle Iron Age enclosed settlement were identified. Amongst the site's features, some 488 pits produced large pottery and animal bone assemblages as well as human remains (both articulated burials and disarticulated elements).

Two human teeth and a phalanx from three burials contained within circular storage-type pits were successfully analyzed for aDNA. Skeleton 583 (Burial F.226) was laid in a prone position with its legs tightly flexed and was accompanied by a complete pottery vessel; a tooth from this individual yielded sample I19044 (male). Skeleton 1134 (Burial F.476) had been disturbed by later features but may originally have lain in a flexed position; a tooth from this individual yielded sample I19045 (male). The phalanx, from another disturbed but probably originally flexed individual (Skeleton 1226; Burial F.511), yielded sample I19046 (male).

Source of samples: Cambridge Archaeological Unit
Author of entry: Jonathan Tabor
References:
Evans, C., Lucy, S. and Patten, R. 2018. *Riversides: Neolithic barrows, a Beaker Grave, Iron Age and Anglo-Saxon Burials and Settlement at Trumpington, Cambridge*. CAU Landscape Archives/New Archaeologies of the Cambridge Region Series, Vol. I. Cambridge: McDonald Institute for Archaeological Research.

Tabor, J. 2019. *Excavations at The Marshalls Site, Newmarket Road, Cambridge 2015–16. An Archaeological Post-Excavation Assessment.* Unpublished, Cambridge Archaeological Unit Report No. 1423.

Meare Lake Village West, Somerset, England, UK
Meare Lake Village West is one of three Iron Age settlements constructed in the wetlands of the Somerset Levels (Bulleid and Gray 1948; Gray and Bulleid 1953; Gray 1966; Minnitt and Coles 1996). The site was first excavated in the early decades of the twentieth century and

has been subject to more recent, smaller-scale excavation (Orme et al. 1981; Brunning 2013). It appears to date from 265–60 cal BCE, and comprises a series of mounds built along the edge of a raised bog (Cunliffe 2004, 269; Marshall et al. 2020). A human petrous from individual M17 was successfully analyzed for aDNA: sample I11146 (male). Two human teeth were also successfully analyzed for aDNA: sample I13684 (female) from individual M12, dating to 2373±30 BP (SUERC-94974; 483–398 cal BCE); and sample I13683 from individual M1 (female), dating to 2263±27 BP (SUERC-94973; 398–210 cal BCE). The latter sample has been excluded from the analysis due to its low coverage. The tooth of M12 'was found deep under mound XXXIV' (Gray and Bulleid 1953, 407), which probably explains the early date.

Source of samples: Somerset Museums Service
Author of entry: Ian Armit
References:

Brunning, R. 2013. *Somerset's Peatland Archaeology: Managing and Investigating a Fragile Resource*. Oxford: Oxbow.

Bulleid, A. and Gray, H.S.G. 1948. *The Meare Lake Villages, volume I*. Taunton Castle. Privately printed.

Cunliffe, B.W. 2004. *Iron Age communities in Britain* (4th edition). London: Routledge.

Gray, H.S.G. 1966. *The Meare Lake Village, volume III*. Taunton Castle: Privately Printed.

Gray, H.S.G. and Bulleid, A. 1953. *The Meare Lake Village, volume II*. Taunton Castle: Privately printed.

Minnitt S. and Coles, J.M. 1996. *The lake-villages of Somerset*. Taunton: Somerset Levels Project.

Marshall, P., Brunning, R., Minnitt, S., Bronk Ramsey, C., Dunbar, E. and Reimer, P.J. 2020. The chronology of Glastonbury Lake Village. *Antiquity* 94(378): 1464–1481.

Orme, B.J., Coles, J.M., Caseldine, A.E. and Bailey, G.N. 1981. Meare Village West. *Somerset Levels Papers* 7: 12–69.

Mile Oak, Brighton, Sussex, UK

Excavations at Mile Oak Farm were undertaken by Archaeology South East in 1989 to sample and date a series of presumed Iron Age and Romano-British field lynches and identify associated settlements. Amongst other things, the excavations revealed a series of terraces cut to accommodate structures, including roundhouses. One of these sites (Area D) included a pit (2705) that had been truncated by the terrace cut. The pit contained the unaccompanied complete articulated skeleton of an individual aged 17–35 years, buried in a highly flexed posture on their left side (Skeleton 2707; HA210862 (DUP)), from which the tooth was sampled for aDNA (sample I16616; female). The skeleton has been radiocarbon dated three times: to 2810±70 BP and 2960±100 BP (GU-5675, GU5691), with a combined date of 1216–897 cal BCE; and to 3057±28 BP (SUERC-95020; 1408–1231 cal BCE). The stratigraphy of the site suggested that the pit had originally been used for storage when the associated roundhouse structure was in use. The woman may have been buried in the pit at the time the roundhouse was abandoned.

Source of sample: Andy Maxted, Brighton Museum
Author of entry: Tom Booth

Reference: Russell, M. 2002. Excavations at Mile Oak Farm. In D. Rudling (ed.) *Downland Settlement and Land-Use: The Archaeology of the Brighton Bypass,* 5–81. London: Archtype Publications.

Moulsecoomb, Brighton, Sussex, UK

Excavations during road building to the east of Wild Park in Moulsecoomb in 1928 uncovered the skeleton of an unaccompanied adult male (estimated at the time by Arthur Keith to be 60 year old). He had been buried 3–3.5 feet below the modern surface in a crouched position on his left side, facing north-east. The body had been placed on a sloping surface within 'chalk drift'. The knees of the skeleton were touching a saucer-shaped hearth comprising charcoal covered by burnt chalk and flint nodules. The apparent presence of a hearth and the fact that the chalk drift had not been disturbed by the burial led to speculation that the body was originally placed on the sunken floor of a hut. The petrous portion of the temporal bone of this skeleton (R3207) yielded sample I14552 (male), which produced a Late Iron Age date of 2012±30 BP (SUERC-70741; 92 cal BCE–cal CE 63).

Source of sample: Andy Maxted, Brighton Museum
Author of entry: Tom Booth and Andy Maxted

Neats Court, Isle of Sheppey, Kent, England, UK

Neats Court is located on the Isle of Sheppey, on the northern coast of Kent (Morley and Booth 2015), and comprises a round barrow with construction and use in the Early and Middle Bronze Age. Following marine inundation in the Late Bronze Age or Early Iron Age, the site was modified to make it less susceptible to inundation and at least two more burials were inserted into the mound and surrounding ditch. Later quarries from the Late Iron Age or Early Roman period are also in evidence. Finally, a single articulated extended burial was inserted in the barrow in the Early Medieval period.

Excavation recovered the burial of 14 individuals, including both inhumations and cremations, the latter associated with Early and Middle Bronze Age pottery. Most of the inhumations in the barrow mound were buried in a crouched posture, suggesting they were broadly contemporary with the cremations. Radiocarbon dating of three of the crouched burials produced Early Bronze Age dates. Skeleton 3666, which had been buried within the marine transgression materials in the surrounding ditch, and plough-truncated Skeleton 2326 from the top of the mound produced Middle Iron Age radiocarbon dates. Here we report data for a petrous portion of a temporal bone (sample I1774; male) of an articulated but tightly contracted Skeleton 3545/2545 (>45 years) buried in the mound and dating to 3437±36 BP (UBA 28373; 1833–1658 cal BCE).

Source of sample: Geoff Morley (MOLES Archaeology), Paul Wilkinson (Swale and Thames Archaeology)
Author of entry: Claire-Elise Fischer
Reference: Morley, G. and Booth, T.J. 2015. Neats Court: Report on the scientific analyses of the inhumations from the Area C mound. Unpublished Swale and Thames Archaeology report, Faversham.

New Buildings, Stockbridge, Hampshire, England, UK

The site of New Buildings (HMCMS:A1990.30) was first recognised in 1969 and 1976, and excavated in 1992 by Professor Barry Cunliffe. Excavations yielded northern and southern

linear ditches systems, a southern road, three enclosures, an alignment of pits and three ring-ditches.

Some features appear to pre-date the earliest enclosure and/or linear ditches (Period 0), with the first concentrated activity (Period 1) represented by the Late Bronze Age construction of sub-rectangular Enclosure B and the southern road. Period 2 is dated from the Late Bronze Age or the Early Iron Age (c. eighth–seventh centuries BCE) and is represented by the northern linear ditch system. Period 3 (sixth century BCE) saw the extension of Enclosure B and the construction of Enclosure A. There is no evidence for activity after the fifth/fourth centuries BCE.

Excavations also yielded human remains of Late Bronze Age and Early Iron Age date. The Late Bronze Age human remains are represented by articulated bones, as well as three intact bodies. The Early Iron Age assemblage comprises isolated bones in pits, comparable to those recovered from Danebury. Eleven of the 13 excavated pits excavated yielded 47 structured deposits in total, with eight of the pits containing multiple deposits and three containing single deposits.

Here we report aDNA data derived from the petrous bones of three Iron Age individuals. Skeleton 3 (NB92 F108 (2)) yielded sample I17258 (female), Skeleton NB92 F 117 (2) Tr 2 yielded sample I17259 (male), and Skeleton NB92 P 121 (1) Tr 2 yielded sample I17260 (male).

Source of sample: Thomas Booth
Author of entry: Claire-Elise Fischer
Reference: Cunliffe, B. W. and Poole, C. 2000. *The Danebury Environs Programme: The Prehistory of a Wessex Landscape. Volume 2 - Part 4: New Buildings, Longstock, Hants 1992 and Fiveways, Longstock, Hants, 1996.* Oxford: English Heritage and Oxford University Committee for Archaeology Monograph No. 49.

North Perrott Manor, North Perrott, Somerset, England, UK

Three Iron Age skeletons were excavated in 1997 in advance of construction of a sports hall at Perrott Hill School (formerly North Perrott Manor), Somerset. They appear to be associated with an industrial or craft-working area within a much larger Middle–Late Iron Age settlement (c. 450–100 BCE; Hollinrake and Hollinrake 1997). Petrous bones from two mature adults (>45 and 50 years respectively), buried in shallow circular pits, have been successfully analyzed for aDNA: that from Skeleton 2 yielded sample I11144 (male), dating to 2035±30 BP (SUERC-94968; 160 cal BCE–cal CE 50); whilst that from Skeleton 3 yielded sample I11145 (male), dating to 2064±30 BP (SUERC-94969; 171 cal BCE–cal CE 2).

A further petrous bone, from badly plough-disturbed Skeleton 1, is awaiting analysis. Cranial fragments from a possible infant discovered in a pit (426) on the same site have not been sampled.

Source of samples: Somerset Museums Service
Author of entry: Lindsey Büster
References:
Anon. 1880. Donations. *Proceedings of the Somerset Archaeological and Natural History Society* 26: 86.

Hollinrake, C. and Hollinrake, P. 1997. *An archaeological excavation at Perrott Hill School, North Perrott: fieldwork report*. Unpublished report, Glastonbury.

Nunburnholme Wold, East Riding of Yorkshire, UK

Nunburnholme Wold is a prominent hilltop on the western escarpment of the Yorkshire Wolds near Pocklington, in the East Riding of Yorkshire. A cemetery of around 50 square-ditched barrows was revealed through aerial and geophysical survey to the east of and associated with a palimpsest of enclosures connected by drove ways, surrounding an ovoid open area of some 250x150m, at the hilltop's highest point (Halkon 2019). This feature was interpreted as a central meeting place for a whole region. Excavation was undertaken here in 2014 and 2015. A square-ditched barrow excavated in 2014 (Halkon et al. 2014) contained the skeleton of a female aged 45+ years, tightly crouched with her head to the north, placed within a box-like wooden structure with the remains of a suckling pig at her feet. This burial was dated to 2100±30 BP (Beta-516926; 197–47 cal BCE). A petrous bone from this individual (Barrow BE) was successfully analyzed for aDNA and yielded sample I5503 (female).

In 2015, a further square-ditched barrow was excavated, 7m to the north of the 2014 burial, which contained the skeleton of a male aged between 17 and 22 years (Halkon et al. 2015). It too had been placed within some kind of wooden box or shuttering. With its head to the north and facing east, the corpse had been placed on its back and the knees may have been raised. Part of a young pig had been laid across this individual's lap. The provision of pork is usually taken as a mark of high status within Arras Culture burials. As in 2014, the bones themselves, which initially appeared to be quite robust, were found to be very fragile on lifting. This skeleton was dated to 2090±30 BP (Beta-520210; 195–42 cal BCE). A petrous bone from this individual (Barrow D) was successfully analyzed for aDNA and yielded sample I5502 (male).

Source of samples: Nunburnholme Community Heritage Project/University of Hull; AMS dating funded by Malcolm Lillie

Authors of entry: Peter Halkon, Malcolm Lillie and James Lyall

References:

Halkon, P. 2019. Recent research on the Arras Culture in its landscape setting, in D.C. Cowley, M. Fernández-Götz, T. Romankiewicz and H. Wendling (eds) *Relating Buildings, Landscape, and People in the European Iron Age,* 57–69. Leiden: Sidestone.

Halkon, P., Lillie., M.C. and Lyall, J. 2014. *The Archaeology of Nunburnholme Wold: An Interim Report 2015*. Nunburnholme Community Heritage Project and University of Hull. http://www.nunburnholmewithkilnwickpercypc.co.uk/nun2014interimwithcover.pdf

Halkon, P., Lillie., M.C. and Lyall, J. 2015. *The Archaeology of Nunburnholme Wold: An Interim Report 2015*. Nunburnholme Community Heritage Project and University of Hull. http://www.nunburnholmewithkilnwickpercypc.co.uk/nunburnholmeexcavation2015.pdf

Pocklington (Burnby Lane), East Riding of Yorkshire, UK

The Iron Age cemetery at Burnby Lane, Pocklington was excavated by MAP Archaeological Practice between October 2014 and February 2017 in advance of a residential development. The site is situated in a valley bottom at the edge of the Yorkshire Wolds dip slope, at an elevation of c. 33m AOD (Above Ordnance Datum). In total, 85 ditched barrows were

excavated at Burnby Lane, and 172 inhumations were recovered (Stephens and Ware 2020, 17). The inhumations themselves were generally poorly preserved and fragmented (ibid., 27).

The site is a palimpsest of burial activity spanning the Bronze Age, Iron Age and Anglian periods. Eighty-three barrows were identified in the Iron Age cemetery (Period 2), placing this site amongst the larger excavated cemeteries of the Arras culture. Whilst the barrows themselves were mainly square or rectangular in shape, seven circular barrows were also recorded. Additional detail in relation to the typological characteristics of the barrows at Pocklington can be found in Stephens and Ware (2020, 20–21), but, in summary, barrows of Groups 1–3 (after Dent 2010; Halkon 2013) were recorded, with Group 2 barrows numerically dominant (48 examples). A total of 72 primary burials survived, mainly interred in the crouched position but with both flexed and tightly contracted burials also identified. Coffin-like structures were identified in a number of cases, identified by sharply defined edges within grave features. These have been interpreted as self-supporting shuttered boxes. Grave goods were identified in 27 of the excavated graves, with brooches, bracelets, beads, and a single 'food offering' all recorded (Stephens and Ware 2020, 24–25).

In addition to the items above, a number of weapons burials were also identified at Burnby Lane. These included the burial of a (male?) individual (36–45? years old) who was placed on top of a rectangular shield; a (male) speared-corpse burial of an individual aged 18–25 years, interred with sword; and a cart or chariot burial with two mature ponies in association (ibid., 26–7). The AMS dating of one of these ponies indicates barrow construction c. 250 cal BCE.

Petrous bones from 35 individuals have been successfully analyzed for aDNA, providing samples I11033 (female; Sk89); I11034 (female; Sk90); I12411 (female; Sk23a); I12412 (female; Sk2); I12413 (male; Sk3); I12414 (female; Sk93); I12415 (female; Sk95); I13751 (female; Sk80); I13752 (female; Sk82); I13753 (male; Sk86); I13754 (male; Sk87); I13755 (female; Sk100); I13756 (female; Sk107); I13757 (female; Sk109); I13758 (male; Sk116); I13759 (male; Sk129); I13760 (male; Sk142); I14099 (female; Sk 11); I14100 (male) from an individual (Sk26) aged 36–45 years, dating to 2302±29 BP (SUERC-78040; 407–235 cal BCE); I14101 (female; Sk55); I14102 (male; Sk56a); I14103 (male; Sk58); I14104 (male; Sk59); I14105 (male; Sk61); I14106 (female; Sk63), dating to 188–39 cal BCE; I14107 (male; Sk66); I14108 (female; Sk62); I5504 (female; Sk110); I5505 (male; Sk113); I5506 (female; Sk119); I5507 (female; Sk121); I5508 (male; Sk57); I5509 (male; Sk78); I5510 (female; Sk83); and I5511 (male; Sk85)

Sample I12412 is a second or third degree relative of I12415 and I5506. Sample I14105 is a second or third degree relative of I13751 and I5508, who is a second or third degree relative of I14108. Sample I12411 is a second degree relative of I5507 and a second or third degree relative of I13758 and I13759. Samples I14102 and I5509 are second or third degree relatives. Samples I13752 and I5511 are siblings.

Source of samples: MAP Archaeological Practice/University of Hull
Authors of entry: Mark Stephens, Paula Ware and Malcolm Lillie
References:
Dent, J.S. 2010. *The Iron Age in East Yorkshire*. Oxford: British Archaeological Reports, British Series 508.

Halkon, P. 2013. *The Parisi: Britons and Romans in Eastern Yorkshire*. Stroud: The History Press.

Stephens, M. and Ware, P. 2020. The Iron Age cemetery at Pocklington and other excavations by MAP, in P. Halkon (ed.), *The Arras Culture of Eastern Yorkshire – Celebrating the Iron Age. Proceedings of 'Arras 200 – Celebrating the Iron Age', Royal Archaeological Institute Annual Conference, 2017,* 17–31. Oxford: Oxbow.

Over, Cambridgeshire, England, UK

Disarticulated human remains from at least 16 individuals dating to the Iron Age were recovered on Godwin's Ridge: one of three, low-lying sand ridges on the floodplain of the River Great Ouse (Evans 2013; Evans et al. 2016, 513–24). During the Bronze and Iron Ages, these ridges were low-lying islands, surrounded by fen, and a palaeochannel ran by the western end of Godwin's Ridge. During the Late Bronze Age, a major ditched enclosure system was established on the ridge, along with five roundhouses, and considerable spreads of midden and pottery were deposited. Subsequent Iron Age activity appears to have retreated to the western edge of the ridge by the channel, which was also where most of the disarticulated human bone was recovered. Iron Age activity was focused around an L-shaped ditch enclosing a roundhouse and a cluster of shallow pits, with a large midden deposit nearby. A human petrous bone from one of the Iron Age bone scatters (10219) was successfully analyzed for aDNA, yielding sample I11152 (male) dating to 2160±27 BP (OxA-24641; 358–111 cal BCE).

Source of sample: Cambridge Archaeological Unit
Author of entry: Christopher Evans and Rob Wiseman
References:

Evans, C. 2013. Delivering bodies unto waters: a Late Bronze Age mid-stream midden settlement and Iron Age ritual complex in the Fens. *Antiquaries Journal* 93, 55–79.

Evans, C., Tabor, J. and Vander Linden, M. 2016. *Twice-Crossed River: Prehistoric and Palaeoenvironmental Investigations at Barleycroft Farm/Over, Cambridgeshire.* Cambridge: McDonald Institute for Archaeological Research.

Patcham, Brighton, Sussex, UK

Widening of the eastern side of London Road, Brighton in 1922 uncovered a burial 3 feet below the chalk surface near Dale Hill/Wayfield Park Farm. The burial contained the fragile skeleton of a young male. At the time of discovery, the 'long-headed' shape of the cranium suggested to F.G. Parsons that the skeleton dated to the Neolithic. He was buried on his left side in a 'doubled-up' position, with his head to the south, facing west. No grave goods were recovered with the burial. The petrous portion of the temporal bone of this skeleton (R2430) yielded sample I14545 (male), which produced a Late Bronze Age date of 2938±30 BP (SUERC-70738; 1230–1031 cal BCE). It has been excluded from the analysis due to low coverage.

Source of sample: Andy Maxted, Brighton Museum
Author of entry: Tom Booth and Andy Maxted

Putney Foreshore, River Thames, London, UK

Hundreds of human crania have been dredged from the River Thames, particularly during the Victorian period, with most recent finds deposited in the Museum of London or the Natural

History Museum (Bradley and Gordon 1988; Knüsel and Carr 1995). There are notable clusters of find spots for human crania along the river, the most prolific being Mortlake, Hammersmith and Kew, Walthamstow and Battersea. These foci partly relate to the frequency of dredging activity, but also parts of the river with high sedimentation rates or tight bends that 'catch' loose crania. Crania are highly mobile in an aquatic environment; it is difficult therefore to assess the significance of their disassociation from the post-cranial remains. They could reflect the remnants of various mortuary rites, including 'water burial' (involving the deposition of whole bodies in the river), the erosion of burials from the riverbank, or deposition of defleshed crania. Since most crania were not recovered from their original depositional contexts, they were not usually accompanied by dateable material, although in a few cases crania were tentatively associated with metalwork or stone tools. Radiocarbon dating programmes targeting the Thames skull collections have produced dates ranging from the Neolithic to historical periods (Knüsel and Carr 1995). There is, however, a concentration of later prehistoric dated crania, particularly from the Middle–Late Bronze Age and Iron Age.

Palaoegenetic data were obtained from sample I3083 (male; SB413B; 2004.97) deriving from the petrous portion of a disarticulated cranium recovered from Putney Foreshore (2004.97), which produced a Middle Iron Age date of 2232±29 BP (OxA-14730; 386–204 cal BCE). This adds to palaeogenetic data from two Bronze Age crania from the River Thames reported by Olalde et al. (2018).

Source of sample: Rebecca Redfern, Museum of London

Author of entry: Tom Booth

References:

Bradley, R. and Gordon, K. 1988. Human skulls from the River Thames, their dating and significance. *Antiquity* 62: 503–509.

Knüsel, C.J. and Carr, G.C. 1995. On the significance of the crania from the River Thames and its tributaries (with comment by Richard Bradley). *Antiquity* 69: 162–9.

Raven Scar Cave, North Yorkshire, England, UK

Raven Scar Cave is located close to the summit of Ingleborough Hill in the North Yorkshire Dales. Substantial human and faunal bone assemblages were recovered from the cave floors (Lord 2013; Leach 2015). At least 15 individuals are represented amongst the human bone assemblage, but only 4 are represented by post-cranial material. This pattern of deposition suggested that cranial bones specifically had been selectively deposited in the cave. The largest proportions of human remains were recovered from the Main Chamber located immediately behind the cave entrance. Part of the Main Chamber had been deliberately sectioned off with large stones forming a cist-like structure. A narrow, twisting passage leads from the back of this chamber into the hillside.

The assemblages from the Main Chamber and front were dominated by juvenile cranial remains, particularly loose teeth. Eight disarticulated mandibles were distributed through the Main Chamber and passageway. At least two discrete depositional processes were suggested to be represented in these deposits. A limited number of whole bodies were subaerially exposed, possibly in the cave entrance or in a location outside the cave, before bones were transported to the rear passage. The overrepresentation of juvenile cranial elements, particularly teeth, suggests that heads of juveniles decomposed in the cave entrance before defleshed crania were removed, leaving the anterior dentition and mandibles behind. The mandibles were then distributed through the chamber and passageways through scavenger action. A discrete deposit of two disarticulated femora showing evidence for early post-mortem breakage may represent a third discrete depositional practice.

Finds (metalwork, pottery, stone tools) dating typologically to prehistoric and Roman periods were found throughout the cave, although it is unclear whether they were associated with the mortuary activity. Two human bones have been radiocarbon dated: a human humerus from the 'carnivore accumulated' assemblage which exhibited sharp-force trauma caused by a metal blade, and an isolated tooth from the Main Chamber. The bones produced statistically indistinguishable Late Bronze Age dates of 2808±29 BP (OxA-13536) and 2832±29 BP (OxA-13535), which produce a combined calibrated date of 1025–911 cal BCE. This study includes palaeogenetic data from three teeth taken from disarticulated mandibles found on the floor of the Main Chamber and presumably dating to the same period. They yielded samples I12936 (female; SB486D, Mandible 5); I16467 (male; Mandible 2); and I16469 (male; Mandible 1). The first two samples have been excluded from the analysis due to data quality issues. These add to palaeogenetic data from a disarticulated cranium (Skull 1a) from the Main Chamber previously reported in Olalde et al. (2018).
Source of Sample: Tom Lord, Lower Winskill Farm
Author of entry: Tom Booth
References:
Lord, T. C. and Howard, J. 2013. Cave archaeology. *Caves Karst Yorkshire Dales* 1, 239–251.
Leach, S. 2015. *Going underground: an anthropological and taphonomic study of human skeletal remains from caves and rock shelters in Yorkshire*. Leeds: Yorkshire Archaeological Society.

Olalde, I., Brace, S., Allentoft, M.E., Armit, I., Kristiansen, K., Booth, T., Rohland, N., Mallick, S., Szécsényi-Nagy, A., Mittnik, A., Altena, E., Lipson, M., Lazaridis, I., Harper, T.K., Patterson, N., Broomandkhoshbacht, N., Diekmann, Y., Faltyskova, Z., Fernandes, D., Ferry, M., Harney, E., de Knijff, P., Michel, M., Oppenheimer, J., Stewardson, K., Barclay, A., Alt, K.W., Liesau, C., Ríos, P., Blasco, C., Miguel, J.V., García, R.M., Fernández, A.A., Bánffy, E., Bernabò-Brea, M., Billoin, D., Bonsall, C., Bonsall, L., Allen, T., Büster, L., Carver, S., Navarro, L.C., Craig, O.E., Cook, G.T., Cunliffe, B., Denaire, A., Dinwiddy, K.E., Dodwell, N., Ernée, M., Evans, C., Kuchařík, M., Farré, J.F., Fowler, C., Gazenbeek, M., Pena, R.G., Haber-Uriarte, M., Haduch, E., Hey, G., Jowett, N., Knowles, T., Massy, K., Pfrengle, S., Lefranc, P., Lemercier, O., Lefebvre, A., Martínez, C.H., Olmo, V.G., Ramírez, A.B., Maurandi, J.L., Majó, T., McKinley, J.I., McSweeney, K., Mende, B.G., Modi, A., Kulcsár, G., Kiss, V., Czene, A., Patay, R., Endrődi, A., Köhler, K., Hajdu, T., Szeniczey, T., Dani, J., Bernert, Z., Hoole, M., Cheronet, O., Keating, D., Velemínský, P., Dobeš, M., Candilio, F., Brown, F., Fernández, R.F., Herrero-Corral, A.-M., Tusa, S., Carnieri, E., Lentini, L., Valenti, A., Zanini, A., Waddington, C., Delibes, G., Guerra-Doce, E., Neil, B., Brittain, M., Luke, M., Mortimer, R., Desideri, J., Besse, M., Brücken, G., Furmanek, M., Hałuszko, A., Mackiewicz, M., Rapiński, A., Leach, S., Soriano, I., Lillios, K.T., Cardoso, J.L., Pearson, M.P., Włodarczak, P., Price, T.D., Prieto, P., Rey, P.-J., Risch, R., Rojo Guerra, M.A., Schmitt, A., Serralongue, J., Silva, A.M., Smrčka, V., Vergnaud, L., Zilhão, J., Caramelli, D., Higham, T., Thomas, M.G., Kennett, D.J., Fokkens, H., Heyd, V., Sheridan, A., Sjögren, K.-G., Stockhammer, P.W., Krause, J., Pinhasi, R., Haak, W., Barnes, I., Lalueza-Fox, C., Reich, D., 2018. The Beaker phenomenon and the genomic transformation of northwest Europe. *Nature* 555, 190–196.

