

# Castlehill Wood (re-)Dun: Reinterpreting a Stirling Oddity

Murray Cook

with contributions from  
Leanne Demay,  
Gemma Cruickshanks,  
Fraser Hunter and  
Fiona McGibbon



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Cover: Top, Cell 3 viewed from the east during excavations. Bottom, object X.HH 585 spindle whorl.



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## Introduction

As part of an ongoing review of Late Prehistoric settlement in the Forth Valley, key-hole excavation and re-analysis of archived finds was undertaken at Castlehill Wood in September 2020. The site had been excavated in 1955 by Richard Feachem of the Royal Commission on Ancient and Historical Monuments of Scotland (now Historic Environment Scotland). The focus of the current works was to obtain charcoal for radiocarbon dating from previously unexcavated baulks. All material costs were paid for by The Defence Infrastructure Organisation (DIO) who own the site, the Society of Antiquaries of Scotland and the lead author, while the excavation and write up were undertaken in the main author's own time, ably assisted by local volunteers.

This publication also contains in Appendices 1 and 2 the results of two other artefact reviews that were undertaken as part of the lead author's ongoing review of Stirling's late prehistoric settlement record. It had been intended to combine both re-assessments with associated excavation phases but these have not happened. The first site, West Plean Homestead, was excavated by Kenneth Steer in the 1950s (Steer 1958). The second site Gallow Hill fort, Bridge of Allan, was the find spot of Roman rotary lava quern first reported by Stirling (1958).

Stirling Archaeology is a volunteer research group based in Stirling and led by Dr Murray Cook. Its aim is to understand and promote Stirling's incredible past by undertaking archaeological excavations, guided walks and lectures. The group is self supporting and relies on crowdfunding to cover costs. Everyone is a volunteer and no salaries are paid.

Our logo features the central feature of the King' Knot and elaborate 17th century garden feature designed for the coronation of Charles I and a key element of Scotland's oldest park. It was designed by Isobel Stewart and Paul Tonner.

If you would like to learn more or volunteer please contact Murray: [m.j.cookstirling35@gmail.com](mailto:m.j.cookstirling35@gmail.com).

## Location and Background

Castlehill Wood dun (**Canmore ID 46233**), is a Scheduled Monument (SM 177) and Scheduled Monument Consent was granted for the works (300044614). The site sits on a dolerite crag (206m OD) on the north-eastern fringes of the Touch Hills located to the south-west of Stirling (NS 75079 90902) (illus 1 and 2). To the north a modern forestry plantation blocks the site's commanding views across the Forth Valley to the Ochils. It sits just above the Bannockburn which has extensive limestone deposits (Francis *et al.* 1970: 166-7), which may have increased soil fertility. The site's environs contain two hillforts, Gillies Hill (Rideout 1992) and Sauchie Crag (RCAHMS 1963: 72), as well as six substantial stone built roundhouses (Wallstale (Thompson 1971); Wester Craigend (RCAMS 1963: 82); Castlehill (RCAHMS 1963: 83-4), Middlethird (Main & Anderson 1990), Castlehill 2, which might be a substantial hut circle (RCAHMS 1963: 84; 1979: 21; Aitchison 1983) and Middlethird 2 which was observed by LIDAR (pers comm Bruce Harvey; Stirling Council SMR 8937). The site lies within an MOD heavy vehicle training ground which is characterised by deep-cut vehicle tracks. The current vegetation cover is a mixture of gorse and bracken and the site itself is subject to ongoing gorse clearance by the DIO.

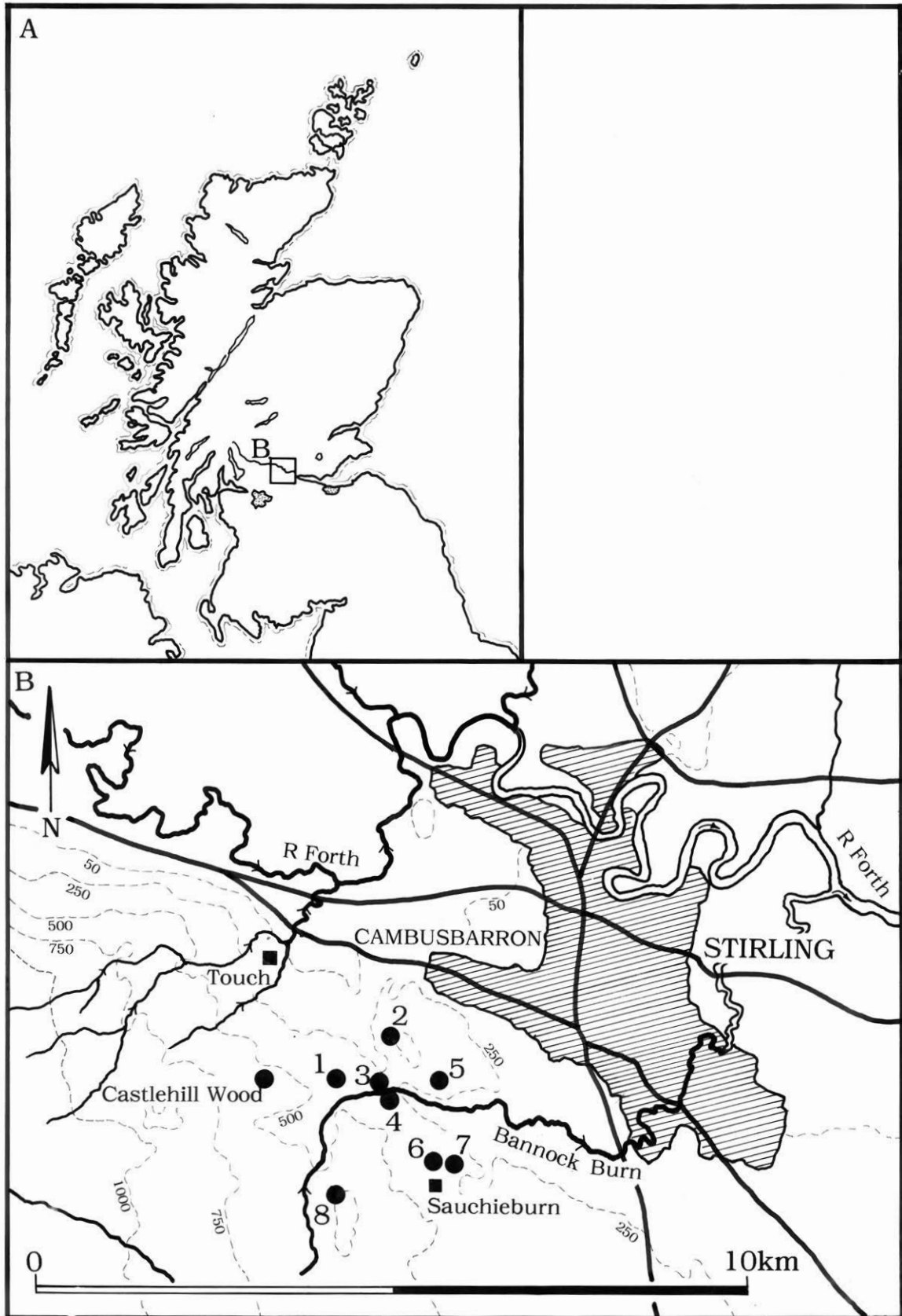
Feachem describes Castlehill Wood as a 'dun' (1959: 24; RCAHMS 1963: 81) by which he meant an unroofed enclosure '*smaller than hill-forts but stronger than farmsteads or homesteads, and among such works are great variations both in size and shape and in dates of original construction*'. CANMORE still defines the site as a dun (46233) and its thesaurus<sup>1</sup> gives as confusing a definition: '*a building or settlement enclosure with a thick drystone wall, generally circular or oval in plan, usually sited in an elevated position*'. This lack of precision has long been a bone of contention and Harding (1984; 1997: 122-33) proposed a subdivision of duns into those that could be roofed (Dun Houses) and those that could be not (Dun Enclosures). In turn the definitions of roofed structures were superseded by Armit's (1991) classification of Simple to Complex Atlantic Roundhouses (SARs and CARs). In the author's view 'dun' is too vague a term to be useful and below the discussion will explore the site's classification within Armit's scheme.

The site was discovered in 1952 during preparation of the 1963 RCAHMS Inventory of Stirlingshire (Feachem 1959: 24). It was chosen for excavation as it was threatened by MOD training (ibid. 25). Indeed a site visit prior to excavation identified that a small trench had been dug on the site and at least one heavy armoured vehicle had driven over it and a rotary quern had been dragged from the site by the tracks of a vehicle (ibid. 26). Prior to excavation Feachem (ibid.) describes the site as comprising '*a low, grass-covered oval mound from which a few boulders protruded which seemed to represent the foundations and debris of a substantial wall enclosing an area measuring 70 ft. from NE to SW by 50 ft. transversely. A depression in the east arc marked the probable location of an entrance.*'

The site's crag is unnamed on the mid 19th century Ordnance Survey 1st edition and the name 'Castlehill' was taken from a nearby farmstead marked on the 1st edition to the north-east. Feachem suggested a higher knoll to the west may be the original source of the name (1959: 26). However, Roy's mid 18th century map locates a farm named Castlehill further to the north-east of the 1st edition farm. It may be more likely that the name relates to the former Murrayshall House, reputedly a 17th century mansion house, whose remains were visible in the broader area to the 1980s (Paterson 2011: 97-8). To the south-west of the crag is a small sheepfold also marked on the 1st edition from which Aitchison (1982) observed a rotary quern (which remains unrecorded) and it seems probable that Castlehill Wood was robbed to construct it.

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<sup>1</sup><https://canmore.org.uk/thesaurus> accessed 21/10/2023



*Illus 1: Site location and other sites in its immediate environs.*

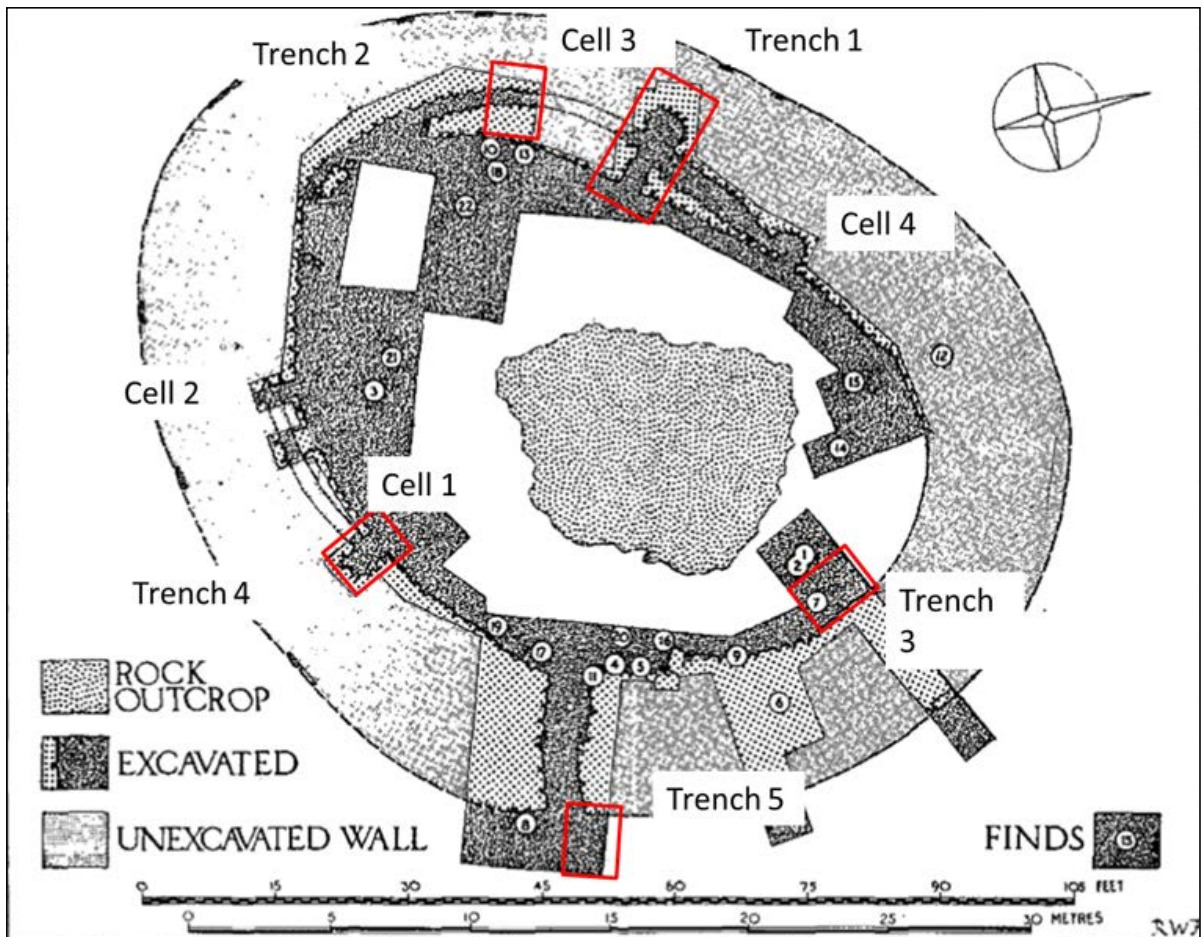


*Illus 2: The site from the east.*

Feachem's report is typical for the period and presented as a definitive interpretation of the excavation without context descriptions or sections, which hinders its utility. The various plans are presented in a generic style and it is difficult to query his conclusions. There is also no further detail in the RCAHMS's archives. Feachem's interpretations are firmly fixed in the then current academic models of diffusionism, by which change is driven by migrations/invasions of people. Feachem follows Childe's (1935: 197) and viewed the structure as typical of those 'residence(s) developed by scattered families, splinters from larger units dispersed by the effects of the Roman conquests in Gaul and Britain at the end of the 1st millennium B.C. and the start of the 1st A.D.' (1959: 19). Equally, the site's construction, occupation and 'destruction' is framed in relation to the Roman incursions of the 1st and 2nd centuries AD (ibid. 43) following Piggott's model (1951).

Feachem (1959) uncovered an oval enclosure measuring internally 22m from NE to SW by 15m formed by a rubble wall up to 1m high and varying in width from c. 5m to c. 2.75m with the thinnest section located on the eastern side. The entrance was located in the west, was paved and had door checks but no surviving bar holes. The stone was better laid in the entrance and had a slight arc to its line (Illus 3). A broken quern stone was recovered from the entrance passage (ibid. 36). The entrance was blocked, which Feachem (1959: 43) related to the site's 'destruction' at the hands of the Romans.

The interior was rocky with only one cut feature (see below) and associated with a small finds assemblage including undiagnostic prehistoric objects plus Roman and medieval material (see below). The wall contained two pairs of mural cells both of which were connected by two separate galleries (Illus 3 and 4). Each of the pairs of cells comprised a smaller and larger one and are labelled in this report as 1-4 in a clockwise manner from the entrance. Cells 1 and 3 were the largest and measured respectively 0.60m south-west by north-east and 0.40m north-west to south-east and 1.5m south-west by north-east and 1m north-west to south-east. Cell 3 lies directly opposite the structure's entrance, although Cell 3's entrance is not directly aligned on it. The smaller Cells 2 and 4 were more inlets into the galleries and measured respectively 1m north-south by 0.50m east-west and 0.50m by 0.50m. The galleries connecting Cells 1 and 2 measured 0.5m wide and 6m long and was defined by a wall 0.5m wide. The gallery connecting Cells 3 and 4 measured up to 0.9m wide, though in places was c. 0.5m wide. It was around 14m long and defined by a wall up to 1.5m thick, which was



Illus 3: Feachem's original survey with new trenches superimposed. Plan of dun and location of small finds  
 © R W Feachem 1959, reproduced with kind permission of the Society of Antiquaries of Scotland.

located next to the thinnest part of the structure's wall. The combination of the gallery wall with the structural wall at this point created a combined wall similar in thickness to the rest of the structure.

Neither of the galleries were connected to the outer wall. The cells and galleries' contents were dominated by burnt deposits. In Cell 3 was a pit measuring 0.91m in diameter and up to 0.43m deep cut into the earthen floor of the cell, full of red ash. Feachem (1959: 41) interpreted the galleries and cells which were full of burnt material as a system for drying corn: *'the chambers, of funnel form, may have opened out on the broad upper surface of the wall, where racks to support corn to be dried would have been laid'*.

