Erection of Extension to House at Chapelfield, Corslet, Rosemarkie Archaeological Evaluation Final Report

December 2022 AOC Project Number: 70588



ARCHAEOLOGY

HERITAGE

CONSERVATION

Erection of Extension to House at Chapelfield, Corslet, Rosemarkie

Archaeological Evaluation

Final Report

On Behalf of:	Victoria Nairn
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Abstract

This report details the finding of an archaeological evaluation carried out at Chapelfield, Corslet, Rosemarkie (NH 73888 58177), ahead of a proposed porch extension to the existing house building. The fieldwork comprised machine excavation of the footprint for the new porch in September 2021, followed by a programme of post-excavation analysis in 2022.

The site was located in an area known as 'monk's burial ground', thought denote the general location of an early medieval/medieval chapel at Kincurdy. Human remains had reportedly been uncovered by previous owners during construction of the house in the 1980s.

The 2021 fieldwork uncovered an inhumation grave cut, set on a N-S alignment, containing the degraded articulated remains of a single inhumation burial with no grave goods or associated artefacts.

Osteological analysis identified the remains as belonging to a young adult, possible female, between 19-21 years old at the time of death. Radiocarbon dating of a tooth provided a date range of 773-992 cal AD (95% probability). Isotope values from the tooth provided evidence for a diet relatively high in marine protein and originating from a coastal environment.

1.0 Introduction

- 1.1 An archaeological evaluation was undertaken on behalf of the landowner for a proposed a 5x5 m extension at a house at Chapelfield, Corslet, Rosemarkie (Highland Council Planning Ref: 21/03188/FUL). The requirement for an archaeological evaluation arose as the site was located in an area with potential for the survival of buried archaeological deposits.
- 1.2 The site lies within the administrative area of the Highland Council, which is advised on archaeological matters by Kirsty Cameron, Archaeologist, Historic Environment Team, Highland Council. A programme of archaeological evaluation was specified in keeping with the policies outlined in Scottish Planning Policy (2014) and PAN 2/2011 Planning and Archaeology (2011) in order to record the extent and significance of any archaeological remains which may be present within the development area.
- 1.3 The fieldwork was carried out between 10 and 17 September 2021 and uncovered the remains of a single inhumation burial. A programme of post-excavation analysis consisted of osteoarchaeological analysis and radiocarbon dating.



Plate 1: Pre excavation overview of burial [003] showing SW facing trench section overlooking Rosemarkie Bay looking northeast

2.0 Site location

- 2.1 The house at Chapelfield, Corslet, Rosemarkie is located c. 500m north of Rosemarkie High Street and c. 70m northwest of Rosemarkie Bay. The proposed 5x5m extension was situated on the southeast side of the house (**Figure 1**).
- 2.2 The site is located approximately 25-30m AOD and is surrounded by gently undulating arable farmland to north, east, with a forested area to the west and overlooking Rosemarkie Beach to the south.
- 2.3 The evaluation area is located within an area of metamorphic bedrock composed of Rosemarkie Metamorphic Complex Gneiss formed between 541 to 2500 million years ago. The superficial geology consists of Raised Marine Beach Deposits, Late Devensian deposits of Sand and Gravel (British Geological Survey 2021).

3.0 Archaeological background

- 3.1 Chapelfield House is located within a potential early medieval/medieval burial ground, potentially used between AD 561 and AD 1559 (MHG 61326). It is known locally as the 'Monks burial ground' and was associated with the nearby early medieval/medieval chapel at Kincurdy (MHG 8837). Records from the 17th century mention a chapel and chapel-yard standing there, and some land east of the drive is still known as Chapel Field. It is said locally that when 'Chapelfield' house was built in the 1980s, human bones were unearthed. As such, the site was known to have potential for burials.
- 3.2 Numerous post-medieval buildings are depicted within the surrounding landscape on the 1st edition of the Ordnance Survey 6-inch map (**Figure 2**). North of the site there is: a post-medieval township (MHG 21015) comprising one roofed, one partially roofed, and six unroofed buildings, one of which is L-shaped with two compartments, and an enclosure; and a farmstead (MHG 33600) comprising a cluster of buildings. West of the site there is a farmstead consisting of a house and an L-shaped arrangement of farm buildings (MHG 52951).



