

Excavations at Seamount Malahide, Co. Dublin Final Archaeology Report



GIACOMETTI

13/10/2017

LICENCE 14E161

PLANNING PL 06F.235190

archaeology plan
HERITAGE SOLUTIONS

SITE NAME

Seamount, Malahide, Co. Dublin

CLIENT

Danmar Construction Ltd., Seamount House, Seamount Road, Malahide, Co. Dublin

LICENCE

14E161

PLANNING

Fingal Co. Co. F09A/0015; An Bord Pleanála PL 06F.235190

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DATE

13 October 2017

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With thanks to Martin Tracey and Danmar Construction Ltd.

ABBREVIATIONS USED

DAHG	Department of Arts, Heritage and the Gaeltacht
NMI	National Museum of Ireland
NMS	National Monuments Service
OS	Ordnance Survey
RMP	Record of Monuments and Places
NIAH	National Inventory of Architectural Heritage
LAP	Local Area Plan

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Section 1 Introduction

Introduction

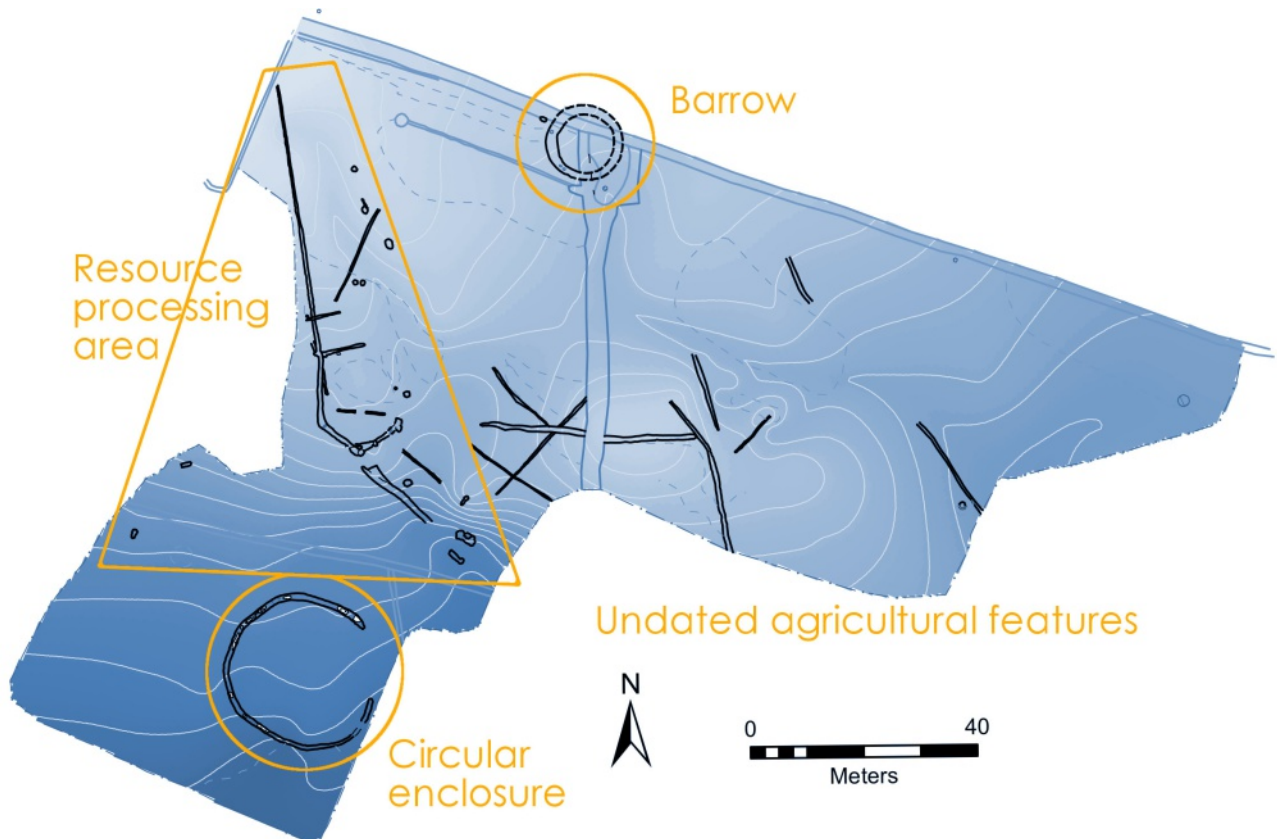
This report presents the results of a programme of archaeological excavation carried out by Archaeology Plan on a site at Seamount, Malahide, Co. Dublin, carried out on behalf of Danmar Construction Ltd.