In the structure's north-eastern arc was a c. 7m long line of edge set stones lining the inner face of the wall of which the stone closest to the entrance was on its side in the manner of a step which Feachem (1959: 29) which *'might have been due to the presence of a flight of steps which originally ran up the inner face of the wall at this point to give access to the upper surface'*. The presence of 'flues' and a 'staircase' supported Feachem's assumption of an enclosure rather than a roofed building and one in which the internal settlement comprised *'huts and shelters ... of wattle and daub'* (Feachem 1959: 9). His reconstruction (ibid. 45) comprises an oval enclosure with a c. 2.5 to 3m high wall, without any internal structures and what appears to be a fighting platform with a low protective projecting barrier on top of the wall. The overall impression is of a temporary low status structure constructed



*Illus 4: Cell 3 from the east.*

either by people resisting an opportunistic invasion from the north in the wake of Rome's retreat or by the northern raiders themselves. At the project's conclusion the majority of the trenches were not backfilled and it appears as if Feachem intended this to allow visitors to view the site. Photographs of it in the 1970s with a different grazing regime show a grassy surface typical of many HES managed sites today. While today the site is excluded from MOD training this excavation demonstrated (see below) that it continued to be used for firing exercises into the 1990s.

Aitchison (1983) interpreted the site as a building and viewed the Castlehill Wood's 'flues' as elements of a timber roundhouse with an attached enclosed yard. Davies (2006: 175) described it as a 'substantial stone roundhouse' which was less architecturally elaborate than her 'complex substantial stone roundhouse' (ibid. 149). The same broad forms exist in Perthshire and are referred to as duns, brochs and monumental roundhouses (PKARF 5.4.1.3). In Argyll and the inner Hebrides, excavation of duns has divided between authors who adopt Armit's scheme (e.g. Henderson & Gilmour 2011) and those who maintain the RCAHMS' scheme and while noting Harding (1984) and Armit's (1991) two schemes and simply discuss roundhouses or duns (ARARF 7.4.3; Regan *et al.* 2022). All of these classes and other terms such as homesteads, cashels and ring-forts are covered by Armit's (1991) Atlantic Roundhouse scheme which runs from SAR to CAR to Broch Towers. While these terms sit uneasily on the east coast they are the lead author's preferred terms as they allow comparisons across Scotland. The evolutionary model of SARs to CARs and to Broch Towers is the generally accepted consensus (e.g. Harding 2009; Romankiewicz 2011; Sharples 2020), Barber (2017) has argued that Broch Towers were built in a chronologically restricted period around 400 BC and all subsequent iterations of the architecture are copies constructed without the same expertise.

Castlehill Wood has been included in discussions about Late Prehistoric and Roman Iron Age settlement in the Forth valley (e.g. Main 1998; Macinnes 1984; Hanson 2020), but was excluded from debates of 'brochs' and Atlantic Roundhouses (e.g. Mackie 1982; Armit 2003; Romankiewicz 2011; Campbell 2021; Toolis 2021). While Castlehill Wood is not a broch it was potentially contemporary

with other southern brochs and its exclusion reveals a tendency to oversimplify Late Prehistoric settlement patterns.

As noted above initial interpretations had viewed southern brochs as evidence of invasion from the north in the window between the Roman retreat in the 1st century ad and reoccupation of Scotland in the early 2nd century ad (Piggott 1951). From the excavations of Leckie and Buchlyvie (Main 1998; MacKie 2017) two opposing theories emerged: MacKie (1982: 67) argued for broch builders being northern allies of the Romans, travelling south at their invitation. In contrast Macinnes (1984) argued that southern brochs appeared to be an expression of status and that the association of Roman goods in such sites may represent a similar expression of status. More recent commentators have suggested that CAR architecture may be an attempt to display a non-Roman identity (Armit 2003: 132; Harding 2009: 292).

A series of recent reviews by both Davies (2007) and the lead author have demonstrated that the Late Prehistoric settlement pattern around Stirling was far more complex than previously interpreted (Cook *et al.* 2016; Cook *et al.* 2019; Cook *et al.* 2020). There were in fact a variety of structural forms including hillforts, souterrains, SARs and CARs (one of which may have been a Broch Tower (Torwood)) and enclosed timber roundhouses. Many of these structures contain evidence for 1st and/or second century AD occupation, while a minority have evidence for third century activity (e.g. Leckie or East Coldoch (Hamilton 2017; Woolliscroft & Hoffman, 2002; 2004)). There are clear indications of Roman imports being distributed in a hierarchical manner (Hunter 1998; and see below). Presumably these Roman imports served a variety of purposes from bribery to 'payment' for services or supply of goods (cattle, timber, slaves and grain) (Hanson 2003: 203-6; see also Cook *et al.* 2020; Armit 1999; Stallibrass 2009; and Mercer 2018: 204-10). It is likely that such an influx of imports and their eventual withdrawal will have had a series of significant impacts on the local settlement patterns, economies and architectures (Armit 1999; Cook *et al.* 2019). However, it is perhaps a mistake to argue for a uniform response (Armit 2003: 132; Macinnes 2020).

The majority of the dating evidence derives from the structures' interiors and none to material recovered from their construction, a situation which bedevilled dating of the origin of 'brochs' for decades (e.g. Dockrill *et al.* 2007). Equally, Roman finds tend to bias interpretations of dating (Hunter 2001; Campbell 2011). This is surely exacerbated in stone structures which might last centuries (Harding 2009: 288) and be subject to repeated clearing and reoccupation events. There are also some indications of an existing complex and pre-Roman settlement pattern: the origins of Leckie broch are potentially pre-Roman (Hamilton 2017: 142; 146) and the lead author has argued that Torwood may also pre-Roman (Cook *et al.* 2020). Presumably the pre-Roman settlement pattern was based on the control and exploitation of natural resources and routes across the Forth (Cook *et al.* 2019; Cook forthcoming). Despite this there still appears to be undue weight applied to the Roman incursions and their potential impact on native settlement (e.g. Armit 2003: 132; Harding 2009: 292; Hanson 2020; Cook 2024).

# Results

## Excavation

The excavation ran with local volunteers between the 4th to 7th September 2020. Bracken was cleared by hand from within the site and a 2m buffer round the northern, eastern and western sides. All excavation was undertaken by hand and all spoil was sieved, modern objects (including spent ammunition dated to the 1990s within the backfilled spoil were not recovered (from Feachem's excavations and subsequent MOD training). Five trenches were de-turfed (Illus 3).

### Trench 1

Trench 1 measured 2m wide and 3.2m long and was orientated roughly north-west to south-east. It was located on the western side of the site over Cell 3 and its gallery (Illus 3, 4 and 5). The pit identified by Feachem (1959: 31) was in Cell 3.

The topsoil [101] was a dark brown bracken rich soil up to 0.32m deep, this was full of bracken rhizomes and included modern material such as plastic, spent ammunition and bottles. The topsoil overlay collapsed elements from the structure [102] and gallery walls [104, 105, 108, 109, 110], the backfill from the previous excavation [103], and the remaining *in situ* collapse in the gallery [111]. The backfill of the trench [103] overlay the bedrock [106], which had a shallow step cut into it [107]. This lay in the approximate location of Feachem's pit (1959: 31). The bedrock also had tool marks on it (Illus 6), although as these were not noted by Feachem (1959) it is not clear if they are prehistoric or from the 1950s.

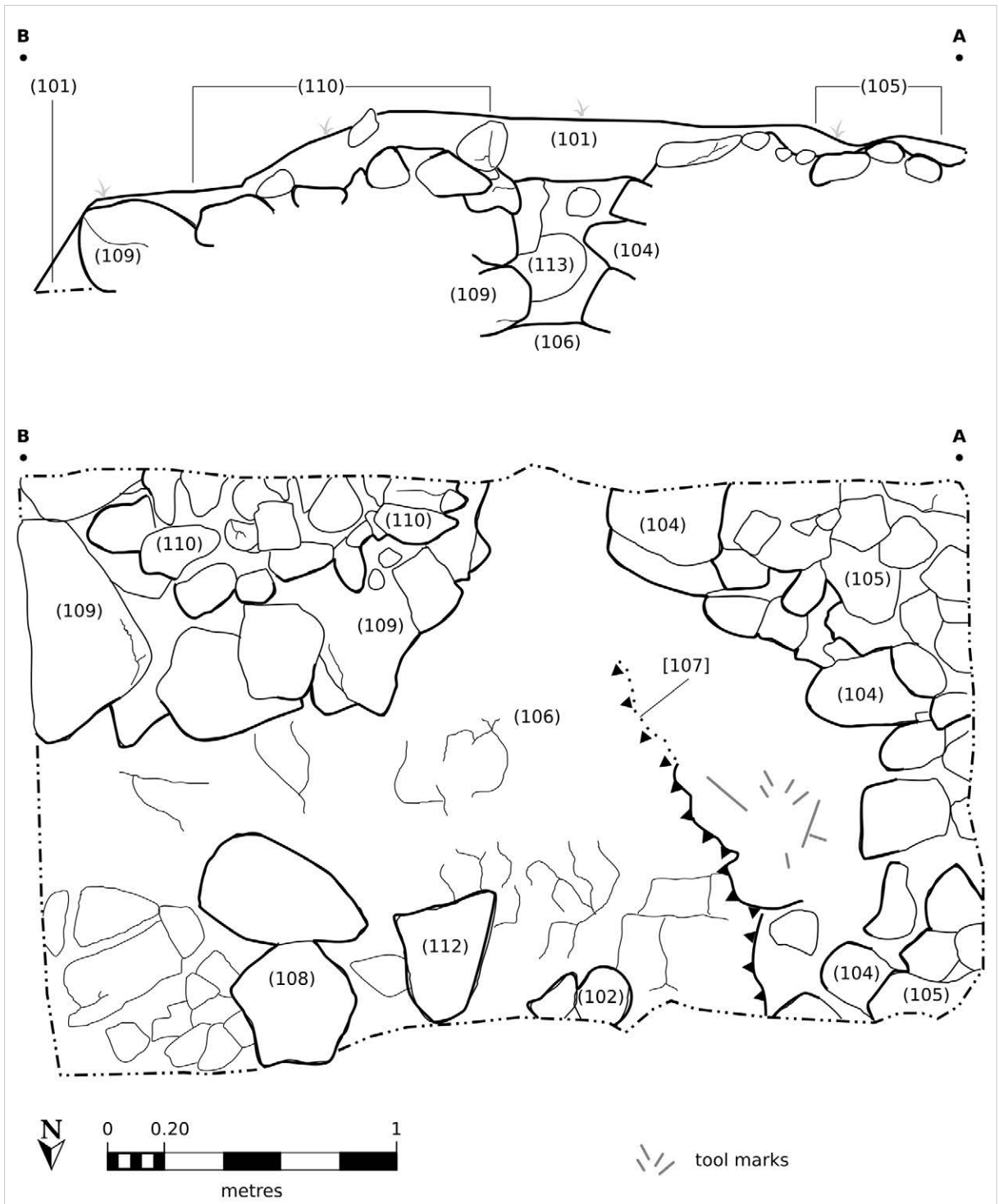
The structure's rear wall into which the cell was built, comprised a series of large sub-rounded facing stones [104], up to four courses high (Illus 4 and 5). These measured on average 0.40m, by 0.30m by 0.20m and retained the smaller rounded and sub-rounded core stones [105] which measured on average 0.20 m by 0.20m by 0.10m. The facing stones [104] rested directly upon the bedrock [106].

The gallery in front of the Cell 3, comprised two separate walls which created a 0.50m wide 1.20m long passage/entrance to the chamber and added around 0.80m to its length. To the north, the gallery wall [108] comprised a series of large rounded and sub-rounded stones placed directly on bedrock [106] which also appeared to form part of the wall. The stones measured on average 0.60m by 0.30 by 0.30m and only one course survived. The northern gallery measured at maximum 0.60m wide.

The southern gallery wall was more substantial than the northern gallery wall and comprised substantial sub-rounded facing stones [109] measuring up to 0.80m by 0.40m by 0.40m. The wall was built directly on the underlying bedrock. These large stones retained a rubble core [110] of small sub-rounded to sub-angular measuring 0.20m by 0.10m by 0.05m. This wall survived up to three courses high and created a gallery up to 0.4m wide.

Within Cell 3 was redeposited back-fill from the original excavation, comprising a mixture of dark charcoal rich soil, with shattered stone and lenses of red ash rich soil. Mixed in with this material was a hammer stone, modern corroded iron sheet, a small piece of prehistoric pottery, slag/clinker material and a variety of modern material (spent ammunition, plastic and glass) which was not kept.

RESULTS



*Illus 5: Plan and section of Trench 1.*



*Illus 6: Tools marks within Cell 3.*

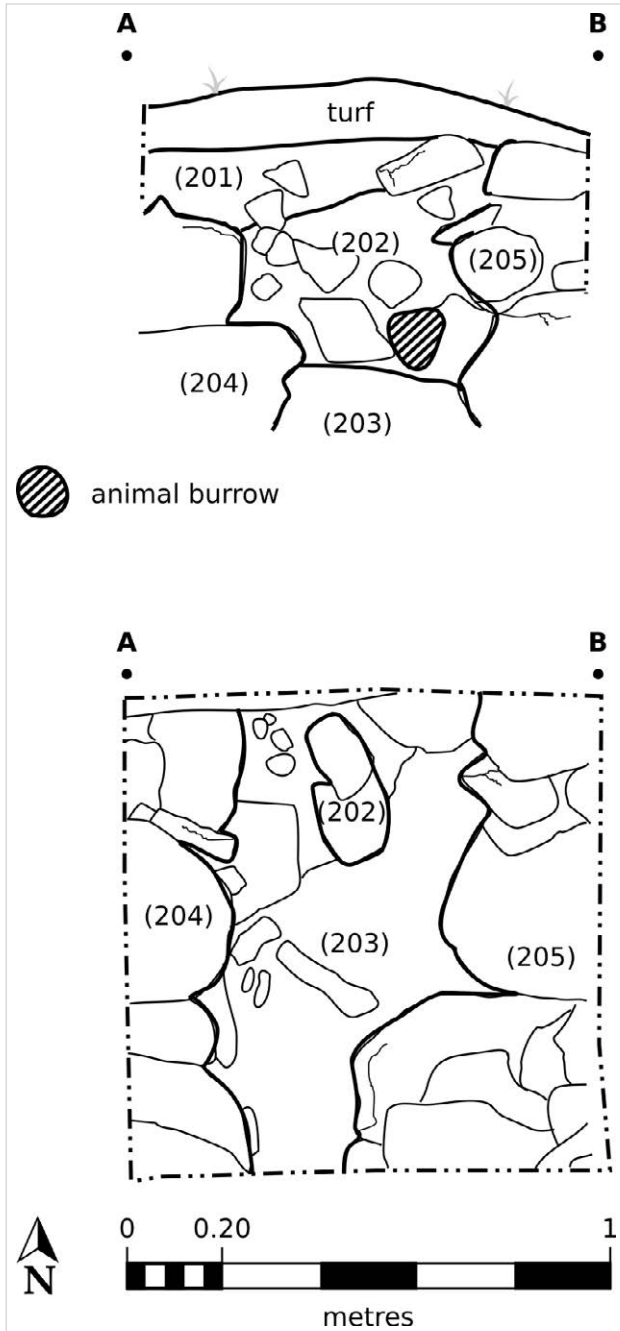
### **Trench 2**

Trench 2 measured 1m by 1m and was located to the south of Trench 1 on the other side of an unexcavated section of the gallery (Illus 3 and 7). The topsoil [201] was a dark brown bracken rich soil up to 0.15m thick, this was full of bracken rhyzomes. The topsoil overlay collapse from the stone elements of the structure [202], the structure's wall [204] and the gallery walls [205] and [203] a compact red brown charcoal rich soil. *Alnus glutinosa* charcoal from [203] (UBA-44270) was calibrated to a range of Cal 46 BC-AD 61.