Figure 1: Site location plan



Figure 2 : Excerpt from the Ordnance Survey 1st Edition map, site location in red box (NLS 2022)

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Figure 3: Trench location plan



Figure 4: Feature plan and section drawing

4.0 Objectives

- 4.1 The aims of the archaeological works were:
 - i. To establish the presence or absence of archaeological remains within the proposed development area
 - ii. To remove by hand any overburden in order to expose the archaeological deposits
 - iii. To excavate, sample and record any features or to propose arrangements for their safeguarding, where possible
 - iv. To sample deposits for post-excavation work, including environmental analysis and dating
 - v. To make recommendations for further measures necessary to mitigate the impact of the development
 - vi. To make recommendations for post-excavation work

5.0 Methodology

- 5.1 The archaeological evaluation was undertaken by a strip, map and record of the area sited for the new porch extension in accordance with the methodology set out in the Written Scheme of Investigation (AOC 2021). All groundworks were monitored by an archaeologist by way of a controlled topsoil strip. The archaeologist directed digging by a mechanical excavator fitted with a straight-edged bucket in order to establish the presence or absence of archaeological remains with the development area. All work was carried out in accordance with the ClfA *Code of Conduct* (2014).
- 5.2 All features of archaeological significance were cleaned and excavated by hand to establish the date, nature, extent, and state of preservation of the deposits. Archaeological features and deposits were drawn at a scale of 1:20 and section drawings were drawn at a scale of 1:10. All significant archaeological features were sampled, in the event post-excavation analysis is deemed necessary.
- 5.3 The archaeological fieldwork was recorded using high resolution digital photography to record the process as well as archaeological features and finds of interest.

6.0 Results

- 6.1 The archaeological evaluation uncovered an elongated, shallow cut containing the remains of an inhumation burial, situated along the edge of the excavated area. Two small pit features were located in close proximity to the burial. The full set of data from the fieldwork and post-excavation analysis is found in **Appendices 1 6**.
- 6.2 The grave cut [003] was located towards the northeast corner of the stripped area (Figure 4; Plate 2). The edge of the trench was extended by hand to fully expose the pit, which comprised a suboval cut through the subsoil measuring 1.55m by 0.55m and 0.15-0.2m deep with a C-shaped profile. It contained the remains of a single inhumation burial on a north-south alignment (Plates 3, 6). It contained a single fill (004), consisting of a mid brown-grey sandy soil with small cobbles throughout and rare, small fragments of charcoal and possible burnt bone. Small stone cobbles 0.15-0.25m long were set into the subsoil around the surface of the grave and may have represented the remains of a structural lining to the cut.

- 6.3 The skeletal remains consisted of the degraded articulated remains of a single inhumation in a supine and extended position aligned N-S with the head at the south end of the grave – typical of Medieval Christian burials. Excavation identified the remains of the skull and several vertebrae, pelvic and leg bones extending toward the north end of the grave. The displaced upper mandible had been revealed during machine stripping over the surface of the pit, when the feature was identified. This location, at the very S end of the cut, revealed further cranial bone fragments overlying / collapsed into the lower mandible (Plate 5), which appeared to have remained in situ. Also in situ were the partial remains of the left scapula, lower lumbar vertebrae, proximal end of the right humerus, proximal and distal ends of the left femur, distal end of the left fibula, and right tarsal bone (Plate 4). The right femur, left tibia and right femur were recovered with damage noted along the shafts. Possible evidence of trauma was noted on the distal end of the right tibia with a small sub rectangular puncture mark evident of the bone. The lower legs were raised upward at the north end of the grave cut, and the feet were missing. Overall the skeletal remains covered an area 1.16m long N-S and 0.23m wide at the centre. There were no artefacts recovered during excavation.
- 6.4 Osteoarchaeological analysis (**Appendix 1**) of the skeletal remains was undertaken following sample processing of the grave cut fill. Approximately 20% of the skeletal remains were preserved; the best-preserved element was the splanchnocranium. Due to poor preservation of the remains, determination of the sex was uncertain, though deemed likely to be female, and aged between 19-21 years on the basis of teeth development. Several teeth exhibited indicators of physiological stress during the ages of 2.5-4. Evidence of healed trauma was noted on the right tibia, the same limb where the possible puncture trauma was noted during excavation damage which may have occurred postmortem. A single radiocarbon date of 773-992 cal AD (95% probability) was obtained from a third molar (**Appendix 2**).
- 6.5 During the site stripping, evidence for disturbance from the house construction was noted in the overlying topsoil. The end of the house construction cut [011] was visible in the SW-facing trench section and was located over the burial pit. The redeposited topsoil (010) from the house construction backfill was compacted over the burial pit fill (004). Given the loss of the cranium and feet and collapsed cranial fragments, it is probable that grave pit [003] may have been one of the features encountered during construction of the house in the 1980s, as noted in the Highland HER record for the site. This could account for some of the damage to the skeletal remains.
- 6.6 Two other features were identified within the trench (Figure 3). Feature [005] comprised a shallow, subcircular pit measuring 0.3m by 0.35m in diameter and 0.08m deep with a rounded base (Plate 7). Feature [001] comprised a small suboval pit measuring 0.3m by 0.5m and 0.07m deep (Plate 8). Both pit fills comprised a mid-dark brown, sandy loam, containing rare small cobbles, similar to the overlying topsoil. Pit [005] contained a flat stone with a small, angled slab set against the edge of the cut, suggesting it may have represented a small post- or stake-hole. The presence of these shallow pits is inconclusive.