The excavation uncovered the remains of a pre-historic barrow to the north of the site used during the Late Bronze Age and Iron Ages; an unenclosed resource processing area consisting of a number of ditches, pits and kilns of early

medieval (c. 8th century AD) date to the west; and a Late Bronze Age penannular enclosure to the southwest of the site. No surviving trace of a Recorded Monument on the site (mound RMP DU012-032), probably due to extensive levelling c. 1900.

The archaeological conditions in the planning permission (An Bord Pleanála Ref. PL 06F.235190 Condition 6, Fingal County Council Planning Ref. F09A/0015 Condition 26) have been complied with in full.

Key archaeological zones based on the results of the excavation





Satellite image (Google Earth) showing the location of the site

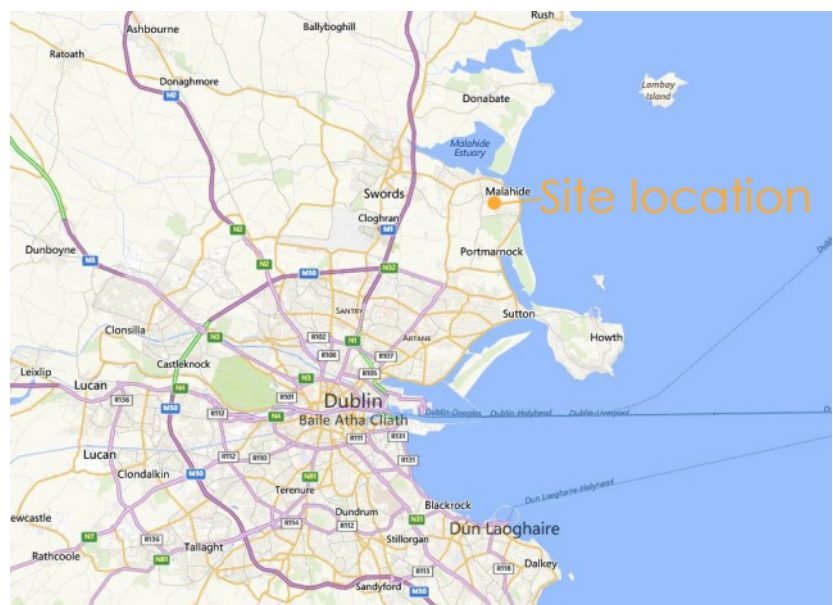
Site location

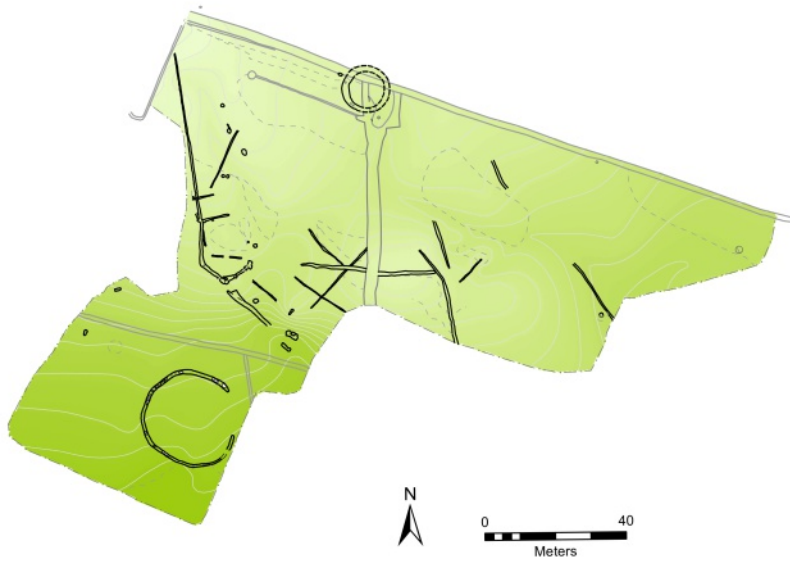
The site is located on the former lands of Seamount House, Seamount Road, Malahide, Co. Dublin (ITM 723610/745255) and covers an area of 11.5ha. The site is irregularly shaped and is bounded to the north and east by the townland boundary between Malahide and Robswall, which also marks the parish boundary between Malahide and Portmarnock. To the south it is bounded by Seamount House and Seamount Road. To the east it is bounded by the housing development of Knockdara. To the northwest it is bounded by the grounds of a convent, while to the southeast it is bounded by lands proposed for future development.