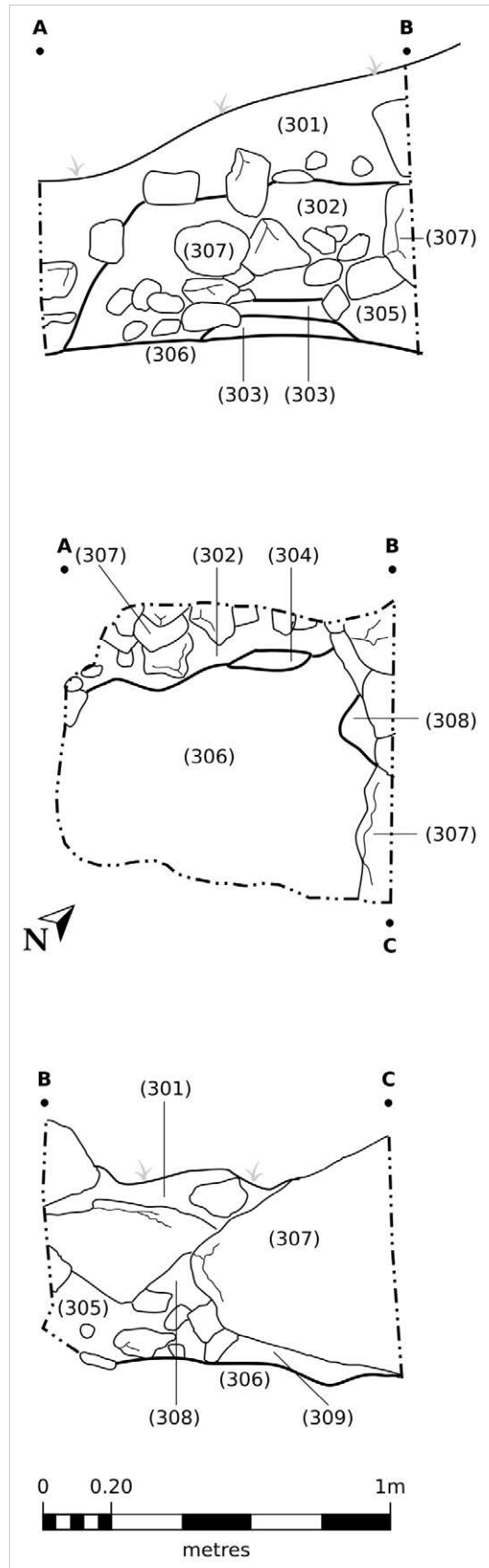
The structure wall [204] survived to two courses high and comprised large sub-rounded stones measuring at least 0.20m by 0.20m by 0.20m. The gallery wall [205] survived to three courses high and comprised sub-angular stones measuring at least 0.30m by 0.20m by 0.20m. The gallery measured at minimum 0.30m wide.

### **Trench 3**

Trench 3 measured 0.80m by 1.00m and was located on the eastern side of the site, against the structure's wall and the boundary of Feachem's excavation (Illus 3 and 8). While this trench did contain topsoil [301] this only survived in the baulk and the turf lay directly on the exposed bedrock [306]. The topsoil [301] was a dark brown bracken rich soil up to 0.20m thick, this was full of bracken rhyzomes. In the re-excavated section [301] overlay a layer of prehistoric collapse [302] comprising sub-angular to sub-rounded stones measuring on average 0.20m by 0.10m by 0.05m which measured up to 0.30m thick. This lay on top of [303] a mid brown compact soil with some bracken rhyzomes and 5% charcoal flecks and was up to 0.05m thick. [303] overlay [304] and abutted [305]. *Alnus glutinosa* charcoal from [303] (UBA-44273) was calibrated to a range of Cal 86 BC-AD 62. A second sample of *corylus avellana* charcoal from [303] (UBA-44274) was calibrated to a range of Cal AD 20-203. Context



*Illus 7: Plan and section of Trench 2.*



*Illus 8: Plan and section of Trench 3.*

[304] comprised a pinky brown clay rich soil with 5% charcoal, which lay directly upon the bedrock. *Alnus glutinosa* charcoal from [304] (UBA-44271) was calibrated to a range of Cal AD 64-208. A second sample of *Corylus avellana* charcoal from [304] (UBA-44272) was calibrated to a range of Cal AD 85-225. Context [305] comprised a gritty stone rich layer with light brown soil, heavily impacted by bracken, up to 0.10m thick. [305] ran under the facing stones of the structure wall [307] and equivalent deposits to [302] (similar to [308]) and [303] (similar to [309]) were also identified under the wall, although there was no charcoal in any of them and their stratigraphic relationship had been destroyed by the earlier excavation. Given the small sample size it is probable that all three contexts were lenses of the same broad deposit, perhaps levelling of the bedrock to create a more even surface.

The facing stones of the structure wall [307] were sub-angular and edge set and appeared to show signs of slumping though whether this occurred in antiquity or as a result of Feachem's excavation is unclear. The stones measured at least 0.80m by 1.90m by 0.20 and were the largest exposed in the interior of the site. Interestingly these stones mark the end of Feachem's 'staircase' (1959: 29). During a site visit Dr Tanja **Romankiewicz** suggested that this may in fact be a revetment and there is a clear 'step' between the main portion of the wall core and the 'staircase'. Certainly the fact that one of the stones sits above 'floor' deposits supports this view. Dr Romankiewicz also observed that the wall was thick enough to support a timber roof and that perhaps the revetment was required to cope with the weight of the roof and the pressure it exerted.

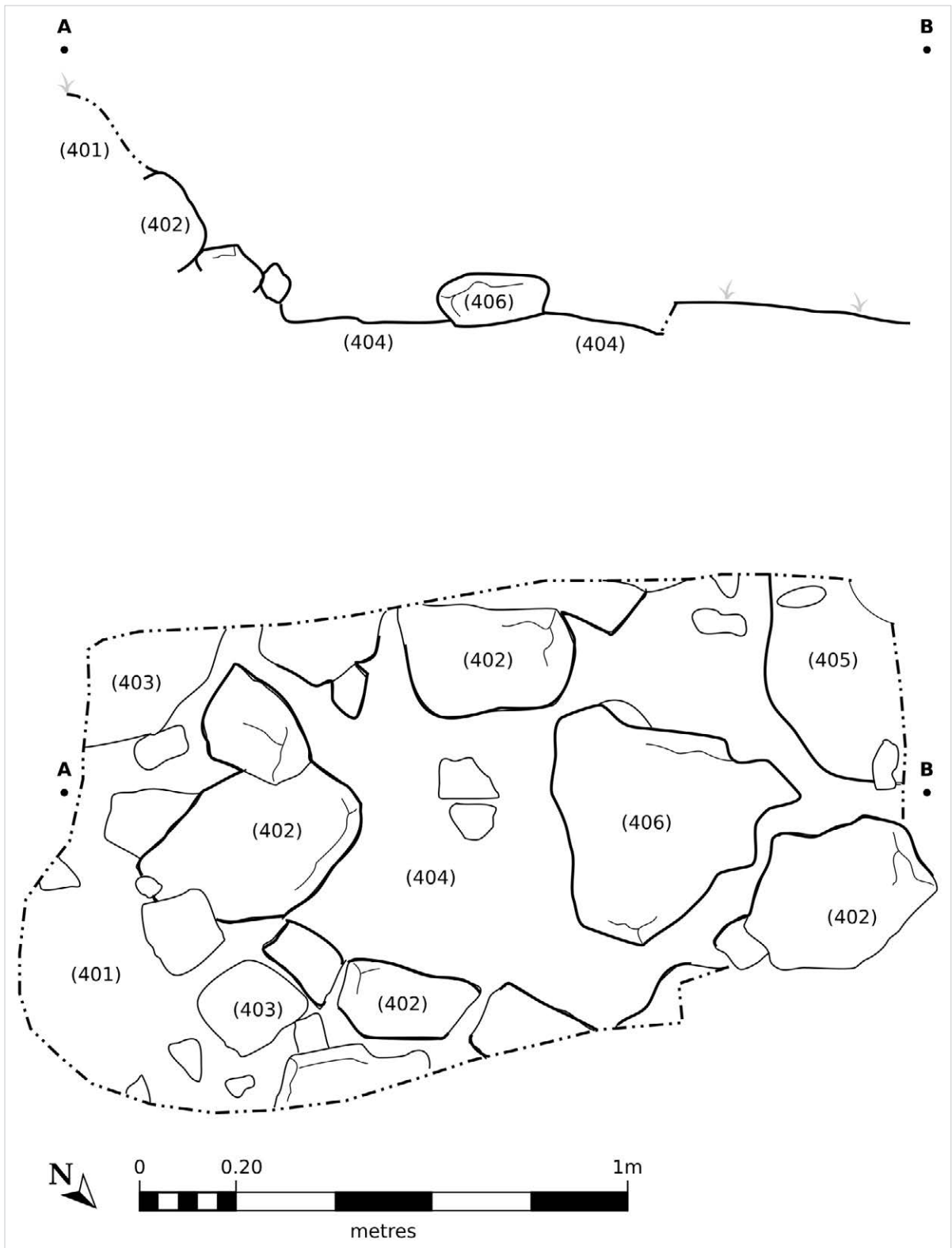
#### **Trench 4**

Trench 4 measured 1.8m long and 1m wide and was orientated north-west to south-east (Illus 3 and 9). The trench reopened Cell 1, which was associated with more galleries although these were not observed in the current excavation. Only one stone of the outer wall of the gallery wall [407] was noted. The topsoil [401] was a dark brown bracken rich soil up to 0.20m thick, this was full of bracken rhizomes and spent ammunition. The topsoil lay directly upon the wall face of the structure [402] and its core [403] as well as the underlying bedrock [404] and a possible collapsed stone of either the structure or gallery walls [406]. The rear of the structure wall, comprised a series of large sub-rounded facing stones [402], up to three courses high. These measured on average 0.30m, by 0.30m by 0.20m and retained the smaller rounded and sub-rounded core stones [403] which measured on average 0.15 m by 0.10m by 0.10m. The facing stones [402] rested directly upon the bedrock [404], which showed signs of being cracked and broken. The semi-circular chamber created by [402] measured roughly 0.60m south-west by north-east and 0.40m north-west to south-east. The gallery added around 0.40m to the length of the cell. To the north of the trench and closer to the interior was a small patch of unexcavated pinky brown soil [405] that appeared to represent trench back fill, although no charcoal was observed in it.

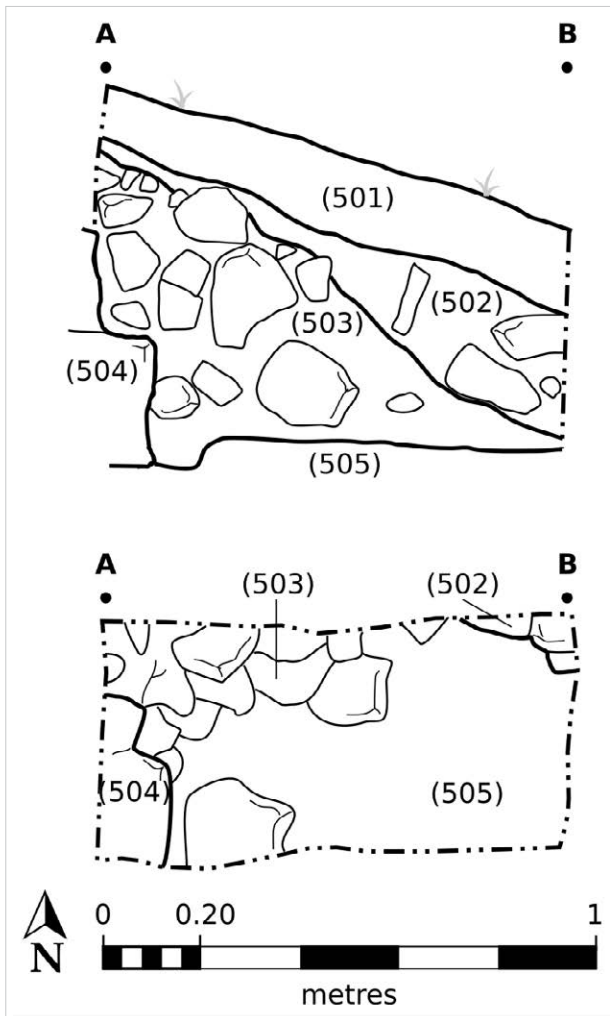
#### **Trench 5**

Trench 5 measured 1m by 0.5m. The trench examined the structure's entrance (illus 3 and 10). While this trench did contain topsoil [502] this only survived in the baulk and the turf lay directly on the exposed bedrock [505]. The topsoil [502] was a dark brown bracken rich soil up to 0.20m thick, this was full of bracken rhizomes. The trench exposed the outer face of the structure [504] which survived for two courses and lay directly on the bedrock. The stones were sub-angular and the largest measured at least 0.30, by 0.40m. To the east of [504] was a layer of wall collapse [503] which comprised sub-angular to sub-rounded stones measuring on average 0.10m by 0.10m by 0.05m, with a 5% mid brown bracken rich soil, up 0.50m thick. No charcoal was observed.

RESULTS



*Illus 9: Plan and section of Trench 4.*



Illus 10: Plan and section of Trench 5.

**Reinterpretation**

As the excavation was limited, so there is very little new evidence from which to reinterpret the site. In reality the lead author is replacing Feachem’s conclusions with what are hoped more logical conclusions but which remain assertions without further excavation. It seems probable that the site was a roofed building rather than an enclosure as Feachem thought. The staircase did not access a fighting platform but is probably a repair perhaps required from the pressures of a putative roof. The cells and galleries are not a flue system but purpose-built intra-mural features. It is also possible that there are other unrecorded cells and galleries in the wall. The structure’s wall has been lowered, perhaps to build the nearby sheep shelter. The presence of medieval pottery in the interior suggests that it may also have been partially cleared out, including any putative hearths and post-pads, thus creating the featureless interior Feachem observed. This activity may also have blocked the entrance. Accepting that the cells and galleries are an integral element of a building raises the possibility that they may once have been capped which would contradict Aitchison’s (1983) timber roundhouse model.

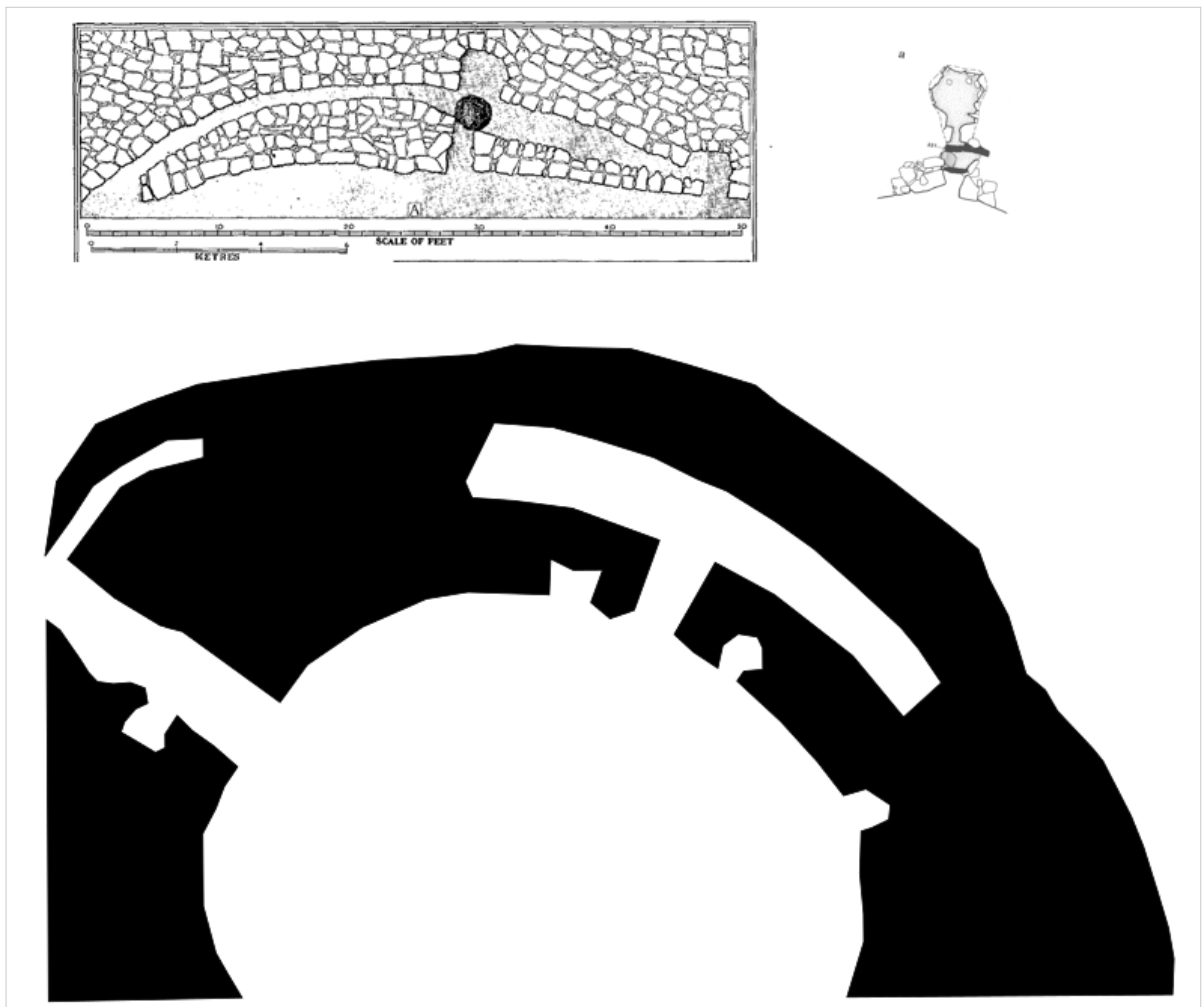
Intra-mural cells are a defining feature of CARs, but they tend to be larger than those at Castlehill Wood. For example at Coldoch (Cavers

Table 1: Radiocarbon dates from Castlehillwood Dun. The calibrated age ranges are determined from the University of Oxford Radiocarbon Accelerator Unit calibration program (OxCal3 <http://www.rlaha.ox.ac.uk/oxcal/oxcal.htm>).