7.0 Discussion

- 7.1 The archaeological work at Chapelfield, Rosemarkie identified the presence of a grave that is most likely associated with the reported discovery of human bones during construction of the house in the 1980s. The skeletal remains survived only partially and in a degraded condition, but analysis was able to determine that the individual was most likely female, between 19-21 years of age, at the time of death. The position of the inhumation fits in with the likelihood that it formed a Medieval Christian burial, and a single radiocarbon date provides a range of between 773-992 cal AD. Given the place-name 'Chapelfield', suggesting that a chapel was located somewhere in the area and is reputedly associated with Kincurdy, this supports the theory of there being early ecclesiastical origins to the site.
- 7.2 Rosemarkie is located to the northeast of Fortrose on the southeastern coast of the Moray Firth. Rosemarkie has an early Christian history, particularly noted for the cross slabs found on the site of the St Boniface church, located c.600m southwest of Chapelfield. The Highland HER record (MHG25214) for the early church site provides a summary of the early Christian evidence. The present church (dedicated in 1821) is said to be on the burial site of St Moluag, who died in 592. St Moluag supposedly had a monastery in Rosemarkie, which was taken over c.716 by St Boniface (Curitan), a community that was later converted to a Chapter by David I (1124-53). The first mention of the Bishop of Rosemarkie was in 1126. There have been numerous cross slabs, many fragmentary, found on the site. One particular Class II cross slab dated to the c.9th century was found in the floor of the church.
- 7.3 The archaeological evidence uncovered within the small excavation area at Chapelfield, overlooking the early church and monastic site at Rosemarkie, provides evidence for links to the early Christian activity in Rosemarkie during the period of the 8th-10th centuries. There have been minimal opportunities for archaeological excavation in Rosemarkie that have uncovered other early medieval or medieval evidence. Work by the Rosemarkie Caves Project within the caves running along the shoreline northeast of Rosemarkie is one exception. The project has uncovered a range of early medieval datable evidence, starting with the deviant male inhumation burial in Learnie 2B dating to c. 5th-7th centuries AD and a range of 6th-10th century dates from archaeological sequences in Learnie 1B and 2B (Birch and Peteranna 2018, 2019). Test pit excavation by the project also uncovered consistent evidence for 7th-9th centuries AD use of the Learnie (1B,2B,3B group of caves and 10th-12th century use of caves Learnie 3B, Broad Cave and Through & Through Cave (Gunn and Peteranna, 2016). Collectively, these results are providing more data to form a historical and archaeological narrative for this interesting part of the Moray Firth coastline.
- 7.4 The results from this programme of excavation and post-excavation analysis have provided an important, albeit small, body of results to feed into future early medieval/medieval research of the early Christian site at Rosemarkie and indeed the wider region of northeast Scotland.

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Plate 2: Overview of pre-excavation features [001], [003] and [005] looking north



Plate 3: Post excavation of the inhumation [003] in situ (E is up)



Plate 4: Post excavation of the inhumation [003] showing pelvis/leg bone detail, looking W (possible trauma spot in red circle)



Plate 5: Post excavation of the inhumation [003], showing the lower mandible in situ



Plate 6: Screenshot of photogrammetry model of inhumation [003] (W is up)



Plate 7: SW facing section of Pit [005]



Plate 8: W facing section of Pit [001]



Plate 9: View SW over the landscape setting of the house site



Plate 10: View ENE over landscape from the house site, Fort George in back

APPENDIX 1: Osteoarchaeology Report

Alexandra Johnson

INTRODUCTION

Archaeological background

The following document has been submitted as a specialist report on the human skeletal remains from Chapelfield, Corslet, Rosemarkie (NGR NH 7387 5816). Due to previously recorded buried archaeological deposits in the vicinity of the development, archaeological monitoring was required in advance of the construction of a porch extension. The site lies within the administrative area of the Highland Council, advised by Kirsty Cameron, archaeologist with the Historic Environment Team (HET). A programme of archaeological evaluation was undertaken to record the extent and significance of any archaeological remains which might be present within the development area. The recovered human remains were cleaned and sent to the specialist for osteological analysis, along with the retents from dry sieving. Osteological analysis was undertaken following the codes of ethics and practice laid out by CIFA and BABAO (Mitchell and Brickley 2018; BABAO 2019a and 2019b).

The Chapelfield burial ground (MHG61326), known locally as 'Monk's burial ground,' is thought to have been associated with the early medieval/ medieval chapel at Kincurdy (MHG8837). Radiocarbon dating of the remains produced a date range of 773–992 cal. AD (95% probability), within the timeframe the chapel at Kincurdy was in use. While it is possible the remains of the chapel remain buried under Kincurdy house nearby, it was reported by the landowner's son that human remains had been disturbed during the development of the Chapelfield house (AOC 2021). Evidence for prior disturbance of the site was also observed during the current archaeological evaluation.