Roedean Crescent, Brighton, Sussex

Workmen digging a trench at the rear of 12 Roedean Crescent, Brighton (immediately north of Brighton Marina) in 1937 uncovered the skeleton of an adult male. The grave had been badly disturbed by the works, but the skeleton was believed to have been crouched on his

right side with his head to the south-west, facing south-east, and his hands in front of his face. No grave goods were recovered. The petrous portion of the temporal bone of this skeleton (R4267) yielded sample I14553 (male), which produced an Early Bronze Age date of 3535±33 BP (SUERC-76360; 1951–1756 cal BCE).

Source of sample: Andy Maxted, Brighton Museum
Author of entry: Tom Booth and Andy Maxted

Rowbarrow, Wiltshire, England, UK

The site of Roundbarrow, Wiltshire was excavated by Wessex Archaeology in 2011–12. It yielded Early and Middle Bronze Age burials from a ploughed-out barrow, and an adjacent Early Iron Age inhumation cemetery, likely associated with the contemporary settlement of Little Woodbury, 200m upslope.

Four human petrous bones from Middle Bronze Age burials were successfully analyzed for aDNA. The first, from an individual (4645) aged 30–40 years, laid in an extended south-east/north-west orientation on his right side under a densely packed deposit of flint nodules, yielded sample I19857 (male), dating to 3213±28 BP (SUERC-41692; 1530–1420 cal BCE). The second, from an individual (4672) aged 40–50 years, laid in a flexed north–south orientation on his right side, yielded sample I19858 (male), dating to 3222±28 BP (SUERC-41699; 1610–1420 cal BCE). The third, from the flexed burial of an infant (4663) aged c. 2.5–3.5 years and laid on its right side in a north-east/south-west orientation, yielded sample I19859 (male), dating to 3173±29 BP (SUERC-41695; 1510–1400 cal BCE). Finally, the petrous of an infant (4679), aged 2–3 years and laid flexed on its right side in a north–south orientation, yielded sample I19860 (female), dating to 3169±28 BP (SUERC-41700; 1500–1400 cal BCE).

Five human petrous bones from the Early Iron Age individuals were also successfully analyzed for aDNA. That from an individual (4175) aged 30–40 years and placed in a flexed position on her right side in a north-west/south-east orientation, yielded sample I19861 (female), dating to 2506±28 BP (SUERC-41683; 790–530 cal BCE). Another, from a woman (4243) aged 30–40 years, with an *in utero* foetus (4268) aged 32–34 weeks, yielded sample I19862 (female), dating to 2471±28 BP (SUERC-41689; 770–410 cal BCE). She had been laid in a flexed position on her right side, with her head to the north-west; several large flint nodules lay on and around the skull. The third, from an individual (4513) aged 14–16 years, laid in a flexed position on their left side, with their head to the north, yielded sample I19863 (male), dating to 2359±29 BP (SUERC-41690) and 2327±28 BP (SUERC-47739), which produce a combined calibration of 520–380 BCE. The grave fill included a redeposited bone from a second male aged over 18 years. The fourth petrous, from an individual (4651) aged 50–60 years, in a tightly flexed position on her left side with her head to the west, yielded sample I19867 (female), dating to 2507±28 BP (SUERC-41693; 790–530 cal BCE). Finally, an individual (4653) aged 35–45 years in a flexed position on their right side, with their head to the west, yielded sample I19868 (male), dating to 2478±28 BP (SUERC-41694; 770–410 cal BCE); the grave fill included the redeposited tooth of a presumably second adult individual.

Three human teeth from the Early Iron Age burials were also analyzed. The first, from the disturbed burial of an individual (4001) aged 18–25 years, yielded sample I13688 (female), dating to 2492±28 BP (SUERC-41682; 780–510 cal BCE). The second, from a tightly flexed individual (4178) lying on his right side with his head to the north-west, yielded sample

I13689 (male), dating to 2448±29 BP (SUERC-41684; 760–400 cal BCE). A number of flint nodules overlay the skeleton, and the grave fill above this contained a pile of (mainly) long bone shafts, representing c. 5% of a second individual (4180) aged 18–25 years. The final tooth, which derived from the crouched burial of an individual (4574) aged 18–23 years, lying on their left side with her head at the north-east, yielded sample I13690 (male), dating to 2439±28 BP (SUERC-41691; 760–400 cal BCE). The fill of this grave also contained a fragment of redeposited bone from a second adult individual.

Source of samples: Wessex Archaeology
Author of entry: Lindsey Büster
Reference: Powell, A.B. 2015. Bronze Age and Early Iron Age burial grounds and later landscape development outside Little Woodbury, Salisbury, Wiltshire. *Wiltshire Archaeological and Natural History Magazine* 108: 44–78.

Slonk Hill, Brighton, Sussex, England, UK

Rescue excavations on Slonk Hill, Brighton were undertaken by Brighton and Hove Archaeological Society in 1968–1974 in advance of the building of a bridge over the River Adur. The excavations uncovered a small enclosed Iron Age settlement with occupation spanning the sixth–first centuries BCE and a later Romano-British settlement spanning the first/second–fourth centuries CE, incorporating two earlier Bronze Age barrows, as well as two Iron Age burials (Graves 1 and 2). Grave 1 comprised an oval-shaped storage pit containing the complete articulated skeleton of a male aged c. 24 years, flexed on his left side with his head to the north and his right hand in front of his face. The body had been placed on top of a layer of shells, mainly mussels, but also winkles and barnacles, which covered the bottom of the pit. The human remains were accompanied by a flint 'Shepherd's crown' (a fossilised sea urchin) and some fragments of pottery dating typologically to the Iron Age. Further potsherds and the shaft of a small iron implement were recovered from the grave fill.

Grave 2 comprised a small purpose-built grave containing the skeleton of a female aged 35–45 years, buried flexed on her left side with her skull to the north, facing east. A shale bracelet was found on the left forearm and an involuted iron brooch was recovered from near her shoulder. The lower 23cm of grave fill included part of a quern stone and the right half of an ox sacrum.

The skeletons from Grave 1 and Grave 2 produced Middle Iron Age radiocarbon dates of 2246±30 BP (SUERC-70740; 393–206 cal BCE) and 2333±31 BP (SUERC-76365; 507–265 cal BCE), respectively. A tooth from the individual in Grave 1 (HATMP100001) yielded sample I7632 (male); while a petrous bone from the individual in Grave 2 (HATMP100348.2) yielded sample I14551 (female).

Source of sample: Andy Maxted, Brighton Museum
Author of entry: Tom Booth and Andy Maxted
Reference: Hartridge, R. 1978. Excavation at the prehistoric and Romano-British site on Slonk Hill, Shoreham, Sussex. *Sussex Archaeological Collections* 116: 69–140.

Suddern Farm, Middle Wallop, Hampshire, England, UK

Excavations at Suddern Farm (HMCMS:A1991.32) took place in 1991 and 1996 and yielded evidence for Iron Age and Roman settlement, as well as an Early–Middle Iron Age cemetery used from the Early to the Middle Iron Age; this activity is contemporaneous with Danebury hillfort, 5km away. Excavations revealed at least 60 individuals buried in graves but it is

estimated that several hundred further burials are present in the quarry (Cunliffe and Poole 2000). The skeletons from the Suddern Farm cemetery were recovered in various stages of articulation and were often accompanied by the partial remains of several additional individuals (Cunliffe and Poole, 2000). Excavation also revealed some post-decomposition gestures such as cranial removal.

Here we report data for four samples. Sample I16609 (male) derives from a bone (SF96) from F443; sample I16611 (male) was obtained from a tooth (SF96/2) from F455; sample I17261 (male) was obtained from a petrous bone (SF96/2) from F446; and sample I17262 (female) was obtained from a petrous bone (SFF94) from F441.

Source of samples: Tom Booth
Author of entry: Claire-Elise Fischer
Reference: Cunliffe, B. and Poole, C. 2000. *Suddern Farm, Middle Wallop, Hants., 1991 and 1996*. Oxford: English Heritage and Oxford University Committee for Archaeology Monograph No. 49.

Surrendon Road, Brighton, Sussex

In 1928, a skeleton was discovered at 'Maycroft', 110 Surrendon Road, Brighton (the residence of a Dr M.C. Clutterbuck) during excavations for a tennis lawn. The skeleton was of a young adult female (c. 24 years old) buried in a circular, shallow grave. She had been buried in a contracted position on her left side with her skull to the south-east, facing north-east. No grave goods were recovered. The petrous portion of the temporal bone of this skeleton (R3016) yielded sample I16618 (female), which produced an Early Iron Age date of 2518±30 BP (SUERC-70739; 794–541 cal BCE).

Source of sample: Andy Maxted, Brighton Museum
Author of entry: Tom Booth and Andy Maxted

Thame, Oxfordshire, England, UK

Excavation of an Iron Age settlement area at Thame, Oxfordshire, recovered human remains (articulated, disarticulated and cremated) from a large number of pits, some within the main, eastern settlement area, some from a more dispersed area of activity in the western settlement area, and some concentrated within a nearby coombe (or dry valley) to the north. The site is currently being prepared for publication (Ellis et al. in prep.).

The site comprises three areas: the eastern settlement, the western settlement, and the coombe area. The largest was the eastern settlement, dating to the Early Iron Age, and this included over 280 pits, an enclosure, three penannular ditches and 10 four-post structures. Eight features produced human remains, including articulated, disarticulated, and cremated examples. Analyzed Skeleton 1500 (sample I14801) had been deposited in two articulated segments that had been arranged in an unnatural position and was found with significant animal bone and pottery deposits, together with a human tooth that has also been analysed (sample I14810).

Activity at the western settlement was more limited and dispersed and continued into the Middle Iron Age. A Middle Iron Age jar was deliberately placed with the individual that was sampled from the western settlement (Skeleton 505, sample I14806).

The coombe area can be described as a cemetery, as contemporary non-funerary activity was very limited. The remains of probably 13 individuals were found in 10 or 11 cuts across an area measuring c. 14m x c. 24m. Six of these individuals, from four features, could be dated to the Early Iron Age by associated pottery. This includes sampled Skeletons 500 (sample I14808) and 512 (sample I14809). Four different individuals, none dated by associated pottery, were radiocarbon dated as part of this study. Bayesian modelling of these dates estimates that the coombe cemetery began *385–210 cal BCE (95% probability)*, probably *305–235 cal BCE (68% probability)*, and ended *370–190 cal BCE (95% probability)*, probably *280–210 cal BCE (68% probability)*. The model estimates that the cemetery was only in use for probably one generation: *0–100 years (95% probability)*, probably *0–30 years (68% probability)*.

These spans fall largely beyond the date usually thought to be the transition between the Early and Middle Iron Age: c. 350 cal BCE. A similar date was obtained from Skeleton 1503 (sample I14803) from the eastern settlement, and this was also associated with Early Iron Age pottery. Recent radiocarbon dating from other sites in the Thames Valley suggest that Early Iron Age pottery continued beyond c. 350 cal BCE (Gosden and Lock 2013; Hayden et al. forthcoming). The Thame burials, with the exception of Skeleton 505 (sample I14806) that was associated with Middle Iron Age pottery, belong to the ceramic Early Iron Age even if absolute dates probably push them into the period that is elsewhere assigned to the Middle Iron Age.

Two human petrous bones from the eastern settlement area were successfully analyzed for aDNA, yielding sample I14801 (female) from juvenile Skeleton 1500; and sample I14803 (male) from Skeleton 1503, dating to 2204±30 BP (SUERC-95011; 370–195 cal BCE). A (juvenile) tooth from cut 15512 in the eastern settlement area yielded sample I14810 (indeterminate sex), but did not produce sufficient coverage for inclusion in the analysis. All of these samples were associated with Early Iron Age pottery.

Four human petrous bones and two teeth from pits in the coombe area were also successfully analyzed. The petrous bones yielded: sample I14800 (male) from juvenile Skeleton 507, dating to 2216±30 BP (SUERC-95009; 375–201 cal BCE); sample I14809 (male) from Skeleton 512; sample I14804 (female) from Skeleton 503, dating to 2231±30 BP (SUERC-95012; 385–204 cal BCE); and sample I14807 (male) from Skeleton 504, dating to 2247±30 BP (SUERC-95018; 394–206 cal BCE). The teeth yielded sample I14802 (female) from Skeleton 509, dating to 2256±30 BP (SUERC-95010; 386–177 cal BCE) and sample I14808 (female) from Skeleton 500.

A further human tooth from a pit in the western settlement area was also successfully analyzed, yielding sample I14806 (female) from Skeleton 505, dating to 2224±30 BP (SUERC-95014; 379–203 cal BCE).

Source of samples: Oxford Archaeology
Author of entry: Alex Davies
References:
Ellis, C., Boothroyd, J. and Davies, A. in prep. *Early Thame: Archaeological Investigations at Site F1, Thame, Oxfordshire, 2015*. Kemble/Oxford: Cotswold Archaeology/Oxford Archaeology Monograph.

Gosden, C. and Lock, G. 2013. *Histories in the Making. Excavations at Alfred's Castle 1998–2000.* Oxford: Oxford University School of Archaeology

Hayden, C., Simmonds, A., Lawrence, S., Woodley, K. and Masefield, R. Forthcoming. *Great Western Park, Didcot, Oxfordshire: Phase 1 Excavations, 2010–2012*. Oxford: Oxford Archaeology Thames Valley Landscapes.

Totty Pot, Cheddar, Somerset, England, UK

Totty Pot is a cave in the Mendip Hills located around 5km east of Cheddar village (Schulting et al. 2010). The cave was excavated by Christopher Hawkes, Willie Stanton and Wessex Cave Club between 1960 and 1965. The excavations uncovered a substantial collection of human and faunal bones as well as a small lithic assemblage dating typologically to the Mesolithic. A small excavation undertaken in 1998 by Gardiner and the University of Bristol found further Mesolithic stone tools as well as a few small sherds of pottery dating to Beaker, Bronze Age and Romano-British periods (Gardiner 2001).

Unfortunately, around half of the human bone assemblage was destroyed and the extant collection consists of just 60 identified elements. Representation of smaller skeletal elements as well as a lack of cortical weathering or scavenger gnawing suggests that individuals had been deliberately interred in the cave soon after death and decomposed in situ. At least six, but more likely seven, individuals are represented amongst the remains: three or four adults (possibly two males and two females), an older child (around 10 years old) and two young children (2–3 and 3–6 years old).

An adult left humerus and left femur (TP1) produced earlier Late Mesolithic radiocarbon dates of 8180±70 BP (BM-2973) and 8245±45 BP (OxA-16457), with a combined calibration of 7445–7080 cal BCE (Ambers and Bowman 2003; Schulting et al. 2010). However, radiocarbon dates from a further five long bones produced dates across the Neolithic. An adult left femur (TP6) produced an Early Neolithic date of 4706±35 BP (OxA-16458; 3630–3370 cal BCE), whilst a right ulna from a 2–3 year old (TP2004.9/419) dated to 4498±35 BP (OxA-16462; 3355–3035 cal BCE), an adult left femur (2004.9/68) dated to 4473±35 BP (OxA-16459; 3340–3025 cal BCE) and a right femur from a 3–5 year old (TP'63) dated to 4442±36 BP (OxA-16461; 3335–2930 cal BCE) are Middle Neolithic.

Palaeogenetic data from an undated loose tooth from an adult right maxilla (2004.9/419; SB403C2), yielded sample I3019 (male) which has been excluded from analysis due to low coverage. This adds to the data from a Late Neolithic left femur (TP 2004.9/257) which was reported by Olalde et al. (2018).

Source of sample: Wells Museum

Author of entry: Tom Booth

References:

Ambers, J. and Bowman, S. 2003. Radiocarbon measurement from the British Museum: datelist XXVI. *Archaeometry* 45: 531–540.

Gardiner, P.J. 2001. *The Mesolithic-Neolithic transition in south-west England*. Unpublished PhD thesis, University of Bristol.

Schulting, R., Gardiner, P.J., Hawkes, C.J. and Murray, E. 2010. The Mesolithic and Neolithic human bone assemblage from Totty Pot, Cheddar, Somerset. *Proceedings of the University of Bristol Speleological Society* 25: 75–95.

Teversham (Marshall's) Evaluation, Cambridgeshire, England, UK

A trial trench evaluation of land to the west of the village of Teversham, to the south of Cambridge, exposed part of an Iron Age ditched enclosure (Brittain 2017). Also identified by geophysical survey, sample excavation of the rectangular enclosure yielded small quantities of Early and Middle Iron Age pottery. A single inhumation (Skeleton 612/F268)—a flexed individual contained within a shallow, oval-shaped grave—was also recovered. No grave goods were present but radiocarbon dating confirmed its broad contemporaneity with the enclosure. A human petrous bone was successfully analyzed for aDNA and yielded sample I11149 (male), dating to 2400±30 BP (Beta-471582; 731–399 cal BCE).

Source of sample: Cambridge Archaeological Unit
Author of entry: Marcus Brittain
Reference: Brittain, M. 2017. *Land North of Cherry Hinton, Cambridge: An Archaeological Evaluation.* Unpublished, Cambridge Archaeological Unit Report No. 1374.

Trumpington Meadows, Cambridgeshire, England, UK

The Early Iron Age settlement phase at the multi-period site of Trumpington Meadows was dominated by a 'pit cluster' settlement, with over a thousand storage pits along with 16 four-post structures and up to ten roundhouses (Evans et al. 2018). Twelve burials were recovered in total: two in formal graves and the remaining ten from pits.

Five human petrous bones and one human tooth from six burials were successfully analysed for aDNA. All but one of the individuals were buried in pits, whilst Skeleton 904 was interred in a formal grave. The petrous bones yielded: sample I11153 (male), dating to 2291±29 BP (SUERC-49492; 405–231 cal BCE), which derived from a neonate (Skeleton 938; 4785); sample I11154 (female), dating to 2422±25 BP (SUERC-41925, 741–403 cal BCE), which derived from the individual (Skeleton 904) interred in the formal grave (4520) and whose grave goods included a jet pendant and an iron bracelet; sample I13727 (female), dating to 2249±20 BP (SUERC-41926; 391–209 cal BCE), which derived from Skeleton 1165 (5834); sample I13728 (male), dating to 2214±30 BP (SUERC-49488, 378–202 cal BCE), which derived from Skeleton 900 (4591); and sample I13729 (female), dating to 2334±29 BP (SUERC-49494, 509–362 cal BCE), which derived from Skeleton 2327 (8540), which was lying in an awkward position with the torso twisted. The tooth, from Skeleton 1419 (6451), which was lying slightly prone in the pit, yielded sample I13687 (female), dating to 2200±30 BP (SUERC-49491; 376–186 cal BCE).

These add to existing data from this site provided by Early Bronze Age samples I3255 (Skeleton 3383) and I3256 (Skeleton 3384) and published in Oldade et al 2018.

Source of samples: Cambridge Archaeological Unit
Author of entry: Christopher Evans, Ricky Patten and Rob Wiseman
Reference: Evans, C., Lucy, S. and Patten, R. 2018. *Riversides: Neolithic Barrows, a Beaker Grave, Iron Age and Anglo-Saxon Burials and Settlement at Trumpington, Cambridge.* CAU Landscape Archives/New Archaeologies of the Cambridge Region Series, Vol. I. Cambridge: McDonald Institute for Archaeological Research.

Varley Hall, Coldean Lane, Brighton, Sussex, UK

The remains of a Middle–Late Bronze Age settlement were uncovered in 1992 by South Eastern Archaeology during excavations on Coldean Lane in advance of the University of Brighton Varley Hall development (Greig 1997). Sample I16615 (female) reported here derives from a mandibular molar taken from an unaccompanied burial of an articulated

individual aged 13–17-years in a flexed posture (HATMP100084/5). The burial was recovered close to the Middle–Late Bronze Age occupation layers. The remains were highly fragmentary and incomplete (<25% of the skeleton remaining), although this was likely the result of skeletal preservation rather than post-mortem manipulation. The skeleton has been radiocarbon dated to 2890±60 BP (BM-2919; 1257–916 cal BCE; Ambers and Bowman 2008).

Source of sample: Andy Maxted, Brighton Museum
Author of entry: Tom Booth
References:
Ambers, J. and Bowman, S. 1998. Radiocarbon measurements from the British Museum: datelist XXIV. *Archaeometry* 40(2): 413–435.

Greig, I. 1997. Excavation of a Bronze Age settlement at Varley Halls, Coldean Lane, Brighton, East Sussex. *Sussex Archaeological Collections* 135: 7–58.

Wattle Syke, West Yorkshire, England, UK

Rescue excavations at Wattle Syke were undertaken by Archaeological Services WYAS in conjunction with the A1 Bramham to Wetherby Upgrading Scheme between 2007 and 2008. A series of cropmark settlement enclosures and field systems were investigated, yielding a total of 57 individuals whose deposition spanned a thousand years (from the fourth–second centuries BCE to the sixth–seventh centuries CE) and are represented by: 2 skeletons from the Middle Iron Age (Phase 2a); 16 skeletons from the Late Iron Age (Phase 2b); 10 skeletons from the Early Roman period (Phase 3a); 3 skeletons from the Late Roman period (Phase 3b); 20 skeletons from a later phase of the Late Roman period (Phase 3b/c); 4 skeletons from the Late Roman period (Phase 3c); 1 Post-Roman skeleton (Phase 4) and 1 skeleton that could not be attributed to any particular phase (Martin et al 2013: table 37).

The Iron Age and Early Roman burials were predominantly confined to two groups (ibid.: Fig. 53): eight adults were located in Enclosure 12 (SK18, 22, 36–38, 57, 58 and 201), and another three (SK601, 636 and 721) in Enclosure 7. Meanwhile five young babies (SK50–54) were buried in pits within, nearby or cutting the ring-gulley of Roundhouse 6 (Area 1). Five further burials (all babies) were located beneath Building 10 (Sk43), within Enclosure 10 (SK 40 and 41) and within Enclosure 5 (SK8 and SK9) (ibid., 41, 64). Interestingly, the proportion of neonate and infant burials at the site—72.2% of the buried population in the Iron Age (Phase 2) and all ten of the Early Roman (Phase 3a) population—is much higher than that represented by a 'normal sample' (Martin et al. 2013: 219). The Late Roman burials appeared as fairly uniform lined grave cuts distributed among a series of sunken-floored buildings (ibid., Fig. 79).

Five human petrous bones, one tooth and one carpal bone from Iron Age individuals were successfully analyzed for aDNA.

Two individuals were sampled from a double grave: a tooth from SK37, aged at least 46 years, dating to 2040±30 BP (SUERC-27301; 162 cal BCE–cal CE 46), yielded sample I14360 (female); while a carpal bone from the other individual (SK38) in the grave yielded sample I14359 (male), aged 25–36 years, assumed to date to the Late Iron Age by association. The pair are first degree relatives. Sample I14360 has been excluded from the analysis due to evidence of contamination. Sample I14359 has not been included in the

analysis because of evidence of mtDNA contamination. The identification of these individuals as first degree relatives is, however, secure.

Petrous bones from two intermingled neonatal skeletons were also sampled: that from SK40 yielded sample I14351 (female); and that from SK41 yielded sample I14352 (female). The individuals date to 2084±30 BP (SUERC-27314; 200–30 cal BCE). The pair were sisters, suggesting that this deposit represents the burial of neonatal twin girls. As the pair are first degree relatives, sample I14352 has been excluded from the analysis.

Three further petrous bones yielded sample I14347 (male), from SK22, dating to 2205±30 BP (SUERC-27303; 380–190 cal BCE); sample I14348 (female), from SK36, a 26–35 year old woman who appears to have been suffering from a lung infection when she died, dating to 2200±30 BP (SUERC-27302; 360–200 cal BCE); and sample I14353 (male), SK18, dating to 2135±30 BP (SUERC-27295; 360–50 cal BCE).

Source of samples: Leeds Museums and Galleries
Author of entry: Lindsey Büster
Reference: Martin, L., Richardson, J. and Roberts, L. 2013. *Iron Age and Roman Settlements at Wattle Syke* (Yorkshire Archaeology 11). Leeds: West Yorkshire Archaeology Service.

Wick Barrow, Storgoursey, Somerset, England, UK

Wick Barrow (also known as Pixies' Mound or Burrow Sidwell) is a round barrow located in the parish of Stogursey, Somerset. It was excavated in 1907 by the Somerset Archaeological and Natural History Society with the Viking Club (Society for Northern Research) under the assumption that it belonged to the Viking or Anglo-Saxon period (Gray 1908). However, with the discovery of the first skeleton and an accompanying Beaker vessel, it became clear that the barrow was prehistoric and dated to the Beaker period. The excavators estimated that the barrow would have stood around 11 feet (3.3m) high and was surrounded by a stone walled enclosure. A depression at the top of the barrow suggested that it had been disturbed in antiquity, probably during the Roman period based on finds recovered from the barrow mound. Fragmentary disarticulated human remains and the possible remains of a cist found beneath this depression suggested that the primary burial had been discovered and disturbed at this time.

The grave containing Skeleton No. 1 was located slightly to the east of the centre of the barrow mound. Skeleton No. 1 was buried flexed on its left side in an earthen grave with its head to the north-west accompanied by fragments representing three-quarters of a Cord-Zone Maritime Beaker. The excavators believed that the Beaker had been buried incomplete. Further sherds of 'British pottery' and scattered human teeth were found near the skull. Slightly further north of Skeleton No. 1 was a large oval pit measuring 1.8m by 0.6m containing the commingled disarticulated remains of five adults and one child. The cranial fragments from this pit exhibited impressions of textile. The excavators could not discern any order to this deposit and reburied many of these bones, considering them to be of little use.
The earthen grave containing Skeleton No. 2 was located slightly to the west of the centre of the mound and deeper than Skeleton No. 1, around 0.9m from the barrow surface. Skeleton No. 2 was buried tightly flexed on its left side with its head to the north. The skeleton was accompanied by a Wessex/Middle Rhine Beaker at its right shoulder and two flint knives close to the pelvis and the lumbar vertebrae respectively.

Skeleton No. 3 was recovered from an earthen grave just within but above the northern margin of the walled enclosure, around 1m below the surface of the mound. The skeleton was highly flexed on its right side with its head to the south. It was accompanied by a Wessex/Middle Rhine Beaker near the right tibia, as well as a group of stone tools, including two flint scrapers located between the legs and the axial skeleton. An additional fragmentary, incomplete and disarticulated adult female skeleton and the teeth of a child were recovered outside the barrow about 1m south of the walled enclosure. This skeleton was accompanied by small fragments of 'British pottery' and a sheep tooth. Several snail shells were recovered from inside the long bone shafts. None of the Wick Barrow skeletons have been dated using absolute methods, but their artefactual and monumental associations suggest that they date to the British Beaker period (c.2400–2000 BCE). Sample I6776 was taken from a petrous temporal from Skeleton No. 1 (male; SB616). This adds to the palaeogenetic data from Skeleton No. 2 reported in Olalde et al. (2018).

Source of sample: Amal Khreisheh, Somerset Heritage Centre
Author of entry: Tom Booth
Reference: Gray, H.S.G. 1908. *Report on the excavations at Wick Barrow, Stogursey, Somersetshire*. Taunton: Barnicott & Pearce.

Windmill Fields, Ingleby Barwick, North Yorkshire, UK

The Windmill Fields site is an area of the Ingleby Barwick housing development in the valley of the River Leven, on the southern edge of Stockton-on-Tees, North Yorkshire. It was excavated in 1996 by Tees Archaeology in advance of a housing development (Annis et al. 1997). The excavations revealed a flat grave cemetery including six burials containing the remains of at least eleven individuals. A diverse series of funerary traditions was represented by these burials and radiocarbon dating of the human remains suggest that there is a broad correlation between tradition and chronology, covering a period from the Chalcolithic to the Early Bronze Age. The oldest remains from the site were disarticulated and placed in a wooden cist. This style of deposition was followed by a tradition of unaccompanied single articulated burial. The latest style of burial comprises single articulated interments with grave goods.