Sample	Material	Context	Description	Depositional Context	Uncal BP	Calibrated 2-sigma
UBA-44270	<i>Alnus glutinosa</i> charcoal	203	Closing deposit in gallery	Primary	2020 BP±22	46 BC-AD 61
UBA-44271	<i>Alnus glutinosa</i> charcoal	304	Leveling deposit	Secondary	1914 BP±21	AD 64-208
UBA-44272	<i>Corylus avellana</i> charcoal	304	Leveling deposit	Secondary	1914 BP±21	AD 85-225
UBA-44273	<i>Alnus glutinosa</i> charcoal	303	Leveling deposit	Secondary	2020 BP±22	86 BC-AD 62
UBA-44274	<i>Corylus avellana</i> charcoal	303	Leveling deposit	Secondary	1936 BP±23	AD 20-203

& Hudson 2014) the smallest of its three cells is 3.5m wide by 2m. The Castlehill Wood cells are also explicitly not aumbry-like those from Torwood and Coldoch which are much smaller (Cavers & Hudson 2014; Cook *et al.* 2020). The most obvious parallels to Castlehill Wood's cells are found in the CARs of Sutherland and Caithness, for example Bail A'Chairn, Keiss Broch, Whitegate and Keiss Road (RCAHMS 1911: 127-9; 154-5; 156-7; 157-8). In addition, another parallel are Structures 3 and 5 at Cnip wheelhouse (Armit 2006: 54-7; 68-71) which are respectively c. 1m by 2m long and c.1.5m by 0.90m with a very low roof of no more than 1m high (Illus 11).

Feachem assumed that the galleries and cells were original design features. At a site visit Dr Tanja Romankiewicz raised the possibility that the western gallery wall may have been a repair, assuming that an equivalent portion of the outer wall had collapsed down the knoll. It is not possible to confirm this observation but any such putative repair maintained the entrance to Cell 3 and increased its size. The galleries are extremely narrow and not necessarily useable for human access (especially if they tapered upwards in to allow corbelling at the roof). Such narrow passages find parallels on the west coast CARs for example Dun Cuier, Barra and Druim an Duin, Argyll (Young 1958; RCAHMS 1988: 180-1) and potentially Keiss Road, Caithness, which as noted above also has cells (RCAHMS 1911: 157-8). However, there are no other examples of small cells connected by narrow galleries known to the lead author.



*Illus 11: Comparative plans of Cell 3 with cells at Whitekirk Broch and Cnip Wheelhouse. Castlewood mural structures © R W Feachem 1959, reproduced with kind permission of the Society of Antiquaries of Scotland.*

The origin of the burnt material in the cells and galleries at Castlehill Wood is unclear but it is likely to relate to their final use (as it was not cleared out) and perhaps even to the site's destruction. While normally destruction by fire would leave deposits of charcoal across the interior it may be that these were removed in the putative medieval reoccupation. Certainly as noted elsewhere (Cook *et al.* 2019: table 7.1) the bulk of Late Prehistoric structures excavated in the Forth valley have been destroyed by fire.

Finally, while the charcoal recovered from the structure's floor in Trench 3 may relate to its use, it could also be older material brought into the structure to level the floor. Feachem (1959) suggested that the broken quern recovered from the entrance may relate to older occupation and Demay (*et al.* see below)) note the use of quern as foundation deposits. However, it could equally relate to a repair undertaken during the use of the structure.

## Artefacts

*Leanne Demay, Fraser Hunter and Gemma Cruickshanks with geological identification by Fiona McGibbon*

## Summary

A small assemblage of 27 artefacts was recovered from the two excavations at Castlehill Wood. It comprises a range of artefacts, from cobble tools and querns to more exotic material such as Roman glass vessel shards, attesting Roman Iron Age occupation on the site and inhabitants with access to high-status goods. Several other sites in Stirlingshire show Roman contact, or at least access to Roman material, and this assemblage is consistent with those, albeit more limited in variation. Two sherds of medieval pottery indicate some use of the site during the medieval period.

*Table 2: Summary of artefacts recovered from Castlehill Wood. Those from Feachem's 1955 excavation are in the National Museum of Scotland (NMS accession numbers X.HH 578-98) while those from the current excavation are not allocated to a museum at the time of writing.*

Artefact type	Excavation		Total
	Feachem 1955	Cook 2020	
Stone	12	2	14
Handmade pottery	1	1	2
Roman pottery	1		1
Medieval pottery	3		3
Roman glass	3		3
Iron	1	1	2
Daub	1		1
Slag		1	1
<b>Total</b>	22	5	27

## The Assemblage

All measurements in catalogue entries are in mm. Abbreviations: L length, W width, T thickness, H height, D diameter. Catalogue entries of illustrated items are included below.

### Stone

Fourteen stone artefacts were recovered, providing proxy evidence for a range of activities taking place on the site, such as food processing, textile production, and a variety of other craft activities that have left less diagnostic traces.

### Querns

Four fragments of rotary quern were recovered during Feachem's investigations, representing both disc- and bun-shaped forms. Approximately half of a bun-shaped rotary quern upper stone X.HH 589 (Illus 12) was recovered from the core of the north arc of the wall after being 'torn from the mound' by vehicle tracks (Feachem 1959: 26). Bun-shaped forms like X.HH 589 are typical of south-east Scotland (MacKie 1971: 52-4, Fig. 5, 53; McLaren & Hunter 2008: 105). The unfinished perforation and partly roughed-out form suggest it fractured during manufacture. While the use of local stone types to make rotary querns suggests they were mainly produced on-site or nearby in Iron Age Scotland, unfinished querns are relatively scarce and the organisation of their production still poorly understood (McLaren & Hunter 2008: 106-7). The recovery of an unfinished quern here is therefore an important find.

Two other fragments of rotary quern (X.HH 588a and X.HH 588b), both of gritstone, were recovered from the eastern and southern edges of the structure's interior respectively (Feachem 1959: 33; Fig. 7). X.HH 588a shows a low bun-shaped profile while only a small portion from the edge of X.HH 588b survives. The fragments do not refit, but both working surfaces display similar abrasion, suggesting they would have once been part of the same stone. Fragment X.HH 588b also shows secondary reuse as a whetstone which is unusual. This not only offers proxy evidence for the use of metal blades here but illustrates the extended use and value of the quern, even once broken.

Rotary quern fragment X. HH 587 was retrieved '*beneath the boulder forming the north cornerstone in the lowest course of the inner end of the entrance*' (Feachem 1959: 36), indicating it had been placed



*Illus 12: Object X.HH 587 rotary quern.*

there during construction of the dun and its use (and probably breakage) predates this. There is a notable Iron Age tradition of quern fragmentation and deliberate deposition within structural elements like walls and paving (e.g. Heslop 2008: 71). It seems highly likely this example was deposited in a similar manner as a structured foundation deposit. Reassessment has determined X.HH 587 to be a fragment of disc quern, not saddle quern as initially noted (Feachem 1959: 36). The well-worn, slightly dished surface and unworked lower surface suggest it was part of a lower stone. Geological identification has determined all the quern stone fragments to be produced from locally available varieties, a trend reflected on most other later prehistoric sites in Scotland (McLaren & Hunter 2008: 106).



*Illus 13: Object X.HH 588a rotary quern.*

X.HH 587 Rotary quern lower stone fragment of staurolite schist, missing handle hole and feeder pipe with pronounced lipping around grinding surface. The preserved edge shows a carefully shaped, convex profile leading to a flat upper surface; the remaining edge is heavily flaked/damaged. L 370, W 170, T 51. Original diameter estimation is challenging owing to the edge's unevenness but was probably large with a minimum diameter of 420mm (Illus 12).

X.HH 588a Rotary quern upper stone fragment of Dalradian gritstone, around 20% surviving. Plano-convex/low bun-shaped in profile with a large flake missing at one corner. Split across the remains of a collar and feeder pipe. Grinding surface is well-worn with concentric striations; very smooth near the outer convex edge and rougher elsewhere, suggesting the working surface has been redressed or worn asymmetrically. L 233, W 168, T 29-69. Estimated original diameter 420mm (Illus 13).

X.HH 588b Rotary quern (part of X.HH 588a), small fragment from convex edge with well-worn grinding surface. L 151, W 43, T 31. Two smoothed facets on the edge show secondary use as a whetstone, which changed the shape of its original profile (Illus 14).

X.HH 589 Around half of a rotary quern upper stone of psammitic schist split through an unfinished biconical perforation (L 48, D 48.5 (upper), L 43.5, D 44 (lower)). Convex edges lead to a chunky, bun-shaped convex upper surface with a large flake missing at one corner of the fractured edge. Pecked and roughly shaped across much of the surface area but one area at the fractured end remains uneven, suggesting the stone was only roughly shaped before fracturing during perforation. The underside (grinding surface) has been flattened and pecked but shows no trace of wear. L 335, W 190, T 119. Estimated original diameter c.340mm (Illus 15).

#### Cobble tools

Cobble tools largely utilised unmodified pebbles and cobbles and are ubiquitous on later prehistoric sites. The variety of use-wear on cobble tools, for example abrasion, smoothing, rubbing, pounding,



*Illus 14: Object X.HH 588b rotary quern  
(part of X.HH 588a).*



*Illus 15: Object X.HH 589 rotary quern.*

staining and polishing, or fracturing through heavy percussion, indicates diverse tasks (McLaren 2022: 119). Multifunctional tools which display a range of wear patterns fall into a class known as ‘combination tools’, with two such tools identified here (X. HH 595 and SF1). Three cobbles (X.HH 594, X.HH 595 and SF5) with pecked facets were used for pounding, possibly for food production, but the exact function of these remains opaque. Hide processing on the site is demonstrated by cobbles (X.HH 593, X.HH 595 and SF1) with organic staining formed through prolonged contact with animal fat (Lane & Campbell 2000: 178-179). Appraisal of cobble tools from southeast Scotland suggests that hide processing was a widespread, everyday task taking place on most Iron Age sites (Hunter 2009: 140-156).

X.HH 593 Hide rubber. Small ovoid waterworn pebble of granophyre with polishing and dark staining across one face and some circumferential polishing and staining along one side and rounded end. Spalled on one side. L 49, W 35, T 19, 56.6g (Illus 16).

X.HH 594 Pounder. Tip of elongated ovoid pebble of gritstone pecked across the surface of the surviving rounded end. Broken during use. L 51.5, W 39, T 18.5, 57.3g (Illus 17).

X.HH 595 Combination tool. Pounder/grinder/hide rubber. Fragment of ovoid pebble of gritstone with a spalled flattened edge. Lightly ground facet near the fractured edge on the rounded side. Patch of dark staining and polishing on the flatter face from use as a hide rubber. L 54, W 44, T 26.2, 106.5g (Illus 18).

SF1 Combination tool. Grinder/hide rubber. Rounded sub-ovoid red sandstone cobble with pronounced grinding facet at the rounded end extending up one edge. Lightly pecked facet, a smaller pecked facet at each corner and a scatter of small peck marks extending across the flatter end. Area of light polishing in the centre of the flat face. Very light polishing and staining on the rounded face. L 83, W 70, T 44, 381g. Trench 1, Context 103 backfill (Illus 19).

SF5 Pounder. Fragment of rounded ovoid red sandstone cobble. Pecked facet damaged by spalling extends across the surviving end and up one face. L 80, W 58, T 51, 375g. Trench 3, Context 308 possible levelling layer (Illus 20).

X.HH 596 Unworked. Spalled and fire-cracked stone (previously catalogued by Feachem as a hammerstone) (Illus 21).



*Illus 16: Object X.HH 593 hide rubber.*



*Illus 17: Object X.HH 594 pounder.*



*Illus 18: Object X.HH 595 combination tool.*

RESULTS



*Illus 19: Object SF1 combination tool.*



*Illus 20: Object SF5 pounder.*



*Illus 21: Object X.HH 596 unworked stone.*

## Whorl

The recovery of a spindle whorl (X.HH 585) shows textile processing was taking place on the site, specifically the hand-spinning of fibres into yarn. Whorls are traditionally categorised by size and weight (Walton-Rogers 1997; Forster 2015: 370-71). At Howe, Orkney (Ballin-Smith 1994: 192) beads and whorls were differentiated by weight (whorls being 10g or more). The size and weight of X.HH 585 is consistent with Group 3 whorls (Walton-Rogers 1997) and may have been used for spinning finer yarns, but the small perforation (6mm) is unusual; for example, the perforations of the whorls in the Coppergate assemblage range between 9-11mm (*ibid.*).

X.HH 585 Whorl. Thin, sub-oval, roughly shaped undecorated whorl produced from phyllite. One face slightly convex, the other slightly concave. Uneven edges shaped by abrasion, mostly straight-sided with an hour-glass bored perforation slightly off-centre (max D 6mm, min D 5mm). The natural shape of the pebble has been utilised as much as possible, giving the whorl an overall uneven appearance. L 33, W 29, T 6.5-8.2, 13.9g (Illus 22).

## Work surfaces/anvils

Three stones with wear indicative of use as an anvil or work surface were found on the site (X.HH 590-592). These have generally flat surfaces which are peck marked, often concentrated in one area as a result of repeated percussion. The surfaces are of varying size, including fragments of a slab (X.HH 590-1) for cutting and shaping larger items and a small pebble (X.HH 592) probably used for smaller objects, indicating a range of materials were being processed and various craftworking activities were taking place.

X.HH 590 Anvil/work surface. Sub-square fragment of red sandstone slab. Surviving upper surface unevenly pecked with two pronounced, roughly pecked sub-circular hollows, one in the centre

(40 x 37 x 9) and one at the fractured edge (33 x 32 x 4), which suggests the fragment was once part of a larger working surface. Diffuse areas of pecking are visible near the original edge. The surviving surface is incomplete, with approximately one third missing. Three sides are fractured, one is natural. L 33, W 27, T 69 (Illus 23).

X.HH 591 Anvil/ work surface. Fragment of red sandstone slab. Upper surface unevenly pecked with an elongated sub-oval pecked hollow (127 x 59 x 15.5 max); possibly two conjoined sub-circular hollows giving an overall oval appearance which would have been positioned centrally on the original stone. Within the overall hollow, a deeper circular area of intense pecking, positioned centrally across the short axis, suggests work originally concentrated here before extending down the long axis towards the edge of the slab. The upper working surface is scattered with occasional large peck marks. Four naturally shaped sides survive. One edge and a corner are lost. An area of light smoothing in one corner overlain by pecking suggests the slab may have been lightly used as a whetstone prior to being used as an anvil. L 230, W 240, T 60.5 (Illus 24).

X.HH 592 Anvil/ work surface. Flattened, irregular-shaped cobble of red-brown sandstone with a shallow sub-circular pecked hollow near the centre (L 25.5, W 20, Depth 3.5). Very light pecking on upper surface. All edges are naturally shaped; one edge has fractured. L 116, W 93, T 46, 715.5g (not illustrated).

### Stone lamp

A fragment of rim (X.HH 586) from a well-shaped and finished steatite vessel, was recovered from Feachem's excavation. Not enough survives to recreate its original form or ascertain if it was decorated or handled. While little survives of this example, its original rim diameter can be estimated at 110mm, placing it in the typical range for Iron Age stone lamps (from a summary of intact stone lamps in NMS collections). The shallowness of the bowl is less common, but not restricted to any form, appearing on both plain and decorated vessels with and without handles.

Such lamps are a distinct feature of Iron Age Scotland, particularly in the north-east, and were often finely shaped and decorated, highlighting their value as objects. The first modern review of the type was prompted by discovery of a decorated steatite lamp from West Plean, Stirlingshire (Steer 1956: 243-6). Recent recovery of eleven from Clachtoll, Assynt almost all displayed sooting and heat



*Illus 22: Object X.HH 585 whorl.*



*Illus 23: Object X.HH 590 anvil/ work surface.*



*Illus 24: Object X.HH 591 anvil/ work surface.*



*Illus 25: Object X.HH 586 fragment of rim from a stone vessel.*

the exterior surface remained glossy. They are tableware, the smaller examples perhaps functioning as drinking vessels, the larger, as here, for serving food. The earliest finds of this type in Britain date to the period immediately after the Claudian invasion and continue into the Neronian and Flavian periods before sharply declining. A minimum of seven such bowls have been found on five other non-Roman sites beyond Hadrian's Wall, with a strong preference for polychrome or strongly coloured vessels, as opposed to Roman sites where the bulk are in common blue-green glass (Ingemark 2014: 29-36).

discolouration, confirming their use as lamps (McLaren 2022: 113-9), while the diversity of form and decoration within the assemblage suggests the designs are likely to be determined by individual preference, rather than reflecting any typological or chronological trends (ibid. 145).