Project background

Fieldwork was undertaken between 10th and 17th September 2021, which included the monitoring of mechanical topsoil stripping and hand excavation of the exposed burial. Upon arrival, photographs were taken of the general area using high resolution digital photography. All features were cleaned and excavated by hand, in accordance with ClfA Code of Conduct (2014) and the Highland Council Standards for Archaeological Work (2012). Excavation uncovered a shallow, elongated cut with the remains of a single extended inhumation burial (Plates 5, 6). Two small pit features of unknown nature were also recorded in close proximity to the burial. Excavation of the pit features was inconclusive.

METHODOLOGY

Human bone collected from the site (including fragments collected during dry sieving and bulk sample processing) were cleaned and sent to the specialist for analysis. The remains were recorded following the codes of ethics and practice laid out by CIFA and BABAO (Mitchell and Brickley 2018; BABAO 2019a and 2019b). Any skeletal fragments identified as animal were separated and sent to the appropriate specialist. Preliminary skeletal analysis included the evaluation of bone surface preservation, fragmentation, and completeness of the remains; including evidence of taphonomic damage, consideration of which is critical and can severely limit further analysis. Evidence of taphonomic damage includes signs of weathering (including cracking, bleaching and staining), scavenging by animals (including gnawing or scratching), or damage by surrounding vegetation (roots) were also recorded (Buikstra & Ubelaker 1994). Classification of bone surface preservation followed Brickley and McKinley (2004) stages:

- 0 = Clearly visible surface morphology
- 1 = Slight and patchy surface erosion only

- 2 = More extensive surface erosion with deeper surface penetration
- 3 = Most surface is eroded and details of parts of surface are masked by erosion
- 4 = All of surface is eroded to various depths but general bone profile maintained
- 5 = Heavy erosion across whole surface, masking surface morphology and
 - modifying profile

Fragmentation of the remains considers the completeness of each element (in percentages), where present. The presence and fusion stages of epiphyses and the proportion of diaphysis were recorded for each bone. Overall completeness of each skeleton was calculated on the basis that the skull equates to 20% of the skeleton, the upper limbs 20%, the torso 40%, and the lower limbs 20%.

Determination of biological sex and estimation of age-at-death was carried out using standard methodologies outlined by Buikstra & Ubelaker (1994) and included any known sexually dimorphic cranial and/or postcranial features of present bones (Buikstra & Mielke 1985; Buikstra & Ubelaker 1995; Phenice 1969; Walker 2005). Where possible, metrics of dimorphic features were recorded for objective comparison (Bass 1995; Krogman & Isçan 1986; Berrizbeitia 1989). Estimation of age-at-death of infants and children (up to approximately 21 years of age) can be determined using epiphyseal fusion rates, dental development and eruption timing, and metric analysis (Schaefer *et al.* 2009; AlQahtani 2009; Bass 1995; Schaefer *et al.* 2009; Scheuer and Black 2004). Stages of adolescence and sexual maturity can be determined based on formation of the hamate, cervical vertebrae maturation, and fusion of the iliac crest (Lewis *et al.* 2016). After epiphyseal fusion is complete in adulthood, age-at-death is determined primarily based on morphological stage of the pubic symphysis (Brooks & Suchey 1990), auricular surface (Lovejoy *et al.* 1985), sternal clavicular end (Falys & Prangle 2015), ecto- and endocranial suture closure (Buikstra & Ubelaker 1995; Meindl and Lovejoy 1985) and metatarsal formation (Davies *et al.* 2013).

OSTEOLOGICAL ASSESSMENT

SK001 (004)

A single inhumation was recovered during archaeological works at Chapelfield, referred to as SK001 (AOC 2020). The inhumation was likely supine and extended, aligned N/S, with the head at the south end of the grave cut. The individual was found to have poor surface preservation, with surface erosion and taphonomic damage masking many of the morphological features (Grade 4). Fragmentation was high, with only small portions of each element represented (see Appendix 1 for visual diagram and dentition). Approximately 20% of the skeletal remains were preserved. The best-preserved element was the splanchnocranium (**Plate 11**). The maxillary right third molar (tooth 28) was selected for radiocarbon dating by SUERC, which provided a range of 773–992 cal. AD (95% probability), or 1225±26 BP. The sampled dentine also provided δ^{13} C and δ^{15} N values of -19.4‰ and 15.4‰, respectively, indicating the individual consumed a diet comprised approximately of 17.8% ± 10% marine protein. The δ^{34} S was 15.2‰, within the range of an individual living along the coast.



Plate 11 Splanchnocranium of SK1 (004); a. anterior view and b. posterior view, with third molars still erupting

Biological sex and age-at-death

Unfortunately, poor preservation restricted observation of many of the morphological features necessary to determine biological sex. Based on the prominence of the mental eminence, gonial angles, and the greater sciatic notches (**Plate 12**), the individual was categorised as a probable female.