Disarticulated unaccompanied incomplete skeletons representing at least two adult males (Sk 3 and Sk 4) were recovered from the remains of the wooden cist. Histological analysis of bone from Sk 3 suggested that these individuals had probably been defleshed by subaerial exposure. A disarticulated petrous temporal associated with Sk 3 (SB444B), dating to 3785±40 (OxA-8652; 2290–2140 cal BCE) yielded sample I3028 (male), which was excluded from analysis due to mitochondrial contamination. This adds to palaeogenetic data from four other burials from the site which were reported in Olalde et al. (2018).

Source of Sample: Robin Daniels, Tees Archaeology
Author of entry: Tom Booth
References:

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Winnall Down, Hampshire, England, UK

The later prehistoric settlement at Winnall Down (A1978.20), excavated in 1976 and 1977, was occupied from the Late Bronze Age to the second century CE (Fasham 1985). During the Middle Iron Age, the site was occupied by a series of roundhouses and appears to have been unenclosed, although the remains of an Early Iron Age enclosure still constrained its layout to some degree. Several inhumation burials and disarticulated fragments of human bone were associated with this period of the settlement.

Three human teeth from the inhumations were successfully analyzed for aDNA: sample I19037 (female), from Skeleton 174 (juvenile; Phase 4, pit 4475); sample I19040 (female), from Skeleton 508 (Phase 4, quarry pit 8265); and sample I19042 (female) from Skeleton 629 (Phase 4, Grave 10312), dating to 2250±90 BP (HAR-2937; 660–70 cal BCE).

A further human tooth, from an unphased burial (Skeleton 650, Grave 11034) that may be of similar date to those above, was also analyzed, yielding sample I19043 (female).

A further four samples produced insufficient yields for inclusion in the analysis. These comprised a human tooth from Skeleton 505 (juvenile), which yielded sample I19039 (indeterminate sex); and three human metatarsals, sample I19036 (indeterminate sex) derives from Skeleton 35; sample I19038 (indeterminate sex) derives from Skeleton 500; and sample I19041 (indeterminate sex) derives from Skeleton 574.

Source of samples: Hampshire Cultural Trust
Author of entry: Ian Armit and Derek Hamilton
Reference: Fasham, P. J. 1985. *The Prehistoric Settlement at Winnall Down, Winchester*. Winchester: Hampshire Field Club and Archaeological Society.

Woodingdean, Brighton, Sussex

In 1934, a man digging a sun terrace at his house on Woodingdean Crescent Drive South uncovered a grave surrounded by a low dry wall of flint nodules/burnt flint. Inside the grave was the complete skeleton of a young adult female (c. 25 years old), buried in an extended prone position with her head turned to the right. The body had been covered in a layer or

cairn of flint nodules. A few flint flakes were found in the grave itself, but no grave goods were recovered. The petrous portion of the temporal bone of this skeleton (R3706) yielded sample I14549 (female), which produced a Middle Iron Age date of 2279±31 BP (SUERC-76366; 403–211 cal BCE).

Author of entry: Tom Booth and Andy Maxted
Source of sample: Andy Maxted, Brighton Museum

Worlebury, Somerset, England, UK

Worlebury Camp, Somerset, is a large, multivallate Iron Age hillfort, located on a coastal promontory overlooking the Bristol Channel. It was subject to antiquarian excavations in the 1850s and 1880s and yielded a range of human remains from various contexts including storage pits and deposits relating to a potential massacre (Cunliffe 2004, 136; Dymond 1902). The specific contexts of the surviving human remains is unknown. Five human petrous bones were successfully analyzed for aDNA: sample I11142 (male), dating to 2103±27 BP (SUERC-94960; 195–51 cal BCE); sample I11143 (male), dating to 2146±30 BP (SUERC-94961; 348–115 cal BCE); sample I11991 (male; Skull 15), dating to 2133±30 BP (SUERC-94962; 210–54 cal BCE); sample I11992 (male; Skeleton 19), dating to 2122±30 BP (SUERC-94963; 346–51 cal BCE); and sample I13726 (male; Skeleton 18), dating to 2141±30 BP (SUERC-94964; 354–57 cal BCE). Two teeth were also successfully analyzed for aDNA: sample I16596 (male; Archtemp 51); and sample I13681 (male; Skeleton 21). Both these latter samples, however, have been excluded from the analysis due to their low coverage.

A further tooth, also analyzed for aDNA, produced lower yields and is not included in the analysis: sample I16598 (indeterminate sex; Skeleton 6). Three further samples which were analyzed for aDNA were found to represent duplicates of samples I11991, I11992 and I13726.

Source of samples: Somerset Museums Service
Author of entry: Ian Armit
References:

Cunliffe, B.W. 2004. *Iron Age communities in Britain* (4th edition). London: Routledge.
Dymond, C.W. 1902. *Worlebury, an ancient stronghold in the County of Somerset*. Bristol: Crofton Hemmons.

Football Field, Worth Matravers, Dorset, England, UK

Worth Matravers is a multi-period hilltop site close to Chapman's Pool on the south-central coast of England. It was excavated by the University of Southampton between 1990 and 1993 (Graham et al. 2002), and then as a student training project by East Dorset Antiquarian Society from 2008 to 2011 (Ladle 2018), prior to the building of community housing on part of the site. Evidence has been found of an Early Neolithic enclosure; Bronze Age and Iron Age settlement, including a midden deposit from the Late Bronze Age–Iron Age transition; Roman buildings; and a post-Roman cemetery. Several inhumations were identified from the Iron Age, Roman and post-Roman periods.

A lower left M1 tooth from a 'Durotrigian style' Late Iron Age crouched inhumation (Ladle 2018, 58) was successfully analyzed for aDNA. Skeleton 320 (CE049) yielded sample I20615 (female). The skeleton was dated by context to c. 100 BCE–CE 50 (Ladle 2018, 303).

Source of sample: Bob Kenyon
Author of entry: Bob Kenyon
References:
Graham, A.H., Hinton, D.A. and Peacock D.P.S. 2002. The Excavation of an Iron Age and Romano-British settlement in Quarry Field, south of Compact Farm, Worth Matravers, Dorset, in D.A. Hinton (ed.), *Purbeck Papers*. University of Southampton, Department of Archaeology Monograph No. 4, 1–83. Oxford: Oxbow.

Ladle, L. 2018. *Multi-period Occupation at Football Field, Worth Matravers, Dorset*. Oxford: British Archaeological Reports (British Series) 643.

Yarnton, Oxfordshire, England, UK

Large-scale landscape excavations at Yarnton, in the Thames Valley, Oxfordshire, revealed multi-period settlement and funerary activity (Hey et al. 2011; 2016). Part of the area included an extensive Iron Age settlement, comprised principally of post-built structures and around 1000 pits, associated with a small inhumation cemetery of around 35 individuals with dates centred on the third century BCE. Samples for aDNA were obtained from a number of individuals from this cemetery, an earlier Iron Age inhumation nearby, and two Roman inhumations. Information on the Iron Age and Roman burials is derived from the skeletal report in the site monograph (Boyle 2011).

The Iron Age cemetery is divided into a North and South Group. Two petrous bones and four teeth were sampled from individuals in the North Group. A petrous bone from crouched adult inhumation 2717 yielded sample I20588 (male), dating to 2207±21 BP (UB-3778; 380–195 cal BCE), while a further petrous bone from juvenile inhumation 2714 yielded sample I20589 (male). The four teeth yielded sample I19207 (male), from crouched juvenile inhumation 2718, dating to 2234±20 BP (UB-3920; 390–205 cal BCE); sample I19210 (female), from extended adult inhumation 2710, dating to 2168±21 BP (UB-3919; 360–165 cal BCE); sample I19211 (male), from juvenile inhumation 2719; and sample I19208 (indeterminate sex), from crouched adult inhumation 2569, dating to 2220±23 BP (UB-3924; 385–195 cal BCE). This last sample (I19208) did not produce sufficient coverage for inclusion in the analysis.

One petrous bone and a tooth were sampled from individuals in the South Group. The petrous, from adult inhumation 2022, yielded sample I20586 (male); while the tooth, from adult inhumation 2026, yielded sample I19209 (male). This latter sample (I19209) is excluded from the analysis due to low coverage.

One further petrous bone was sampled from an outlier burial: an adult inhumation 1681 (unknown position and orientation), which yielded sample I20587 (male), dating to 2250±21 BP (UB-3776; 395–240 cal BCE).

A number of additional individuals not directly related to the cemetery were also sampled. A petrous bone from skull 8592, buried in an Early Iron Age pit at Cresswell Field, to the west of the main Yarnton excavations, yielded sample I20585 (female); while a tooth, from a juvenile inhumation (2053) of probable Roman date from Yarnton itself, yielded sample I19212 (male). This latter sample (I19212) was excluded from the analysis due to low coverage.

Two additional samples from earlier periods have also been analysed. A tooth from skeleton 8784 was successfully analyzed for aDNA, yielding sample I2446 (female), dating to 3815±40 BP (OxA-8807; 2456–2140 cal BCE). This individual was an adult, placed in a shallow grave, probably crouched, with her head to the south. There was some evidence of osteoarthritis in the thoracic vertebrae. The grave was found unexpectedly during machine stripping, and the burial had been disturbed (Hey et al. 2016, 179). A petrous bone from skeleton 9345 was also successfully analyzed for aDNA, yielding sample I2448 (male), dating to c. 1500–1000 BCE). This individual was a young adult, aged 18–25 years, and was lying tightly crouched on her right side in a shallow grave cut into the top fill of a Neolithic long enclosure on the Yarnton floodplain. The skeleton was in poor condition and there was insufficient collagen for a radiocarbon date. A few sherds of possible Deverel-Rimbury pottery were found in the grave and other Middle and Late Bronze Age features lay nearby (Hey et al. 2016, 439).

Source of samples: Oxford Archaeology
Author of entry: Ian Armit and Gill Hey
References:

Boyle, A. 2011. Human remains, in Hey, G., Booth, P. and Timby, J., *Yarnton: Iron Age and Romano-British settlement and landscape: results of excavations 1990-98*, 469–86. Oxford: Oxford Archaeology.

Hey, G., Bell, C. Dennis, C. and Robinson, M. 2016. *Yarnton: Neolithic and Bronze Age settlement and landscape*. Oxford: Oxford Archaeology.

Hey, G., Booth, P. and Timby, J. 2011. *Yarnton: Iron Age and Romano-British settlement and landscape: results of excavations 1990–98*. Oxford: Oxford Archaeology.

FRANCE

Beg-Er-Vil, Quiberon, Morbihan, France

The site of Beg-er-Vil was a chance discovery by workers flattening a sand dune in 1886 (Nicolas 2016). The site was studied by Gustave de Closmadeuc (1886) who sketched the stone cists and the numerous ceramic fragments that were found around them. The ceramics were then studied by Quentin Favrel and all seem to date to the Early Bronze Age. Other stone cists had previously been found in the area (in May 1868) and excavated by Gustave de Closmadeuc (1868). Abbot Pierre Lavenot (1883) also led a survey campaign across the whole Quiberon peninsula in the 1870s.

Three samples (all from long bones) were successfully analyzed for aDNA: sample I16791 (male) derives from Skeleton 2376; sample I16792 (female) from Skeleton 2377; and sample I16782 (male) from Skeleton 2367. The individuals from which samples I16791 and I16792 derive are first degree relatives.

Source of samples: Ron Pihnasi, Olivia Cheronet and Christophe Le Pennec (Musée de Vannes)
Authors of entry: Claire-Elise Fischer and Olivia Cheronet
References:

(de) Closmadeuc, G. 1868. ‘Découverte de sept tombeaux en pierre à Quiberon’, *Bulletin de la Société polymathique du Morbihan* : 9–16.

(de) Closmadeuc, G. 1886. 'Découverte de stone-cists à Bec-er-Vill (Quiberon)', *Bulletin de la Société polymathique du Morbihan*: 3–17.

Lavenot, Abbé. P. 1883. 'Les îles d'Hoedic et d'Houat et la presqu'île de Quiberon. Étude géographique et archéologique (suite)', *Bulletin de la Société polymathique du Morbihan*: 6–19.

Nicolas, C. 2016. 'La fin d'un monde? La région de Carnac du Campaniforme à l'âge du Bronze ancien', *Bulletin de la Société polymathique du Morbihan* 142: 41–77.

La Seille briquetage in Salonnes 'Burthecourt', France

The site of Salonnes 'Burthecourt' is characterised by a briquetage industry, which began in the Iron Age (Hallstatt C), and lasted until the end of the Gauls' independence. This vast zone of the Seille valley (Saulnois) is particularly well suited for the extraction of salt, which itself is fundamental for the preservation of foodstuffs. The vestiges of this intensive activity (detected since the start of the seventeenth century CE by the engineer F.-F. Le Royer d'Artézé de la Sauvagère) cover an area of around 120ha between the villages of Marsal, Moyenvic, Vic-sur-Seille, Salonnes, la butte de Châtry between Vic and Moyenvic and the castle of Burthecourt in the municipality of Salonnes.

The briquetage (vessels and clay sticks) and human remains assemblage, curated by the Cour d'Or-Metz Metropole museum, were recovered during excavations in 1901. J. B. Keune, then curator of the Metz museum, led excavation of a series of test trenches on the site of Burthecourt that allowed for the first reconstructions of the briquetage techniques employed (Keune 1901). This subsequently enabled Jean-Paul Bertaux, between 1969 and 1976, to draft a typology of the salt moulds (Bertaux 1976).

Since the beginning of the 2000s, new research has been taking place on the site under the direction of Laurent Olivier. One of the elements of this multidisciplinary programme, other than to establish the spatial extent and the internal organisation of this salt production site (Olivier 2012), is to evaluate the environmental impact of this industrial activity on the landscape.

In this context, fine-grained analyses by a number of experts have provided essential data about the daily lives of the salt workers within this environment, as well as on inter-relationships between humans and the salt-producing environment. At the end of the 2005 field season, a residential zone in the immediate proximity of the salt production sites in Salonnes 'Burthecourt' was uncovered (Ha C–D2–3). It was revealed that the workers also performed agricultural activities as well as the probable raising of domestic animals (sheep, cattle and pigs).

In Marsal, a group of burials from 'Bensale' (with individuals dating from the fifth century BCE) provided important information regarding the correlation between residences, agricultural areas, workshops and necropolises. Older findings have revealed the existence of burial sites in proximity to briquetage zones. Despite their earlier date (2000–800 BCE), the human bones curated by the Cour d'Or-Metz Métropole museum could therefore be associated with the first settlements of salt workers in Salonne "Burthecourt" at the time of the discovery of the site's economic potential.

Three individuals were successfully analyzed for aDNA. All samples were extracted from petrous bones and correspond to samples I16184 (male; Skeleton 2547), I16185 (male; Skeleton 2548) and I16186 (male; Skeleton 2549).

Source of samples: Ron Pinhasi and Olivia Cheronet
Author of entry: Olivia Cheronet and Claire-Elise Fischer
References:

Bertaux, J.-P. 1976. L'archéologie du sel en Lorraine. "Le Briquetage de la Seille" (état actuel des recherches), in J.-P. Millotte, A. Thevenin and B. Chertier (eds), *Livret guide de l'excursion A7 Champagne, Lorraine, Alsace, Franche-Comté, 9e Congrès de l'Union Internationale des Sciences Préhistoriques et Protohistoriques,* 64–79. Nice: CNRS.

Keune, J. B. 1901. Das Briquetage im oberen Seillethal, nebst einer vorläufigen Übersicht über die Ergebnisse der durch die Gesellschaft im Sommer 1901 ausgeführten Ausgrabungen, in *Jahrbuch der Gesellschaft für lothringische Geschichte und Altertumskunde*, 366–394. Metz: Verlag von G. Scriba.

Olivier, L. 2012. The Briquetage de la Seille (Moselle, France): an Iron Age proto-industrial salt extraction centre, in A. Kern, J. Koch, I. Balzer, J. Fries-Knoblach, K. Kowarik, C. Later, P. Ramsl, P. Trebsche and J. Wiethold (eds), *Technologieentwicklung und-transfer in der Hallstatt- und Latènezeit. Actes du colloque de l'AG Eisenzeit et du Naturhistorischen Museum de Vienne de Hallstatt (2009)*, 31–44. Langenweissbach: Beier & Beran, Beiträge zur Ur- und Frühgeschichte Mitteleuropas 65.

Faux-Vesigneul, Chemin de Coupetz, Marne, France

Faux-Vesigneul is a site located in north-eastern France, in the Marne department. Due to a project to build agricultural structures for animal keeping and because of legal obligations according to French law, an archaeological excavation of the site was performed during the summer of 2018. This archaeological operation (the final report for which is currently in preparation) covered an area of 17,000m^2. It included excavation of a funerary assemblage from the later Iron Age, ranging from the La Tène B2/C1 period (for the inhumations) to La Tène D (for the cremations). They are spread across two quadrangular enclosures, two circular enclosures, one inhumation area, and a cremation area. Among these, 36 burial pits and 9 urns were recovered. This represents a total of 30 individuals of which 25 are adults (or of adult size), 3 are immature and 2 are of indeterminate age and sex.

Here we report data for 15 individuals which have been successfully analyzed for ancient DNA. Seven samples were obtained from petrous bones: Skeleton P5957 (Burial 210b) yielded sample I19356 (male); Skeleton P5958 (Burial 171) yielded sample I19357 (female); Skeleton P5974 (Burial 109) yielded sample I19363 (male); Skeleton P6412 (Burial 160) yielded sample I20816 (male); Skeleton ID P6413 (Burial 208) yielded I20817 (male); Skeleton ID P6683 (Burial 212) yielded sample I21931 (female); and Skeleton P6411 (Burial 103) yielded sample I20815 (female).

Three samples came from teeth: Skeleton P5959 (Burial 108) yielded sample I19358 (male); Skeleton P5960 (Burial 170) yielded sample I19359 (male); and Skeleton P5973 (Burial 110) yielded sample I19362 (female).

Five samples were extracted from long bones: Skeleton P5961 (Burial 142) yielded sample I19360 (male); Skeleton P5962 (Burial 138) yielded sample I19361 (male); Skeleton P6394

(Burial 104) yielded sample I120811 (female); Skeleton P6395 (Burial 136) yielded sample I20812 (male); and Skeleton P6396 (Burial 137) yielded sample I20813 (female).

The individuals providing samples I19358, I19362, I19360 and I19363 represent first degree relatives. Samples I20812 and I20813 are also from first or second degree relatives.

Source of samples: Ron Pinhasi, Olivia Cheronet, Christèle Baillif-Ducros (Inrap) and Sylvain Canet (Inrap)
Authors of entry: Claire-Elise Fischer, Olivia Cheronet and Christèle Baillif-Ducros (Inrap)

Ile Thinic, Saint-Pierre Quiberon, Morbihan, France
Thinic Island has yielded several archaeological sites, including a Celtic necropolis and a stone-cist necropolis, discovered and excavated during the 1880s by F. Gaillard (1883). Inhumations in the stone-cist necropolis appear to date to the Bronze Age, but there are few grave goods to better contextualize them. The position of the deceased corresponds to what is observed for the Bronze Age, though the orientation of the body does not always conform to what is expected for this period.

Four individuals from this cemetery were successfully analyzed for aDNA. Three petrous bones yielded sample I15024 (male), from Skeleton 2425; sample I15025 (male), from Skeleton 2426; and sample I15026 (male), from Skeleton 2427. Sample I16783 (female) derives from the cranial bone of Skeleton 2368.

Source of samples: Ron Pinhasi, Olivia Cheronet and Christophe Le Pennec, Musée de Vannes
Authors of entry: Claire-Elise Fischer and Olivia Cheronet
References:
Gaillard, F. 1883. Rapport sur les fouilles du cimetière celtique de l'île Thinic (15 août 1883). *Bulletin de la Société Polymathique du Morbihan*: 231–240.

Nicolas, C. 2016. La fin d'un monde ? La région de Carnac du Campaniforme à l'âge du Bronze ancien. *Bulletin de la Société Polymathique du Morbihan* 142: 41–77.

Moussey PLA 2018, Aube (10), France
The site of Moussey PLA 2018 is part of the "Parc Logistique de l'Aube" which is a heritage management project led by the department of Aube. Excavation has been carried out as part of this project since 2004, which led to the investigations at Moussey in 2018. The 7ha site yielded several pits, which contained the remains of five individuals: four adults (Individuals 1–4) and one child aged 4 years±12months (Individual 5). aDNA was successfully analyzed from three petrous bones: from Individual 2 (3886), yielding sample I18426 (indeterminate sex), dating to 4650±35 BP (Poz-118848; 3520–3360 cal BP); from Individual 3 (3887), which yielded sample I18427 (male); and from Individual 4 (3888), which yielded sample I18428 (male). A direct radiocarbon date obtained from Individual 1 (sample I18425, which failed analysis), yielded a further Late Neolithic date of 4615±30 BP (Poz-118849; 3512–3344 cal BP).

Source of sample: Ron Pinhasi, Olivia Cheronet and Sébastien Chauvin (Inrap)
Authors of entry: Claire-Elise Fischer, Olivia Cheronet, Cécile Paresys (Inrap) and Sébastien Chauvin (Inrap)

Port Bara, Saint-Pierre Quiberon, Morbihan, France

In 1979, the skeletal remains of an adult (Skeleton 2428; c. 35 years old) were found under flat stones on the beach at Port Bara (Andre 1979; Andre and Rollando 1981). A lack of grave goods has not allowed for contextualization of the grave, but the area of Quiberon has produced evidence for Iron Age activity, as represented by the inhumations from Kerne, and a settlement, while in 1884, a series of Gallic burials were found on a small offshore islet a few metres to the west (Gaillard 1884).

A petrous bone from this individual yielded sample I15027 (male).

Source of sample: Ron Pinhasi, Olivia Cheronet and Christophe Le Pennec, Musée de Vannes

Author of entry: Claire-Elise Fischer and Olivia Cheronet

References:

Andre, P. 1979. *Fouille de sauvetage à Port Bara en Saint-Pierre Quiberon (Morbihan)*. Unpublished report.

André, P. and Rollando, Y. 1981. Le squelette de Port-Bara à St Pierre Quiberon, *Bulletin de la Société polymathique du Morbihan*: 57.

Gaillard, F. 1884. 'Les sépultures gauloises du Rocher de Port-Bara, commune de Saint-Pierre Quiberon', *Bulletin de la Société d'Anthropologie de Paris*: 710.

Port Blanc, Quiberon, Morbihan, France

The site of Port Blanc is a megalithic complex in Brittany, in the north-west of France. The site was excavated in 1883 by F. Gaillard and yielded three architectural spaces: two corridor graves (dolmen A and B) composed of megalithic blocks, and an annex composed of rocks (Gaillard 1883). The two dolmens are 5m apart and parallel to one another. In the chamber of dolmen A, two layers of human remains were discovered, separated by flat stones. The upper layer yielded two individuals with a few grave goods, as well as five skulls that may correspond to grave reorganisation. The lower layer included eleven skulls, one with evidence of trepanation, together with some long bones. In dolmen B, five skeletons were discovered in the corridor and another five skulls in the chamber. The annex also yielded human remains, predominantly skulls.

Radiocarbon dates have been obtained on three bones (Schulting 2005): trepanned skull (Broca 265) yielded a date of 5050±40 BP (OxA-10936; 3930–3660 cal BCE); bone R82.31.1 yielded a date of 5070±50 BP (OxA-10615; 3950–3710 cal BCE); and bone R82.31.25 yielded a date of 4200±45 BP (OxA-1069; 2870–2590 cal BCE).

Two petrous bones were successfully analyzed for aDNA: Skeleton 2435 yielded sample I15034 (female) and Skeleton 2436 yielded sample I15035 (female). The individuals who yielded samples I15028 and I15034 are second or third degree relatives.

Source of samples: Ron Pinhasi, Olivia Cheronet and Christophe Le Pennec, Musée de Vannes

Authors of entry: Claire-Elise Fischer and Olivia Cheronet

References:

Gaillard, F. 1883. 'Rapport déposé à la sous-commission des monuments mégalithiques sur les fouilles des dolmens de Port-Blanc', *Bulletin de la Société polymathique du Morbihan*: 6–19.

Guyodo, J.-N. and Blanchard, A. 2014. 'Histoires de mégalithes: enquête à Port-Blanc (Saint-Pierre-Quiberon, Morbihan)', *Annales de Bretagne et des Pays de l'Ouest* 121–2: 7–30.

Schulting, R. 2005.'Comme la mer qui se retire: les changements dans l'exploitation des ressources marines du Mésolithique au Néolithique en Bretagne', in G. Marchand and A. Tresset (eds), *Unité et Diversité des Processus de Néolithisation sur la Façade Atlantique de l'Europe (6e-4e Millénaire av. J.-C.). Actes de la table ronde, Nantes, 2002*, pp. 163–171. Paris: Société Préhistorique française, Mémoire 36.

Roquepertuse, Velaux, Bouches-du-Rhône, France

The site of Roquepertuse comprises a ritual complex built into a natural amphitheatre overlooking the Arc valley, west of Aix-en-Provence. It appears to have functioned as a sanctuary, comprising a dense group of associated buildings set within an enclosing rampart, in which a series of warrior statues and other carved stones were displayed (Boissinot 2004; Armit 2012). It dates broadly from the fifth to third centuries BCE. The human remains derive from two principal sources: a group of skulls displayed on the site as head trophies, and neonatal burials deposited beneath buildings associated with the sanctuary (for details of the human remains see Courtaud et al. 2016, especially Annexe 1).

A human petrous bone and three human teeth from recent excavations by Philippe Boissinot were successfully analyzed for aDNA. The petrous, from one of the displayed human heads, yielded sample I19916 (male), from Ensemble 9 (*Rqp. 98-zone 2*), dating to *periode 14*, found at the base of the stair to the monumental *terrasse 1*. The teeth yielded sample I13620 (male) from Ensemble 10 (US108); sample I13621 (male) from Ensemble 13 (*Rqp 95 secteur H13- Us106, Rqp Z1 rem*); and sample I13623 (juvenile male) from Ensemble 20 (*Rqp. 95 secteur 22, US 106 Rqp 94 rem*).

Two human petrous bones from perinatal burials, found during the recent excavations, were also successfully analyzed for aDNA. These yielded sample I19917 (female) from Skeleton Sep Imm 646, found in a pit dug against the base of wall 435 in *periode 12*; and sample I19918 (female) from Skeleton Sep Imm 720, found near the foundations of wall 1199, House 5 in *periode 10b-12*.

A further human tooth, from Ensemble 16, is not included in the analysis due to mitochondrial contamination: sample I13720 (male). Another tooth, from Ensemble 19 (*RQP 97, Z1-rem*), is also excluded due to low coverage and signs of contamination: sample I13622 (sex undetermined).

Two human teeth from skull fragments recovered in excavations by Henri de Gérin-Ricard between 1919 and 1927 were also analyzed for aDNA but are excluded from the analysis due to low coverage and signs of contamination. These comprise sample I13619 (sex undetermined) from Ensemble 3; and sample I13719 (sex undetermined) from Ensemble 5.

Source of samples: Philippe Boissinot
Author of entry: Ian Armit
References:

Armit, I. 2012. *Headhunting and the body in Iron Age Europe*. Cambridge: Cambridge University Press.

Boissinot, P. 2004. Usage et circulation des éléments lapidaires de Roquepertuse. *Documents d'Archéologie Méridionale* 27: 49–62.
Courtaud, P., Rousseau, E., Duday, H. and Boissinot, P. 2016. Les restes humains de l'âge du Fer de Roquepertuse (13): fouilles anciennes et récentes. *Documents d'Archéologie Méridionale* 39: 273–305.

Villard, Lauzet-Ubaye, France

The tomb excavated by Gérard Sauzade is located at an altitude of 1267m (Sauzade and Schmitt, 2020). It comprised a rectangular funerary chamber of 6 slabs and a cover slab, an entrance corridor and a tumulus around 12m in diameter. The funerary chamber yielded 2197 human bones in a single layer. At least 25 individuals (16 adults and 9 juveniles) were buried in the grave. Partially articulated bodies represent only 5% of the remains, with most of the bones being disarticulated. Grave goods were scarce in comparison with the number of individuals: two incomplete Bell Beakers vessels, a copper dagger, a wrist-guard, together with a few lithic tools and ornaments. Three radiocarbon dates are in accordance with the grave goods: 3895±35 BP (Ly 9995), 3725±25 BP (PSUAMS-1835) and 3655±25 BP (PSUAMS-1834). However, a fourth radiocarbon date of 3515±40 BP (Ly 9994) indicates that the tomb was (at the very least) reused during the Middle Bronze Age.