The site is situated in an elevated location just to the south of the crest of Malahide Hill with spectacular views overlooking the entire coast of North Dublin. The panoramic views encompass Lusk, the seafront at Rush and Donabate, and Lambay Island to the

North, Howth, Sutton and Ireland's Eye to the southeast, and into Dublin Bay with Dalkey headland, Dalkey Island and the Wicklow Mountains visible to the south. The site slopes from a high point in the north, in the vicinity of the Recorded Monument of the mound (RMP No. DU012-032), to the southeast, with the northern boundary running along the crest of the hill.

Bing map showing the location of the site





from Seamount Road to the south-west. A gate lodge associated with Seamount House fronting onto the road to the south-west of the development will be retained as part of the development.

The development has been granted planning permission (An Bord Pleanála Ref. PL 06F.235190, Fingal County Council Planning Ref. F09A/0015) subject to archaeological conditions (Condi-

tion 6 of the An Bord Pleanála Grant of Planning and Condition 26 of the Fingal County Council Grand of Planning).

Development and planning

The development comprises the demolition of a number of late-19th century outbuildings to the south, formerly associated with Seamount House (not protected or of any archaeological interest), and the construction of a residential development consisting of 140 dwellings laid out along short internal roads. Access will be

An initial archaeological assessment of the site was carried out by Margaret Gowan and Co. in 2008 including a desk-based assessment (Treaty 2008) and a programme of archaeological geophysics (Thebaudeau 2008, Licence No. 08R0289). The geophysical survey was carried

First Edition 1840s Ordnance Survey map showing the location of the site



out along the northern area of the site and was intended to assess the nature and survival of the mound (RMP No. DU012-032) in the northwest of the site, as well as any additional features possibly associated with it. While some results are to be seen in the vicinity of the mound site on the geophysics, these were deemed to be inconclusive. A number of additional linear features interpreted as agricultural ditches were also identified during the geophysical survey. It was noted, however, that while results were not cohesive, further archaeological work to assess the potential of the linear features and possible

pits would be required.

Groundworks for the development were archaeologically monitored by Dermot Nelis in August 2014 under Licence No. 14E161. Following the uncovering of significant archaeological remains during the monitoring works, an archaeological excavation was carried out under the same licence (14E161) by Archaeology Plan between 22nd August and 15th September 2014.