Plate 12 Surviving fragments of the right and left pelvis, with sciatic notches noted

The permanent dentition had fully erupted at time of death, with the exception of both the upper and lower third molars. The root tip of the maxillary right molar was nearly complete, indicating the individual was likely between 19 and 21 years old at the time of death (AlQahtani 2009).

Dentition

The dentition from SK001 comprised 31 teeth, including all mandibular dentition and all but two maxillary teeth (teeth 12 and 13), which were lost post-mortem (**Plates 13, 14**). Attrition varied from very mild to severe, with the still-erupting third molars exhibiting no signs of wear and the mesial teeth exhibiting severe wear. The crowns of the mandibular incisors had broken off the roots. Despite near-complete formation of the third molar (tooth 18), the root of the second molar (tooth 17) was only 2/3 formed. It is possible the second molar's root had been resorbed; however, the cause was not determined. No calculus or caries were observed, though very mild periostitis was visible along the mesial portion of the mandible, between the incisors. One periodontal abscess was present on the alveolar surface around the upper left second molar (tooth 27). The level of attrition for her age is similar to levels observed at other Scottish Early Medieval/Medieval sites including Portmahomack, however, the lack of calculus and caries

is notable among contemporary populations (King 2017). Interestingly, there appeared to be an extra left lateral incisor (Plate 13). The presence of an accessory incisor was coupled with extra cusps on the upper left third molar (tooth 28).



Plate 13 Maxillary dentition of SK1 (004), with extra left incisor indicated, and (right) inset of third molar with extra cusps



Plate 14 Mandibular dentition of SK1 (004)

Dental enamel hypoplasias (DEHs) were visible as grooves on nine mandibular teeth (46 through 43, 41 and 31 through 34). The position of DEHs on the enamel corresponded to events of arrested growth between the ages of 2.5-4 years old. This is typically the age at which weaning is completed and both nutritional deficiency and childhood diseases are potential causes of physiological stress (Beaumont *et al.* 2015). Stress during such formative periods in development has long-term impacts on health through adulthood, leading to shorter life expectancy, susceptibility to disease and a predisposition to further stress-related disorders (*ibid.*, Horovitz *et al.* 2012).

Pathology and trauma

In most of the skeletal remains, the periosteal surface had flaked away, leaving the subperiosteal cortical surface exposed. This severely hampered observation of any periosteal bone formed as a response to infection or trauma. The right tibia, however, exhibited two potentially traumatic lesions. The first was a small bone callous on the anterior crest, indicative of either a healed fracture or potentially a fibrous cortical defect (**Plate 15**). The other, as described in the DSR appeared to be a puncture wound, which could have happened either perimortem or ante-mortem. Unfortunately, the poor preservation and fragmentation obstructed further interpretation on the nature of the lesions. No other pathological lesions were observed.



Plate 15 The right tibia, exhibiting (left) a bone callous indicating healed trauma to the anterior right tibia, and (right) possible trauma to the distal end of the right tibia

DISCUSSION

Archaeological monitoring and evaluation undertaken by AOC at the house at Chapelfield, Rosemarkie between 10th and 17th September 2021 uncovered the articulated remains of a single inhumation (SK1) in an area known locally as 'monk's burial ground', which is thought to contain the burial ground associated with the early medieval/medieval chapel at Kincurdy (AOC 2021). The burial appears to have been a supine, extended single inhumation with no grave goods, which is typical of Medieval Christian burials. Upon excavation, prior disturbance of the upper layers of the site was identified, perhaps caused by construction of the house at Chapelfield in the 1980s, where human remains were reportedly observed.

SK1 was poorly preserved, with approximately 20% of the skeleton represented. Osteological analysis identified the remains as belonging to a young adult, possible female between 19 and 21 years old at the time of death. The dentition exhibited a supernumerary maxillary incisor and extra cusps on the lingual surface of the left maxillary third molar (tooth 28). No calculus or caries were observed, though the level of attrition suggests a moderate intake of coarse ground grains. Several teeth exhibited DEHs, indicators of physiological stress during childhood, which would have occurred between 2.5 and 4 years of age. Although the type of stress is not discernible, periods of severe physiological stress during childhood and development can have lasting effects on health well into adulthood, including shorter life expectancy, shorter adult stature and a predisposition to stress-related disorders (Beaumont *et al.* 2014; Horovitz *et al.* 2012; Hughes-Morey 2015). No other pathological lesions were observed.