X.HH 586 Fragment of rim from a stone vessel, probably of talc-schist (steatite). Well-shaped plain rounded rim leading to a shallow concave interior and convex exterior. Carefully shaped, smooth abraded surface. Probably the rim of a stone lamp. L 43, W 21, T 18, 20.2g. Estimated external rim diameter 110mm (Illus 25).

#### Glass

Three sherds of Roman vessel glass (X.HH 582-4) were recovered by Feachem (1959: 35-6) and have received detailed reappraisal by Ingemark (2014), which is summarised here. They represent two different vessels: a polychrome pillar-moulded bowl, and a cylindrical glass bottle.

The sherds were initially identified by Dr D.B. Harden, and more recently confirmed and catalogued by Dominic Ingemark (2014). The following presents a summary of the vessel types, chronology and distribution (from Ingemark 2014).

The rim fragment of a pillar-moulded bowl (X.HH 582) was recovered from the 'surface of the bedrock' at the entrance to the dun which was overlain by a very thin turf (Feachem 1959). Pillar-moulded bowls are thick-walled vessels characterised by a deep convex body with prominent ribs on the exterior surface. The inside surface and outer rim are ground and polished, resulting in a dull appearance, whilst



*Illus 26: Object X.HH 582 rim fragment of a polychrome pillar-moulded bowl.*



*Illus 27: Object X.HH 582 rim fragment of a polychrome pillar-moulded bowl (other side).*

The other two sherds probably derive from one cylindrical bottle in blue-green glass; one sherd from the body, the other from the base (X.HH 583-4). They were recovered from a thin soil which overlay parts of the bedrock within the dun interior, directly below the tumbled wall stones (Feachem 1959). For the type, see Ingemark 2014: 128-148. In a Roman context, they served as tableware and storage containers, and were used for serving a range of items. The type is short-lived, with production lasting around 70 to 100 years and ending c. AD 110. Given their robustness it is possible they remained in circulation for some time after this date, but in Britain they are predominantly found at sites of Claudian to Flavian date. While blue-green bottles are the main type of Roman vessel glass represented on Iron Age sites in Scotland, most are the prismatic type, typically with a square base; cylindrical ones are only securely attested on around 10 other sites (Ingemark 2014: 128-48).

X.HH 582 Rim fragment of a polychrome pillar-moulded bowl. Purple with opaque white spots. Ground on the inside and on rim. 54mm x 34mm; wall thickness 4.5mm-10mm (Illus 26).

X.HH 583 Fragment of base and lower body of a cylindrical bottle. Blue-green. Usage scratches on base. 39mm x 34mm; wall thickness 3.5 (Illus 27).

X.HH 584 Body fragment of a cylindrical bottle. Blue-green. 12mm x 21mm; wall thickness 5.9 (Illus 27).

#### *Handmade pottery*

Five sherds of handmade pottery were recovered across the two excavations (X.HH 578 and SF2). No rim or base fragments were recovered to recreate original form; however, the coarseness and inclusion of large grits are typical of handmade pottery of the later prehistoric period in central and southern Scotland. Pottery is relatively uncommon on sites in Stirlingshire, even those which have produced large assemblages: for example, the brochs at Leckie and Fairy Knowe produced only a few sherds each (MacKie 2007: 1317; Willis 1998: 328).

X.HH 578 Four fragments of coarse, thick-walled vessel; only one surface survives. Sandy clay with <15% subangular grits (up to 7mm in length). Coarse organic burnt-out impressions visible in section, fine organic impressions on surviving surface. No sooting or carbonised interior residues on the surviving surface. Patchy colouring in section, with areas of oxidisation and bright orange clay, suggests uneven firing conditions. Lightly abraded. Largest fragment dimensions: L 47.8, W 43.5, T 16.8. 25.3g (illus 28-29).

SF2 Small fragment of prehistoric pottery. Fine sandy clay with occasional grits (up to 2mm in length), micaceous. Fired orange to exterior with fine organic impressions, oxidised core with burnt-out coarse organics (straw?). Probable body fragment. L 15, W 12, T 7, 1.3g. Trench 1, Context 103 backfill (illus 30).



illus 28: Object X.HH 578 four fragments of coarse, thick-walled vessel.



illus 29: Object X.HH 578 four fragments of coarse, thick-walled vessel (other side).

#### Roman pottery

One sherd of pottery (X.HH 579) is extremely abraded and could only be identified in 1955 as 'probably Roman'. Reassessment by Colin Wallace has confirmed the sherd is from a fine Roman greyware vessel, probably early Roman in date.

X.HH 579 Small sherd of abraded ceramic from a fine greyware vessel. Very fine sandy clay with occasional distinctive orange grains of sand, micaceous. Dark grey on one surface, light beige-grey on the other. L 13.8, W 1.9, T 3. 0.4g (illus 31).

#### Medieval pottery

A small assemblage of medieval pottery was recovered from the site. According to Feachem (1959: 33) three sherds were recovered, but only two appear to have been retained and are present in NMS. The medieval pottery was examined in 1955 by Dr E.M. Jope. A small sherd (X.HH 580) with yellow-green glaze to the exterior was identified as a fragment of a round jug with a moulded rim dated to between 1290 and 1308 and a small unglazed fragment of reddish ware (X.HH 581) was identified as possibly part of a cooking vessel of late 13th or early 14th century date. The third sherd (missing) is described as a grey ware with olive glaze. All three sherds were found 'among the grassroots' in the north-east sector of the dun (though shown as from the west on the site plan (Feachem 1959: 33; Fig. 7)).



*Illus 30: Object SF2 small fragment of prehistoric pottery.*



*Illus 31: Object X.HH 579 small sherd of abraded ceramic from a fine greyware vessel.*



*Illus 32: Object X.HH 580 small sherd of medieval ceramic.*



*Illus 33: Object X.HH 581 small sherd of medieval ceramic.*

X.HH 580 Small sherd of medieval ceramic, interior fired light orange, yellow-green glaze to the exterior. Wall T 4, L 21, W 20.2. Jope identified it as having formed part of a round jug with a moulded rim, similar to a vessel from Castledykes, Kirkcudbright dated to between 1290 and 1308 (illus 32).

X.HH 581 Small sherd of medieval ceramic fired mid-orange/buff with an oxidised core. Fine sandy clay, micaceous. Fine radial lines in interior, possible faint slip to exterior visible under microscope. Light abrasion. Wall T 7.2, L 21, W 18.4 (illus 33). Identified by Jope as possibly part of a cooking pot of late 13th- or early 14th-century date.

### *Iron*

Only two iron objects were recovered (X.HH 597 and SF4). The degraded remains of an iron ring (X.HH 597) were found by Feachem in the 'same cutting and on the same level' as the coarse pottery (X.HH 578). Such a fitting could have a range of uses; the fragments are undiagnostic. A piece of sheet

iron (SF4) from 2020 in good condition is likely to be modern.

X.HH 597 Two fragments (not refitting) of curved wrought iron rod with broken ends. Possibly from a ring fitting (estimated original diameter 24mm). L 19.5 D4; L 13, T 3.5 (not illustrated).

SF4 Two joined pieces of iron, comprising a thin curved fine edge binding to a thin sheet-iron object. The sheet survives only as a jagged edge protruding from the binding. Good condition suggests it is probably recent. L 3.2, T 0.5. Trench 1, Context 103 backfill (Illus 34).



*Illus 34: Object SF4 two joined pieces of iron.*

### *Miscellaneous*

Feachem described large amounts of ‘ash and clinker’ present in the mural chambers of the dun, compact upon excavation, but powdered when dry and described as ‘made up of carbonised straw fused with mud’ (1959: 30-1, 40). He argued that it formed through accumulations of earth being used to dampen fires or by embers of successive fires being contaminated with earth (Feachem 1959: 30-1, 42). Unfortunately, this material was not retained, but his report states analysis indicated high silica content. The current excavations recovered a small amount of similar material (SF3). The friable and porous material displays coarse linear impressions consistent with burnt-out grass or straw.

Such vitrified material is very similar to fuel ash slag, which forms during the high-temperature reaction between alkaline fuel ash and silicates such as sand or clay. It is not diagnostic of a particular process and determining exactly how it formed is challenging. The quantity described by Feachem and overall characteristics are similar to a type of vitrified material discussed as ‘Iron Age grey’ on sites such as at Broxmouth hillfort, where a metalworking origin was ruled out (McDonnell 2013: 397). Similar material in the outer bank at Castle Law, Forgandenny hillfort preserved stake holes through it, suggesting it formed during the burning of a wooden structure (Cruickshanks in prep), but in all likelihood this material could have formed in a variety of ways.

SF3 Four fractured fragments of reddish-brown, porous, lightweight vitrified material. One of the larger fragments (4.2 x 2.8 x 1.7mm) displays linear impressions consistent with burnt-out grass or straw. 16g. Trench 1, Context 103 backfill (Illus 35)

Three small pieces of daub (X.HH 598 (Illus 38)) were recovered from Feachem’s excavation. Feachem did not find any wall footings or structural features, such as postholes, within the bedrock interior and concluded that any internal structures were likely to have been constructed of wattle and daub (1955: 32). The small number of fragments could equally derive from a pyrotechnical process, such as a hearth.

X. HH 598 Three small pieces of daub. Friable, coarse sandy clay with frequent sub-angular grits (at least 6mm in length) and frequent coarse organic impressions throughout (up to 4.5mm wide). Largest fragment L 21.5, W 18.5, T 11.5 (Illus 36).



*Illus 35: Object SF3 Four fractured fragments of reddish-brown, porous, lightweight vitrified material.*



*Illus 36: Object X. HH 598 Three small pieces of daub.*

### **Discussion**

The assemblages are notably different in volume, reflecting the different aims of the two excavations. Apart from the few Roman finds, Feachem's assemblage is consistent with the 2020 assemblage, suggesting there was no bias in collection of more prosaic items such as cobble tools and daub in the past. Although the 'clinker' was not retained during the earlier excavation, it was described in detail and scientific analysis was carried out. Therefore, it can be surmised that the collective assemblage offers a representative sample to consider the nature of occupation, connections, and activities associated with the site.

Though small in number, the range of stone artefacts shows a variety of activities were taking place on the site. Querns and pounders would have been used in everyday tasks such as food processing, and the unfinished quern stone suggests they were being manufactured on or near the site. Several

multi-functional tools were recovered, and although a specific function can often not be attributed, together with the worksurfaces/ anvil stones, they hint at various everyday craft activities taking place. The rotary quern fragment reused as a whetstone illustrates the prolonged use of a valued object beyond its original function. Although the assemblage is small, it is worth noting that craft practices represented are everyday activities that would be anticipated at every site: there is, for instance, no trace of metalworking. Nor are there any unusual finds beyond the Roman ones.

The presence of Roman glass and pottery sherds indicates connections, either directly or indirectly, with the Roman world. The three glass sherds come from two different late first century vessels, a rare pillar-moulded bowl and a cylindrical glass bottle; the very worn ceramic sherd is most likely to be a fineware of the same date. While one should be cautious about relying on Roman finds as dating indicators given their potential longevity of use, the consistency of production dates makes it plausible in this case.

Table 3: Summary of Roman finds from Iron Age settlement sites in Stirlingshire. 'y' represents yes, where the category is present but the quantity is uncertain.

Site	Samian	Fine pottery	Coarse pottery	Amphora	Mortaria	Glass vessel	Glass bead	Brooch	Coins	Other
Bannockburn			y							
Camelon		1	6		1?	1		1		gaming pieces
Castlehill Wood		1				2				
Doghillock								1		
East Coldoch	y					1	y			
Easter Moss, Cowiehall Quarry	1					1				
Fairy Knowe	5	1	5	1	2	1		2	2	gaming piece; lead, including vessel
Gallow Hill										lava quern
Keir Hill of Gargunnoch		1				2	1			
King's Park					1					
Leckie	c.50	<5	c.10			43	7	2	3	intaglio; mirror; lead vessel; iron objects

To contextualise this, it is worth reviewing other Roman finds from Iron Age settlement sites in the former county of Stirlingshire as a handy analytical region. Eleven are known (table 3). In many respects the range of import material is typical (cf Hunter 2001), with a focus on items linked to eating and drinking (ceramics and/or glass occur on nine sites), and personal ornament (brooches and beads, from six sites). Three sites are notably richer: the lowland brochs of Leckie and Fairy Knowe, and the Camelon enclosed settlement. The latter's apparent wealth is probably rather misleading, as it lay within the immediate environs of the Roman fort at Camelon. It is also locally unusual in its dating, primarily Antonine with a single potentially Flavian item. The Stirlingshire evidence shows a surprising predominance of Flavian material. Of the eleven sites, ten produced securely 1st-2nd century finds (one cannot be dated on published evidence); of these, seven showed Flavian material, four Antonine, and two cannot be closely dated. Flavian material is rarer than Antonine in Scotland as a whole (Hunter 2023), making this pattern noteworthy.

Flavian material shows a notably clustered distribution within Scotland, and within each cluster a single site typically shows a markedly wider range of material. This has been interpreted as evidence of deliberate targeting of particular sites for diplomatic efforts by the incoming Roman army, and subsequent dispersal of material from the focal site within local redistribution networks (Hunter 2023). Stirlingshire is noteworthy for having two such focal sites in the two lowland brochs of Fairy Knowe and Leckie that may well have had different spheres of influence. It also suggests a clear desire from the Roman world to keep this area on-side. The sequences of both have been much debated, and this is not the point to engage with them in detail, but of the two, Leckie shows recurring evidence of Roman contact, including rare evidence of pre-Flavian imports as well as Antonine and mid-Roman material (c. AD 160-250), whereas the Fairy Knowe finds are exclusively Flavian.

There are taphonomic challenges in comparing these sites with others, as both had destruction phases that preserved a wealth of material which would normally have been recycled, reused or dispersed. The comparison with other sites that have not seen destruction is thus somewhat biased – although Cook *et al.* (2019, table 7.1) have commented on how many of the Roman Iron Age roundhouse settlements in the area did see destruction. Nonetheless, taking the assemblages as a whole and considering range rather than quantity permits more secure comparisons to be made. In this view, Leckie and Fairy Knowe also stand out for the evidence of other unusual activity: restricted craft activities such as metal-working, non-Roman imports (for instance exotic stones), and decorative metalwork. None of these are represented at Castlehill Wood, though it is marked out by its enhanced drystone architecture. This difference supports the idea that Roman material most likely reached sites such as Castlehill through local redistribution rather than directly.

Did the finds arrive as sherds or as vessels? This has been a long and active debate, but in our view the latter is more likely. This best explains selection processes behind the material coming into local hands; in this specific instance, two sherds most likely from the same vessel also suggest the presence of the vessel. The survival of only one or two fragments from a vessel should not necessarily cause surprise: this is true also of the locally made pottery and the stone lamp. Whether the fragments were purposefully deposited is hard to argue, though there are hints in other parts of the assemblage, such as the quern fragment built into the entrance.

Overall, the small assemblage from Castlehill Wood represents many aspects of everyday life: items such as cobble tools and querns, objects which hint at a range of typical domestic craft activities, and aspects of belief as shown by the structured deposits of quern stones. Reassessment of the older finds and study of the new ones has added notable depth to the quern assemblage in particular. Originally identified as part of a saddle quern placed in the foundation at the dun entrance, this fragment is actually part of a disc-quern. The fragment of rotary quern found to have been reused as a whetstone is unusual. Reassessment of the Roman finds in context supports a Flavian date for this phase of contact and suggests the finds reached the site most plausibly through local distribution networks rather than direct contacts. While a small assemblage, its renewed study has extracted noteworthy fresh information for it.

## Discussion

### The Proposed Nature of the Roof

As suggested by Aitchison (1983) and Davies (2006: 175) it is proposed that Castlehill Wood was roofed rather than an enclosure as suggested by Feachem. While Feachem noted (1959: 32) there were no post-holes this would not rule out post-pads; indeed a putative roof could have rested on the walls (see Strachan (2013: 94-100)). Although the structure is oval its c. 15m width is typical of the diameter roofed during the Iron Age elsewhere in Scotland (Pope 2003: 101; Romankiewicz 2011: 28). As the structure has been robbed it is unclear how much higher the wall was, although its oval form is unlikely to have provided sufficient structural coherence for significantly higher stonework (Cavers *et al.* 2016). However, a roof with a 45 degree pitch would provide sufficient space for an upper floor, although there is a wide debate about how such structures are roofed (e.g. Strachan *ibid.*; Cavers 2022: 343-4).