Petrous bones from six disarticulated crania from the funerary layer were sampled and successfully analyzed for aDNA. These yielded samples I10342 (male) from a child (VL63); and I10343 (female; VL498), I10344 (female; VL940), I10345 (female; VL1009), I10347 (male; VLR2) and I10348 (male; VLR3) from adults or adolescents.

Source of samples: Aurore Schmitt and Ron Pinhasi
Author of entry: Aurore Schmitt
Reference: Sauzade, G. and Schmitt, A. 2020. *Le dolmen du Villard, Lauzet-Ubaye (04) et le contexte funéraire au Néolithique dans les Alpes méridionales: Réflexions sur le mobilier et les pratiques funéraires au Campaniforme en Provence*. Aix-en-Provence: Presses Universitaires de Provence.

HUNGARY

Dunaalmás-Kavicsbánya, Komárom-Esztergom County, Hungary

Between November 2017 and July 2018, the Kuny Domokos Museum carried out a rescue excavation at the Dunaalmás-Kavicsbánya site under the direction of Dr Sándor Petényi. Dunaalmás is located in the northern part of Transdanubia, on the banks of the Danube, on the current Hungarian-Slovak border. The site is located in the field between Highway 1 (leading from Dunaalmás to Almásfüzitő) and the river. During enlargement of the local gravel mine, an area of 1ha was surveyed, yieldeding 343 archaeological features from the Middle Neolithic (5500/5400–5000/4900 BCE) and Hallstatt D1 (620–530 BCE) periods. Currently, 63 features can fairly certainly be associated with Early Iron Age activity.

Petrous bones from two Early Iron Age graves (11 and 18) were successfully analyzed for aDNA. Both graves showed evidence for disturbance, as did another three in close proximity to these, in the south-east corner of the excavated area. The unusual upward facing position of the shoulders of the skeleton in grave 18 indicate that it was still intact when it was disturbed, suggesting that looting took place in antiquity, perhaps not long after interment of the body.

Sample I18228 (female) derived from skeleton 289 (grave 11), whose surviving grave goods included three spindlewhorls, a loomweight and a bone needle, together with several high-quality black-fired ceramic vessels, some of which bore graphite geometric decoration. Sample I18227 (male) derived from skeleton 335 (grave 18), whose surviving grave goods included a worked bone tool, spindlewhorl and loomweight, together with two ceramic beads. Like grave 11, the assemblage also included high-quality black-fired ceramic vessels, some with geometric graphite decoration.

Source of samples: Kuny Domokos Museum, Tata
Author of entry: Csilla Deminger

Győr-Kert utca, Győr-Moson-Sopron County, Hungary

Prior to an apartment house construction project, the Rómer Flóris Museum of Art and History in Győr performed trial and preventive excavations on the site known as Győr-Kálvária Street (Molnár and Ujvári in press). The Iron Age cemetery recorded during trial trenching of one of the last surviving dunes on the eastern bank of the River Rába, is part of the same site encountered some 100m away during railway construction in the last third of the nineteenth century. The site was heavily disturbed in the twentieth century by the construction and demolition of industrial facilities. The recent excavations resulted in 22 graves—both cremation and inhumation burials, unfortunately mainly robbed—from the Late Iron Age (La Tène culture) covering almost the entire excavated surface; two Roman period graves were also recovered in the south-west of the excavated area. Beside the cemetery, Roman, Árpád and modern period settlement features (e.g. ditches, pits and a hearth) were also unearthed. Chipped stone tools from the subsoil and from the fill of grave 59 also attest to an earlier phase of prehistoric occupation on the site or in its immediate surroundings.

The cemetery, which stretches in a north-east/south-west direction across the dune, contains graves dating to the La Tène B period (as recovered by the recent excavations in the north-west of the site), and graves dating to La Tène C, based on certain types of glass bracelets and beads, sapropelit armlets, and tripartite Hohlbuckelrings (as recovered by nineteenth century works in the south-west of the site). The entire site was probably therefore in use from the end of the fourth century to the beginning of the second century BCE.

Graves S-22 and S-59 both had a surrounding ditch and were larger than the others. Grave S-30 also had larger dimensions and was among the few unrobbed graves in the cemetery. Among the excavated burials only two—S-55 and S-103—were cremated; the former yielded several fibulae and a spear, the latter a bent sword and a spear.

Eight petrous bones and two teeth were successfully analyzed for aDNA. The petrous bones yielded: sample I18526 (male), from a well-preserved, articulated skeleton (inv. 41) buried in grave S-32 with an iron sword and spear, an iron fibula, and several ceramic vessels; sample I18527 (male), from a child (inv. 205) in disturbed grave S-6, who was accompanied by an iron fibula and two ceramic vessels; sample I18528 (female), from a heavily disturbed skeleton (inv. 25) in grave S-21 which appeared to be accompanied by the disarticulated bones of at least one other individual, together with two bronze fibulae, an iron fibula, a yellow-brown bead and several ceramic vessels; sample I18529 (male), from a well-preserved skeleton (inv. 105) in grave S-34 wearing a iron bracelet; sample I18530 (male), from a disturbed coffin burial (inv. 130) in grave S-22, accompanied by a large assemblage of grave goods including an iron spear, a Linsenflasche vessel, an iron knife, a bronze pin, sheep shearers and several ceramic vessels; sample I18531 (male), from a skeleton (inv. 205) in

grave S-48, disturbed by a modern utility pipe but accompanied by an iron spear, a bronze bead and several ceramic vessels; sample I18839 (female), from a heavily distrubed skeleton (inv. 121) in grave S-50, with grave goods including bronze fittings/fastenings, bronze and iron fibulae, a bronze spiral ring, a silver ring and buckle, and several ceramic vessels; and sample I18840 (female), from a well-preserved, articulated skeleton (inv. 100) in grave S-30, who was accompanied by a large grave good assemblage including 6 ceramic vessels, 3 bronze fibulae, two bronze bracelets, and several fragmentary iron objects.

The teeth yielded sample I18110 (female), from a disturbed skeleton in grave S-59, who was accompanied by iron fibulae, a bronze fibula, two bronze armlets and three ceramic bowls; and sample I18988 (female), from a heavily disturbed skeleton (inv. 102) in grave S-41, containing two bronze fibulae, a blue biconical bead, fragments of a bronze chain and five ceramic vessels. Sample 18147, from a tooth, was found to be a genetic duplicate of sample 18110 and the data have been merged under the latter sample code for analysis.

The individuals represented by samples I18527 and I18839 have a second or third degree relationship.

Source of samples: Rómer Flóris Museum of Art and History, Győr
Author of entry: Ferenc Ujvári
Reference: Molnár, A. and Ujvári, F. in press. Adatok Győr vaskorához. Kora vaskori leletek a Káptalandombról és kelta lelőhelyek a város területéről [Contributions to Iron Age Győr. Early Iron Age finds from the Káptalandomb and Celtic sites from the urban area]. In: *Tomka 80. Ünnepi tanulmányok a 80 éves Tomka Péter tiszteletére.*

Jászberény-Cserőhalom, Jász-Nagykun-Szolnok County, Hungary
Jászberény-Cserőhalom in Eastern Hungary is a Late Iron Age biritual cemetery comprising a total of 50 graves (Kaposvári 1969) and is arguably one of the most important and best cited Celtic cemeteries in the region. The cemetery is located in the vicinity of Jászberény, not far from the course of Zagyva River, in the heart of the Great Hungarian Plain, and lies on one of the natural sand hills of the middle Tisza region. The hill, with a relatively low altitude of 112m, saw use for burial in the Neolithic and Bronze Age, as well as in the Iron Age. Unfortunately, the site has been disturbed and partly damaged by sand quarrying in the nineteenth century.

Due to the intensification of sand quarrying, the Damjanich János Museum conducted a rescue excavation on the site in 1957–59 and recovered the remaining parts of the cemetery, after which the whole site was destroyed. The graves date to La Tène B2–C2. Objects displaying typical Eastern Celtic characteristics include the Linsenflasche vessel from the grave 52, iron weaponry from grave 49 and the masked bead from grave 53. Grave 17 contained two emblematic objects—a unique dragon head-shaped rhyton (drinking horn) and an engraved iron knife—together with a pair of brooches and stamped pottery (Kovács 2017, 47–56).

A few characteristics of the Early Iron Age Vekerzug culture can also be observed, such as the barrel-shaped boss and finger-tip impressed pot from grave 121. The contracted position of some inhumations can also be interpreted as reminiscent of the Early Iron Age Scythian/Vekerzug cultural tradition in a Celtic context, such as in the case of grave 13. Although local communities are almost invisible in the Late Iron Age, traces of Scythian culture during the fourth–third centuries BC can still be recognized in some cases.

Petrous bones from four individuals were successfully analyzed for aDNA. Sample I18172 (male), derives from a young child aged 10–12 years grave 66, who was accompanied with an iron fibula and a small ceramic vessel; the bones of a small bird were found next to the right knee. Sample I18181 (male) derives from an extended inhumation in grave 107, which was accompanied by two large ceramic vessels and an iron fibula. Sample I18182 (female) derives from grave 2, which appears to have been reopened soon after burial and the body rearranged. This individual was buried with a wheelmade mug, handmade bowl, a sandstone whetstone, an iron knife and an iron brooch. Finally, sample I18183 (female) derives from the individual in grave 108, which was accompanied with a bronze fibula, a bronze brooch, an iron brooch and an iron bracelet.

Source of samples: Hungarian Natural History Museum
Author of entry: Péter F. Kovács and Tamás Hajdu
References:

Kaposvári, Gy. 1969. A Jászberény–cserőhalmi kelta temető [Das Keltische Gräberfeld von Jászberény–Cserőhalom]. *Archaeologiai Értesítő* 1969: 178–98.

Kovács, P.F. 2017. Szkíták és kelták öröksége. *A vaskor régészete Jász-Nagykun-Szolnok megyében. Szolnoki Régészeti Tanulmányok 1. [Legacy of Schithians and Celts. Archaeology of the Iron Age in Jász-Nagykun-Szolnok County. Archaeological Papers of Szolnok 1]*. Szolnok: Damjanich János Múzeum.

Kópháza-Széles földek, Győr-Moson-Sopron County, Hungary

The Rómer Flóris Museum of Art and History in Győr performed preventive excavations on the site of Kópháza-Széles földek in north-west Hungary during the course of 2018 in connection with the construction of an earthwork for a section of the M85 motorway (Ujvári 2019). Investigations revealed an extraordinarily intensive multi-period site, including cemeteries, settlements and isolated graves. Trial excavations were performed in the autumn of 2017. The removal of the topsoil was carried out alongside metal detection, and a great number of metal artefacts were collected as a result. This method proved to be essential, because a large number of the cremation graves were located or set high, in the topsoil, and hardly penetrated into the subsoil; without metal detectors, many graves would have been destroyed or highly damaged during topsoil removal.

This extensive site contained both settlements and cemeteries from several periods. The cemeteries (Middle Bronze Age, Early Iron Age, Late Iron Age, Roman period) were located in the southern portion of the site, while the settlement area was to the north of the cemetery, and overlapped its northern part. Interestingly, stone-packing was commonly represented in the burials of most periods: especially in the Middle Bronze Age, and in the Early and Late Iron Age. The constant battle with groundwater hindered the excavation of deep graves and other features to a great extent, which was particularly true of the Middle Bronze Age and Late Iron Age inhumation graves. Traces of Copper Age, Early Bronze Age, Early Iron Age, Roman period and Árpád period settlements were also discovered.

The Late Iron Age cemetery was represented by 20 graves, which were scattered over a large area and concentrated into a southern and a northern grave group. Their common characteristic was that they were extensively looted. Some graves were completely robbed, with neither bones nor grave goods having survived. For these, it was merely their location

and the stacked stone structure that made it possible to conclude that they were from the Late Iron Age, since it was, for the most part, the sides of the grave that were paved with stone in this period. When bones were found, they were in extremely poor condition. There were two types of rites at the cemetery, as both cremation and inhumation graves have been found, although the inhumation graves dominated. The majority of the burials were oriented to the south-east/north-west, including several graves (both cremation and inhumation) surrounded by rectangular ditches.

In the Late Iron Age cemetery, cremation burial S-235, enclosed by ditch S-236, should be highlighted. This small cremation burial was completely looted, with only ceramic fragments of varying sizes being recovered during excavation. The grave and the surrounding ditch were paved with stacked stones, and pairs of postholes observed in the upper section of the long sides of the grave pit, as well as in the corners of the area enclosed by the surrounding ditch, suggested an elaborate funerary structure. Based on the grave good assemblages, the cemetery can be dated to the second half of the early phase of the La Tène culture, and it probably continued in use during the Middle La Tène period too (LTB–C1; (end of) fourth–third century BCE).

Seven petrous bones were successively analyzed for aDNA. Sample I18833 (female) derived from grave S-1455 (inv. 1325) which, together with grave S-1383, was surrounded by a ditch (S-1479). The skeleton in this grave appears to have been damaged during looting, but was accompanied by two bronze bracelets, an iron fibula, and the remains of several ceramic vessels. Sample I18835 (male) derived from grave S-1386 (inv. 1327) which, together with grave S-1453, were surrounded by a ditch (S-20/27). Though the grave had not been looted, the skeleton and grave goods (which included two iron fibulae and four ceramic vessels) were in poor condition. Sample I18836 (female) derives from grave S-1356 (inv. 1207), which was surrounded by a ditch (S-1382) and included at least one ceramic vessel. Sample I18837 (male) derived from grave S-1370 (inv. 1401), which appears to have been looted, but which included two ceramic vessels. Sample I18838 (male) derived from grave S-1453 (inv. 1470) which was also surrounded by ditch S-20/27 and included sheep shearers, an iron knife, a possible whetstone, an iron spear, several iron implements and a number of ceramic vessels. This individual has a father-son relationship with the individual represented by sample I18835, and indeed, the two graves were separated by only a 40–50 cm wide, 15–20 cm high spit of earth. Given the lavish grave assemblage of grave S-1453, and the attribution of 'young woman' status to the individual in grave S-1386 (suggesting a gracile or underdeveloped skeleton), it would be tempting to interpret sample I18838 as representing the father, and sample I18835 as the son.

The final two samples derive from a heavily disturbed double grave (S-1352), with postholes suggesting an elaborate funerary structure: the northernmost individual (3871; inv. 1395) yielded sample I18834 (female), whilst the southernmost individual (3869; inv. 1396) yielded sample I18832 (male). Grave goods included an iron spear, which lay next to the skull of the southern individual, iron shears, an iron knife and fragments of another possible iron knife or sword, together with a large number of ceramic vessels.

Source of samples: Rómer Flóris Museum of Art and History, Győr
Author of entry: Ferenc Ujvári
Reference: Ujvári, F. 2019. Kópháza-Széles földek, or from prehistory to the second world war. *Hungarian Archaeology* 8(3): 20–27.

Markotabödöge-Mohos-tóra-dűlő, Győr-Moson-Sopron County, Hungary

The site of Markotabödöge-Mohos-tóra-dűlő is located on the western outskirts of Markotabödöge (topographical number: 045/5-6), Győr-Moson-Sopron County, in north-west Hungary. A field survey and large-scale rescue excavation were performed between 11 December 2013 and 10 November 2014, in advance of sand mining. The total excavated area was 174.864 m2, from which a total of 2896 objects were recovered. A Celtic cemetery, containing 127 graves, was unearthed on the north-eastern/eastern edge of the excavation area and dated to the La Tène B2–C1 period (i.e. the end of the fourth–third centuries BCE). On the northern and southern edge of the site, two isolated burials were also found: grave 875, with the skeleton of a child from the Avar period; and grave 1728, with the skeleton of an adult. An extensive Árpád period settlement was also found with features including a pit, a well, a ditch, a semi-subterranean house and a hearth.

The Celtic graves were situated at the north-eastern/eastern edge of the site; however, their location suggests that the cemetery extended beyond the north-eastern extent of the mine. The majority of the graves were inhumation burials, but some were represented by empty tombs and cremation burials (e.g. graves 1568, 1861, 1948, 1966, 2151, 2166, 2613); men, women and children were represented in the burial population. The grave pits were mainly oriented south-east/north-west, but west/east and north-west/south-east orientations were also present. Some of the burials were framed by narrow, rectangular ditches. Unfortunately, some of the graves were looted, but typical grave goods of men comprised iron bracelets (e.g. grave 2321), iron shears (e.g. grave 2356) and weapons, i.e. swords (e.g. grave 1168, 2356, 2357), spearheads (e.g. grave 1477, 1548, 2357), iron knives (e.g. grave 1548) and shields (e.g. grave 1532, 2321., 2353, 2357). The typical grave goods of women included bronze fibulae (e.g. grave 1187, 1464, 1572), iron fibulae (e.g. grave 1184, 1464, 1516, 2334), beads (e.g. grave 1512), iron bracelets (e.g. grave 1483, 1529, 1572), sapropelite bracelets (e.g. grave 1187, 1549, 2334), bronze bracelets (e.g. grave 1184, 1483, 1572), bronze hollow-knobbed bracelets (e.g. grave 1533, 2334), iron belt-chains (e.g. grave 1553, 1572, 2334), bronze anklets (e.g. grave 1464, 1483, 1529, 1533, 1549, 1572) and spindle-whorls (e.g. grave 1553). Pots accompanied children, but in two cases they were found with bronze brooches (grave 1519, 2343).

Petrous bones from two individuals were successfully analyzed for aDNA. Sample I18488 (female) derived from individual S10005 in grave 2334, who was adorned with a bronze necklace, two iron brooches, an iron belt-chain, a bronze hollow-knobbed bracelet, a sapropelite bracelet and two bronze anklets, and was accompanied with a jug and a bowl containing animal bones. Sample I18490 (male) derived from individual S10008 in grave 2357, who was accompanied with an iron sword (in its sheath), an iron spearhead, a shield, a bronze armlet, and several vessels which appear to have been associated with animal bones.

Source of samples: Rómer Flóris Museum of Art and History, Győr
Author of entry: Krisztina Pesti

Szeged-Kiskundorozsma-Sandpit 4, Csongrád-Csanád County, Hungary

In 2009, two rescue excavations were carried out at the site of Szeged-Kiskundorozsma-Sandpit 4. The site lies directly next to the city of Szeged, in southern Hungary, in the vicinity of Kiskundorozsma, not far from the Tisza/Maros River confluence. The site is situated on two low hills (northern and southern), which emerge from a wetland environment. At one time they were surrounded by a branch of the Maty stream. Both hills were excavated, and almost the entire site was investigated (Pilling and Ujvári 2012).

The Iron Age phase of the site consists of a La Tène settlement (occupying both the northern and southern hills) and the cemetery of the Srem/Syrmian-group (lying only on the northern hill). The settlement comprised ditches, houses, pits, ritual features, ovens, a large clay extraction pit and numerous postholes. A total of 15 houses were excavated, the vast majority found on the northern hill. The La Tène settlement dates to between LT C1b and LT C2/early LT D (i.e. the last third of the third century and the end of the second/beginning of the first century BCE).

The cemetery is badly plundered, so the material is very fragmentary and incomplete. Thirty-four features were identified as "graves", but the date and function of some are uncertain due to the large number of cenotaphs. Twenty-three features can be confidently classified as graves (15 "real" graves and 8 cenotaphs) and dated to the Late Iron Age. There is no strict organisation to the cemetery, but three broad grave groups can be identified. Graves 39 and 45 belong to grave group 1. The burial rite—as in the majority of the cemeteries from the fifth–fourth centuries BCE—was inhumation; no evidence of cremation was found. The arms of the deceased In grave 45 were crossed above the chest/stomach, which has good analogies in other Srem-group cemeteries in modern-day Serbia. The bodies were most likely interred in some kind of shroud, because traces of textile are visible on the spears in graves 48 and 70. Grave goods are typical for the period but notable finds include a necklace of ten silver beads, and a small fragment of pottery with channelled decoration (grave 71): this is similar to the Bosut III C phase settlement pottery, which has recently been associated with other Srem-group cemeteries.

Dating is based predominantly on the presence of Certosa brooches (end of the fifth century–end of the fourth century BCE, c. 420–300 BCE) and the double pin (second half of the sixth century–end of the fourth century BCE, c. 550–300 BC, and sporadically after the third century BCE). It should be emphasized that there is no evidence of a direct connection between the cemetery (displaying mixed cultural material dating roughly to 420–300 BCE) and the Celtic settlement (c. 230–100 BCE). Based on the predominant inhumation burial rite and analogues of certain artefacts (such as the Certosa brooch, silver beads and burnished graphite decorated vessel), the cemetery can be linked culturally to the Srem group. However, there are also some elements (e.g. the contracted burial rite) that suggest connections with the Early Iron Age Vekerzug culture and finds of Balkan origin (such as the omega-shaped/double pin), which have analogies in the Celtic milieu. In summary, the cemetery can be associated with the younger phase of the Srem-group/Bosut III C phase/late LT A–LT B1 (c. 420–300 BCE).

Two individuals were successfully analyzed for aDNA. Sample I18258 (male) was taken from the tooth of an individual aged 35–39 years (obnr 31), who was interred in double grave 39 with an infant aged 4–5 years. Sample I18259 (female) derived from the petrous bone of a mature female aged 50–55 years (obnr 36) in grave 45, who wore two brooches and an unusual necklace comprising ten silver beads.

Source of samples: Móra Ferenc Múzeum, Szeged
Author of entry: Zoltán Pilling and Ferenc Ujvári
Reference: Pilling, Z. and Ujvári, F. 2012. Iron Age settlement and cemetery from Szeged□Kiskundorozsma: some new data on Iron Age burial rite at the southern part of the Great Hungarian Plain, in S. Berecki (ed.) *Iron Age Rites and Rituals in the Carpathian*

Basin. Proceedings of the International Colloquium from Târgu Mureş, 7–9 Oct. 2011, 217–248. Târgu-Mureş: Mega.

Tiszavasvári-Városföldje, Szabolcs-Szatmár-Bereg County, Hungary

In 1983–5 and 1989, rescue excavations in advance of sand mining were undertaken by Eszter Istvánovits (Museum András Jósa, Nyíregyháza) at the southern slope of a more or less north-east/south-west orientated sandhill near Tiszavasvári, in north-east Hungary. Part of a multi-period site, with burials from the Early Bronze Age, Late Iron Age and Imperial Age, and settlement from the early Migration Period, were recovered (Istvánovits 1990; 1999; Dani 1997; Almássy 1998).

The sandhill was not high and rose only slightly above the surrounding watercourses. A total of 20 La Tène graves were excavated: 12 inhumations (one with the skeleton in a contracted position) and 8 cremations (1 inside an urn and 7 without urns). The rest of the cemetery had largely been destroyed by sand extraction. Based on the finds and the funeral rite, the dead buried here belonged to a community that, in addition to the La Tène culture, also showed Early Iron Age characteristics (in this region the so-called Scythian period or Vekerzug culture of the north-eastern part of the Carpathian Basin).

The petrous bone of an individual aged 32–36 years (inv. 2001.11.2) in Grave 5 (Szathmáry 1990) was successfully analyzed for aDNA and yielded sample I18226 (female). Grave goods included typical La Tène bracelets, anklets and a composite-belt, but bronze "buttons" found around and under the head are not common in the La Tène repertoire.

Source of samples: Museum András Jósa, Nyíregyháza
Author of entry: Katalin Almássy
References:

Almássy, K. 1998. Kelta temető Tiszavasvári határában. [Une nécropole celtique à Tiszavasvári]. *Nyíregyházi Jósa András Múzeum Évkönyve* 39–40 (1997–1998): 55–106.

Dani, J. 1997. Neue Beiträge zu den Bestattungen der Nyírség-Kultur. [Újabb adatok a Nyírség kultúra temetkezéséhez.]. *Nyíregyházi Jósa András Múzeum Évkönyve* 37–38 (1995–1996): 51–71.

Istvánovits, E. 1990. A Felső-Tisza-vidék legkorábbi szarmata leletei. 2–3. századi sírok Tiszavasváriból [The earliest Sarmatian finds of the Upper Tisza region. 2nd–3rd century burials in Tiszavasvári]. *Nyíregyházi Jósa András Múzeum Évkönyve* 27–29 (1984–1986): 83–133.

Istvánovits, E. 1999. Tiszavasvári-Városföldje, Jegyző-tag: a settlement of the 5th century. [Hunkori település maradványai Tiszavasváriban, a Városföldjén]. *Nyíregyházi Jósa András Múzeum Évkönyve* 41: 173–254.

Szathmáry, L. 1990. A tiszavasvári emberi csontvázleletek vizsgálatának előzetes eredményei. [Previous results of examination of human skeleton finds from Tiszavasvári]. *Nyíregyházi Jósa András Múzeum Évkönyve* 27–29 (1984–1986): 135–149.

Túrkeve-Burkus-halom, Jász-Nagykun-Szolnok County, Hungary

During a preventive excavation at the Túrkeve-Burkus-halom site in eastern Hungary in 2005, a rectangular sunken floored building was excavated; this represents the first published Iron Age building from the Nagykunság area (a characteristic historical and geographical sub-region of the Great Hungarian Plain). The slightly irregular rectangular construction had markedly rounded corners, and sloping benches on its side walls. No traces of plastered floor, nor hearth were found. The finds assemblage included 32 fragments of hand-made pottery, 50 wheel-made sherds, 2 fragments of grinding stones made from volcanic rock, large amounts of burnt clay (many with branch impressions) and animal bones. The ceramics show a mix of local Early Iron Age traditions and La Tène ceramic styles. Based on the diagnostic finds, the building can be dated to the middle La Tène period, between the LT B2–C1 (Kovács 2018, 95–98).

The skeleton of an individual, aged 30/40 years (Szeniczey and Hajdu 2018, 115–118), lay in an oval pit under the floor in the south-east corner of the building. From the position of the skeleton (legs curved backwards, arms crossed in front of the chest), it seems as if the individual had been tied and was thrown into the pit. The anthropological examinations revealed no traces of trauma on the skeleton, though irregularly-positioned skeletons have been interpreted as the result of unusual events or acts, such as homicides or sacrifice (Kovács 2018, 97–98). A petrous bone from this individual (3121; Obj. 2/S13, 38205) was successfully analyzed for aDNA and yielded sample I18220 (female).

Source of samples: Damjanich János Múzeum
Author of entry: Péter F. Kovács
References:
Kovács, F.P. 2018. La Tène-kori településrészletek a Közép-Tisza-vidékről: Tiszapüspöki–Holt-Tisza-part, Túrkeve-Burkus halom, Szolnok-Vegyiművek körzet [La Tène Age Settlement Sections from the Middle Tisza Region Tiszapüspöki – Holt-Tisza part, Túrkeve – Burkushalom, Szolnok – Vegyiművekkörzet (Szolnok-Chemical factory district)]. *Tisicum* 26: 93–114.

Szeniczey, T. and Hajdu, T. 2018. A Túrkeve-Burkus halom környéke – MOL 3. lelőhelyen feltárt kelta kori nő embertani vizsgálatának eredményei. *Tisicum* 26: 115–118.

ISLE OF MAN

Strandhall, Rushen, Isle of Man

The sampled remains were found in a short cist, of which many have been found on the Isle of Man. The site (Manx National Heritage NMHER 57) was excavated in 1983 by Larch Garrad who prepared two reports lodged with the Manx Museum Library along with notes and photographs from the excavation. The reports remain unpublished.