According to the DSR, excavators recorded a possible puncture trauma lesion on the distal anterior surface of the right tibia. While separate evidence of healed trauma was observed on the same tibia, the possible puncture trauma was not able to be confirmed due to the poor preservation. It is possible this was post-mortem damage caused during the 1908s development at the site. Despite being known as 'monk's burial ground', it appears the cemetery included burials for females, not only clergymen. According to the HHER records, the Chapelfield burial ground was likely in use from the Early Medieval through the Late Medieval period (AD 561–1559). Fortunately, radiocarbon dating of a third molar provided a more specific date range, between 773–992 cal. AD (95% probability). Although several factors can affect carbon and nitrogen isotopes, the values derived from the dentine of this individual suggest a diet relatively high (17.8% \pm 10%) in marine protein during the early years of her adulthood (between roughly 12 and 14 years of age). This is relatively rare for Viking Age females in Scotland prior to the Fish Event Horizon (FEH) around the turn of the first millennium (Barrett *et al.* 2000; Barrett *et al.* 2001; Johnson 2021). While her sulphur isotopes suggest she was native to a coastal environment, consuming coastal resources, it is possible she was not local to the area. Further isotope analysis of strontium and oxygen, however, would be needed to further investigate her geographic origin.

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APPENDIX A: Inventory



Site: Rosemarkie

SK: 001

Preservation: Poor

Biological sex: Female?

Age-at-death: 19-21 years

Age group: Young Adult

Stature: N/A

Non-metrics: None

Pathology:

Small callous on anterior shaft of right tibia indicative of healed trauma

18 17 16 15 14 13 12 11 21 22 23 24 25 26 27 28 6 1 1 1 1 2 1

	Record as slight (SL), moderate (M) and severe (S) from Brothwell
CALCULUS	
buccal	
lingual	
mesial	
distal	
occlusal	
root	
CARIES	Record as pinpoint (PP), small (SM), medium (M) and large (L)
buccal	
lingual	
mesial	
distal	
occlusal	
root	
origin obsc.	
	Record as buccal (1); lingual (2) from Buikstra & Ubelaker 1994:55 – for granuloma G1 or G2
ABOOLOO	
	11 H: 21 V: 31 P' 4:NI P: 5:SP: 6:Dis Bound opacity: 7:Dif Bound opacity: 8:
HYPOPLASIA	CEH
	Record on a scale of 1-4 based on Orden 2008:293
FERIODONTA	
	Decert using Smith 1094 and Spatt 1070 in Duilette and Ukaleker 1004
ATTRITION	
	6 1 1 1 1 1 9 1 1 1 1
	48 47 46 45 44 43 42 41 31 32 33 34 35 36 37 38
	Record as slight (SL) moderate (M) and severe (S) from Brothwell 1981
CALCULUS	
lingual	┝╼┠╼┠╼┠╼╂╼╂╼┨╞╼┨╞╼┠╼╂╼┨┝╼┠╼┨╸╢
magial	┝╼┠╼┠╼┠╼┠╼╂╼┨╞╼┨╞╼┠╼┨┝╼┠╼┨┝╼┨┝╼┨┝╼┨
distal	┝╼┠╼┠╼┠╼┠╼╂╼┨╞╼┨╞╼┠╼┨┝╼┠╼┨┝╼┨┝╼┨┝╼┨
distai	┝╼┠╼┨╾┥┝╼┠╼┨╾┥╴┝╼┠╼┨╾┥┝┥┠╼┨╾┥╴
occiusai	┝╼╟╼╢╼╢╼╢╼╢╼╢╼╢╶╢
Root	
CARIES	Record as pinpoint (PP), small (SM), medium (M) and large (L)
Buccal	
lingual	
mesial	
distal	
occlusal	
root	
origin obsc.	
ABSCESS	Record as buccal (1); lingual (2) from Buikstra & Ubelaker 1994:55 – for granuloma G1 or G
	1:LH; 2:LV; 3:LP' 4:NLP; 5:SP; 6:Dis Bound opacity; 7:Dif Bound opacity; 8:
HYPOPLASIA	
PERIODONTA	L Record on a scale of 1-4 based on Ogden 2008:293
ATTRITION	Record using Smith 1984 and Scott 1979 in Buikstra and Ubelaker 1994

Key: 1:P; 2:PM; 3:AM; 4:CA; 5:Tooth only; 6:Erupting; 7:Deciduous retention; 8:unerupted; 9:Root only

APPENDIX 2: Radiocarbon Dating Certificate





RADIOCARBON DATING CERTIFICATE 13 June 2022

Laboratory Code	SUERC-104485 (GU	J60623)	
Submitter	Jackaline Robertson AOC Holdings Ltd Unit A7 Edgefield Road Indu Loanhead EH20 9SY	strial Estate	
Site Reference Context Reference Sample Reference	70588 4 SK1		
Material	Third Molar : Huma	n	
δ ⁴³ C relative to VPDB δ ⁴⁵ N relative to air C/N ratio (Molar)	-19.4 ‰ 14.5 ‰ 3.2	õ ^{ss} S relative to VCDT C/S ratio (Molar) N/S ratio (Molar)	15.2 ‰ 445 141
Radiocarbon Age BP	1225 ± 26		

N.B. The above ¹⁴C age is quoted in conventional years BP (before 1950 AD) and requires calibration to the calendar timescale. The error, expressed at the one sigma level of confidence, includes components from the counting statistics on the sample, modern reference standard and blank and the random machine error.