Development plans for site, with excavation area overlaid



Section 2 Excavation findings

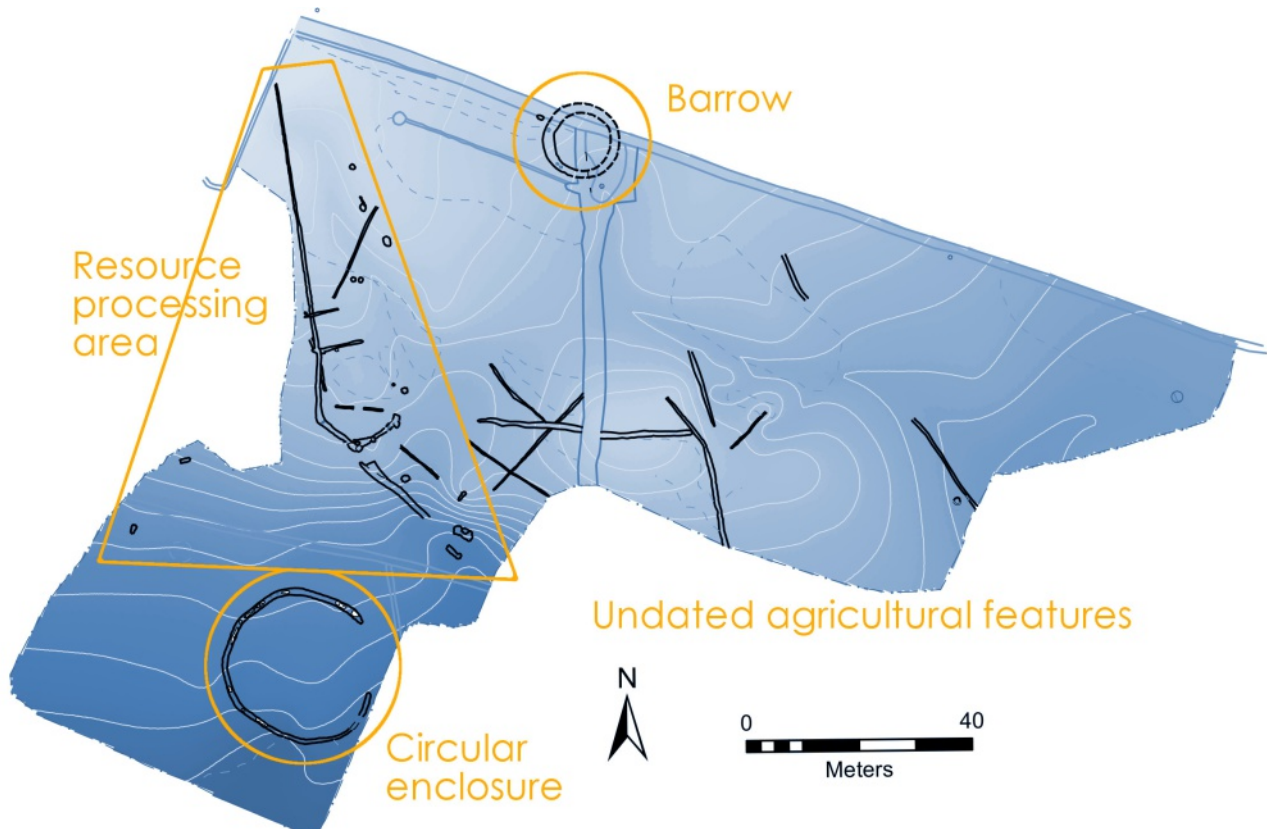
Introduction

Archaeological monitoring of topsoil stripping was carried out by Dermot Nelis in August 2014 on a site at Seamount, Malahide under Licence 14E161.

The site is situated at a high point with spectacular views overlooking the entire coast of North Dublin. The panoramic views encompass Lusk, the seafront at Rush and Donabate, and Lambay Island to the North, Howth, Sutton and Ireland's Eye to the southeast, and into Dublin Bay with Dalkey headland, Dalkey Island and the Wicklow Mountains visible in the South.

Recorded Monument DU012-032 is situated

within the site, at the highest point. The townland boundary between Malahide and Robswall forms the northern and eastern boundary of the site, which also marks the parish boundary between Malahide and Portmarnock. The mound marked a turn in these boundaries and appears to have been used as an ancient boundary marker. A test excavation (Excavation Licence No. 06E0609, Excavations Ref. 2007:541) was undertaken in the vicinity of the mound in advance of drainage insertion and the area was found to have been disturbed by quarrying works and subsequent back-filling. No archaeological remains of the mound were discovered during the course of testing and local informants indicated that the area had been dug out some time in the past.