The cist is situated on a ‘low hill with a surprisingly wide view’ (Garrad, n.d.a) and was discovered when a plough displaced the capstone. A course of stones to the south of the cist may derive from a kerb, with a projected arc implying a mound 10m in diameter, though no mound was extant at the time of excavation. The cist was 1.05m long and 0.4m wide, oriented north-north-east/south-south-west. It contained c. 5% of the unburnt skeletal remains of a 10–13 year old child (accession number 1983-65; Gamble 2017). The excavator considered the remains to be part of a crouched inhumation, but the finders had moved some of the bones prior to the excavation. A thumbnail scraper, flint flakes, and shells from land snails (possibly intrusive) were found in the cist. A tooth from the child has been radiocarbon dated to 3685±28 BP (OxA-37603; 2195–1973 cal BCE).

Beyond the projected kerb, roughly 2m east of the cist, and sharing the same alignment, was a stone-lined trench c. 0.75m wide and 7m long. A substantial amount of cremated bone (accession 1983-0201) was found at the south end. A sherd of an Early Bronze Age Cordoned Urn along with shells from limpets, winkles, and common garden snails (the latter possibly intrusive) lay within the trench (Garrad n.d.b.). The bone could derive from a single individual and a tooth suggests an age at death of c. 16–22 years, based on wear (though this is tenuous). A sample of long bone was radiocarbon dated to 3859±29 BP (OxA-36596; (2459–2206 cal BCE).

Sample I8582 (female) derives from the left first maxillary molar of the child in the cist (1983-65). The tooth has also yielded stable isotope readings of -20.65 for $\delta^{13}C$ and 11.8 for $\delta^{15}N$. These results reflect diet before the age of 10 years and the nitrogen value suggests some consumption of marine foods (Ashley Coutu, pers. comm.). The site will be reported on fully in a monograph summarizing the work of the Round Mounds of the Isle of Man project.

Source of sample: Allison Fox, Manx Museum
Author of entry: Chris Fowler and Michelle Gamble
References:
Gamble, M. 2017. Strandhall, Rushen. Human osteology report. Unpublished manuscript, Manx National Heritage.
Garrad, L. n.d.a. Cist at Strandhall, Rushen. Unpublished manuscript, Manx Museum Library.
Garrad, L. n.d.b. Excavation at Strandhall, phase II. Unpublished manuscript, Manx Museum Library.

SCOTLAND, UK

Applecross, Highland, Scotland, UK

An Iron Age multiple grave at Applecross, on the west coast of Scotland, contained the remains of at least four adult males, buried within and below a low mound of beach cobbles. Radiocarbon dates suggest that the dead were deposited over several centuries, and many of the bones had become disarticulated, leading to some uncertainty over the original number of burials.

Three human petrous bones were successfully analyzed for aDNA yielding: sample I3566 (male) dating to 2070±31 BP (SUERC-73990; 176 cal BCE–cal CE 2); sample I3567 (male) dating to 2075±31 BP (SUERC-73991; 181–1 cal BCE); and sample I3568 (male), dating to 1980±28 BP (SUERC-73992; 43 cal BCE–cal CE 72).

Source of sample: Applecross excavation archive
Author of entry: Ian Armit
Reference: Dagg, C. 2015. *Applecross Old Estate Office. Archaeological Investigation*. Unpublished Data Structure Report.

Auldhame, East Lothian, Scotland, UK

Excavation of a monastic settlement, church and cemetery at Auldhame, East Lothian, recovered the grave of an adult male, aged 26–35 years, buried with Viking-style grave goods. It was speculated that this man could have been Olaf Guthfrithsson, the Viking ruler of Dublin and Northumbria, who died in CE 941, or else someone who had died as a consequence of Olaf's attacks in the area (Crone et al. 2016). A petrous bone from this

individual (Skeleton 752) was successfully analyzed for aDNA yielding sample I16414 (male), dating to 1175±35 BP (SUERC-13292; cal CE 730–968).

Source of sample: National Museums Scotland
Author of entry: Ian Armit
Reference: Crone, A., Hindmarch, E., and Woolf. A. 2016. *Living and Dying at Auldhame: the Excavation of an Anglian Monastic Settlement & Medieval Parish Church*. Edinburgh: Society of Antiquaries of Scotland.

Balevullin, Tiree, Scotland, UK

A skeleton recorded as deriving from Balevullin, Tiree, is held by the Hunterian Museum in Glasgow. The eroding sand dunes around Balevullin have yielded evidence for multi-period activity including Neolithic burial and Iron Age settlement (Armit et al. 2015). The radiocarbon date suggests that the present individual (Skeleton X; B.1951.2014), yielding sample I2858 (female) and dating to 1940±29 BP (SUERC-68707; cal CE 1–129), may be associated with the latter, but its find-spot and the circumstances of its discovery are presently unknown.

Source of sample: Hunterian Museum, University of Glasgow
Author of entry: Ian Armit
Reference: Armit, I., Shapland, F., Montgomery, J. and Beaumont, J. 2015. Difference in death? A lost Neolithic inhumation cemetery with Britain's earliest case of rickets, at Balevullin, western Scotland. *Proceedings of the Prehistoric Society* 81: 199–214.

Broxmouth, East Lothian, Scotland, UK

Broxmouth hillfort was a complex, long-lived settlement on the East Lothian coastal plain, south-east Scotland, occupied between approximately 600 BCE and CE 200 (Armit and McKenzie 2013; Canmore ID 58800). The human remains from the site fell into four groups: a small inhumation cemetery located outside the northern ditch of the hillfort; three isolated inhumations within the hillfort interior; disarticulated human remains from various contexts; and a single, later inhumation that post-dates the abandonment of the site.

Six human petrous bones from the burials within the inhumation cemetery were successfully analyzed for aDNA. These yielded sample I16422 (male) from Skeleton 12, dating to 2180±30 BP (SUERC-24252; 370–160 cal BCE); sample I2693 (male) from Skeleton 5, dating to 2095±30 BP (SUERC-24248; 195–45 cal BCE); sample I2695 (male) from Skeleton 7, dating to 2180±30 BP (SUERC-21990; 361–168 cal BCE); sample I2696 (female) from Skeleton 9, dating to 2155±30 BP (SUERC-24250; 357–95 cal BCE); sample I16416 (male), from Skeleton 10, dating to 2130±30 BP (SUERC-21991; 350–52 cal BCE); and sample I16503 (male) from Skeleton 14, dating to 2135±30 BP (SUERC-24257; 351–55 cal BCE). The last two samples were shown to be father and son: from their context, within a double burial, it is apparent that Skeleton 10 was the father and Skeleton 14 (a juvenile) the son. As a result, sample I16416 has been excluded from the analysis.

Two further human teeth from the inhumation cemetery were also analyzed for aDNA but were excluded from the analysis as they were found to contain evidence of contamination. The teeth yielded sample I16417 (male) from Skeleton 6, dating to 2150±30 BP (SUERC-24249; 360–90 cal BCE); and sample I16421 (male) from Skeleton 13, dating to 2215±30 BP (SUERC-24256; 390–190 cal BCE).

Two human petrous bones and a tooth deriving from the individual inhumations within the hillfort interior were successfully analyzed for aDNA. The petrous bones yielded sample I2692 (female) from Skeleton 1, dating to 2395±30 BP (SUERC-21988; 729–398 cal BCE); and sample I2694 (female) from Skeleton 3, dating to 2175±30 BP (SUERC-24247; 361–121 cal BCE). The tooth yielded sample I16498 (female) from Skeleton 2, dating to 2430±30 BP (SUERC-24246; 750–405 cal BCE).

A human tooth from a disarticulated human skull found within the hillfort interior was also analyzed for aDNA, yielding sample I16504 (male) from Fragment 19, dated on stratigraphic grounds to 100 BCE–CE 210. Data quality from this sample was not sufficient, however, to merit inclusion in the analysis.

A human petrous bone from an isolated later Anglian burial in the hillfort interior was also successfully analyzed for aDNA. It yielded sample I2822 (male) from Skeleton 4, dating to 1590±30 BP (SUERC-21989; cal CE 406–542).

A tooth from the inhumation cemetery yielded sample I16423 (indeterminate sex) from Skeleton 11, dating to 2110±30 BP (SUERC-24251; 204–46 cal BCE). This was not included in the analysis due to its low coverage.

Source of sample: National Museums Scotland
Author of entry: Ian Armit
Reference: Armit, I. and McKenzie, J. 2013. *An Inherited Place: Broxmouth Hillfort and the South-East Scottish Iron Age*. Edinburgh: Society of Antiquaries of Scotland.

Bu, Orkney, Scotland, UK

Excavation of a large stony mound at Bu in 1978 revealed the remains of a massive drystone-walled Atlantic Roundhouse dating to the mid-first millennium BCE (Hedges 1987; Canmore ID 1483). Following the disuse of the main structure, a semi-subterranean souterrain was constructed against the exterior of its east wall. The eventual collapse of this structure filled the interior with rubble (Phase IIIb), within which were found the partial remains of two adult individuals and isolated bones belonging to at least two children and an infant (Hedges 1987, 123–4). A petrous bone from one of the adults (OM 1982.330.321 Bu 78, 13, 5) was successfully analyzed for aDNA, yielding sample I2982 (male). This skeleton had been dated to 2260±29 BP (SUERC-68733, 397–208 cal BCE). A second petrous, from a neonatal individual (OM 1982.330.330 Bu 78, 31, 2), was also successfully analysed, providing sample I2983 (female). This individual dates to 2271±33 BP (SUERC-69075, 401–209 cal BCE).

Source of sample: The Orkney Museum
Author of entry: Ian Armit
Reference: Hedges, J.W. 1987. *Bu, Gurness and the Brochs of Orkney. Part 1: Bu*. Oxford: British Archaeological Reports (British Series) 163.

Caisteal nan Gillean I, Oronsay, Argyll and Bute, Scotland, UK

Caisteal nan Gillean I is one of several Mesolithic shell middens on the small Inner Hebridean island of Oronsay (Anderson 1898; Bishop 1914, 54, 55, 85; Mellars 1987, 153–5; Canmore ID 37820). The mound formed by the midden was almost entirely removed during antiquarian excavations between 1879 and 1882 (Bishop 1914; Saville 2014) and the finds were acquired by the predecessor organization of National Museums Scotland. Among the

finds were several disarticulated human bones, recognized for the first time after material that had been crated up at the beginning of the Second World War was unpacked (Sheridan 2015); the two featured here were spotted by Dr Darko Maricevic of the University of Reading (Sheridan et al. 2017).

These two human bones, which were in significantly better condition than the others, were successfully analyzed for aDNA. A femur (NMS X.EZ 4.6) yielded sample I6649 (female), dating to 1382±29 BP (SUERC-75919; cal CE 607–677). A humerus (NMS X.EZ 4.7) yielded sample I6650 (male), dating to 799±26 BP (SUERC-75920; cal CE 1218–1389). The dates indicate that there were several episodes of funerary activity at this mound, extending into the Medieval period.

Source of sample: National Museums Scotland
Author of entry: Alison Sheridan
References:

Anderson, J. 1898. Notes on the contents of a small cave or rock-shelter at Druimvargie, Oban; and of three shell-mounds in Oronsay. *Proceedings of the Society of Antiquaries of Scotland* 32 (1897–98): 298–313.

Bishop, A.H. 1914. An Oransay shell-mound – a Scottish pre-Neolithic site. *Proceedings of the Society of Antiquaries of Scotland* 48 (1913–14): 52–108.

Mellars, P.A. 1987. *Excavations on Oronsay: Prehistoric Human Ecology on a Small Island*. Edinburgh: Edinburgh University Press.

Saville, A. 2014. William Galloway and the Caisteal nan Gillean shell midden on Oronsay, western Scotland. *Mesolithic Miscellany* 22(2): 56–69.

Sheridan, J.A., Cook, G., Naysmith, P., Tripney, B., Dunbar, E., Reich, D., Olalde, I., Armit, I., Hunter, F.J., Farrar, S., Ritchie, G., e Mitchell, J., Romera, A. and Herman, J. 2017. Radiocarbon dates associated with the Scottish History and Archaeology Department, National Museums Scotland, 2016/17. *Discovery and Excavation in Scotland* 18: 209–14.

Carding Mill Bay II, Oban, Scotland, UK

At Carding Mill Bay II (56°24'30"N, 5°29'31"W), shell midden deposits filling a narrow crevice at the base of a relict sea cliff were excavated between 1991 and 1993. Cultural remains from the midden deposits included Neolithic pottery, bones of domestic livestock and disarticulated human remains (Bartosiewicz et al. 2010).

Six human bones were successfully analyzed for aDNA, providing the following samples:
I12313 (female), tooth, undated
I12314 (female), metacarpal, 4830±25 BP (PSUAMS-5772; 3651–3528 cal BCE)
I12315 (female), scapula, 4840±30 BP (PSUAMS-5773; 3701–3528 cal BCE)
I12316 (female), vertebra, 4830±25 BP (PSUAMS-5774; 3651–3528 cal BCE)
I12317 (male), tooth, 4725±25 BP (PSUAMS-5775; 3629–3377 cal BCE)
I12318 (female), phalanx, 4830±25 BP (PSUAMS-5776; 3651–3528 cal BCE)
Samples I12314, I12315, I12316 and I12318 were found to be genetic duplicates of one another and the data have been merged under sample I12314 for the purposes of reporting and analysis. The individuals represented by samples I12313 and I12314 are possibly first degree relatives.

Source of sample: University of Edinburgh
Author of entry: Clive Bonsall
Reference: Bartosiewicz, L., Zapata, L. and Bonsall, C. 2010. A tale of two shell middens: the natural versus the cultural in 'Obanian' deposits at Carding Mill Bay, Oban, western Scotland, in A.M. VanDerwarker and T.M. Peres (eds) *Integrating Zooarchaeology and Paleoethnobotany: A Consideration of Issues, Methods, and Cases*, 205–225. New York: Springer.

Coneypark Cairn (Cist 1), Stirling, Scotland, UK

This is an Early Bronze Age short cist (Canmore ID 46189), set within a mound, containing the partial remains of an adult male under 30, probably around 24 years of age (Individual A), along with fragments of a skull and mandible from a second individual (Individual B), described in the published report as 'female or small, delicately-boned male' aged c. 21–23 years or older (Dorothy Lunt in Thomson 1978, 8; contra Archibald Young's identification of Individual B as a child, on the same page). There were traces of burning on two bones of the right leg of Individual A, and on the mandible of Individual B. Unfortunately, the discoverers did not record the position of the remains. The cist and mound were discovered in January 1879 during gravel quarrying. No artefacts were found. A petrous temporal from Individual A was successfully analyzed for aDNA: sample I16412 (male). This individual has been directly dated to 3679±28 BP (SUERC-80274; 2141–1966 cal BCE) and 3634±28 BP (SUERC-80275; 2266–2034 cal BCE). It has not been included in the analysis due to its low coverage. A skull fragment from Individual B has been dated to 524±28 BP (SUERC-80279; cal CE 1325–1441) but this may be an aberrant date.

Source of sample: The Stirling Smith Art Gallery and Museum
Author of entry: Alison Sheridan
Reference: Thomson, J.K. 1978. A Bronze Age cairn at Coneypark, Stirling. *Glasgow Archaeological Journal* 5(1): 1–8.

Cumledge (Auchencraw Park), Scottish Borders, Scotland, UK

This Iron Age short cist, orientated NW–SE, was excavated in 1950 (Calder 1950; Canmore ID 58574). It contained the remains of a contracted skeleton of a young adult, osteologically identified as a female, lying on the left side (but disturbed by the finders). A large ring of cannel coal or shale was found in the area of the upper half of the skeleton (NMS X.FN 186).

A molar from the skeleton was successfully analyzed for aDNA, yielding sample I5474 (female). The skeleton dates to 2030±35 BP (GrA-27298; 161 cal BCE–cal CE 54; Sheridan 2004, 176).

Source of sample: National Museums Scotland
Author of entry: Alison Sheridan
References:
Calder, C.S.T. 1950. Report on a Bronze Age grave discovered on Cumledge Estate near Duns. *History of the Berwickshire Naturalists Club* 32(1): 46–8.

Sheridan, J.A. 2004. The National Museums' of Scotland radiocarbon dating programmes: results obtained during 2003/4. *Discovery and Excavation in Scotland* 5: 174–6.

Embo, Highland, Scotland, UK

The site at Embo is a Neolithic passage tomb of Orkney-Cromarty type (Canmore ID 15376), featuring two chambers, their passages facing away from each other (Henshall and Taylor 1957; Henshall and Wallace 1963; Henshall and Ritchie 1995, 135–40 and Appendix 2). There is also evidence for Chalcolithic and Early Bronze Age activity at the monument, in the form of a cist inserted between the chambers (Henshall and Taylor 1957) and a second cist constructed in the southern chamber (Chamber I; Henshall and Ritchie 1995, 138).

Four human bones that are assumed to be of Neolithic date (including one whose Neolithic date has been confirmed through ^{14}C dating) have been analyzed for DNA (Sheridan et al. 2018), with three being part of a Wellcome Trust-funded project at the Natural History Museum (Olalde et al. 2018; Brace et al. 2019); the fourth, GENLAB295 (NMS X.unreg.; NMS sample Embo 5, Box 3, Ch IIa, Sk h), is reported here, and consists of the right petrous temporal of an adult, aged around 30. This skull fragment was found in the southern chamber, among material relating to a second phase in its use (Chamber Ib), and was allocated to Skeleton 'h' by osteologist R.G. Inkster (Henshall and Ritchie 1995, Appendix 2). Note that the provenance for this, and for another sample from skeleton 'h', is incorrectly stated as Ch IIa on the sample label (and in Sheridan et al. 2018, 7). It was selected for analysis to check whether it was indeed from the same individual as a left petrous temporal from an adult male (the sex determined from DNA analysis) labelled as 'skeleton h', as seems likely (Sheridan et al. 2018, 7: NMS sample Embo 4, Wellcome sample Embo 2, SB516A3/I6765). The results of DNA analysis of this petrous, sample I19286 (male; GENLAB295, NMS sample Embo 5), dating to 4455±22 (SUERC-95467; 3330–3022 cal BCE), demonstrate that it does not belong to the same individual.

Other bones from Embo have been dated to between the 35th century BCE (Sheridan and Schulting 2020) and around the 22nd century cal BCE (Henshall and Ritchie 1995, 75), with the other DNA-analyzed bone (sample I6765) from 'skeleton h' providing a date of 4403±31 BP (SUERC-67259; 3263–2877 cal BCE) (Bownes 2018, 191).

Source of samples: National Museums Scotland
Author of entry: Alison Sheridan
References:

Bownes, J. 2018. *Reassessing the Scottish Mesolithic-Neolithic Transition: Questions of Diet and Chronology*. PhD thesis, University of Glasgow. http://theses.gla.ac.uk/8911/, accessed June 2020.

Brace, S., Diekmann, Y., Booth, T.J., van Dorp, L., Faltyskova, Z., Rohland, N., Mallick, S., Olalde, I., Ferry, M., Michel, M., Oppenheimer, J., Broomandkhoshbacht, N., Stewardson, K., Martiniano, R., Walsh, S., Kayser, M., Charlton, S., Hellenthal, G., Armit, I., Schulting, R., Craig, O.E., Sheridan, A., Parker Pearson, M., Stringer, C., Reich, D., Thomas, M.G., Barnes, I., 2019. Ancient genomes indicate population replacement in Early Neolithic Britain. *Nature Ecology and Evolution* 3: 765–771.

Henshall, A.S. and Ritchie, J.N.G. 1995. *The Chambered Cairns of Sutherland*. Edinburgh: Edinburgh University Press.

Henshall, A.S. and Taylor, H.W.Y. 1957. A Bronze Age burial at Embo, Sutherland. *Proceedings of the Society of Antiquaries of Scotland* 90: 225–7.

Henshall, A.S. and Wallace, J.C. 1963 The excavation of a chambered cairn at Embo, Sutherland. *Proceedings of the Society of Antiquaries of Scotland* 96, 9–36.

Olalde, I., Brace, S., Allentoft, M.E., Armit, I., Kristiansen, K., Booth, T., Rohland, N., Mallick, S., Szécsényi-Nagy, A., Mittnik, A., Altena, E., Lipson, M., Lazaridis, I., Harper, T.K., Patterson, N., Broomandkhoshbacht, N., Diekmann, Y., Faltyskova, Z., Fernandes, D., Ferry, M., Harney, E., de Knijff, P., Michel, M., Oppenheimer, J., Stewardson, K., Barclay, A., Alt, K.W., Liesau, C., Ríos, P., Blasco, C., Miguel, J.V., García, R.M., Fernández, A.A., Bánffy, E., Bernabò-Brea, M., Billoin, D., Bonsall, C., Bonsall, L., Allen, T., Büster, L., Carver, S., Navarro, L.C., Craig, O.E., Cook, G.T., Cunliffe, B., Denaire, A., Dinwiddy, K.E., Dodwell, N., Ernée, M., Evans, C., Kuchařík, M., Farré, J.F., Fowler, C., Gazenbeek, M., Pena, R.G., Haber-Uriarte, M., Haduch, E., Hey, G., Jowett, N., Knowles, T., Massy, K., Pfrengle, S., Lefranc, P., Lemercier, O., Lefebvre, A., Martínez, C.H., Olmo, V.G., Ramírez, A.B., Maurandi, J.L., Majó, T., McKinley, J.I., McSweeney, K., Mende, B.G., Modi, A., Kulcsár, G., Kiss, V., Czene, A., Patay, R., Endrődi, A., Köhler, K., Hajdu, T., Szeniczey, T., Dani, J., Bernert, Z., Hoole, M., Cheronet, O., Keating, D., Velemínský, P., Dobeš, M., Candilio, F., Brown, F., Fernández, R.F., Herrero-Corral, A.-M., Tusa, S., Carnieri, E., Lentini, L., Valenti, A., Zanini, A., Waddington, C., Delibes, G., Guerra-Doce, E., Neil, B., Brittain, M., Luke, M., Mortimer, R., Desideri, J., Besse, M., Brücken, G., Furmanek, M., Hałuszko, A., Mackiewicz, M., Rapiński, A., Leach, S., Soriano, I., Lillios, K.T., Cardoso, J.L., Pearson, M.P., Włodarczak, P., Price, T.D., Prieto, P., Rey, P.-J., Risch, R., Rojo Guerra, M.A., Schmitt, A., Serralongue, J., Silva, A.M., Smrčka, V., Vergnaud, L., Zilhão, J., Caramelli, D., Higham, T., Thomas, M.G., Kennett, D.J., Fokkens, H., Heyd, V., Sheridan, A., Sjögren, K.-G., Stockhammer, P.W., Krause, J., Pinhasi, R., Haak, W., Barnes, I., Lalueza-Fox, C., Reich, D., 2018. The Beaker phenomenon and the genomic transformation of northwest Europe. *Nature* 555: 190–196.

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Galson, Isle of Lewis, Scotland, UK

Coastal erosion at Galson, on the north-west coast of Lewis, has revealed the remains of a cemetery of Iron Age date, forming part of a large multi-period settlement mound (Canmore ID 4357). Sporadic excavations since the 1940s have recovered at least fourteen inhumation graves, but others are known to have been destroyed without record (summary in Neighbour et al. 2000, 576–7). The inhumations were all contained in long cists and lacked grave goods, with the single exception of Gals 93, which was buried in a simple grave with a pottery vessel, bone pin and a corroded iron pin or brooch. Dates for the cemetery are concentrated in the first half of the first millennium CE.

Samples were taken from two adult skeletons excavated during the 1940s (Stevenson 1952). A tooth from Skeleton IV (NMS X.unreg) yielded sample I2697 (female), dating to 1909±24 BP (OxA-27368; cal CE 25–137; Sheridan et al. 2013). Strontium isotope analysis of this individual suggests that she did not spend her childhood on Lewis (Montgomery et al. 2003, 650). Analysis of a metatarsal, sample I2698, from Skeleton II, dating to 1852±39 BP (OxA-16469; cal CE 70–250; Sheridan and Higham 2006, 203), was unsuccessful and is not reported here. This latter individual, osteologically identified as a woman, appears to have been local to Lewis and was over 40 at the time of her death (Montgomery et al. 2003, 650).

Source of sample: National Museums Scotland
Author of entry: Ian Armit
References:

Neighbour, T., Knott, C., Bruce, M.F. and Kerr, N.W. 2000. Excavation of two burials at Galson, Isle of Lewis, 1993 and 1996. *Proceedings of the Society of Antiquaries of Scotland* 130: 559–84.

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Sheridan, J.A. and Higham, T. 2006. The re-dating of some Scottish specimens by the Oxford Radiocarbon Accelerator Unit (ORAU). *Discovery and Excavation in Scotland* (new series) 7: 202–4.

Sheridan, J.A., Cowie, T.G., Bradley, R.J., Church, M.J., Garrow, D., Flint, J., Cook, G. and Naysmith, P. 2013. Radiocarbon dates associated with the Scottish History and Archaeology Department, National Museums Scotland, 2012/13. *Discovery and Excavation in Scotland* (new series) 14: 209–11.

Stevenson, R.B.K. 1952. Long cist burials, particularly those at Galson (Lewis) and Gairloch (Wester Ross), with a symbol stone at Gairloch. *Proceedings of the Society of Antiquaries of Scotland* 86: 106–114.

Hornish Point, South Uist, Scotland, UK

Excavation of an eroding coastal midden at Hornish Point, South Uist, in 1984, revealed the remains of several superimposed drystone buildings and associated features of broadly Iron Age date (James and McCullagh 2003; Canmore ID 9913). The incomplete remains of a juvenile skeleton were distributed between four pits under the floor of a wheelhouse-like building, along with parts of two cattle and two sheep, all young. This individual, aged 12 years±20 months at death, displayed diagonal chop-marks to the fourth and fifth lumbar vertebrae, made with a sharp blade (Barber et al. 1989; Lee 2003). That these two sharp-force blows to the lower back are likely to have been the cause of death (Tucker 2012, 518), rather than relating to the post-mortem division of the body, is suggested by the fact that vertebrae adjacent to the cut ones were present, in articulation, in the pit in question. The body appears to have decomposed substantially before being placed into the pits, suggesting that this individual had been subject to complex and protracted mortuary rituals prior to eventual burial (Armit 2012, 204–8). Histomorphological examination of the right femur shaft by Dr Tom Booth revealed that the body probably retained some soft tissue when deposited in the pits (unpublished report in NMS; see also Booth 2016). The animal deposits, which show

butchery marks, are likely to represent the debris of ritualised feasting activity associated with the foundation of the building.

A left metacarpal from the juvenile individual was successfully analyzed for aDNA, yielding sample I2699 (male). The skeleton is dated to 2050±30 BP (SUERC 24241, 166–20 cal BCE).

Source of sample: National Museums Scotland
Authors of entry: Ian Armit and Alison Sheridan
References:

Armit, I. 2012. *Headhunting and the Body in Iron Age Europe*. Cambridge: Cambridge University Press.

Barber, J., Halstead, P., James, H. and Lee, F. 1989. An unusual Iron Age burial at Hornish Point, South Uist. *Antiquity* 63: 773–8.

Booth, T. 2016. An investigation into the relationship between funerary treatment and bacterial bioerosion in European archaeological human bone. *Archaeometry* 58(3): 484–99.

James, H. F. and McCullagh, R.P. J. 2003. Excavations at Hornish Point, in J. Barber, *Bronze Age Farms and Iron Age Farm Mounds of the Outer Hebrides*, 72–103. Society of Antiquaries of Scotland/Historic Scotland/Council for British Archaeology: Scottish Archaeological Internet Reports 3.

Lee, F. 2003. Human bone from Baleshare and Hornish Point, in J. Barber, *Bronze Age Farms and Iron Age Farm Mounds of the Outer Hebrides*, 140–2. Society of Antiquaries of Scotland/Historic Scotland/Council for British Archaeology: Scottish Archaeological Internet Reports 3.