Samples with a SUERC coding are measured at the Scottish Universities Environmental Research Centre AMS Laboratory and should be quoted as such in any reports within the scientific literature. The laboratory GU coding should also be given in parentheses after the SUERC code.

Detailed descriptions of the methods employed by the SUERC Radiocarbon Laboratory can be found in Dunbar et al. (2016) Radiocarbon 58(1) pp.9-23.

For any queries relating to this certificate, the laboratory can be contacted at suerc-cl4lab@glasgow.ac.uk.

Conventional age and calibration age ranges calculated by :

E. Dunbar

Checked and signed off by : B Tay my





w, charlty number 8C004401



The University of Edinburgh is a charitable body registered in Scotland, with registration number SC00533



The radiocarbon age given overleaf is calibrated to the calendar timescale using the Oxford Radiocarbon Accelerator Unit calibration program OxCal 4.*

The above date ranges have been calibrated using a mix of the IntCal20[†] and Marine20[‡] calibration curves.

Human bone collagen with a δ⁴³C value above -20‰, accompanied by a raised δ⁴⁵N value, is taken to indicate a marine component in the diet. The percentage contribution of this marine component is calculated using end-members of -21.0‰ (fully terrestrial) and -12.5‰ (fully marine) with an uncertainty of 10% applied.

The δ¹³C value of -19.4‰ gives a 19% marine contribution (±10%).

A regional marine offset (ΔR) of -150 ± 52 years has been used in the calibration.

Please contact the laboratory if you wish to discuss this further.

- * Bronk Ramsey (2009) Radiocarbon 51(1) pp. 337-60
- † Reimer et al. (2020) Radiocarbon 62(4) pp.725-57
- 1 Heaton et al. (2020) Radiocarbon 62(4) pp.779-820

APPENDIX 3: Context Register

Context No.	Context Type	Description	Over	Under	Fill of	Fill Filled of By	illed By Cuts		Interpretation
001	Cut	Subcircular cut measuring 0.3m by 0.5m and 0.07m deep		-	-	002	009	-	Pit of unknown date and function
002	Fill	Mid to dark brown, sandy loam. Contains rare small cobbles (1- 2%). Same as topsoil (007)	-	007	001	-	-	-	Fill of pit [001]
003	Burial	Sub oval cut measuring 1.55m N-S by 0.55m E-W and up to 0.2m deep. Some stones lining sides (012) including a cluster at the north end which appears to be structural for lining the grave. Cut is N-S aligned with remains of skull at the south end; lower leg bones rise up at north end and feet are missing. House foundation cut [011] from construction in the 1980s extended over the location of the burial and redeposited fill from this is visible on the surface of the grave (004). House construction might be reason for loss of cranium and feet. Upper mandible recovered from the surface of the fill and fragments of cranial bone displaced overlying lower mandible. Overall skeleton measures 1.46m N-S and pelvis is 0.23m wide		-	_	004	009	011	Grave cut for single inhumation.
004	Fill	Mid to dark grey-brown, moderately compacted, sandy soil. Contains rare small cobbles throughout (2-5%), some possible very small burnt bone fragments and small charcoal fragments	012	-	003	-	-	-	Fill of burial cut [003]
005	Cut	Sub circular cut measuring 0.3m by 0.35m and 0.08m deep	-	-	-	006	009	-	Small pit of unknown date and function
006	Fill	Fill of Posthole [005]: Mid to dark brown, sandy loam. Contains rare small cobbles (1-2%) and flat slab, with 2 small angled/upright slabs against edge of cut.	-	007	005	-	-	-	Fill of [005]
007	Topsoil	Mid to dark brown, sandy loam 0.4m-0.45m deep. Contains rare small cobbles (1-2%)	All	-	-	-	-	-	Turf/topsoil
008	Deposit	Pale brown, silty gritty loam. Contains rare small stones/cobbles (2-5%)	009	008	-	-	-	-	Redeposited topsoil from building site
009	Natural	Mid orange gritty sand	-	All		-	-	-	Natural subsoil
010	Fill	[011]: Redeposited topsoil mixed with subsoil from house foundation	-	-	011	-	-	-	Fill of foundation cut [011]

Context No.	Context Type	Description	Over	Under	Fill of	Filled By	Cuts	Cut By	Interpretation
011	Cut	Cut for House Foundations	-	007	-	010	003, 009	-	Cut for house foundations
012	Stones	Subrounded stones 0.15-0.3m long, lining the edge of Burial Cut [003]. Cluster seen to north end which appears to be structural for lining the grave	-	004	003	-	-	-	Stones lining burial cut [003]