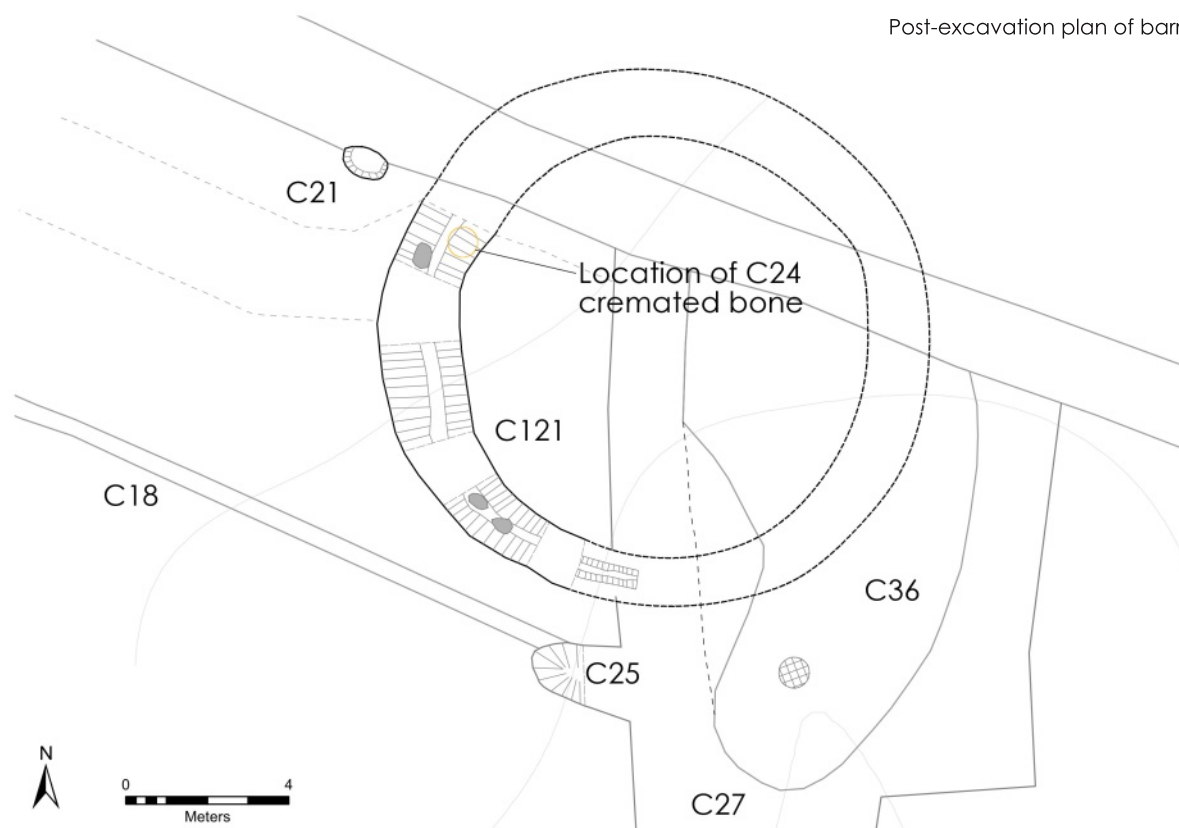
No archaeological remains of this monument were visible on the ground before or after topsoil stripping during the archaeological monitoring carried out in 2014, however a series of possible archaeological features were identified in a wider area to the south and east of the RMP in late August 2014. These were subsequently excavated under Licence 14E161 between 22/08/14 and 15/10/14. The results of the excavation are documented in this report.