Tucker, F. 2012. *Woven into the Stuff of Other Men's Lives: The Treatment of the Dead in Iron Age Atlantic Scotland*. Unpublished PhD thesis, University of Bradford https://bradscholars.brad.ac.uk/handle/10454/5327

Howe of Howe, Orkney, Scotland, UK

Excavation of a large stony mound known as the Howe of Howe, from 1978–82, uncovered the remains of a multi-phase Iron Age broch tower overlying a Neolithic chambered tomb (Ballin Smith 1994; Canmore ID 1731). Numerous human remains were recovered from the Iron Age deposits, ranging from complete and partial bodies to disarticulated elements. None appear to represent formal burials. One metatarsal and two teeth from three individuals stratified in Phase 7 deposits were successfully analyzed for aDNA. These all relate to individuals deposited after the main use of the broch tower, during a period when its structural fabric had become unstable.

A tooth, from the skeleton of an adult aged around 35–45 years at death, buried in rubble within the rampart cell of the North-West Building Yard (OM 1978–82, HH81, SF4546, 1251), yielded sample I2799 (male). This individual is dated to 2052±26 BP (SUERC-68732, 166 cal BCE–cal CE 16), and is stratigraphically the earliest of the three sampled individuals. A second tooth, belonging to a young child whose remains were found within ash deposited in the yard between the North-West Rampart Cell and the West Wall (OM 1978–82, HH81, S. Area, SF5445–1727), yielded sample I2798 (female). This individual is dated to 1946±25

BP (SUERC-68731, cal CE 2–125). The metatarsal, from a group of disarticulated human remains (OM 1978–82, HH80, S. Area, SF3454, 1046), found within material relating to the late Phase 7 alteration of the South-East Building yielded sample I2797 (female). This individual is dated to 1901±29 BP (SUERC-68727, cal CE 28–212). It is stratigraphically the latest of the three.

Source of sample: The Orkney Museum
Author of entry: Ian Armit
Reference: Ballin Smith, B. (ed.) 1994. *Howe. Four Millennia of Orkney Prehistory: Excavations 1978–1982*. Edinburgh: Society of Antiquaries of Scotland Monograph Series 9.

Law Road, North Berwick, East Lothian, Scotland, UK

Excavation of a substantial square cist at Law Road, North Berwick, uncovered the remains of four inhumations of Late Iron Age date (Richardson et al. 2005). Two adult males (Skeletons C46 and C51) and a female around 16–18 years of age at death (Skeleton C50) appeared to have been displaced for the burial of an adult female (Skeleton C47), wearing an iron brooch. One of the males (C46) had been buried with a bone-handled iron knife.

Four human petrous bones were successfully analyzed for aDNA, yielding sample I16418 (male), from Skeleton C46, an ulna from which dated to 2019±30 BP (SUERC-94959; 105 cal BCE–cal CE 59); sample I16499 (male), from Skeleton C51, a humerus from which dated to 2103±30 BP (SUERC-94958; 200–47 cal BCE); sample I16413 (female), from Skeleton C47, a humerus from which dated to 1987±29 BP (SUERC-94954; 46 cal BCE–cal CE 72); and sample I16495 (female), from Skeleton C50, dating to 2091±30 BP (SUERC-94953; 195–43 cal BCE).

Source of samples: National Museums Scotland
Author of entry: Ian Armit
Reference: Richardson, P., Suddaby, I. and White, R. 2005. *Law Road/St Andrews Street, North Berwick, East Lothian. Archaeological excavation and human bone recovery, Tynefield Farm, Dunbar, East Lothian*. Unpublished Data Structure Report No. 1053, CFA Archaeology Ltd.

Leat(h) Hill, Moredun, City of Edinburgh, Scotland, UK

An Iron Age short cist, discovered in 1903 (Coles 1904; Canmore ID 51695), contained the remains of two individuals associated with iron dress accessories; the remains of one (NMS X.EQ 277.2) lay above those of the other (NMS X.EQ 277.1). Just over half of the skull of NMS X.EQ 277.1 – the better preserved of the two individuals – was found at the east end of the cist, and this individual is associated with a projecting ring-headed pin and a penannular brooch, both of iron (Coles 1904, figs 4 and 5). The remains of individual NMS X.EQ 277.2 are less well preserved; these were almost certainly associated with a Late Iron Age bow fibula (ibid., fig. 3), with traces of mineralised textile attached, as the fibula was found near the centre of the cist (ibid., fig. 1). Radiocarbon dating of both individuals (for Sophia Adams' *Setting Artefacts Free* project) suggests that they were probably buried within a few years of each other; the dates are consistent with the known currency of the pin and brooch types.

A human petrous bone from the better-preserved skeleton (NMS X.EQ 277.1) failed to produce adequate results and is not included in the analysis: sample I16517 (female), dating to 1975±29 BP (SUERC-87812; 43 cal BCE–cal CE 77).

In addition, the publication by Fred Coles (1904, 432) refers to the discovery of loose teeth on the floor of the cist. One of the three loose teeth that are stored in one of the Leat Hill boxes was analyzed for DNA and was radiocarbon-dated; the date is much later than those for the two individuals, and so either this is from a much later insertion into the cist (of which only teeth survive, or were deposited) or else the loose teeth stored in the box are not from Leat Hill at all. One of these teeth was successfully analyzed for aDNA: sample I5475 (male), dating to 1637±29 BP (SUERC-75918; cal CE 339–535).

Source of sample: National Museums Scotland
Author of entry: Alison Sheridan
References:

Bryce, T.H. 1904. Report on human remains found within a cist at Moredun, Midlothian. *Proceedings of the Society of Antiquaries of Scotland* 38: 439–445.

Coles, F.R. 1904. Notice of the discovery of a cist of the Early Iron Age, on the estate of Moredun, near Gilmerton. *Proceedings of the Society of Antiquaries of Scotland* 38: 427–438.

Sheridan, J.A., Armit, I., Reich, D., Booth, T., Bernardos, R., Barnes, I., Thomas, M. Charlton, S., Craig, O., Lawson, J., Dulias, K., Edwards, C.J., Pala, M., Richards, M.B., Margaryan, A., Kristiansen, K., Willerslev, E., Allentoft, M., Britton, K., Noble, G., Flink, L.G., Talamo, S., Curtis, N., Cooper, A., Cole, S. and Brown, L. 2018 A summary round-up list of Scottish archaeological human remains that have been sampled/analysed for DNA as of January 2019. *Discovery and Excavation in Scotland* 19: 227–228 (227–250 in online version, https://archaeologyscotland.org.uk/join-us/discovery-and-excavation-scotland/)

Macarthur Cave, Oban, Argyll and Bute, Scotland, UK

Macarthur Cave is located at the foot of cliffs in the modern town of Oban, where it was discovered during quarrying operations in 1894 (Canmore ID 23066). Although the blasting associated with these works caused such damage that it is difficult to determine the original size or shape of the cave (which cannot now be traced and may have been entirely destroyed), it seems to have been a minimum of around 10m deep by 6m wide (Anderson 1895). Human bone representing a minimum of four individuals was recovered, at least some of which appears to have been disarticulated (Anderson 1895: 216; Turner 1895: 437; Saville and Hallén 1994: 719). Radiocarbon dating has shown that, although there is artefactual material of Mesolithic date within the cave, some of the human remains date to the Middle Iron Age (Saville and Hallén 1994).

Two human metacarpals were successfully analyzed for aDNA but were initially thought to derive from the same adult male individual. One of these (sample I12657) produced a surprisingly early (Neolithic) date of 5052±30 BP (SUERC-68701; 3952–3781 cal BCE). This sample was reported in Olalde et al. 2018. However, further analysis has revealed that the second metacarpal (sample I12568; male) is in fact likely to be a first degree relative of the first individual. It is thus likely to be of broadly similar date. The two individuals have different mitochondrial haplogoups and thus cannot be brothers; they appear, therefore, to be father and son. Sample I12568 is reported here but not included in the main analysis due to its close familial relationship to sample I12657.

Source of sample: National Museums Scotland

Author of entry: Ian Armit

References:

Anderson, J. 1895. Notice of a cave recently discovered at Oban, containing human remains, and a refuse-heap of shells and bones of animals, and stone and bone implements. *Proceedings of the Society of Antiquaries of Scotland* 29*:* 211–30.

Saville and Hallén, A and Y. 1994. The 'Obanian Iron Age': human remains from the Oban cave sites, Argyll, Scotland. *Antiquity* 68*:* 715–23.

Turner, W. 1895. On human and animal remains found in caves at Oban, Argyllshire. *Proceedings of the Society of Antiquaries of Scotland* 29: 411–38.

Northton, Isle of Harris, Scotland, UK

A multi-period coastal erosion site at Northton, on the Toe Head peninsula on the south coast of Harris, was excavated by Derek Simpson in 1965 and 1966, revealing occupation deposits interleaved with layers of blown sand dating from the Neolithic to the Late Iron Age (Simpson et al. 2006; Canmore ID 10502). A number of inhumations and disarticulated bones were recovered from the Iron Age layers, though their broad date range does not suggest the presence of a coherent cemetery. Several of the Iron Age human remains were discovered in contexts thought initially to date to significantly earlier periods (ibid., 180), suggesting that the stratigraphy of the site was substantially disturbed.

A fragmentary cranium ('Find no. 35, Sk II'; Simpson et al. 2006, 183), was successfully analyzed for aDNA. The left petrous temporal of this individual (NMS X.unreg) yielded sample I2824 (male). The cranium is dated to 1977±29 BP (SUERC-68706, 43 cal BCE – cal CE 76). It appears to derive from an intrusive or mixed context (Simpson et al. 2006, 160).

Source of sample: National Museums Scotland

Author of entry: Ian Armit

Reference: Simpson, D. D. A., Murphy, E. M. and Gregory, R. A. 2006. *Excavations at Northton, Isle of Harris*. Oxford: British Archaeological Reports (British Series) 408.

Seacliff, Cliff Hut Site (1949), East Lothian, Scotland, UK

In 1948, construction work following the acquisition of land at Seacliff by the Admiralty resulted in the discovery of human remains and sherds of Medieval pottery (Appendix to Crone et al. 2016; Canmore ID 57854). In 1949, J.R.C. Hamilton, Ministry of Works, undertook exploratory excavations. He undertook further work in April 1949 and reported on the results in a memo dated 23 July 1954, five years after the excavation. The works relate to the same cemetery later excavated and published as Auldhame (Crone et al. 2016).

The individual analyzed for ancient DNA comes from skeletal remains labelled 'Seacliff 1954 DB 56/11', osteologically identified by Angela Boyle as an adult male. A petrous bone yielded sample I16415 (male). The individual is probably of Medieval date.

Source of sample: National Museums Scotland

Author of entry: Alison Sheridan, with additional information from Angela Boyle

Reference: Crone, A. and Hindmarch, E. with Woolf, A. 2016. *Living and Dying at Auldhame: The Excavation of an Anglian Monastic Settlement and Medieval Parish Church.* Edinburgh: Society of Antiquaries of Scotland.

Thurston Mains, Innerwick, East Lothian, Scotland, UK

A trapezoidal short cist containing the tightly contracted remains of two adult females, buried with their heads at opposite ends of the cist, was excavated in 1939 (Stevenson and Low 1940; Canmore ID 58918). Osteological examination by Low concluded that Skeleton 1 (lying on its left side) was that of a female aged around 30 years (NMS X.EQ 479A), while Skeleton 2 (lying on its right side) was around 35 years old (NMS X.EQ 479B). The position of the skeletons shows that the bodies were buried simultaneously. A flint knife and a short-necked Beaker were found in the cist. Both skeletons have been sampled for aDNA and, given problems of contamination associated with the initial analysis of both skeletons, multiple samples have been taken from both.

Skeleton 1 has produced samples as follows: sample I2413 (right metatarsal; female; GENSCOT13, subsequently re-sampled as I16446/TB185); sample I5471 (tooth; female); sample I16447 (right tibia; female; TB186). Sample I2413 (female) is reported here and included in the analysis. Skeleton 1 has been dated twice: 3721±33 BP (OxA-13097; 2266–2025 cal BCE; Sheridan 2004) and 3547±29 BP (SUERC-75915; 1966–1771 cal BCE, from the right metatarsal from which sample I2413 derives: Sheridan et al. 2018). Of these, it is suspected that the OxA date may be the most accurate since it is closest to the date for Skeleton 2 and is in line with dates for the type of Beaker found in the cist; there is no obvious reason for the discrepancy between the two dates.

Skeleton 2 has produced samples as follows: sample I5472 (tooth; female; subsequently re-sampled as I16448/TB187). Skeleton 2 has been radiocarbon-dated to 3794±26 BP (OxA-13660; 2300–2130 cal BCE, from the dentine of a maxillary tooth; Sheridan 2004). These have been excluded from the analysis due to issues relating to data quality.

Source of samples: National Museums Scotland
Author of entry: Alison Sheridan
References: Sheridan, J.A. 2004. The National Museums' of Scotland radiocarbon dating programmes: results obtained during 2003/4. *Discovery and Excavation in Scotland* 5, 174–6.

Sheridan, J.A., Armit, I., Reich, D., Booth, T., Bernardos, R., Barnes, I., Thomas, M. Charlton, S., Craig, O., Lawson, J., Dulias, K., Edwards, C.J., Pala, M., Richards, M.B., Margaryan, A., Kristiansen, K., Willerslev, E., Allentoft, M., Britton, K., Noble, G., Flink, L.G., Talamo, S., Curtis, N., Cooper, A., Cole, S. and Brown, L. 2018. A summary round-up list of Scottish archaeological human remains that have been sampled/analysed for DNA as of January 2019. *Discovery and Excavation in Scotland* 19, 227–8 (227–250 in online version, https://archaeologyscotland.org.uk/join-us/discovery-and-excavation-scotland/)

Stevenson, R.B.K. and Low, A. 1940. Short cists in the parish of Innerwick, East Lothian, a) Thurston Mains; b) Skateraw. *Proceedings of the Society of Antiquaries of Scotland* 74: 138–45.

Ulva Cave, Isle of Ulva, Scotland, UK

Ulva Cave (56°28'04"N, 6°10'18"W), a relict sea cave on the small island of Ulva in the Inner Hebrides, has been under archaeological investigation since 1987 (Bonsall et al. 1989; Russell et al. 1995; Pickard and Bonsall 2009). A shell midden in the entrance area of the cave accumulated during an extended period from Mesolithic to Iron Age. A small number of disarticulated human remains were identified among a much larger mammalian bone

assemblage. A human radius was successfully analyzed for aDNA, providing sample I12312 (male), dating to 4895±25 BP (PSUAMS-5771; 3751–3636 cal BCE).

Source of sample: University of Edinburgh
Authors of entry: Clive Bonsall and Catriona Pickard
References:
Bonsall, C., Sutherland, D.G. and Lawson, T.J. 1989. Ulva Cave and the early settlement of northern Britain. *Cave Science* 16(3): 109–111.

Russell, N.J., Bonsall, C. and Sutherland, D.G. 1995. The exploitation of marine molluscs in the Mesolithic of western Scotland: evidence from Ulva Cave, Inner Hebrides, in A. Fischer (ed.), *Man and Sea in the Mesolithic*, 273–288. Oxford: Oxbow.

Pickard C. and Bonsall C. 2009. Some observations on the Mesolithic crustacean assemblage from Ulva Cave, Inner Hebrides, Scotland, in J.M. Burdukiewicz, K. Cyrek, P. Dyczek and K. Szymczak (eds) *Understanding the Past. Papers Offered to Stefan K. Kozłowski*, 305–313. Warsaw: University of Warsaw.

SLOVAKIA

Bratislava Castle, Bratislava, Slovakia

Over many years of archaeological research, a significant Late La Tène settlement has been documented in the area of Bratislava Old Town, on the castle hill and in the castle grounds. The intensity and structure of this settlement suggest an *oppidum* with an acropolis at Bratislava Castle (Čambal 2004; 2014; Vrtel 2012; Musilová 2017). Besides archaeological finds from the Late La Tène period (LtC2–LtD2; 190/175 BCE – CE 20/0) there are also exceptional skeletal material dated to the final stages of the *oppidum*'s existence. Evidence suggests that it was destroyed during a violent event: scattered human remains and the charred ruins of buildings have been discovered during excavations in the so-called destruction layer. Instead of being ritually buried, the bodies were largely randomly dumped into pits or strewn on the ground with traces of fire. Until recently it was believed that the randomly scattered human remains belong to the destruction layer associated with the war waged by the Boii against the Dacians after the death of Caesar in 44 BCE. However, the most recent discoveries indicate their possible correlation with the decline of the Roman buildings in the castle grounds during the reign of Emperor Augustus (27 BCE – CE 14) (Vrtel 2015).

Bratislava oppidum was excavated in 2008–2010 and 2013–2014 during construction works of the Medieval castle and the so-called Northern terrace, during which the remains of seven important Celtic-Roman masoned buildings were discovered. These were probably constructed between the years 50/40–30/20 BC (La Tène D2).

A hoard of Celtic gold and silver coins with the inscriptions BIATEC and NONNOS was found in Building I. The best-preserved was Building II, inside which were eight column pedestals and numerous artefacts. Building VII, with two central pillars, was the largest. It probably served as a warehouse for precious goods. High-quality plasters were preserved in Building V and human remains, presumably from killed individuals, were found on the mortar pavement. The buildings are currently conserved and presented under protective structures in the Bratislava Castle area.

In destruction layers from the second catastrophic horizon (turn of the first century BCE/first century CE) were seven human skeletons in various, non-formal burial positions (Musilová et al. 2012; Musilová et al. 2014). The anthropological report on these individuals has not yet been published.

Petrous bones from four individuals have been successfully analyzed for aDNA. The first (individual 6/14), which yielded sample I11711 (female), was found in a crouched position on her right side on the terrazzo pavement of Building II, Area III/7, in the south-eastern part of the Northern terrace. The female was covered by a destruction layer up to 1m thick, sealed by an Early Medieval layer from the eleventh century (dated by a Hungarian Arpadian coin), and dated to the Late La Tène phase.

The other three individuals were recovered from layers SJ2304, SJ2301 and SJ2302 in the interior of Building V, Area II/5.1, in the south-western part of the Northern terrace. Individual 7/14, who yielded sample I11712 (male, c. 30–39 years), lay on the floor near wall Nr. XVII. His pelvis and lower extremities were accidentally destroyed during the excavation works. An iron fibula was under the right ribs and an iron wheel-tyre nearby. In the destruction layer above the body were Roman amphorae sherds and Celtic pot sherds. Individual 8/14 (c. 50–59 years), who yielded sample I11713 (male), lay in a crouched position near wall Nr. XV in layer SJ2317. Finally, individual 9/14 (also (c. 50–59 years), who yielded sample I11715 (male), was recovered from layer SJ2318.

Source of samples: Slovak National Museum – Natural History Museum
Authors of entry: Margaréta Musilová, Branislav Resutík, Alena Šefčáková, Milan Horňák and Andrej Žitňan
References:

Čambal, R. 2004. *Bratislavský Hradný Vrch – Akropola Neskorolaténskeho Oppida.* Bratislava: Zborník Slovenského Národného Múzea Archeológia Supplementum 1.

Čambal, R. 2014. Archeologický výskum Bratislavského hradu v rokoch 1958 až 1966 s dôrazom na neskorú dobu laténsku, in Musilová, M., Barta and P., Herucová, A. (eds.), *Bratislavský Hrad, Dejiny, Výskum a Obnova,* 31–43. Bratislava: Mestský Ústav Ochrany Pamiatok v Bratislave/Slovensko Národné Múzeum – Historické Múzeum.

Musilová, M., Lesák, B. and Resutík, B. 2012. Prienik rímskej kultúry do neskorolaténskeho prostredia. Najnovšie výskumy na bratislavskom hrade, in J. Šedivý and T. Štefanovičová (eds.), *Dejiny Bratislavy 1. Od počiatkov do prelomu 12. a 13. storočia. Brezalauspurc na križovatke kultúr*, 197–201. Bratislava: Slovart.

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Vrtel, A. 2012. Keltské oppidum v Bratislave, in J. Šedivý and T. Štefanovičová (eds.), *Dejiny Bratislavy 1. Od Počiatkov do Prelomu 12. a 13. Storočia. Brezalauspurc na Križovatke Kultúr,* 164–179. Bratislava: Slovart.

Vrtel, A. 2015. Bemerkungen zum Katastrophenhorizont des Bratislavaer oppidums, in S. Wefers, M. Karwowski, J. Fries-Knoblach, P. Trebsche and P.C. Ramsl (ed.), *Waffen – Gewalt – Krieg. Beiträge zur Internationalen Tagung der aG Eisenzeit und des IaUR – Rzeszów 19.–22. september 2012*. Beiträge zur Ur- und Frühgeschichte Mitteleuropa 79, 53–69. Langenweißach: Beirt & Beran.

Kutscherfeld Palace, Hlavné námestie 7, Bratislava, Slovakia

In spring 1994 during restoration works on Kutschersfeld Palace, Main Square 7 (Hlavné námestie 7) archaeological excavations by the Municipal Monument Preservation Institute in Bratislava (MÚOP) recovered the body of a child aged around 5 years and dating to the La Tène D2 period (c. 50 BCE). The skeleton, found in pit S1/94 in feature 12 at a depth of c. 2.27m, was in a nearly upright position, with the skull and a part of the spine in natural anatomical position in the rubble of daubed walls and scorched soil. Part of the body rested on the wall debris, with the rest buried underneath. Although burn marks were found in the surrounding sediment, there were no signs of fire on the bones. The depositional context of the skeleton suggests death in dramatic (perhaps violent?) circumstances (Lesák et al. 1995; Šefčáková 1995; Musilová and Lesák 1996).

A petrous bone from this individual (1/94) was successfully analyzed for aDNA and yielded sample I11710 (female).

Source of sample: Slovak National Museum – Natural History Museum
Author of entry: Alena Šefčáková
References:

Lesák, B., Musilová, M. and Hoššo, J. 1995. *Nálezová Správa zo Záchranného Archeologického Výskumu Hlavného Námestia č. 7 (Kutscherfeldov palác)*. Bratislava, Dokumentačné odd. MÚOP.

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Šefčáková, A. 1995. Neskorolaténske detské kostry z Bratislavy. *Zborník SNM – Prír. Vedy* 41: 59–75.

Pálffy Palace, Panská 19–21, Bratislava, Slovakia

Research in 1982–1985 yielded new finds which greatly extended our knowledge of the final stages of the La Tène settlement in Bratislava (Zachar and Rexa 1988). Found in the fill of a pear-shaped pit 3b/85 (1.4–1.6m deep, with a diameter of 1.4m) were the dumped skeletons of two elderly females, the incomplete skeleton of a male, and a female skull (Gomolčák 1988), interpreted as evidence of the violent destruction of the Bratislava *oppidum*. The remains lay on the burnt wooden lining of the pit, though none showed evidence of injury. The female skull (belonging to an individual aged around 50 years at death) had, however, been placed in anatomical position on the post-cranial skeleton of the male (aged 35–45 years), indicating post-mortem manipulation of the remains.

A petrous bone from this skull (individual 1) yielded sample I11716 (female).

Source of sample: Slovak National Museum – Natural History Museum
Author of entry: Alena Šefčáková

References:

Gomolčák, P. 1988. Anthropologische Charakteristik des Skelettmaterials vom keltischen Objekt 3b/85 aus der Strasse Nálepkova ulica 19 – 21 in Bratislava. *Zborník SNM – História* 82(28): 73–91.

Zachar, L. and Rexa, D. 1988. Beitrag zur Problematik der spätzeitlichen Siedlungshorizonte innerhalb des Bratislavaer Oppidums. *Zborník SNM – História* 82(28): 27–72.

Chotín IA and IB, Komárno, Slovakia

In 1952–1954, 1961 and 1962, the Archaeological Institute of the Slovak Academy of Sciences in Nitra headed by M. Dušek carried out extensive rescue excavations in Chotín, located in Horná ľanová zem (Komárno District, Nitra Region), at one of the largest cemeteries not only of the Vekerzug culture but also of the Hallstatt period in the Central Danube Region. During the five-year field campaign, two large mixed-rite cemeteries, known as Chotín IA and Chotín IB, located only 120–200m from one another, were completely excavated.

At Chotín I, 465 inhumation and cremation burials of the Vekerzug culture were recovered: 370 in Chotín IA (116 cremations and 242 inhumations, 11 cenotaphs, 1 mixed-rite multiple burial) and 95 in Chotín IB (27 cremations and 58 inhumations, 9 cenotaphs, 1 mixed-rite multiple burial). The cemeteries also included eight separate horse graves in Chotín IA and 2 such graves in Chotín IB. The total number of graves from both cemeteries was thus 475. At Chotín IA, eight further features provided evidence for funeral pyres. The function of other features containing much charcoal, charred sand and ash, located over some of the inhumation burials, may have served a similar function.

The cemeteries at Chotín I are so far the only examples from the Vekerzug culture that have been completely excavated (Dušek 1966; Kozubová 2013a; 2013b); they are comparable only to the incompletely excavated cemetery in Tápiószele-Szumrák (East Hungary). They thus provide the possibility of complex analysis of the grave goods and funerary customs and form the basis for the study of the costumes and social structure of the local community. Indeed, anthropological analysis of human remains from almost half of the inhumation graves and several cremation graves has been undertaken by M. Prokopec in the 1960s. There are a large number of grave goods from both cemeteries, made of metal, clay, glass, amber, stone and bone/antler, and indicate that both cemeteries date to Hallstatt D1 – La Tène A, and into La Tène B1. Some grave goods are typical gender-specific: weapons, horse harnesses, razors and whetstones for men's graves; whorls, clay seals, bone cylindrical objects, mirrors, flat worked stones, some types of ornaments (serpent-shaped hair-rings, fibulae) and miniature vessels for women's graves. Other grave goods occur with both sexes: some types of ornaments (bracelets and beads), tools (knives, awls) and pottery. Miniaturization and non-gender specific objects characterise the graves of children and adolescents.
Twenty-four Iron Age individuals (20 petrous bones and four teeth) were successfully analyzed for aDNA. Chotín IA yielded 23 samples while Chotín IB yielded one sample.

Nineteen petrous bones were sampled from Chotín IA. Sample I12099 (male) derived from an older individual buried in a seated position in grave 6 (1952). Sample I12106 (female) derived from a crouched individual in grave 27 (1952). The grave included a cup, two small bottle-shaped vessels, iron bracelets on the wrists, a cowrie shell pendant, and the skull, femur and humerus of a second individual. Sample I12098 (female) derived from a crouched burial in grave 111 (1953), with grave goods including a cup, a vase (with another miniature

version inside it), one complete pot and fragments of other vessels, glass/clay/amber/bone beads, a wild boar tusk, 3 bronze spirals and a spindlewhorl. Sample I5287 (female) derived from an older individual in grave 118 (1953), covered with charred sand and ash. Sample I11719 (female) derived from an older individual in grave 121 (1953). This individual had osteological changes consistent with so-called rider's syndrome (Šefčáková 2014) and the grave pit contained a horse (horse burial 4/1953). Sample I12101 (male) derived from an older individual in grave 122 (1953), who was buried with an iron knife. Sample I12107 (female) derived from an individual in grave 123 (1953), who was buried with a bronze bracelet on the left wrist, two iron bracelets on the right wrist, and fragment of a small iron ring. Sample I11717 (female) derived from an older individual in grave 128 (1953), buried in a crouched position. Sample I12102 (female) derived from a child in grave 137 (1953), who was buried with 2 glass beads and a bronze ornamental plate. Sample I12104 (female) derived from a crouched individual in grave 141 (1953), who was buried with bronze bracelets on left and right wrists. Sample I5288 (male) derived from an older individual in grave 143 (1953), buried with a cup, two pottery vessels, a large vase and a decorated bone cylinder. Sample I12097 (female) was taken from a young individual in grave 162 (1953), whose grave goods included pottery vessels, a worked stone, two iron bracelets, a spindlewhorl and a number of unidentified animal bones. Sample I12108 (female) derived from grave 169 (1953), which also contained fragments of pottery vessels. Sample I12110 (male) derived from grave 198 (1954), which likewise contained fragments of pottery vessels. Sample I12100 (female) derived from a child in grave 246 (1954), buried in a crouched position with a number of pottery vessels, one of which contained two bronze serpent-shaped hair-ring, a bronze bead and ochre. Sample I12105 (female) derived from grave 263 (1954), sample I12103 (male) from an older individual in grave 237 (1954), sample I11722 (female) from grave 243 (1954) and sample I11721 (female) from grave 275 (1954).