APPENDIX 4: Photographic Register

Photo No.	Context No.	Description	Direction Facing	Date
1		Mid stripping	W	10/09/2021
2	001, 003, 005	Pre excavation [001] (bottom right), [005] (centre) and [003] (back right below pole)	N	10/09/2021
3	001, 003, 005	Pre excavation [001] (bottom right), [005] (centre) and [003] (back right below pole)	N	10/09/2021
4	003	Pre excavation of burial cut	NW	10/09/2021
5	003	Pre excavation of burial cut showing mandible	W	10/09/2021
6	003	Human mandible in situ	S	10/09/2021
7	-	Soil profile inside of trench showing disturbed ground - cut through soil for house foundation with [003] burial right at transition 1st	NE	10/09/2021
8	-	Soil profile inside of trench showing disturbed ground - cut through soil for house foundation with [003] burial right at transition 1st	NE	10/09/2021
9	-	Location of excavation area	N	10/09/2021
10	-	Location of excavation area	NE	10/09/2021
11	001	Post excavation west facing section of [001]	NE	10/09/2021
12	001	Post excavation west facing section of [001] - overall view	Е	10/09/2021
13	005	005 Southwest facing section at [001] through [005] - close up		10/09/2021
1	003	Pre excavation burial after extending baulk edge	N	16/09/2021
2	003	Pre excavation burial after extending baulk edge	N	16/09/2021
3	003	Pre excavation burial after extending baulk edge	NW	16/09/2021
4	003	Pre excavation burial after extending baulk edge	NW	16/09/2021
5	003	Pre excavation burial after extending baulk edge	W	16/09/2021
6	003	Pre excavation burial after extending baulk edge	W	16/09/2021
7	003	Pre excavation burial showing southwest facing trench section	NE	16/09/2021
8	003	Mid excavation burial showing lower mandible, pelvis and vertebrae in situ	W	16/09/2021
9	003	Mid excavation burial showing lower mandible, pelvis and vertebrae in situ	S	16/09/2021
10	003	Mid excavation burial showing lower mandible, pelvis and vertebrae in situ	E	16/09/2021
11	003	Mid excavation burial showing lower mandible, pelvis and vertebrae in situ	W	16/09/2021
12	003	Mid excavation burial showing lower mandible, pelvis and vertebrae in situ	N	16/09/2021
13	003	Mid excavation - north half of burial for panoramic	W	16/09/2021
14	003	Mid excavation - north half of burial for panoramic	W	16/09/2021
15	003	Mid excavation - north half of burial for panoramic	W	16/09/2021
16	003	Close up of lower mandible	WNW	16/09/2021
17	003	Close up of lower mandible	WNW	16/09/2021
18	003	Close up of lower mandible	WNW	16/09/2021
19	003	Close up of lower mandible	S	16/09/2021
20	003	South facing section of pit mid excavation	N	16/09/2021
21	003	South facing section of pit mid excavation	NW	16/09/2021

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Photo No.	Context No.	Description	Direction Facing	Date
22	003	Post excavation of inhumation	E	17/09/2021
23	003	Post excavation of inhumation	SE	17/09/2021
24	003	Post excavation of inhumation	N	17/09/2021
25	003	Post excavation of inhumation	N	17/09/2021
26	003	Post excavation of inhumation	N	17/09/2021
27	003	Post excavation of inhumation	SW	17/09/2021
28	003	Post excavation of inhumation	SW	17/09/2021
29-32	003	Post excavation of inhumation - for stitching	W	17/09/2021
33-82	003	Post excavation of inhumation - for photogrammetry		17/09/2021
83	003	Post excavation of inhumation	N	17/09/2021
84	003	Post excavation of inhumation	NW	17/09/2021
85	003	Post excavation of inhumation	E	17/09/2021
86	003	Post excavation of inhumation	E	17/09/2021
87	003	Post excavation of inhumation	E	17/09/2021
88	003	Post excavation of inhumation	E	17/09/2021
89	003	Post excavation of inhumation	E	17/09/2021
90	003	Post excavation of inhumation	E	17/09/2021
91	003	Possible trauma evidence? in lower right leg bone	E	17/09/2021
92	003	Possible trauma evidence? in lower right leg bone	E	17/09/2021
93	003	Post excavation of burial pit	N	17/09/2021
94	003	Post excavation of burial pit	E	17/09/2021
95	-	Section through deposit to east side of [003]	WNW	17/09/2021
96	-	Southwest facing section behind [003]	N	17/09/2021
97	-	Southwest facing section behind [003]	NE	17/09/2021

APPENDIX 5: Drawing Register

Drawing No.	Sheet No.	Description	Scale	Date
1	1	Mid excavation plan of burial [003]	1:10	17/09/2021
2	1	South facing section of burial [003]	1:10	17/09/2021

APPENDIX 6: Sample Register

Context no.	Description	Volume (L)	No. of Tubs/Bags	Comments
004	Soil sample	30	6 Bags	Contains small charcoal fragments and rare burnt bone fragments



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