Barrow/ring-ditch

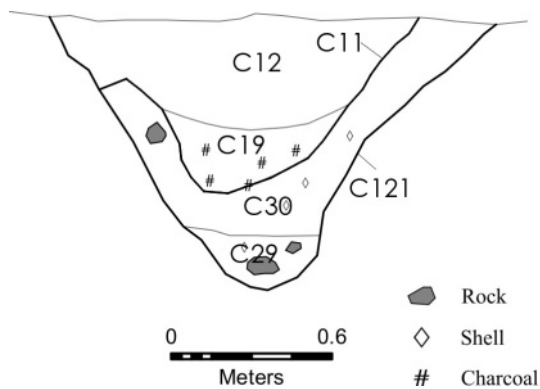
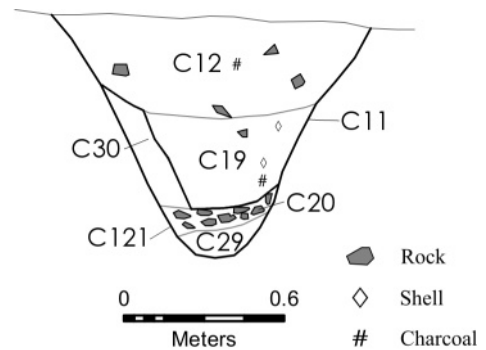
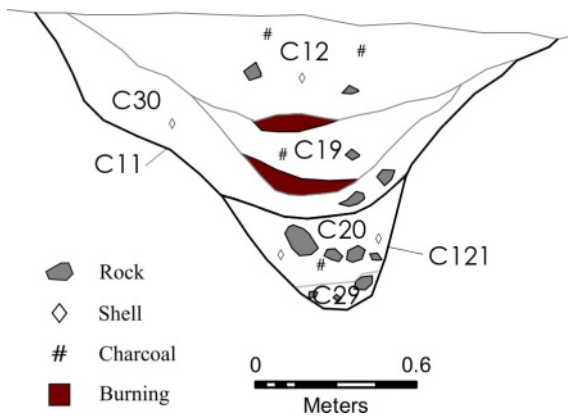
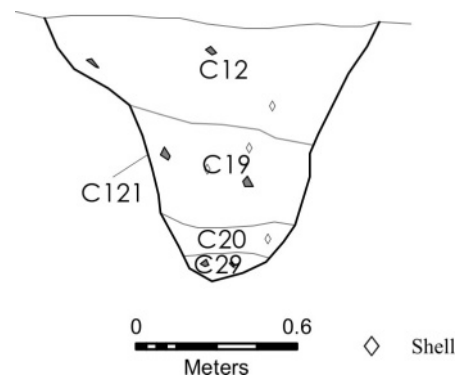
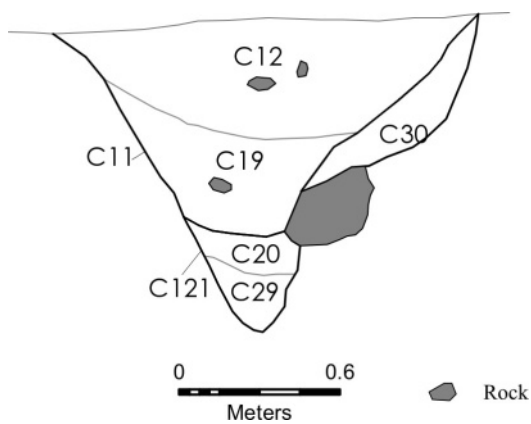
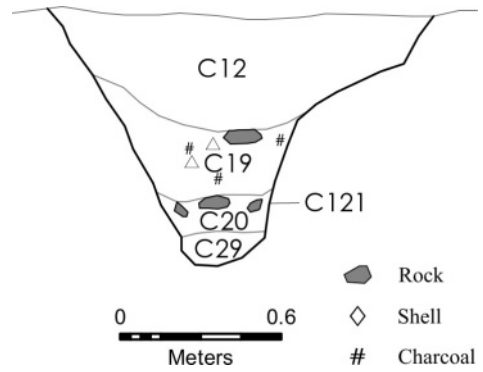
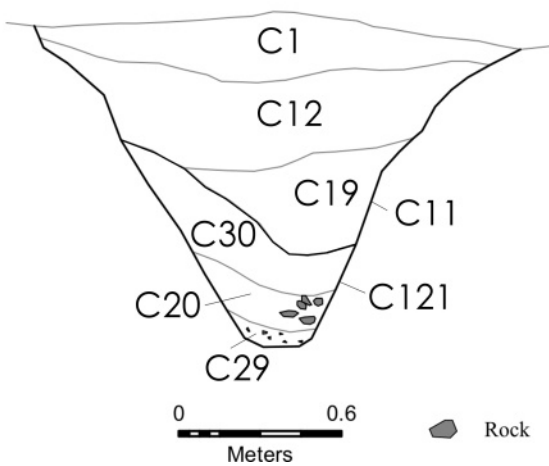
The remains of a ring-ditch (C121) was uncovered in the northern part of the site. The surviving portion was 'C'-shaped in plan as it had been truncated to the north by a 17th century east-west Parish boundary (C123) and to the east by an 18th century field boundary (C27). The southeast quadrant of the barrow is depicted on the First Edition OS map, situated to the east of a road (a later use of field boundary C27). There was evidence for two phases of activity, as defined by the cuts C121 and C11.

The original outer diameter of the barrow was approximately 12m with an internal diameter of c. 9m. The initial cut (C121) measured up to 2m in width, 1.13m in depth with steep sides that tapered to a narrow rounded base.

The basal fill of the barrow comprised a gritty mid-grey silt with yellow mottling with occasional shell inclusions (C29). This thin silty deposit on the base of the ditch could be trample from its construction, or an initial phase of silting. Above this was a thicker deposit of pale yellowish-grey clay with orange mottling and occasional shell inclusions (C20), up to 300mm in thickness. This deposit contained numerous stones, including some very large ones (up to 400mm by 400mm by 200mm) that had collapsed into the mostly-empty ditch. These stones may have been arranged around the top of the ditch, perhaps retaining the bank. Above this was a dense clay fill (C30) that was particularly thick along the exterior side of the ditch, which like C20 probably represents the slumping in of the bank into the ditch.



Post-excavation plan of barrow C121



Sections through the barrow from north to northeast - top left: southwest facing; upper centre left: northeast facing; lower centre left: south facing; bottom left: north facing; top right: southeast facing; centre right: northwest facing; bottom right: east facing

Initially, during the excavation, the fact that this slump deposit was much thicker along the external side of the ditch suggested the bank may have been external to the ditch. However, it now seems more likely that the form of these deposits was the result of an uneven re-cut (C11) of the barrow. It was not possible to identify whether the slumped material was from the interior or exterior of the barrow.