### Intra-Mural Features

As noted above the individual elements of cells and galleries of Castlehill Wood find parallels in Argyll, Caithness and Lewis, although as CAR architecture is found across these regions such connections should not be surprising. It is likely that the unexcavated portions of the wall contain other cells and galleries. The bulk of the galleries with the exception of the northern end of the western one were too small for an adult to pass through, though perhaps children or animals might gain passage. This raises the question of whether they are skeuomorphs of poorly understood features seen elsewhere (as per Barber 2017) or whether they were functional, perhaps reflecting design innovation drawing from what would have been a recognisable and known architectural palette. In addition if the gallery in front of Cell 3 was a repair this increased its size and altered its nature, although it seems probable that Cell 1 was an original feature. This of course begs the question as to what their intended function was. The most obvious function is storage, however, there are some indications of a less practical purpose.

Feachem's (1959: 37, 41) excavation only recorded a single cut feature: a 'fire pit' containing burnt material in Cell 3. Feachem (*ibid.*) suggested that the pit's irregular shape '*may have been formed by the heat of the fires incidentally cracking the surface of the rock*'. However, it is not clear if this was dumped material or burnt in situ. Feachem (*ibid.* 40) goes on to describe the '*ash and clinker*' from the galleries: '*deposits of ash were comparatively solid and compact when found but powdered freely when dry. The clinker was found in deposits which appeared to have been laid down gradually and to have accumulated into extensive masses from which pieces could be dug out or broken off. Analyses of these ashes show very similar results, indicating that they consisted largely of material such as straw mixed with earth*'. This prompted his theory that they were flues. The nature of these deposits is unknown as they have not been analysed by modern techniques, they could be collapsed roof material or perhaps some form of complex structured deposit. Modern excavation has revealed complex deposits in such cells and similar small buildings elsewhere (Ritchie 2003: 5-7; Armit & Ginn 2007: 116). For example human remains at Structures B and C at Dun Vulcan, South Uist (Parker Pearson & Sharples 1999: 138-9) or the complex deposit of animal and human bones in a cell at Whitegate, Caithness (Heald & Barber 2015: 101-2). Cnip's Structure 5's upper fill comprised a restricted and apparently selected range of material (*ibid.* 70-1). Armit (*ibid.* 55) noted that Structure 3's sound floor was resurfaced at some point in what appears to have been a ritual exercise. He further observed a broad trend to bury and seal floor deposits which he connects to significant points of change in the lives of the household (*ibid.* 241-2). All of this activity is later, perhaps even closing deposits: the Whitegate remains were

dated to AD 259-432 (Sheridan 2008) while those at Dun Vulcan were dated to AD 80-350 (Mulville *et al.* 2003: 24). In contrast Cnip Wheelhouse's cell-like Structure 3 also contained primary structured deposits of animal and human skulls (Armit 2006: 54-7), dating to between the late first century BC or early first century AD (*ibid.* 221). Intriguingly, in what may be a related tradition Mackie (2016: 68) notes six successive hearths at Leckie CAR. Beyond the Forth valley there are three superimposed hearths at Clachtoll Sutherland (Cavers 2022: 17-24) each with an associated raised floor level of accumulated midden material. The same gradual accumulation of floor layers was also observed at Crosskirk, Caithness (Fairhurst 1984: 60-67) and The Howe, Stromness (Ballin-Smith 1994: 75-77). A related process was noted at Broxmouth, East Lothian in the 1st centuries BC-AD where the walls of several roundhouses were thickened over time gradually reducing the usable space (Armit & McKenzie 2013: 184-5; Büster 2021). Perhaps we might view the galleries in front of Cell 3 in a related manner, making the space harder to access. Additionally, if we take Feachem's observation that the deposits in the galleries were laid down gradually (1959: 40) this might suggest a similar practice of gradual deposition in them. This of course raises the issue of where the vitrified material might have come from, burnt *in situ* in the galleries or perhaps redeposited within them.

Elsewhere in the Scottish Late Iron Age, the ritual function of dark spaces has been regularly commented on, from caves such as Sculptor's Cave, Covesea (Armit *et al.* 2011; Armit & Büster 2020), to constructed spaces such as wells, in CARs (Armit 2003: 108-10), and the spectacular Mine Howe (Card & Downes 2003). The same argument was made about reused early prehistoric rock art in CAR galleries and staircases (Cook *et al.* 2020: 43-4). Martin Carruthers (2018) has drawn attention to the claustrophobic nature of Orcadian souterrains and their potential for ritual activity based on their repeated association with funerary remains. Within discussion of Palaeolithic cave art the impact of darkness on the artist and audience is often described in terms of disorientation, confusion and the potential for hallucinations (Bahn & Vertut 1998: 188).

Even accepting that storage within the cells was their primary function it may be worth exploring a secondary more esoteric purpose. Cells 1 and 3 were respectively only big enough for one and two people to stand or crouch (we of course do not know the original cell height). Assuming the cells were capped or corbelled the narrow entrances could be easily blocked to exclude all light and the galleries used to manipulate temperature, sound and air flow into them, thus controlling or influencing the experience of anyone in Cells 1 and 3. That there were potentially two entrances to Cell 3 (albeit this might be a second phase) may indicate a different route in and out of the cell after such a putative ritual has been completed. However, it would be unwise to move further into such speculation.

### **Architectural Complexity?**

The paper has proposed that the structure is not an enclosure but a roofed structure. If the classification 'dun' is rejected as too generic to be useful how might we classify the site? It is not round, had no upper floors and its galleries and cells may simply be skeuomorphs. In broad terms the principles of Armit's (1991) Atlantic Roundhouse scheme could be argued to cover the structure and certainly it could be viewed as part of the wider Atlantic tradition and perhaps called a SAR (albeit in Stirling). Its precise design will reflect the influences known to the structure's architects within a context of innovation as well as the expertise and experience of the builders. Presumably the local geology and availability of timber will also have influenced the final design. The evidence unfortunately neither supports nor contradicts Barber's (2017) contention: Castlehill Wood could be either continued innovation on traditional forms or a poor copy of an older, more complex structure.

## Dating and Phasing

The reinterpretation of Castlehill Wood suggests that there was at least one phase of Iron Age repair and a phase of medieval reuse which potentially cleared out the interior. The radiocarbon dates activity from the mid 1st century BC to the 3rd century AD. One of these dates (UBA-44270) clearly pre-date the Flavian invasion and indicates that the structure was built before the invasion though not precisely when. As noted above there are indications that both Torwood and Leckie CARs (Cook *et al.* 2020; Hamilton 2017) may be pre-Roman. Beyond Stirling, Hunter (1999: 342) raised the possibility that another southern CAR, Edin's Hall may be pre-Roman in origin. The dates from Trench 3 were recovered from under the repair/revetment of the CAR wall. However, the charcoal was mixed with later material and could have been brought into the structure from earlier residual material as a levelling material. Indeed as noted above there were quern stones recovered from the wall, although this might be a repair or rather a foundation deposit.

The pre-Roman date from Trench 2 is assumed to relate to a final act in the use of at least that element of the structure and thus that the galleries ceased to function before the Flavian invasion. If the deposits derive from the site's destruction this raises the possibility the Roman objects might be associated with a phase of reoccupation and repair. Certainly, as noted above CARs are often associated with complex sequences of reoccupation (e.g. Fairhurst 1984; Ballin Smith 1994; Mackie 2017; Cavers 2022). However, as there is no clear evidence of the site's destruction all we can really say is that the presence of burnt material in the galleries and cells and not the interior indicates that they ceased to function earlier than the interior.

Feachem's (1959: 43) suggestion that Castlehill Wood's destruction was associated with the Antonine invasion is rejected as it is not clear if the site was destroyed or indeed when the site's occupation ended. The radiocarbon dates allow activity into the 3rd century but as Demay *et al.* note (above), Antonine material is more common in Scotland than Flavian so its absence from Castlehill Wood supports an end to the site's occupation before the Antonine invasion. However, it is worth noting that the Leckie radiocarbon sequence (Hamilton 2017: 143) indicates activity after the 3rd century Severan invasion and potentially later than the imported objects (see above) though such material is very rare in Scotland (pers comm Fraser Hunter). Thus as Campbell (2011) noted we should not tie the occupation of these sites to the presence or absence of Roman objects as even their fragments might remain exotic and could have become heirlooms and thus traded long after any initial exchange. Hunter (2007: 54) notes Roman distribution of goods is complex and could be driven by the desire to divide individuals within a society who otherwise might unify against the Romans. Of course these same peoples may not have had access to such goods or chosen not to engage with the Romans and there is no reason to assume a simple one size fits all model (Armit 2003: 132; Hingley 2004: 337).

## Castlehill Wood in Context

There are six other substantial circular structures in the environs of Castlehill Wood (Illus 1; Table 4). Of the six only Wallstale (Thompson 1971) has been sampled, although not dated. While all have been more extensively robbed out than Castlehill Wood, they appear to be simpler structures and should perhaps be described as SARs. The majority appear to be either on small knolls or ridges.

## DISCUSSION

*Table 4: Areas and wall thickness; broad location knoll etc, shape; external works, internal area*

Site Name	Wall Thickness	Width	Length	External Ditch	Knoll
Castlehill Wood	Up to c. 5m	15m	22m	No	Yes
Castlehill	2.9m	10.6m	10.6m	No	Yes
Castlehill 2	3.6m	13.7m	15.2	No	
Middlethird	?	20m?	20m?	No	Yes
Middlethird 2	c. 4m	c. 18m	c. 19m	No	Yes
Wallstale	3.3m	13.7m	13.7m	Yes	Yes
Wester Craigend	Up to 3m	14.3m	18.5	No	Yes

It is unclear if they were built successively or were contemporary and thus if some form of hierarchy existed between them, although if it did as Castlehill Wood was the largest and most complex it was surely at the apex of such a hierarchy. With regards Wallstale, less than 25% of its interior was excavated and two quern stones and a possible pounder were recovered. This suggests a broadly similar agricultural base to Castlehill Wood. Looking at the environs of each structure on Roy's map (Section 6/7a) reveals 18th century arable agriculture which suggests agriculture was feasible in the Iron Age.

This appears to represent quite a high density of potentially contemporary structures (Dockrill *et al.* 2002; Armit 2003: 81-85) and rather, may indicate successive phases of construction/occupation and perhaps even robbing to build others. Certainly, the key conclusion of redating Castlehill Wood is that substantial stone roundhouses have a longer pedigree round Stirling than previously thought. However, if the resources available to the community were sufficient there is no reason to assume the structures were not contemporary.

## Conclusion

The project has demonstrated the value of revisiting older excavated sites and their archived finds. It is clear that Castlehill Wood was not built by low status refugees or raiders between waves of Roman invasion and retreat. The occupants had links to architectural trends across Scotland and to the wider Roman trading network, albeit through higher status local intermediaries. They are not necessary high status (Leckie and Fairy Knowe have more Roman imports) but they are also certainly not low status. This hints as others have commented (e.g. Macinnes 2020; Cook *et al.* 2020) of a complex existing pre-Roman settlement pattern presumably based on the control and exploitation of natural resources and routes across the Forth (Cook *et al.* 2019; Cook forthcoming). While we cannot yet explain the imbalance between Flavian and Antonine finds the evidence suggests that there was a more subtle impact on local settlement patterns than previously envisioned and in broad terms Hanson's 'Brief Interludes' (2006) assessment of the Roman impact is still valid (Cook 2024).

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# Appendix 1: A Re-Assessment of Artefacts from West Plean Homestead

Gemma Cruickshanks and Fraser Hunter

## Introduction

An assemblage of around 30 artefacts was recovered during excavations at West Plean between 1953 and 1955 (Steer 1958). Reassessment of the surviving finds has provided some fresh insights into the site and the activities taking place there. Stone objects dominate the assemblage, including two miniature rotary querns, a stone lamp, whetstones and several bangle/ ring roughouts. Many of the items were unfinished, including a rotary quern fragment, indicating they were being manufactured on site. A possible stone mould roughout and iron slag indicates metalworking was also a feature of the craft activity here. The assemblage is typical for the later Iron Age, though the objects are not closely dateable types.

## The Assemblage

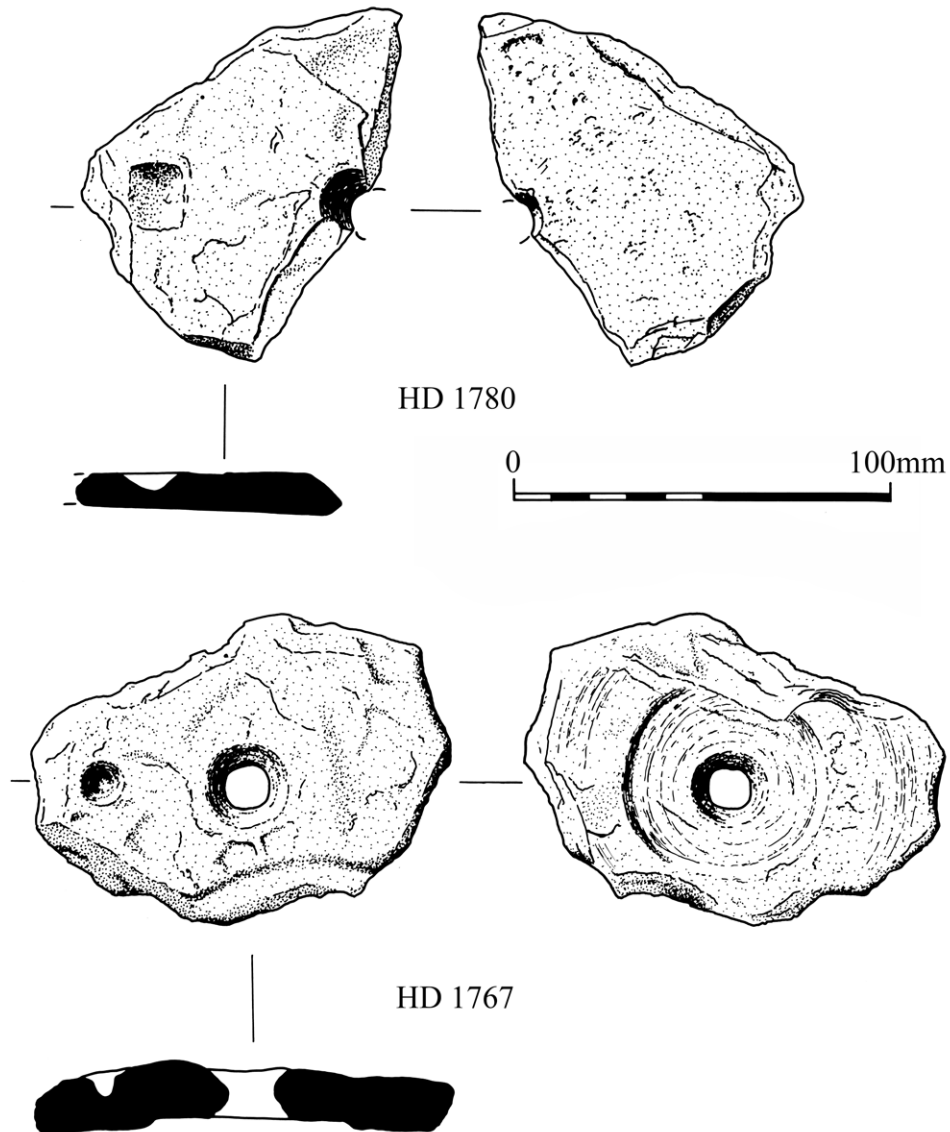
All measurements are in mm. Abbreviations: L length, W width, T thickness, H height, D diameter. Catalogue entries of illustrated items are included below; a full catalogue is in the archive. Numbers are catalogue numbers in National Museums Scotland.

## Querns

Three fragments of rotary quern are present; one unfinished (X.HD 1783) and two miniature (X.HD 1767 and 1780). The unfinished quern comprises around half of a schist upper stone, broken through the perforation. A lack of any wear traces on the grinding surface indicates the quern had not been used and may have broken during perforation (only the top of the perforation survives), as originally noted by Steer (1958: 247). Its bun-shaped form is typical of south-east Scotland (MacKie 1971: fig. 5; McLaren and Hunter 2008: 105). Steer wrote that the quern was found 'in the cobbled yard' (1958: 247) but no further context details are known. There is a notable tradition of quern fragmentation and deliberate deposition in structural elements such as walls and paving in the Iron Age (e.g. Heslop 2008: 71); this example may have been deposited in a similar manner.

Miniature Iron Age querns were mostly unrecognised until reappraised by McLaren and Hunter (2008: 119-20), who demonstrated that this artefact type was relatively common in central eastern Scotland. X.HD 1767 from West Plean was included in their paper (ibid. Table 4) but on further inspection X.HD 1780 can also be recognised as a fragmentary example. Both are upper stones but otherwise vary. For example X.HD 1781 is made from a fine schist, while X.HD 1780 is shale, an unusual material choice albeit including coarser layers with some grinding potential. However, its surviving grinding surface is a soft black shale layer, which would not have been effective for grinding. It has, however, clearly been used, suggesting attempts to extend its use-life after a more effective, tougher layer wore through.