Four teeth were also sampled from Chotín IA. The first, from an older individual in grave 2 (1952), yielded sample I14465 (male). The skull of this individual had been moved after death to the right hip and grave goods included a pottery vessel, worked stone, two spindlewhorls, fragments of several iron pins, fragments of two small iron rings, a bronze basket-shaped pendant, 12 clay beads and 2 cowrie shell pendants. The second, from grave 35 (1952), yielded sample I14464 (female). This mature individual (35a) formed a double burial with a child (35b), which was covered by an oval feature of charred sand and ash. The third, from an infant buried in grave 113 (1953) with a cup, an amber bead necklace and a small bronze bangle, yielded sample I14467 (female). The final tooth, from grave 210 (1954) yielded sample I14468 (male). The lower limbs of this individual were found near the head and the grave was overlain by a feature comprising charred sand and ash. Grave goods included one iron bracelet on each wrist, fragments of two iron pins/awls, four bronze arrowheads, and a bronze phalera (part of horse harnesses).

One petrous bone, from an individual buried with pottery cups and 13 bronze arrowheads in grave 1 (1961) at Chotín IB, yielded sample I11821 (male).

Source of samples: Slovak National Museum – Natural History Museum
Author of entry: Anita Kozubová
References:
Dušek, M. 1955. Kostrové pohrebisko z X. a XI. storočia v Chotíne na Slovensku. *Slovenská archeológia* III: 244–263.

Dušek, M. 1966. *Thrakisches Gräberfeld der Hallstattzeit in Chotín.* Archeologica Slovaca, Fontes VI. Bratislava: Vydavateľstvo Slovenskej Akadémie Vied.

Kozubová, A. 2013a. *Pohrebiská Vekerzugskej Kultúry v Chotíne na Juhozápadnom Slovensku. Vyhodnotenie.* Dissertationes Archaeologicae Bratislavenses 1. Bratislava: Univerzita Komenského v Bratislave.

Kozubová, A. 2013b. *Pohrebiská Vekerzugskej Kultúry v Chotíne na Juhozápadnom Slovensku. Katalóg. S dodatkom Pohrebisko vekerzugskej kultúry v Senci-Štrkovej kolónii.* Dissertationes Archaeologicae Bratislavenses 1. Bratislava: Univerzita Komenského v Bratislave.

Šefčáková, A. 2014. Antropologická analýza kostrových pozostatkov z hrobu 121/53 z Chotína, okr. Komárno (vekerzugská kultúra, doba halštatská), in P. Kmeťová, Hrob 121/1953 z pohrebiska vekerzugskej kultúry v Chotíne IA na juhozápadnom Slovensku: doklad rituálnej obety človeka a koňa v staršej dobe železnej? (S antropologickým posudkom A. Šefčákovej). *Studia archaelogica Brunenzia* 19(2): 57–84 (74–79).

SLOVENIA

Dolge njive, Slovenia

The Iron Age cemetery at Dolge njive forms part of one of the largest mortuary complexes of the Early Iron Age Dolenjska group of south-east Slovenia and northern Croatia (Mason 2005; Mason and Mlekuž 2016). The complex centres on the hillfort at Veliki Vinji vrh and comprises an estimated 145 barrows, extending over an area of more than 10km^2. Excavations at Dolge njive in 2002, in advance of motorway construction, revealed the poorly-preserved remains of three barrows: two had been largely destroyed by a combination of Roman settlement activity and Medieval agriculture, though both had evidently contained at least one inhumation. Barrow 1, however, was better-preserved, covering the remains of six graves which contained a total of seven inhumation burials.

Human petrous bones from four burials were successfully analyzed for aDNA. Three of these individuals were identified as siblings: Burial 4, which yielded sample I5686 (male), dating to 2569±30 BP (SUERC-69428; 809–557 cal BCE); Burial 1, which yielded sample I5684 (female), dating to 2531±29 BP (SUERC-69427; 797–545 cal BCE); and Burial 3a, which yielded sample I5685 (male), dating to 2507±29 BP (SUERC-69431; 789–540 cal BCE). Samples I5684 and I5685 have been excluded from the main analysis due to their status as first degree relatives of higher coverage sample I5686. A further individual (Burial 6), yielding sample I5687 (male), dating to 2525±31 (SUERC-69707; 796–542 cal BCE) was identified as a second or third degree relative of this group.

Source of sample: Dolenjski muzej, Novo mesto

Author of entry: Philip Mason, Matija Črešnar and Ian Armit

References:

Mason, P. 2005. Dolge njive near Bela Cerkev. In: Djurić, B., Prešeren, D. (eds.) *The Earth Beneath Your Feet. Archaeology on the Motorways in Slovenia: Guide to Sites*: 123–125. Ljubljana: Institute for the Protection of the Cultural Heritage of Slovenia.

Mason, P., Mlekuž, D. 2016. Negotiating space in the Early Iron Age landscape of south-eastern Slovenia: the case of Veliki Vinji vrh, in Armit I., Potrebica H., Črešnar M., Mason

P., Buster L. (eds.), *Cultural Encounters in Iron Age Europe*, 95–120. Budapest: Archaeolingua Series Minor 38.

Grofove njive, Slovenia

The site of Grofove njive, near Drnovo, consisted of a burial mound and a possible unenclosed settlement from the later phase of the Early Iron Age (i.e. Late Hallstatt period). The site lies in the middle of the relatively broad plain of the Krka and Sava Rivers, close to the edge of the major Urnfield period settlement of Velike njive and in direct line of sight to the central hillfort of Libna, located on the hills to the north-east (Pavlovič 2014). Both sites belong to the Early Iron Age Dolenjska group, which extends over south-eastern Slovenia and northern Croatia.

The burial mound, which was surrounded by a shallow ring ditch, contained five graves containing six inhumation burials, although one of the graves had been almost completely destroyed by later activity. The graves can all be dated, primarily on the basis of bronze grave goods, to the Certosa horizon of the Dolenjska Early Iron Age group (second half of the sixth and first half of the fifth century BCE).

Two human petrous bones were successfully analyzed for aDNA: Skeleton 279 yielded sample I5689 (male), while Skeleton 272 yielded sample I5690 (male).

Source of sample: Posavski muzej, Brežice
Author of entry: Matija Črešnar, Philip Mason and Ian Armit
Reference: Pavlovič, D. 2014. Drnovo, in B. Teržan and M. Črešnar (eds.), *Absolute Dating of the Bronze and Iron Ages in Slovenia*, 491–504. Ljubljana: Univerza v Ljubjani/Narodni muzej Slovenije Catalogi et Monographiae 40.

Kapiteljska njiva, Novo mesto, Slovenia

The Kapiteljska njiva barrow cemetery is part of a major Early Iron Age complex at Novo mesto located in the middle Krka valley (Knez 1993; Križ 2019). The Marof hillfort is interpreted as the centre of this complex, although there is increasing evidence that Early Iron Age settlement extended into the area now occupied by the historic town centre of Novo mesto.

The barrow cemetery on the Kapiteljska njiva ridge, comprising at least 66 ploughed-out barrows, is partially contemporary with a Late Bronze Age Urnfield cemetery on the same location. A Late Iron Age flat cremation cemetery was also located on the eastern part of this ridge, mostly avoiding the Early Iron Age barrow cemetery. A second large Urnfield cemetery complex, comprising over 400 flat cremation graves and some flat inhumation graves, was located on the adjacent Mestne njive ridge to the east of Kapiteljske njive. A further large barrow cemetery was located at Kandija on the left bank of the River Krka to the south of the historic town centre.

Kapiteljska njiva, grave I/16 was located within the largest barrow on the site. It contained 80 inhumation burials arranged around a central drystone burial chamber, which marks it out as one of the earliest barrows in the cemetery. Grave I/16 is defined on typological grounds as being a male grave, dating to the Podzemelj II phase of the Early Iron Age in the Dolenjska region, i.e. Ha C0 (mid-eighth century BCE).

A human petrous from grave I/16 was successfully analyzed for aDNA, yielding sample I5691 (male), dating to 2518±28 BP (SUERC-69417; 794–542 cal BCE).

Source of sample: Dolenjski muzej, Novo mesto
Author of entry: Philip Mason, Matija Črešnar and Ian Armit
References:
Knez, T. 1993. *Kapiteljska njiva: Knežja gomila (Kapiteljska njiva: Fürstengrabhügel)*. Novo mesto: Dolenjski muzej Carniola archaeologica 1.
Križ, B. 2019. *Kapiteljska njiva: Način pokopa v starejši železni dobi (Kapiteljska njiva: Burial Rite in the Early Iron Age)*. Novo mesto: Dolenjski muzej Carniola archaeologica 8.

Kongresni trg, Ljubljana, Slovenia

The Late Bronze and Early Iron Age cemetery in Kongresni trg (Congress Square) is located in the centre of Ljubljana (Badovinac et al. 2011; Gaspari 2014; Gaspari et al. 2015). It yielded a number of flat cremation graves and five barrows constructed of river cobbles and soil. Although not unique, this is not the typical grave construction in this area, where flat cremation graves were the prevalent grave type. Each of the barrows yielded one or more cremation graves, dating to the eighth/seventh century BCE.

Several poorly-furnished inhumation graves were placed around the barrows. Although inhumation was generally absent in this area in the Early Iron Age, radiocarbon dating of two of these graves (GR 1029A and GR 1032) has confirmed that they belong to the Early Iron Age.

Two human petrous bones were successfully analyzed for aDNA: Burial 1032 yielded sample I5692 (female), dating to 2550±15 BP (PSUAMS-3055; 798–596 cal BCE), and Burial 1029 A yielded sample I5693 (female), dating to 2550±20 BP (PSUAMS-3092; 800–571 cal BCE).

Source of sample: Museum and Galleries of Ljubljana
Author of entry: Matija Črešnar, Philip Mason and Ian Armit
References:
Badovinac, D., Bekljanov Zidanšek, I., Božinović, M., Brečić, J., Erjavec, R., Hrustel, J., Hvalec, S., Masaryk, R., Porenta, S., Skorupan, J., Verbič, T., and Vojaković, P. 2011. *Report of the Archaeological Excavations on the Area of the Building of the Parking House in Ljubljana, Congress Square, vol. I-XI*. Unpublished excavation report, Ljubljana.

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Gaspari, A., Bekljanov Zidanšek, I., Masaryk, R., and Novšak, M. 2015. Augustan military graves from the area of Kongresni trg in Ljubljana, in Istenič, J., Laharnar, B., and Horvat, J. *Evidence of the Roman Army in Slovenia,* 125–169. Ljubljana: Narodni muzej Slovenije Catalogi et Monographiae 41.

Obrežje, Slovenia

The Late Bronze Age (i.e. Urnfield period) cemetery at Obrežje is one of the largest mortuary complexes of the Dobova–Velika Gorica group in the Sava valley in south-eastern Slovenia and north-western Croatia (Mason 2005). The cemetery is located on the Pleistocene and Early Holocene terrace of the River Breganščica and was excavated in advance of the

construction of the international border crossing between Slovenia and Croatia in 2001–2003. The mortuary complex is associated with three major open settlement loci in the immediate vicinity. The settlement at Gorica on the Pleistocene terrace of the River Sava to the north-east of the cemetery is dated to the Bd C/D period (fifteenth–thirteenth centuries BCE), whilst the two loci on the Pleistocene terrace of the River Breganščica to the south-east and east of the cemetery are dated to the Ha B (eleventh–eighth centuries BCE). The cemetery and settlement complexes were damaged by the construction of an Early Roman vexillation fort and road, as well as by Late Medieval settlement activity.

The cemetery comprises 378 cremation graves that date to the thirteenth–eighth centuries BCE and four flat inhumation graves. The latter are confined to the central part of the cemetery, but are widely distributed within it. Following the results of the radiocarbon dating of three of the inhumations, it became evident that one is contemporary with the beginning and one with the later part of the Urnfield cremation cemetery, whilst the third dates to the later part of the Early Iron Age, when inhumation burial under barrows was the norm in this region.

Three human petrous bones were successfully analyzed for aDNA: Burial 12623 yielded sample I5695 (male), dating to 3086±30 BP (SUERC-69437; 1422–1271 cal BCE); Burial 3043 yielded sample I5697 (female), dating to 2693±29 BP (SUERC-69436; 900–805 cal BCE); and Burial 2544 yielded sample I5696 (male), dating to 2281±29 BP (SUERC-69438; 404–212 cal BCE).

Source of sample: Posavski muzej, Brežice
Author of entry: Philip Mason, Matija Črešnar and Ian Armit
Reference: Mason, P. 2005. Obrežje MMP (International Border crossing), in Djurić, B. and Prešeren, D. (eds.) *The Earth Beneath Your Feet: Archaeology on the Motorways in Slovenia: Guide to Sites*, 208–210. Ljubljana: Institute for the Protection of the Cultural Heritage of Slovenia.

Zagorje ob Savi, Slovenia
The Early Iron Age cemetery in Zagorje ob Savi is located at the foot of the hill known as Ocepkov hrib, where the contemporary settlement was most probably located (Draksler and Murko 2020; Nicholls et al. 2020). It lies just above the Medija stream, a tributary of the Sava, one of the major rivers of the south-east Alpine region. The site belongs to the Dolenjska Early Iron Age regional group and seems to have been active only in the Late Hallstatt period (sixth–fourth century BCE). The cemetery contains flat inhumation graves, in a region where monumental burial mounds are much more common.

The excavated area of the cemetery comprises nine flat, sub-rectangular graves. Most were lined with large dolomitic stones, and some were covered with rubble. The skeletons were laid out in a supine position with their arms and legs extended. The adults in graves 4, 5 and 8 in the central group were accompanied by two infant graves (6 and 7), positioned in very close proximity to each other. Other than their smaller size, these graves were constructed in an identical fashion to the adult graves.

A human petrous bone from grave 8 was successfully analyzed for aDNA, yielding sample I5698 (female), dating to 2499±28 BP (SUERC-69422; 781–538 cal BCE).

Source of sample: National Museum of Slovenia

Author of entry: Matija Črešnar, Philip Mason and Ian Armit

References:

Draksler, M., Murko, M. 2020. New Early Iron Age finds from Zagorje ob Savi and Sava near Litija. *Arheološki vestnik* 71: 469–486.

Nicholls, R.A., Buckberry, J., Črešnar, M., Armit, I., Mason, P., and Koon, H. 2020. Interdisciplinary study of human remains from the Early Iron Age cemetery at Zagorje ob Savi (Slovenia). *Arheološki vestnik* 71: 487–498.

SPAIN

El Espinoso cave, Spain

El Espinoso cave is located in the easternmost coastal area of Asturias province (northern Spain), in the town of La Franca, municipality of Ribadedeva. The cave is located on a 20m high limestone cliff, which dominates a closed valley, near the mouth of the Cabra River, only 200m from the present shoreline. The entrance of the cave is oriented south-west, and to access it is necessary to climb a 4m-high cliff (González Morales 1995).

In the cave interior, Palaeolithic remains were discovered and excavated in the early 1980s (González Morales 1995). Radiocarbon dating and lithic typology dates this occupation to the Solutrean/Magdalenian transition (20.7k cal BP; Cuenca Solana 2013). At the end of the cavity, in a short, small room ~40m^2, only accessible through a low, narrow passage, abundant human remains were documented over the surface of the cave floor. No grave goods were identified. This human bone assemblage dated to the second half of the second millennium BCE, corresponding to the Cantabrian Late Bronze Age (González-Rabanal et al. 2017a).

The anthropological study of the human remains showed that the cave was used as a collective burial place to deposit individuals from different ages and sexes. 1230 human remains belonging to 20 individuals of different ages were assessed: two infants (0–3 years), four children (3–12 years), five adolescents (12–20 years), seven adults (20–50 years) and two older adults (50+ years). Sex identification was possible in twelve individuals: seven males and five females. Stature estimation gave an average height of 1.71m for males and 1.60m for females. Some pathologies were identified such as caries, dental calculus, periodontal disease, osteoarthritis and antemortem fractures (González-Rabanal et al. 2017a).

Taphonomic study of the assemblage showed poor anatomical representation and high fragmentation. The presence of short and low-density bones, such as patella, phalanges, carpal and tarsal bones, indicates the primary character of the burials. However, skulls and long bones are poorly represented, and they are widely fragmented. An anthropogenic origin for differential preservation within the deposit cannot, therefore, be excluded. This could be related to the extraction of the long bones and skulls from the cave, once the bodies had decomposed, to carry out secondary deposition elsewhere, leaving smaller and less diagnostic bones *in situ*. Significant post-depositional diagenetic processes related to water circulation and the humidity typical of surface deposits in karstic systems (González-Rabanal et al. 2017b) were also present in the bone assemblages.

Three teeth were successfully analyzed for aDNA, yielding sample I20735_d (indeterminate sex); sample I20736 (female); and sample I20740 (male). All represent second or third degree relatives of one another, and can be dated to 1277–1007 cal BCE on the basis of AMS dates obtained on other individuals within the deposit.

Source of samples: Borja González-Rabanal
Author of entry: Borja González-Rabanal, Manuel Ramón González Morales and Ana B. Marín-Arroyo
References:
Cuenca Solana, D. 2013. *Utilización de instrumentos de concha para la realización de actividades productivas en las formaciones económico-sociales de cazadores- recolectores-pescadores y primeras sociedades tribales de la fachada atlántica europea*. Santander: PuBLiCan, Ediciones Universidad de Cantabria.

Gonzalez Morales, M.R. 1995. Memoria de los trabajos de limpieza y toma de muestras en los yacimientos de las cuevas de Mazaculos y El Espinoso (La Franca, Ribadedeva) y La Llana (Andrin, Llanes) en 1993. *Excavaciones Arqueológicas en Asturias 1991–94*: 65–78.

González-Rabanal, B., González Morales, M.R., Marín-Arroyo, A.B. 2017a. Anthropological and taphonomical study of human remains from the burial cave of El Espinoso (Ribadedeva, Asturias, Spain). *Current Approaches to Collective Burials in the Late European Prehistory*, 55.

González Rabanal, B., González Morales, M.R., Marín Arroyo, A.B. 2017b. La tafonomía como marco metodológico para interpretar depósitos funerarios superficiales: estudio de la cueva sepulcral de El Espinoso (Ribadedeva, Asturias). *Trabajos de Prehistoria* 74(2), 278–295.

Monte Bernorio, Spain

The fortified settlement (*oppidum*) of Monte Bernorio (municipality of Pomar de Valdivia, province of Palencia) is located on a limestone mountain that forms part of the southern foothills of the Cantabrian Mountains of northern Spain. The first archaeological discoveries were made at the end of the nineteenth century, with further work carried out in the 1940s and 1950s. The current research project ('Monte Bernorio in its environment') began in 2004 and has focused both on the settlement and the burial evidence (Torres-Martínez et al. 2016). While there is some sparse evidence from the Bronze Age, occupation at Monte Bernorio intensified during the Iron Age, particularly in the last centuries BCE, when the upper part of the mountain was heavily fortified by a wall and ditch that enclosed an area of 28ha. Further earthworks on the slopes and at the foot of Monte Bernorio formed a multivallate system that extended the area of the site to c. 90ha. The site was destroyed by the Roman army during the course of the Cantabrian Wars launched by Emperor Augustus (29–19 BCE).

Recent excavations on a settlement terrace situated on the southern side of Monte Bernorio, next to the enclosing wall and in close proximity to one of the entrance gates of the *oppidum*, have uncovered two large buildings interpreted as house structures. The buildings appear to have been roughly contemporary and belong to the second half of the first millennium BCE. A radiocarbon date obtained from the foundation level of one of the buildings provides a date of 2428±34 BP (SUERC-75403; 750–400 cal BCE). The buildings had a width of 8–10m and 5–6 m respectively, and a rectangular shape with rounded corners. The walls had stone bases and upper parts constructed of wattle and daub. Both buildings experienced remodelling, with at least two episodes of rebuilding observed in House 1 and three in House 3. The houses were finally destroyed by fire during the attack launched by the Roman legions as part of the Cantabrian Wars, probably in 26 or 25 BCE (Fernández-Götz et al. 2018; Peralta Labrador et al. 2019).

Excavations carried out in 2006, 2007, 2013 and 2016 uncovered the remains of several perinatal individuals under the floors of the two aforementioned buildings (cf. preliminary study in Torres-Martínez et al. 2012). House 1 contained the remains of 4 perinatal individuals (MB-1/2006, MB-2/2006, MB 3/2006, and MB-2013), in two areas located in the center of the house, near the entrance and the hearth respectively. Their stratigraphic disposition suggests that some of the remains may have been buried in one of the older phases of the building, subsequently being removed from their original context to be reburied together with the more recent remains.

In House 2, the remains of 5 individuals (MB-1/2007, MB-1/2016, MB-2/2016, MB 3/2016, and MB-4/2016) were recovered from underneath the floor in the western part of the building. The bones were found in two closely associated areas and belonged to several individuals; the manipulation of the remains suggests that they were probably buried at different times. Some of the remains seem to have been reburied during one of the episodes of rebuilding of the house structure.

Finally, the remains of a sub-adult (MB 2/2007) were recovered from between the buildings.

The recovery of the infant individuals is particularly important for our understanding of the Iron Age populations of the region. So far, they represent the only inhumations identified at Monte Bernorio. All other human remains discovered at the site are cremation burials from cemeteries located outside the upper wall of the *oppidum*. The practice of burying the bodies of perinates below house floors is attested at other sites in northern Iberia during the Iron Age (Galilea and García 2002).

Long bones from five individuals were successfully analyzed for aDNA. Three from House 1 yielded samples I19987 (female; MB-1/2006), I19988 (female; MB-2/2006), and I19989 (female; MB-3/2006); while a further two from House 2 yielded samples I19990 (male; MB-1/2007), and I19991 (male; MB-2/2016).

Sample I19992, from the long bone of MB-4/2016, failed analysis and has not been reported here. Sample I19988 was found to be a duplicate of individual MB-1/2006 and its data has been combined in the analysis with sample I19987. Samples I21885 and I21886, derived from petrous bones from two further individuals (MB-2013 and MB1/2016), are awaiting analysis.

Source of samples: Jesús F. Torres-Martínez and Manuel Fernández-Götz
Author of entry: Jesús F. Torres-Martínez, Manuel Fernández-Götz, Silvia Carnicero-Cáceres and Olalla López-Costas
References:

Fernández-Götz, M., Torres-Martínez, J.F. and Martínez-Velasco, A. 2018. The battle at Monte Bernorio and the Augustan conquest of Cantabrian Spain, in M. Fernández-Götz and N. Roymans (eds.), *Conflict Archaeology: Materialities of Collective Violence from Prehistory to Late Antiquity*, 127–140. New York/Abingdon: Routledge.

Galilea, F. and García, A. 2002. Enterramientos infantiles en el poblado Protohistórico de La Hoya (Laguardia, Álava). *Estudios de Arqueología Alavesa* 19: 150–162.

Peralta Labrador, E., Camino Mayor, J. and Torres-Martínez, J.F. 2019. Recent research on the Cantabrian Wars: the archaeological reconstruction of a mountain war. *Journal of Roman Archaeology* 32: 421–438.

Torres-Martínez, J.F., Domínguez-Solera, S. and Carnicero-Cáceres, S. 2012. Inhumaciones de perinatales en el área de la muralla sur del *oppidum* de Monte Bernorio (Villarén, Palencia). Ritos de edad y rituales funerarios. *MUNIBE (Antropologia-Arkeologia)* 63: 199–211.

Torres-Martínez, J.F., Fernández-Götz, M., Martínez-Velasco, A., Vacas-Madrid. D. and Rodríguez-Millán, E. 2016. From the Bronze Age to the Roman Conquest: the *oppidum* of Monte Bernorio (Northern Spain). *Proceedings of the Prehistoric Society* 82: 363–382.

WALES

Big Covert, Maeshafn, Denbighshire, Wales, UK

Big Covert is a cave located in Denbighshire, north-east Wales. Excavations took place during the 1950s and yielded archaeological and human remains (Hesketh 1955). In the main chamber, known as the 'Bone Chamber', bronze artefacts, including a brooch, a ring and a Roman period zoomorphic brooch were recovered, as well as human remains representing at least six individuals (five adults and one juvenile). The 'Entrance Chamber' contained Roman and Bronze Age metalwork but produced no human remains. Based on the archaeological remains, activity appears to date to between 2400 BCE and CE 410. One human petrous temporal (89.30H/11) was successfully analyzed for aDNA, yielding sample I16408 (female).

Source of sample: Jody Deacon, National Museum of Wales
Author of entry: Claire-Elise Fischer
References:
Hesketh. G.E. 1955. An account of excavations in the Cave in the Big Covert, Maeshafn, Llanferres. *Flintshire Historical Society* 15: 141–148.

Culver Hole Cave, Port Eynon, Gower Peninsula, West Glamorgan, Wales, UK

Excavations at Culver Hole Cave took place in 1883, and again in 1924–1931, yielding Middle Bronze Age urns and artefacts dating also to the Roman and Early Medieval periods (Penniman 1931; 1932). The human bone assemblage consists of at least 41 individuals (Buxton 1932), which may (given the presence of the urns) date to the Bronze Age, though no detailed report on the stratigraphy has been published.

Here we report data for two individuals. Sample I16488 (male) was derived from the mandible of an adult (Skeleton 25.221/2.61). Sample I16476 (female) was derived from the mandible of a juvenile (Skeleton 25.221/2.12), but is not included in the main analysis due to problems with sex ration information. Sample I16481 (indeterminate sex) from Skeleton 25.221/2.154 and sample I16487 (male) from Skeleton 25.221/2.3 are excluded due to poor data quality. A further sample (I5364) from this site was reported in Olalde et al. (2018), though it was not included in the analysis due to contamination.

Source of sample: Jody Deacon, National Museum of Wales
Author of entry: Claire-Elise Fischer
References:
Buxton, L.H.D. 1932. Report on the human remains from Culver Hole. *Bulletin of the Board of Celtic Studies* 6(2): 198–200.

Penniman, T.K. 1931. Culver Hole Cave, Llangennith, Gower. *Bulletin of the Board of Celtic Studies* 6(1): 90–92.
Penniman, T.K. 1932. Culver Hole Cave and vicinity, Llangennith and Llanmadoc, Gower. *Bulletin of the Board of Celtic Studies* 6(2): 196–197.

Dinorben, Clwyd, Wales, UK

The Dinorben hillfort was excavated by Gardner from 1912 to 1922 and later by Hubert Savory in the 1960s and 1970s. Radiocarbon dates obtained during the 1970s led Savory to postulate a ninth or early eighth century BCE date for hillfort construction. A subsequent dating programme with closely associated and securely stratified samples, however, yielded four radiocarbon dates indicating construction in 550–400 cal BCE.

Human remains from the site comprise five articulated individuals and disarticulated fragments including nine heads or skull fragments found on the floors of three houses, in one of the guard chambers of the main entrance and in a ditch (Davis 2018).

Five disarticulated cranial fragments and teeth were analyzed for aDNA: I16410 (petrous; female; 58.535(1103?)); I16513 (petrous; indeterminate sex; SB590A; 58.535[1912-22]); I16514 (petrous; female; SB589A, 58.535[2]); I16478 (tooth; female; 58.535/1501) and I16475 (tooth; male; 58.535/1151). I16410 and I16514 have been excluded from the analysis due to low coverage, as has I16513, which showed evidence for contamination.

Source of sample: Jody Deacon, National Museum of Wales
Author of entry: Claire-Elise Fischer
References:

Davis, O. 2018. Iron Age burial in Wales: patterns, practices and problems. *Oxford Journal of Archaeology* 37: 61–97.