Mid-excitation view of barrow C121 looking east. Parish boundary to left, Howth and Ireland's Eye in background (top)

Mid-excitation view of north-facing section of barrow C121 with stones still in place along base (centre left)

Post-excitation view of northeast-facing section of barrow C121 (bottom left)

Post-excitation view of south-facing section through barrow C121 (centre right)

Post-excitation view of southeast-facing section through barrow C121 (bottom right)

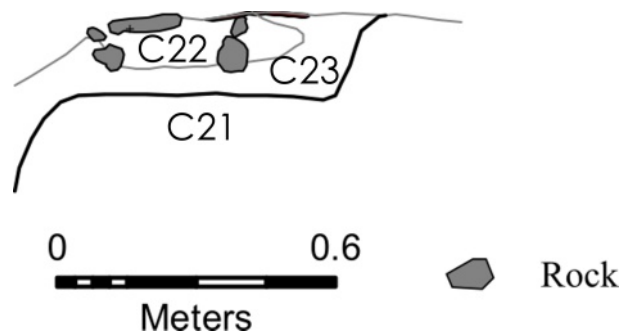


Barrow C121 (mid-ex), looking northwest (top left)
 Mid-excavation view of pit C21, looking east (top right)
 West-facing section of pit C21 (right)



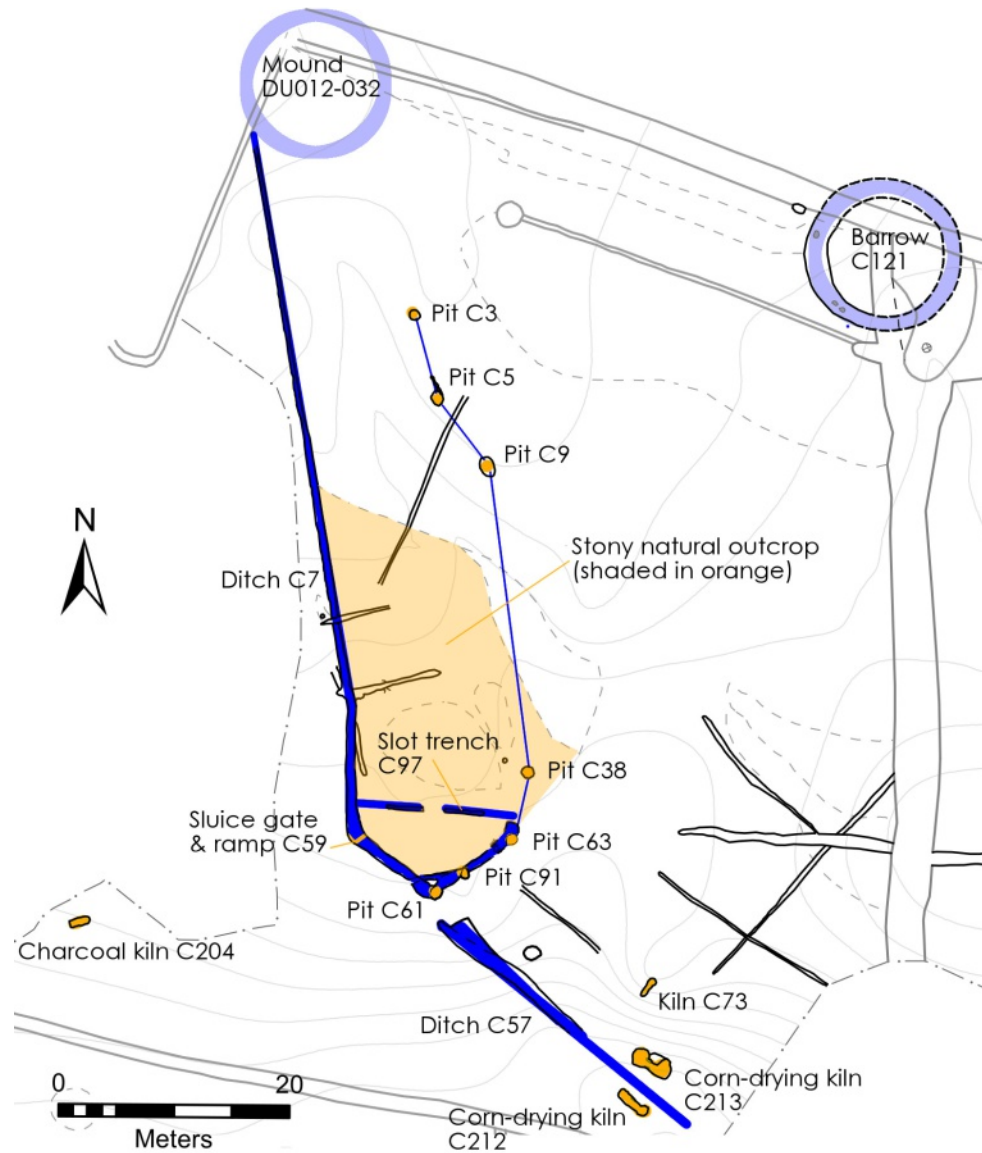
The later re-cut (C11) was approximately the same width as the initial cut (C121) at 1.2-2m but was shallower in depth (0.7-0.85m). Its profile was similar (steep-sided with a flat to rounded base). The lower fill (C19) of the recut ditch was a pale brownish grey clay with charcoal lenses, occasional marine shell and a moderate quantity of animal bone. Some of the charcoal lenses were particularly dense. Two lenses of in situ red scorched clay were noted in the northwest part of the barrow, near the cremation deposit (C24) described below. These were at least 1m in length, fading out to either end, rising up against the external edge of the ditch. These were situated above and below C19, thus representing at least two separate burning events within the partially re-dug barrow.