X.HD 1767 Miniature quern upper. Irregular, sub-oval shale plate with crudely-flaked edges, a biconical central perforation and a conical socket close to the edge on one face. One side is smooth black shale while the other side is a rougher slate-like material. The shale side has a depressed, worn

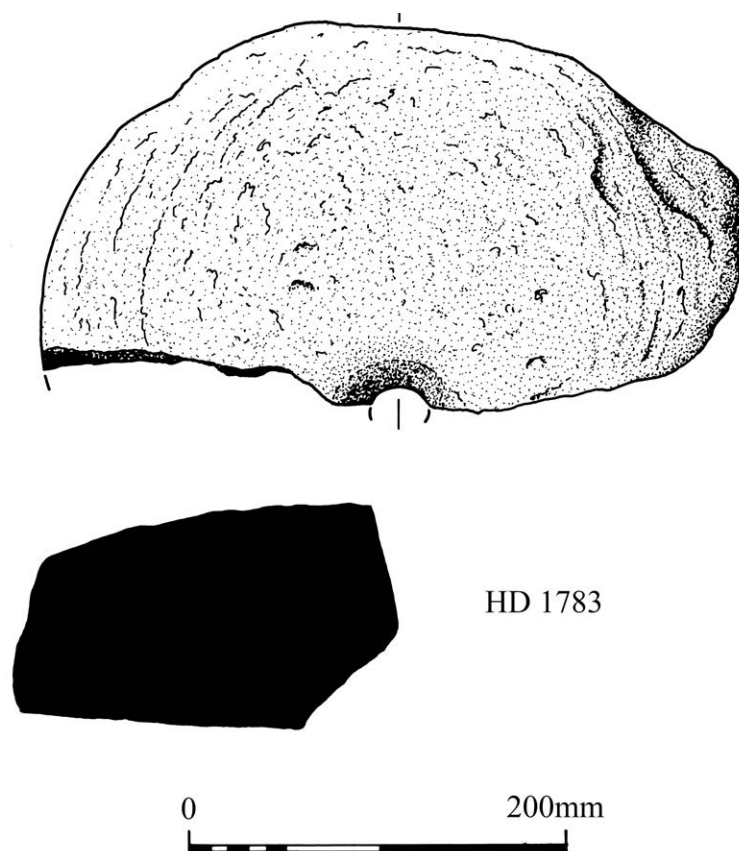


*Illus A1.1: Miniature quern uppers X.HD 1780 and X.HD 1767.*

area with concentric striations around the perforation, with fainter striations beyond. L 106, W 75, T 16; perforation D 12, socket D 5.5; worn area around perforation D 53 (Illus A1.1).

X.HD 1780 Miniature quern upper. Triangular flat schist plate with part of a conical perforation showing internal circumferential striations. Close to the outer edge lies a conical pecked socket. The underside is worn smooth but overlain by a scatter of peckmarks, suggesting it was redressed. L 101, W 65, T 10; D hole c.10-12; D socket 17; original external D around 150 (Illus A1.1).

X.HD 1783 Just under half of the upper stone of a bun-shaped schist rotary quern, broken at an angle through the top of the central conical perforation. The rounded upper surface was shaped by regular pecking. Some large flake-scars are visible from shaping the outer edge. The underside has been flattened, but shows no trace of wear. Estimated original diameter c. 380; estimated perforation D c.20; H 120 (Illus A1.2).



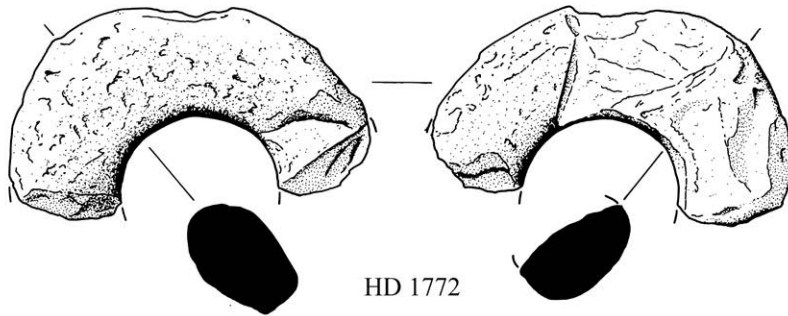
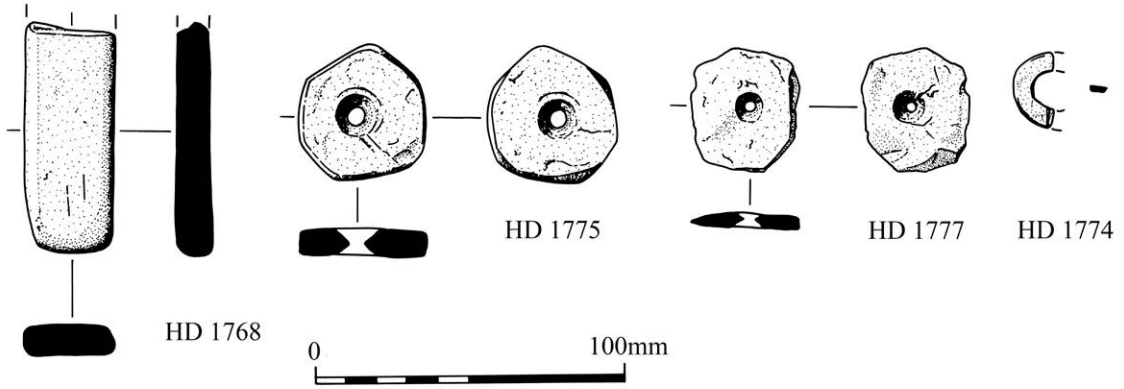
*Illus A1.2: Rotary quern upper X.HD 1783.*

### **Whetstones**

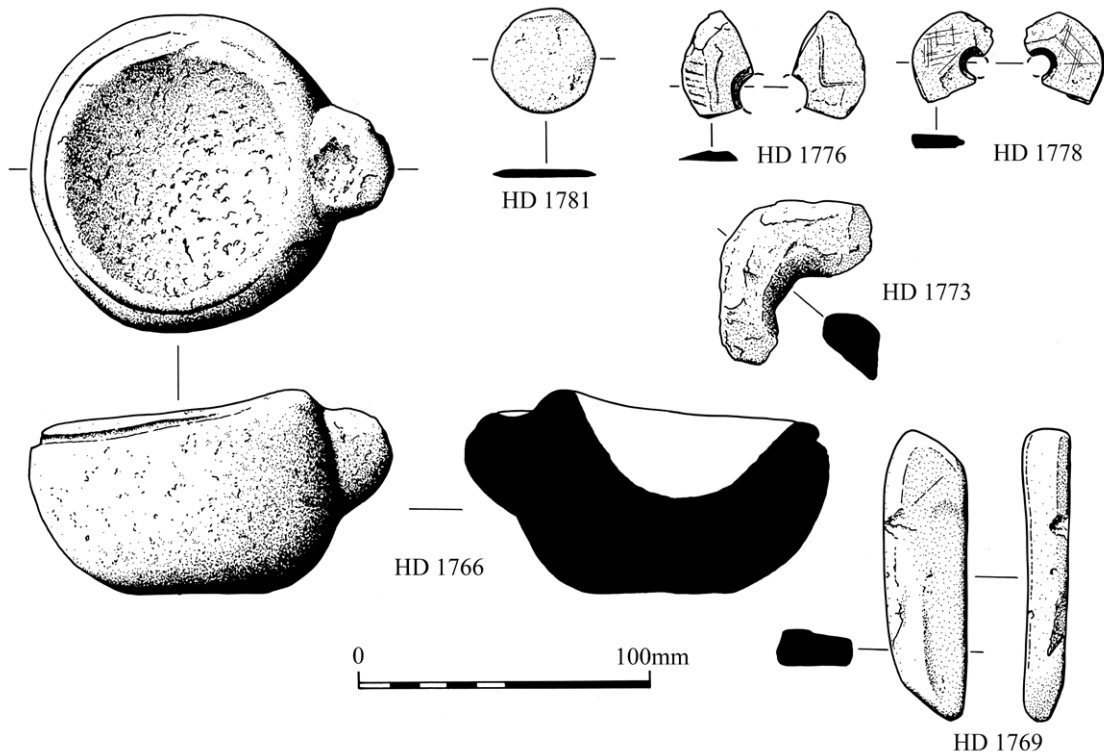
Two whetstones provide evidence of blade-sharpening on the site. X.HD 1768 had been modified in shape prior to use, showing some investment in its creation, whereas X.HD 1769 was a more expedient, unmodified tool. X.HD 1768 had also been used as a work-surface and possible burnisher, indicating it was a favoured multi-functional tool. No blades were recovered from the site; the presence of whetstones is a useful proxy for the use of metal blades here.

X.HD 1768 One end of a siltstone bar with shaped edges and end. Both faces have smoothed, slightly concave facets. There are also scattered peck-marks and scratches, including several parallel longitudinal striations on one face which indicate it was also used as a sharpener and expedient work surface. The intact end has slight polish, showing further use as a burnisher. L 72, W 29, T 11 (Illus A1.3)

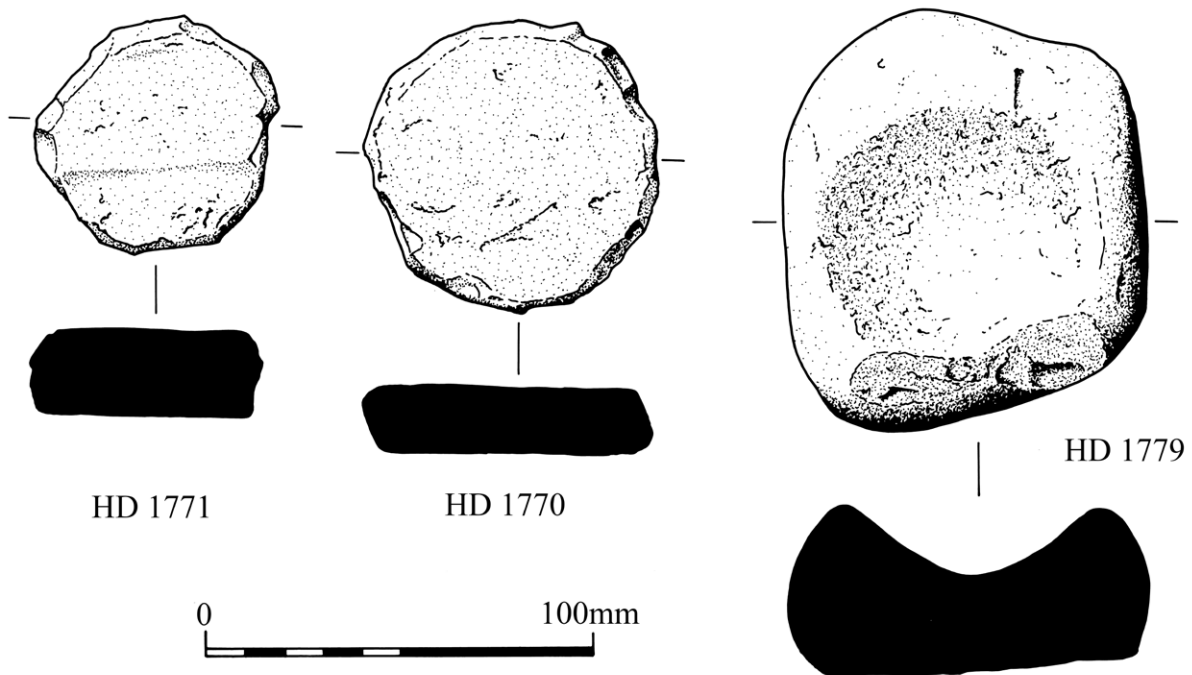
X.HD 1769 A water-worn elongated siltstone pebble with naturally flattened faces and edges. Both faces are smoothed and have slight concave facets and striations, suggesting slight use as a whetstone. L 101, W 29, T 16. (Illus A1.4).



*Illus A1.3: Stone objects X.HD 1768, X.HD 1775, X.HD 1777, X.HD 1774 and X.HD 1772.*



*Illus A1.4: Stone objects X.HD 1766, X.HD 1781, X.HD 1776, X.HD 1778, X.HD 1773, X.HD 1769.*



*Illus A1.5: Objects X.HD 1771, X.HD 1770 and X.HD 1779.*

### **Stone Artefact Manufacturing Evidence**

An unusual feature of this assemblage is the large proportion of unfinished objects present, providing valuable evidence of stone artefact production. Nine discs or rings of various materials, sizes and stages of manufacture were recovered (X.HD 1770-8) as well as a possible mould roughout (X.HD 1782) and the unfinished rotary quern (see above).

Six of these artefacts are unfinished pendants or rings (X.HD 1773-8), one particularly small and fine (X.HD 1774). One much larger roughout fragment is most likely to have been intended as a bangle (X.HD 1772) which, unusually, was being manufactured from schist rather than the cannel coal or shale typically used for Iron Age bangles. Alternative raw materials were used for bangles in areas where shale or cannel coal sources were rare but the area around Stirling is relatively rich in such raw materials (Hunter 2015: 233). The choice of schist for this bangle is therefore unusual and may reflect a desire to produce something different from the norm. Two flaked sandstone discs with different degrees of shaping belong to an enigmatic group of stone discs found on Iron Age sites around Scotland (Graham-Campbell & Hunter 2021: 232-7). For example 50 were found in various stages of shaping at Hurlly Hawkin broch in Angus (Taylor 1982: 232-41).

X.HD 1782 comprises a large five-sided sandstone slab with a neatly-pecked circular hollow in the centre. The neatness of the pecking clearly indicates this was from shaping rather than through use, for instance as an anvil. Its intended function is unclear but an ingot mould is a possibility; the flatness of the base would be unusual for a mortar.

X.HD 1770 Fine-grained sandstone disc with regularly flaked edges. One face was smoothed from use and there are a few smooth patches on the opposite side. D 75, T 15-19 (illus A1.5).



*Illus A1.6: Object X.HD 1782.*

X.HD 1771 Fine-grained sandstone disc with regularly flaked edges. No sign of use; no smoothing on the edges or faces. D 59-64, T 22 (Illus A1.5).

X.HD 1772 Around half of a schist ring with one face mostly spalled. The surviving faces are covered in clearly-defined peck marks from shaping and the inner edge is partly smoothed. Degree of shaping indicates it was a roughout, probably for a bangle. Estimated external D 130, internal D c.50-60. T 27 (Illus A1.3).

X.HD 1773 Irregular schist fragment preserving the edge of pecked perforation. Most likely part of a roughout for a pendant or small bangle. L 68, T 26, H 15 (Illus A1.4).

X.HD 1774 Around half of a fine, flat, shale ring. The internal and external edges are neat and smoothed, though rough abrasion traces elsewhere indicate it was unfinished. The faces are either spalled or had not yet been smoothed after the shale was split during initial shaping. Too narrow for a finger ring; most likely intended as a bead or pendant. Estimated original ext D 30-40; int D c.12; W 7, T 2.5 (Illus A1.3).

X.HD 1775 Unfinished slate disc with roughly central biconical perforation, showing internal concentric striations. A partial marginal crudely-incised line may have been the intended finished perforation diameter. The size suggests it was intended as a whorl or pendant. The outer edge is flattened and smoothed, but still faceted and showing striations from shaping. One face has a groove with perpendicular striations on one side, indicative of an abandoned attempt to thin part of that face, perhaps with a chisel. The faces are otherwise unworked and retain their cleaved surface texture. D 42, hole D 6, T 8; 26.4g (Illus A1.3)

X.HD 1776 Thin flake of cannel coal preserving the edge of a conical/ biconical perforation. Part of a roughout - too small for a bangle and more likely to have been a pendant/ small ring. Estimated original perforation D 10 (though this may have been from part-way up the conical edge, so not true internal D), L 35, W 24, T 4 (Illus A1.4).

X.HD 1777 A sub-rectangular slate flake with roughly central biconical perforation, showing concentric striations around the edges. The outer edge is crudely flaked but shows abrasion and smoothing on the extremities from initial shaping. One face is the natural cortex and the other is a cleaved surface, both with scattered scratches and pecks. Unfinished; most likely intended as a pendant or bead. L 37 x 33; T 5; hole D 3. 11.7g (Illus A1.3).

X.HD 1778 Between a quarter and a third of a perforated slate disc with central biconical perforation showing circumferential striations. The outer edge displays abraded facets from shaping and both

faces are abraded from initial shaping. Unfinished. Estimated original diameter c.35, T 4, hole D c.7 (Illus A1.4).