Harding, D. 2013. *Iron Age Hillforts in Britain and Beyond*. Oxford: Oxford University Press.

Ogof Ffynnon Ddu, Penwillt, Wales, UK

The cave of Ogof Ffynon Ddu was first explored in 1946, is one of the deepest caves in the UK, and is notable for its impressive main stream passage and scalloped walls. During the exploration, a human skeleton was found on a small platform of rock at the foot of a rock fall. The skeleton, in a poor state of preservation, lay on its right side, with the legs bent. No artefacts accompanied the individual and it thus remains undated (Mason 1972). A tooth from this individual (89.26H/17) yielded sample I16474 (male) but the data have not been included in the main analysis due to low coverage.

Source of sample: Jody Deacon, National Museum of Wales
Author of entry: Claire-Elise Fischer
Reference:

Mason, E.J. 1972. Report on human skeleton discovered on 4 August 1946 in Ogof, Ffynnon Ddu at Rhongyr Uchaf, Swansea Valley. *South Wales Caving Club Newsletter* 70: 20–1.

Ogof yr Esgyrn, Dan-Yr-Ogof, Powys, Wales, UK

Excavations at Ogof yr Esgyrn in 1923 and 1938–50, and later in 1972, 1978 and 1979, uncovered both artifacts and human remains (Mason 1978). The human assemblage consists of more than two thousand bones belonging to at least 40 individuals (14 adults and 26

juveniles). The artefactual assemblage included bone pins, coins, a twisted silver ring and pottery from the Romano-British period, as well as bronze dirks, weaving combs and a double conical gold bead dating from the Bronze Age (Mason 1978).

Human bones from this assemblage have been radiocarbon dated to 3014 BP (UB-6550) and 3008 BP (UB-6551) (Branigan and Dearne 1991). Though no standard errors are quoted (ibid.), they represent Middle Bronze Age dates of 1409–1115 cal BCE and 1409–1094 cal BCE respectively, assuming a standard error of 50 years.

DNA was successfully analyzed for two individuals: sample I16485 (female) was obtained from a tooth in a mandible from individual 97.5H/12, while sample I16492 (male) derives from a tooth in a mandible from individual 97.5H/9.

Source of sample: Jody Deacon, National Museum of Wales
Author of entry: Claire-Elise Fischer
References:

Branigan, K. and Dearne, M.J. 1991. *A gazetteer of Romano-British cave sites and their finds*. Sheffield: Department of Archaeology and Prehistory, University of Sheffield.

Mason E.J. 1978. Excavations at Ogof yr Esgyrn. *South Wales Caving Club Newsletter* 89: 3–7.

Ogof Rhiwledyn, Little Ormes Head, Llandudno, Conwy, Wales, UK

Ogof Rhiwledyn, also known as North Face Cave, was excavated in 1962–1976 and again in 2015, yielding artefacts as well as human and animal bones (Blore 2012; 2017). Artefacts included pebbles, slate and antler tools, and an amber bead which could be Early–Middle Bronze Age in date (Blore 2012). The bone assemblage comprised many mammals: some would have used the cave as refuge, some species would have been brought in by predators, but there were also butchered remains brought in by humans (Blore 2012). The human remains belong to at least four individuals: a 4 year old, an 8–9 year old, a 10–12 year old and an adult (Blore 2012). Part of maxilla which could belong to the 10–12 year old individual was recovered in 2015. It produced a Middle Bronze Age of 3065±36 BP (SUERC-62072; 1415–1228 cal BCE; Blore 2017). This date is complemented by the artefactual assemblage, as well as the discovery, in 1986, of a Bronze Age Copper mine less than 5km away from Ogof Rhiwledyn.

Here, we report sample I16479_d (tooth; indeterminate sex, Skeleton 2000.50H/6) but it is not included in the main analysis due to low data coverage.

Source of sample: Jody Deacon, National Museum of Wales
Author of entry: Claire-Elise Fischer
References:

Blore J.D. 2012. *Archaeological Excavation at North Face Cave Little Ormes Head, Gwynedd 1962–1976.* Wallasey, privately published.

Blore J.D. 2017. *Radiocarbon Date for the Human Remains from North Face Cave, Little Orme's Head, Gwynedd*. Wallasey, privately published.

Orchid Cave, Llanferres, Denbigshire, Wales, UK

Orchid Cave was excavated in 1981, yielding Neolithic artefacts and faunal remains. It also yielded human remains (MNI = 3), corresponding to an adult (male), a young individual and further undetermined individual. A direct radiocarbon date of 4170±100 BP (OxA-3817; 3010–2470 cal BCE) on a pelvis bone confirms the Neolithic date. Here we report data for I16491, a tooth found in situ in a disarticulated mandible (male; TB261, 92.23H/42). It has not been included in the analysis due to mitochondrial contamination.

Source of sample: Jody Deacon, National Museum of Wales
Author of entry: Claire-Elise Fischer
References:
Aldhouse-Green, S. et al. 1996. Holocene humans at Pontnewydd and Cae Gronw caves. *Antiquity* 70: 444–447.

Brassil, K.S. and Guilbert, G.C. 1982. Caves in Clwyd. *Archaeology in Clwyd* 4–5.

Davies, M. 1981. *Identification of bones from Orchid Cave, Maeshafn, Clwyd*. Unpublished report, Nature Conservancy Council.

Guilbert, G. 1982. Orchid Cave. *Archaeology in Wales* 22: 15.

Llanmaes, Llantwit Major, Glamorgan, Wales, UK

Excavations at Llanmaes took place from 2003–2010, yielding Late Bronze Age and Early Iron Age remains including socketed axes, and fragments from cauldrons and bowls (Waddington et al. 2019). This site is remarkable for its high proportion of pigs, most of them probably imported, which are interpreted as the remains of feasting. Moreover, the presence of Armorican axes, a decorated Hallstatt bracelet and a handled cup highlight wider sea-borne contacts and the presence of feasting participants travelling by sea as well as by land. Among the deposits human bones were found, corresponding to at least to three individuals: two (possibly three) juveniles and a single adult (Gwilt et al. 2016). Human bone from a disarticulated human bone group (88 fragments) yielded a direct radiocarbon date of 2059±31 (UB-7340; cal 171 BCE–cal CE 4). Sample I16471 (female) from a human tooth (TB233; HM04(032)Al1) has been excluded from the analysis due to low coverage.

Source of sample: Jody Deacon, National Museum of Wales
Author of entry: Claire-Elise Fischer
References:
Waddington, K., Bayliss, A., Higham, T., Madgwick, R. and Sharples, N. 2019. Histories of deposition: creating chronologies for the Late Bronze Age–Early Iron Age transition in Southern Britain. *Archaeological Journal* 176(1): 841–833.

Gwilt, A., Lodwick, M., Deacon, J., Wells, N., Madgwick, R. and Young, T. 2016. Ephemeral Abundance at Llanmaes: Exploring the Residues and Resonances of an Earliest Iron Age Midden and Its Associated Archaeological Context in the Vale of Glamorgan, in J.T. Koch and B. Cunliffe (eds), *Celtic from the West 3. Atlantic Europe in the Metal Ages: Questions of Shared Language*: 294–329. Oxford: Oxbow Books.

Lynx Cave, Mold, Bryn Alyn, Llanarmon-yn-lal, Denbighshire, Wales, UK

Excavations at Lynx Cave took place from 1962–2012 and revealed a small chamber with evidence for human occupation, including mortuary activity, with artefactual material from the Late Upper Palaeolithic to the Romano-British period. The human remains came predominantly from a burial mound located at the back of the cave and consisted of 43 disarticulated bones and teeth, representing at least 8 individuals, suggesting that the burial mound did not represent their primary depositional context. Some bones showed signs of

carnivore gnawing and it is possible that whole bodies had been exposed outside or elsewhere in the cave before disarticulated bones were interred in the mound. Here we report data for sample I16472 (female), taken from a disarticulated tooth (2015.11H/42), but the data have not been included in the main analysis due to low data quality.

Source of sample: Jody Deacon, National Museum of Wales
Source of entry: Claire-Elise Fischer
Reference: Blore J.D. 2012. *Lynx Cave, Denbighshire, 50 years of excavations 1962–2012*. Wallasey, privately published.

RAF St Athan, Glamorgan, Wales, UK

Excavations at RAF St Athan took place in 2003 and yielded archaeological remains from the Bronze Age to the Medieval period, with a focus of occupation in the Middle–Late Iron Age. Archaeological remains from the Iron Age comprised a sub-square enclosure containing roundhouses, hearths and the remains of three inhumations. Two of these were excavated by machine, so little is known about their burial context of burial, whilst the third was from a pit located at the rear of the enclosure (opposite the entrance) and contained only the legs of an adolescent (Davis 2017). Two inhumations were also found outside the enclosure and contained the remains of two poorly preserved adults in flexed position (Barber et al. 2007). Direct radiocarbon dates on bones from these burials provided dates of 2263±35 BP (Wk-16365, 400–200 BCE; burial 1, Skeleton 1486) and 2235±35 BP (Wk-16366, 390–200 BCE; burial 2; Skeleton 1552). Sample I16406 (male) derives from the petrous of Skeleton 1486 (2008.14H/4.1).

Source of sample: Jody Deacon, National Museum of Wales
Source of entry: Claire-Elise Fischer
References:

Barber, A. J., Cox, S. and Hancocks, A. 2006. A Late Iron Age and Roman farmstead at RAF St Athan, Vale of Glamorgan. Evaluation and excavation 2002–03. *Archaeologia Cambrensis* 155: 49–115.

Davis, O. 2017. Iron Age burial in Wales: patterns, practices and problems. *Oxford Journal of Archaeology* 37(1): 1–49.

SI Section 2: Genetic clustering and outlier detection

To prepare our British dataset for analysis, we divided individuals into four time periods based either on the means of archaeological context ranges, or the means of the 95% calibrated confidence intervals from radiocarbon dating on skeletal elements from the individuals we analyzed. Based on the point estimate of the time period, we then labelled the individual as Mesolithic (before 4000 BCE), Neolithic (4000-2450 BCE), Chalcolithic/EBA (2450-1550 BCE), MBA (1550-1250 BCE), LBA (1250-800 BCE), or IA (800 BCE - 43 CE although in Scotland we extended this further forward in time based on the archaeological definitions of the local Iron Age). We excluded individuals that were archaeologically associated with Roman burial contexts. For some analyses, we classified individuals geographically (e.g. Scotland vs. Wales vs. Isle of Man vs. Channel Islands vs. England vs. Ireland). In the Iron Age we further subdivided into subregions within southern Britain (Midlands, North (excluding Arras culture individuals from East Yorkshire which we treated separately as North.EastYorkshire), North.EastYorkshire, Cornwall, EastAnglia, Southeast, Southcentral, and Wales), and within Scotland (Southeast, West, and Orkney).

We carried *qpAdm* analysis by individual, using a setup for estimating proportions of ancestry (Yamnaya-related, Western hunter gatherer-related, and Anatolian farmer-related) that we optimized to drive down standard errors. In this setup, the left source populations were (*Russia_Samara_EBA_Yamnaya (n=9)*, *WHGA* consisting of Western Hunter-Gatherers that were phylogenetically closest to the hunter-gatherer source population of Britain (n=18), and *Germany_EN_LBK (n=69)*. The right reference populations were (*Mbuti.SDG (n=10)*, *WHGB* consisting of Western Hunter-Gatherers that had more Eastern Hunter-Gatherer relatedness and were mostly from the Iron Gates region of the Danube river *(n=41),* *Russia_Afanasievo (n=19),* and *Turkey_N (n=16)*. We removed from our analysis dataset individuals that gave a poor fit to this model at $P<0.01$, or were outside of the time periods of interest for this study. We also attempted to fit Irish individuals although they failed our modeling at a high rate plausibly due to different biases in shotgun sequencing and capture data, and so unfortunately we could not reliably compare our results from the British time transect study to those from Ireland. Within each time period and region, and after restricting to a subset of samples obtained by removing first degree relatives of higher coverage individuals in the dataset, we created a primary pool of individuals for analysis. Such pools without outliers removed were what we used for Figure 2.

For each pool of individuals from a given region and time period, we identified a main subcluster based on visually inspecting a plot of the proportions of EEF, Steppe, and WHG ancestry. We then iterated over all individuals in the pool, testing for significant evidence of heterogeneity relative to a sub-pool of all individuals in the main cluster (except the test individual when it was part of the main cluster) using *qpWave* with the right set (*Mbuti.SDG, WHGA, Germany_EN_LBK, Russia_Samara_EBA_Yamnaya*). We carried out three iterations of this process, each time identifying outliers from the main cluster individuals according to the criterion that the *qpWave* p-value was $p<0.005$, and stopped when we no longer changed cluster assignments. If outliers were at the extremes of the ancestry distribution for their region and time period, we gave them a suffix that captured this information using a nomenclature like "England.and.Wales_IA_highEEF". We labeled groups of ancestry-extreme outliers by sorting all individuals within each region and time period based on ancestry proportion. We then identified the individual with the least extreme ancestry that gave a *qpWave* p-value <0.005 and where all more extreme ancestry samples were also rejected by *qpWave* at $p<0.05$ (for satisfying this requirement, we disregarding samples

filtered out based on the quality control criteria described above). This index individual and all with more extreme ancestry were labeled with the suffix. Individuals not in ancestry extreme tails but with p-values of <0.005 were labeled with an "_o" suffix. Taken together, this procedure allowed us to identify a main cluster of individuals to represent each time and period, and significant outliers at the extremes of the distributions for their regions and periods (red in Figure 3). The final names are given in Online Table 4.

SI Section 3: Discussion of notable family relationships.

In Online Table 8 we list the 95 multi-person families detected over the time transects analyzed in this study, which altogether comprise 281 individuals. In this section, we discuss two familes of particularly high interest.

(1) Hazleton North 11 member pedigree

The largest family discovered in the newly published data was excavated at the Megalithic site of Hazleton North, Cheltenham, Gloucestershire, England (pedigree in Extended Data Figure 1). This family is organized around the male I12440 and his four grandsons descending from 3 different sons:

-Grandson I12439 who is the son of I12440's son with woman X.
-Grandson I13891 who is the son of I12440's first son with woman Y.
-Grandson I12438 who is the son of I12440's second son with woman Y.
-Grandson I12437 who is the son of I12440's second son with woman Y, but whose mother is different than I12438's mother.

We also identified male I13898 who is likely I12437's maternal uncle and also distantly related to the patriarch I12440, and male I13890 who is likely a descendant of I12438 through the paternal line and a maternal relative (likely cousin) of I13892.

The only two women in the pedigree are I13896 who is likely I12438's granddaughter though his son, and I13888 who is the daughter of I12437 and woman Z, who is also the mother of I12439. This represents the same woman marrying first one of I12440's sons, and later one of I12440's grandsons.

Altogether, this Megalithic family appears to be organized along the male lineage, consistent with previous reports of patrilineal organization in Megalithic societies[1].

(2) Genetic relationship between I14200 (the Amesbury Archer) and I2565 (The Companion)

The Amesbury Archer and The Companion have been hypothesized to be close relatives based on the presence of a very uncommon non-metric trait (calcaneonavicular coalition) in the feet of both individuals[2], and we therefore sought to use genetic data to measure their degree of relationship. Given the relatively poor DNA preservation as compared to other individuals from Amesbury Down, we generated and merged data from 8 libraries from the Archer to give a coverage of 165,912 SNPs on chromosomes 1-22; the comparative data from the Bowman consisted of 136,956 SNPs, and the overlap was ~14,000 SNPs. We computed allelic mismatch rate between both individuals and obtained a value of 0.256. Following the an approach described previously[3], we estimated the relatedness coefficient using a normalization value of 0.2615 from unrelated pairs of England Bronze Age individuals. The relatedness coefficient is 0.0405 (-0.0161–0.0971), which completely rules out 1st- or 2nd-degree relationships, but more distant relationships are possible.

SI Section 4: Proof of a new ancestry source in Britain in the LBA and IA

One possibility for the genetic shift that we see that avoids any substantial movement of people is that we are observing a reemergence of people of the British Neolithic who mixed with migrants from the continent who arrived in the Chalcolithic and Early Bronze Age. In Extended Data Table 2 we show an investigation of this possibility using *qpAdm,* modeling British people in the Middle Bronze Age and onward as mixtures of two sources: Neolithic and Chalcolithic/Early Bronze Age (we repeated the analysis using sources both in Scotland and in southern Britain).

For our set of right populations we used *Mbuti.SDG, Netherlands_BellBeaker, Poland_Globular_Amphora, WHGA, Iberia_C, Czech_EBA, Italy_Sardinia_EBA, Russia_Samara_EBA_Yamnaya, Turkey_N*. We obtained a p-value of $<10^{-12}$ for southern British populations from the Late Bronze Age onward, and P<0.006 for the Middle Bronze Age, suggesting that a new ancestry had arrived.

We wanted to understand why the f_4-statistics used in *qpAdm* are making British sources for the shift essentially impossible.

We found that Mbuti is not unique in this analysis. Substituting any outgroup *O* with no gene flow between O and Europe produces very strong p-values, and replacing Mbuti with Karitiana (a South American group with no post-colonial admixture) gives stronger scores.

There is a simple argument using f_4-statistics that shows that modeling southern Britons from the Late Bronze Age and afterward as a mixture of individuals from the Chalcolithic/Early Bronze Age and Neolithic is infeasible. Consider an idealized population:

$$P = \alpha(\textit{England.and.Wales\_N}) + (1-\alpha)(\textit{England.Wales\_C.EBA})$$

If P is a good model for *England.and.Wales_IA* we should have

$$f_4(\textit{England.and.Wales\_IA, P; Karitiana, Netherlands\_BellBeaker}) \approx 0$$

This is the same basic idea as used by *qpAdm* but simpler and easier to understand. Extended Data Figure 2 shows Z-scores as we vary α . Very similar results are obtained using *Scotland_Neolithic* (not shown).

Informally, both *England.Wales_Neolithic* and *England.Wales_IA* are more closely related to *Netherlands_BellBeaker* than is *England.Wales_IA,* and therefore so are all mixes of these two sources.

SI Section 5: Convergence of EEF ancestry across Europe was not due to a single source

Figure 4 and Extended Data Figure 3 show ancestry differences between early and late populations in 5 countries of the European mainland. To investigate this formally we computed f_4(Early, Late; Mbuti, X) where X are surrogates for Steppe, European First Farmers or Western Hunter Gatherers. We used Yamnaya Samara (9 individuals) as a surrogate for Steppe, Germany LBK (53 individuals) for First Farmers, and 18 individuals from a variety of locations of pre-farming Western Europe to represent Western Hunter-Gatherers. Some caution is required in interpreting these results, as our early and late individuals differ not only in date but also in location, so local geographically related genetic structure could confound these results. Nevertheless, the results suggest a highly significant increase in EEF ancestry over time in the Czech Republic (Bohemia) and a more subtle but similar signal in the Netherlands which is qualitatively similar to the pattern in southern Britain. We also observe a highly significant decrease in EEF ancestry over time in Iberia, combined with a different type of ancestry shift in Hungary no average signal of ancestry change with respect to these three components in our French samples.

Table S4.1: Z-score for f_4(Early, Late; Mbuti, X). We highlight highly significant values at $|Z|>3$ (red) and moderately significant values ($2<|Z|<3$).

	Steppe	EEF	WHG
Czech	-10.9	8.1	-0.6
France	-1.4	-1.7	-1.9
Hungary	1.3	0.5	-4.2
Iberia	2.5	-4.1	-5.9
Netherlands	-3.0	-0.6	-0.8

We wondered whether the genetic data were consistent with a scenario in which the the same population, G, admixed into England, Bohemia, and Iberia. The first two regions have low EEF ancestry in the Early Bronze Age, which admixture with G reduces. Iberia has higher EEF ancestry and admixture with G increases this. We can test this hypothesis. We describe a test for the same G mixing into the Bohemian and Iberian populations . We set on the left *L*

Early Czech
Late Czech
Early Iberian
Late Iberian
England.Wales_C.EBA
England.Wales_IA

and on the right

Mbuti
Poland Globular Amphora
Germany BellBeaker
WHGA
Iberia_C
Yamnaya Samara
Turkey_N

We see that under our hypothesis the matrix $M_{(l1;l2);(r1;r2)} = F_4(l_1; l_2; r_1, r_2)$ where we choose l_i from L, r_j from R, will have rank 3, while for 6 arbitrary populations on the left it will have rank 5. We can test the hypothesis that the rank is 3 using *qpWave* and obtain a p-value of p=0.0000357. We can conclude that the simple idea of a single population moving into southern Britain, Bohemia and Iberia is unlikely to be the whole truth.

We caution, however, that this may be an over-stringent test, since even a small amount of additional ancestry from another source affecting some regions more than others will affect results. For example, North African admixture has been documented to have contributed ancestry to some Iberian individuals in the Chalcolithic and Bronze Age periods[4]. If such admixture contributed in a non-trivial way to the Late Iberian population it would explain the failure of the *qpWave* model while still being consistent with a scenario in which most of the convergence in EEF ancestry proportion between Bohemia and Iberia in this period was due to admixture with the same source population.

SI Section 6: Relationship of the new source of ancestry to people of mainland Europe

It seems overwhelmingly probable that the genetic shift in England between the Early Bronze Age and the Iron Age was caused by demographic movement from the European mainland. In this section we investigate the possible sources.

We first ran *qpAdm* with a minimal set of populations on the right:

Mbuti.SDG
Netherlands_BellBeaker
Poland_Globular_Amphora
WHGA
Russia_Samara_EBA_Yamnaya
Turkey_N

Here, we took *England.Wales_IA* as the target and as sources used *England.Wales_C.EBA* and *X.* Here, X was a list of 72 populations we included as surrogates for the second source, namely (*Iberia_Tartessian*, *Iberia_EBA, Italy_Sardinia_MBA, Iberia_C_BA, Iberia_LBA_Cogotas, Iberia_Celtiberian, France_Occitanie_EMBA.SG, France_BellBeaker_NoSteppe, Hungary_EBA_Protonagyrev, France_BA_GalloRoman, Czech_EBA_Protounetice, France_HautsDeFrance_IA2.SG, Germany_CordedWare_Tauber, Czech_HallstattBylany.SG, Germany_BenzigerodeHeimburg_LN, Netherlands_EIA, Netherlands_MBA, Greece_BA_Mycenaean, Italy_Sardinia_C_MonteClaro, France_Occitanie_EBA.SG, Hungary_IA_Celtic, Italy_Sicily_LBA, Italy_Sardinia_IA_Punic_2, Italy_Sardinia_C, Iberia_BA_Cogotas, Hungary_Maros_EBA.SG, Greece_Minoan_Odigitria, Greece_Minoan_Lassithi, Iberia_Roman, Italy_Sardinia_IA_Punic_1, Italy_Sardinia_LBA, Italy_Sardinia_LateC, Iberia_Iberian, Iberia_LBA, Hungary_MBA_Vatya.SG, France_N_Protohistoric, France_GrandEst_IA1.SG, Iberia_IA, France_Occitanie_IA2.SG, France_GrandEst_IA2.SG, Germany_EBA_Unetice, Italy_C_BA.SG, Italy_IA_Republic.SG, France_Celts, France_GrandEst_EBA.SG, Germany_MBA_Lech, Czech_EBA, Netherlands_BA, Germany_Lech_BellBeaker, Czech_CordedWare, Italy_Sicily_EBA, Italy_Sardinia_BA_Nuragic, France_IA_LaTene, Hungary_EBA_BellBeaker, Germany_SouthernGermany_Singen_EBA, Germany_CordedWare, Netherlands_BellBeaker, France_BellBeaker, Czech_IA_Hallstatt, Italy_Sardinia_EBA, Hungary_IA_LaTene, Czech_EBA_Unetice, Iberia_BellBeaker, Germany_Lech_EBA, Czech_BellBeaker, Czech_LBA_Knoviz, Germany_BellBeaker, Iberia_BA, Czech_IA_LaTene, Margetts_Pit,* and *Cliffs_End*). All of these were mainland European populations except for a pool of two outlier individuals from Cliffs End (2 individuals) and the Margetts Pit outlier (1 individual) which are dated to the early Iron Age or late Bronze Age in England and have significantly elevated EEF ancestry compared to the period average. The coefficient shown in Table S5.1 is the estimated proportion of *X,* or more precisely a population descended from a group related to *X,* for all populations that pass a p-value threshold of 0.05

Table S5.1: Fitting models for the ancestry of English Iron Age people

Source	N	*qpAdm* Proportion	*qpAdm* Error	*qpAdm* P-value	p-value obtained by adding each of 38 pre-1000BCE populations in turn to the reference set, then Bonferroni-correcting the lowest p-value for 38 hypotheses tested
France_Occitanie_IA2.SG	6	43.5%	3.1%	0.35	0.99
Cliffs_End	2	50.3%	5.3%	0.92	0.77
France_HautsDeFrance_IA2.SG	2	69.6%	7.8%	0.42	0.72
Margetts_Pit	1	42.6%	4.4%	0.57	0.43
Hungary_IA_Celtic	3	59.2%	8.6%	0.09	0.43
France_Occitanie_EMBA.SG	2	44.1%	3.4%	0.17	0.32
France_GrandEst_IA1.SG	5	44.7%	3.2%	0.12	0.023
Iberia_LBA	5	38.2%	2.8%	0.45	0.0092
France_BA_GalloRoman	2	44.1%	3.8%	0.12	0.0030
France_IA_LaTene	10	64.8%	4.9%	0.20	0.0016
France_GrandEst_IA2.SG	6	54.4%	4.2%	0.05	0.00084
Iberia_LBA_Cogotas	2	25.8%	1.8%	0.22	0.00053
Czech_IA_Hallstatt	13	53.6%	3.5%	0.77	0.00015
Czech_LBA_Knoviz	35	55.5%	2.5%	0.39	0
Iberia_C_BA	2	18.7%	1.1%	0.14	0
Iberia_Iberian	5	28.6%	1.8%	0.07	0
Iberia_Tartessian	2	30.6%	2.1%	0.47	0

Note: This is an extended version of Table 2, in which we include all 17 populations that fit the basic *qpAdm* model at p>0.05, even if the 17 populations clearly fail when we add 38 continental European populations in turn to the outgroup set and the correct the lowest p-value for the number of hypotheses tested (Table 2 in the main text only lists the six populations that pass). Reference populations for the basic *qpAdm* are *Mbuti.SDG, Netherlands_BellBeaker, Poland_Globular_Amphora, WHGA, Russia_Samara_EBA_Yamnaya, and Turkey_N.* We run using the allsnps:yes option to maximize power.

Some of the 17 populations listed in Table SA5.1 as producing passing models at p>0.05 have a date much too late to be proximal sources for people of the southern British Iron Age. We wished to reduce the length of this list and chose a set Y of 38 European populations, all dating earlier than ~1000 BCE, to explore adding to the right reference set of populations. We then reran *qpAdm* 17x38 times, in each run using a population from X as a possible source and adding one of the populations Y on the right. For each *X* in Extended Data Table 5, we recorded the lowest P-value that emerges from this analysis, and then corrected for the 38 hypotheses tested. Only six populations survive this process with a passing Bonferroni corrected p-value of >0.05, and are excerpted in Table 2. These include *Margett's Pit* and *Cliffs End*, as well as *France_Occitanie_IA2.SG*, *France_HautsDeFrance_IA2.SG*, *Hungary_IA_Celtic*, and *France_Occitanie_EMBA.SG*. Point estimates for ancestry proportions coming from these new populations are substantial, ranging from 42.6% to 69.6%.

Some cautions are in order. It is interesting that "Cliffs End" and "Margetts Pit" score well here as it suggests that these individuals might be early generation descendants of the immigration to Britain. However, the standard errors on the coefficient of X are comparatively large so our analysis has reduced sensitivity. We also caution that we are testing a hypothesis that a descendant of a population in X is the sole proximal source for the shift. There could easily be more than one movement into Britain from the mainland, and our modeling will not detect that.

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