X.HD 1782 Roughly pentagonal sandstone slab with circular pecked area in the centre of one face, probably for a mould. Scattered peckmarks elsewhere on the surface appear to concentrate on the higher areas, perhaps in an attempt to flatten the surface. A substantial crack runs up one edge and through the pecked area, which could explain why the stone was abandoned before finishing. The base is unworked and unevenly cleaved. Two dished, smoothed facets extend from the pecked dish on one side, possibly from an earlier use as a whetstone. 410 x 380, T 85-120 (Illus A1.6).

### **Lamp**

A finely-shaped sandstone lamp with a crudely incised line around the rim exterior (X.HD 1766) is the only decorated item from the site. Such lamps are a classic Scottish Iron Age artefact, particularly in north-east Scotland; indeed, the West Plean find prompted the first modern review of the type (Steer 1956: 243-6). A survey of examples in National Museums Scotland collections by the authors confirmed Stevenson's (1966: 28, 41 n.67) observations on the frequency of burning or sooting, with a prevalence of soot around the rim, particularly opposite the handle (though no sooting is present on the West Plean lamp). Parallels with post-Medieval metal 'crusie' lamps in the Scottish vernacular tradition suggest the wick rested over the edge opposite the handle to prevent hands being burnt. Similar lamps have been found on other Iron Age sites in Stirling, including a handle and part of a bowl from Fairy Knowe (Clarke 1998, illus 37) and an unusual small, burnt mudstone example from Torwood (Dundas 1864: 263; Cook *et al.* 2020). For further discussion of the type, see McLaren 2022: 113-9.

X.HD 1766 A sandstone lamp with circular plan, neatly rounded exterior and slightly flattened base. Pecking is still visible on the edges of the slightly conical bowl and there is a crudely-incised line around part of the rim exterior. The handle is a rounded projection close to the rim on one side with a slight depression in the top. External D 110, int D 78, H 58; handle W 40, H 37 (Illus A1.4).

### **Mortar**

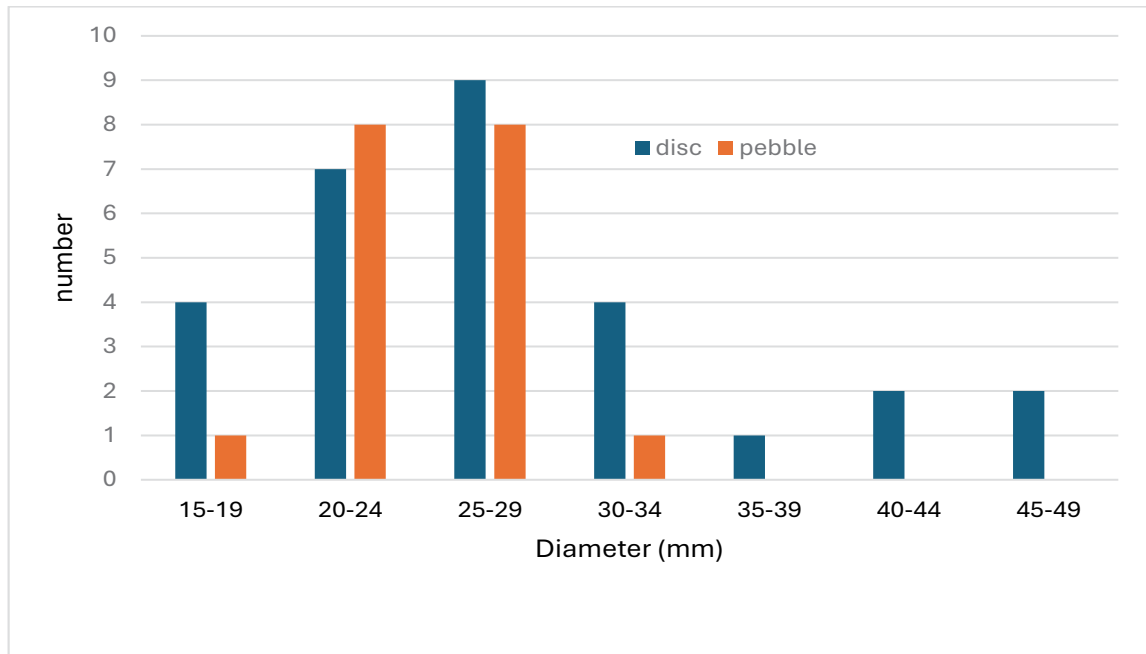
One of the few simple, everyday tools recovered from the site is a sub-square cobble with pecked and ground hollow on one face, indicating it had been used as a mortar. There are no visible residues to suggest what substance was being ground, such as foodstuffs or pigments.

X.HD 1779 Sub-square water-worn cobble with a pecked and slightly smoothed circular hollow in one face. A small part of the edge has spalled. L 105, W 93, T 44; hollow D 70, max depth c.15 (Illus A1.6).

### **Gaming Piece**

A thin slate disc (X.HD 1781) which has seen a small amount of shaping is best interpreted as a counter, plausibly for gaming. Evidence of gaming is rare in Scotland until the Roman Iron Age (Hall and Forsyth 2011), making this a potentially significant find for understanding the dating of the site. Hall (2007) has provided a valuable overview of the material, and review of a sample of finds in the National Museum allows further comments to be made. 47 discs or polished pebbles were examined, 34 from Traprain Law, the remainder widely spread. Those from datable sites were most likely Roman Iron Age, but few are from decent contexts. 29 were shaped discs and 18 pebbles, of which four had been shaped. (More pebbles were present, of similar character, but only a sample was studied as they are less relevant here.) Both discs and pebbles are similar in diameter range (fig A1.7); the larger discs are probably related to the range of stone discs attested at sites such as Hurly

Hawkin (Henshall 1982: 233-5), rather than being gaming or accounting tokens. A size range of 15-35mm forms a coherent group of counters. The West Plain disc falls into a sizeable minority of such discs that are irregular and plain: eight of 29 discs are sub-circular or irregular, and the vast majority are plain, whereas over half of the pebbles were chosen for their attractive or unusual character. The West Plean disc thus fits readily into this group of counters which can plausibly be seen as gaming counters.



*Illus A1.7: Diameters of a sample of Scottish Iron Age stone discs and pebbles used as counters.*

X.HD 1781 Thin schist disc with hints of pecking and smoothing on both faces. Faint abraded facets around part of the edge on one side. D 34, T 3 (Illus A1.4).

### ***Struck Lithics***

Three struck lithics from West Plean are present in NMS (all under accession number X.HD 1784): two flint flakes and a pitchstone flake. They are not mentioned by Steer, so their context of discovery is unknown, though presumably from residual activity prior to the Iron Age settlement. While not diagnostic in form, the presence of pitchstone so far from Arran suggests a Late Neolithic or later date for that piece (Hugo Anderson-Whymark, pers. comm.).

### ***Pottery***

A single sherd of prehistoric pottery (X.HD 1785) comes from the edge of a flat-based vessel with smoothed exterior in a fine brown-grey clay with occasional small quartz inclusions. Pottery is relatively uncommon on later prehistoric sites in the area: for example, the large assemblages recovered from Leckie and Fairy Knowe brochs produced only a few sherds each (MacKie 2007: 1317;

Willis 1998: 328). Unfortunately little can be said about the form or appearance of this vessel aside from its flat base.

### ***Slag***

Fragments of iron slag recovered from humus within the circuit of the ditch (Steer 1958: 247) could not be located and were presumably discarded, as was often the case with slag from earlier excavations. Steer suggests that the slag does not necessarily indicate ironworking was taking place at West Plean in the Iron Age but that, along with medieval and later pottery sherds, it may have been dumped on the land amongst 'street refuse' in more recent times (Steer 1958: 247).

### **Discussion**

Contextual information is only known for six of the artefacts: the mortar (X.HD 1779) and rotary quern fragment (X.HD 1783) were recovered 'from the cobbled yard'; flaked disc (X.HD 1770), possible mould roughout (X.HD 1782) and slag (now lost) were from ditch fills, and a flaked disc (X.HD 1771) was retrieved from the 'burnt area on the south-west side of the compound'. The lack of contextual information here, and with many older assemblages, restricts our ability to analyse details such as phase distribution or activity areas. However, the range and types of artefacts can still be compared with other assemblages, allowing for a broader level of interpretation regarding the site's nature and function compared to others.

One of the most striking characteristics of this assemblage is the number of unfinished coarse stone artefacts; ten of the eighteen stone artefacts. Unfinished querns are particularly rare on a national scale (McLaren and Hunter 2008: 107).

In addition to the stone artefact manufacturing evidence, the iron slag and possible stone mould (for non-ferrous metalworking) hint that metalworking took place in the vicinity too, though the iron slag may have originated from a later dumping event.

The assemblage is generally Iron Age in character, with a few typical later Iron Age items such as rotary querns and stone discs. The likely gaming counter is the only item to suggest a Roman Iron Age date. The presence of lithics and medieval pottery sherds indicates people using the site in the millennia surrounding its Iron Age occupation, but the character of this use obscure.

### **Acknowledgements**

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## Appendix 2: A Roman Lava Quern from an Iron Age Site at Gallow Hill, Stirling

Fraser Hunter and Gemma Cruickshanks

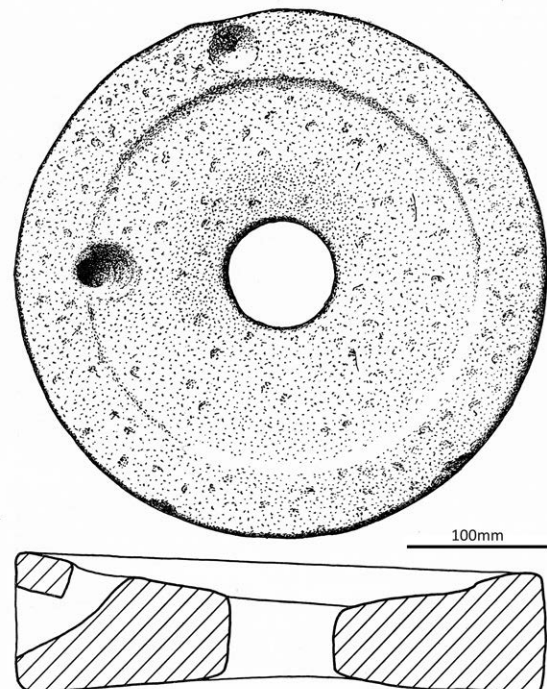
### Introduction

Gallow Hill, near Stirling (NGR: NS 7825 9845), is a stone-walled Iron Age fort which has produced a most remarkable find: the upper stone of a Roman rotary quern (Illus A2.1). It was a casual discovery from the ‘top course of a wall surrounding a rocky knoll’ in the late 1950s (Stirling 1958: 187). The site has not been excavated, but the wall is a fort rampart (NMRS NS79NE 10).

The stone (now in the National Museum; X.BB 127) is absolutely characteristic of Roman querns in both material and form. It is of the distinctive Mayen lava imported from the Eifel area of the lower Rhineland, with a broad flat raised collar and an elbow socket for the handle. The surface is weathered, and fine details such as the distinctive tooling and any rind slot are lost, but the form is unmistakable.

Lava querns were mass-produced in the Mayen area and shipped in quantity to the military areas of Britain; they are also found widely in civilian areas (Peacock 2013: 151-4). There was a long tradition of production in the Mayen area because of the lava’s excellent qualities: its vesicular nature meant that as it wore down there were always fresh sharp edges to cut the grain. The original discussion of this find (Stirling 1958) suggested a first-century date, but such querns are also common on second-century military sites in Scotland (e.g. Frere 1989). However, they are otherwise unknown from Scottish Iron Age sites, and the only other Roman lava querns recorded from an indigenous site north of Hadrian’s Wall are fragments from Huckhoe in Northumberland (Jobey 1959: 269, 274-5). Wider studies have shown that there was a local preference for socially useful rather than practical Roman items – feasting gear and ornaments rather than tools or cooking pots (Hunter 2001).

What is even more striking is the evidence for local reuse of this quern. Roman stone objects sometimes turn up on indigenous sites as building material, most likely selected because of their exotic origins: thus, Roman building and other carved stones were built into souterrains



*Illus A2.1: An upper quernstone of Niedermendig lava © M Simpson 1960, reproduced with kind permission of the Society of Antiquaries of Scotland.*

and fort ramparts or used to line burials (Hingley 1992: 29; Coleman & Hunter 2002: 92-3; Foster 1998: 14; Rees 2002: 346). But this was not the case here; a secondary hollow on the collar is clearly a handle socket, indicating the stone was adapted (probably after fracture of the original iron handle) to local custom where a vertical handle in a shallow socket was typical. It clearly saw use in this arrangement, as there is wear in the socket and its outer margin (though now eroded) is broken. The stone is heavily worn: its mass (17.9kg) is barely half that of well-preserved stones from Newstead, which weigh 33-36kg. How much wear arose in Roman hands and how much in local is impossible to assess, but it was clearly used for grinding in a local context. This is exceptional. There was a long local tradition of quern production and use, and a wide range of regional stone types suitable for quern manufacture: while Mayen lava was functionally excellent, it is clear that in general it was not sought after by the local population. This contrasts with other areas beyond the Roman frontier. Mayen querns were widely distributed to indigenous sites in northern Germany (e.g. Mangartz 2008: 102, Abb 31), with the Roman-period distribution notably broader than that of the Iron Age (Mangartz 2008: 48-9, Abb 8; Peacock 2013: 152). However, large areas of northern continental Europe lacked ready access to suitable rocks for grinding, and the import of material is more readily explicable there.

At the moment this find remains enigmatic. The fort has never been excavated and this quern is the only find known from it. There are Roman sites in the vicinity which could have acted as a source (Keppie 2004, fig 89), but it is entirely opaque why the inhabitants of this site alone wanted a Roman quern stone. It is a reminder of diverse individual tastes and variations in use of Roman material.

The discovery in a rampart is also of interest. Querns were frequently purposefully deposited as part of Iron Age rituals, not just discarded (Heslop 2008: 73-80). The quern was found on top of the slumped and collapsed wall, suggesting it was part of its construction. Such boundary contexts were often associated with deposits of significant, valued material (Hingley 1992: 23-4, 38-9). The Gallow Hill thus offers a tantalising and unusual glimpse into relations between the Iron Age and Roman worlds, though it remains an enigmatic discovery.

## Catalogue

X.BB 127 An intact cylindrical rotary quern upper stone manufactured from Mayen lava. The upper surface has a raised flat collar around the outer edge 55mm wide, sloped on its inner edge to meet the flat face. Central cylindrical perforation. The handle slot runs diagonally from the upper surface to the side; white and brown deposits in its interior are probably the remains of lead holding an iron handle (cf. Curle 1911, pl XVII). A conical hollow on the collar somewhat under 90° to the handle slot, c.18mm deep and 30mm in diameter, represents a secondary handle socket. It is slightly worn, with one margin damaged. An irregular hollow into the wall of the quern probably arises from dissolution of an inclusion rather than representing further manufacturing traces. The grinding surface is concave, with a steeper slope towards the perforation. The surface is fairly weathered and still shows traces of moss, consistent with its discovery in a wall. It also has a few patches of an unusual iron-rich concretion (not apparently mortar).

External diameter 380mm, maximum thickness 95mm, perforation diameter 75mm; mass 17.9 kg.

## Acknowledgements

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This volume reinterprets Richard Feachem's 1950s excavation of Castlehill Wood dun, Stirling via key-hole excavation of in situ baulks and re-analysis of the object assemblage, placing the results in context. The works transform our understanding of the site from a simple enclosure to a roofed structure with an awareness of architectural trends across Scotland. The site is demonstrated to have been built prior to the Roman invasion and suggests a complex settlement pattern that should not be viewed solely in the light of the Roman incursions. Finally, the structure contains a series of small cells and galleries that find parallels across Scotland and might be linked to Iron Age ritual practices. The opportunity has also been taken to publish reviews of the artefacts from two other older excavations from the Stirling area: West Plean Homestead and Gallow Hill lava quern. In each case a proposed fieldwork phase never happened due to circumstances beyond the control of the author.

*Murray Cook* graduated from the archaeology department in Edinburgh in 1995 and has since worked across Northern Britain in a variety of roles in commercial and curatorial archaeology. He is currently employed as Stirling Council's Archaeologist giving archaeological advice to Stirling, Clackmannanshire, Falkirk and North Lanarkshire Councils. In 2015 he gained a PhD from Edinburgh for a study of the later prehistoric settlement record of the Don Valley in Aberdeenshire, combining key-hole excavation with commercial mitigation excavations.

He has conducted research excavations into later prehistoric settlement sites in Stirling, East Lothian and Aberdeenshire and is the co-founder and co-director of Rampart Scotland, an archaeological field school. He regularly hosts student placements and is keen to hear from interested individuals.

He is passionate about public engagement with archaeology and regularly runs free excavations, walks, lectures and other active engagement with the public, the details of which are presented in a regular and informal blog called Stirling Archaeology.