Of particular interest was a discrete deposit of cremated or heavily burnt bone (C24) identified 0.5m below the top of the surviving part of the ditch along the internal side. The cremated bone (C24) was located approximately 3m south of the Parish boundary. There was no associated cut relating to the cremation deposit, rather it appeared to have been deposited within the secondary fill of the later phase of the barrow. It may be part of a cremation burial associated with the initial barrow (C121) that became re-interred into the later phase of the barrow, intentionally or unintentionally. Alternatively it may be associated with a cremation contemporary with the backfilling of the second phase of the barrow. Analysis of the burnt or cremated bone may shed light on this.



The upper fill C12 of the barrow consisted of a mid-brownish grey silty clay containing animal bone and cremated bone. A possible rubbing stone (14E161:12:1) was recovered from within this fill. A very large quantity of marine shell was noted from the central fills C12, C19 and C20, and these seem likely to be associated with the later recut of the barrow rather than the initial phase, despite some of the shell coming from one of the lower fill deposits (C20).

A small pit (C21) was located 1.1m directly west of the barrow. Like the barrow, it was situated on the crest of the ridge running along the north of the site, and was subsequently truncated by the 17th century parish boundary ditch (C123). The location of both features along this topographical feature, combined with their proximity to one another suggests they may be roughly contemporary. The pit contained two fills (C22 & C23), with the lower fill (C23) consisting of a light brown clay containing animal bone. The upper fill (C22) consisted of a blackish grey silty clay containing animal bone, moderate charcoal and stones.



Plan of the resource processing area

Resource processing Area

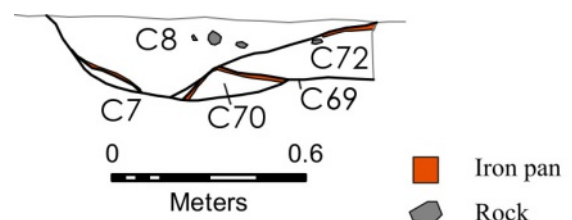
The remains of a resource processing area including two ditches, three kilns and numerous pits was recorded in the northwest of the site. These remains were centred on a stony outcrop that had been partially surrounded by a curving ditch (C7) with water-management features. The complex did not have a clearly defined form.

Earlier features

A number of linear features (C69, C93 & C99) were cut by the processing ditch (C7). Both C69 and C99 were cut by the western section of the ditch while C93 was truncated near the turn at the southeast of the arc of the ditch.

C69 was linear in plan with concave sides and a

flat base. It was orientated east-west, measuring 9m in length, 0.3-0.55m in width and 0.25m in depth. It contained a yellowish grey clayish silt (C70) with iron-panning visible at both the top and base. Occasional animal bone was recovered from the fill.



South-facing section of ditch C7 and linear C69

To the south of C69 was a north-south orientated agricultural drain (C99). It had concave sides and a flat base, and measured 9.7m in length, 0.4m in width and 0.3m in depth. This was filled with a pale greyish brown silty clay (C100) containing occasional marine shell and animal bone.

C93 was the remains of possible agricultural feature with a northeast-southwest orientation. It measured 4.7m in length 0.3-0.55m in width and 0.25m in depth. This drain had steep sides and a flat base. It contained a single fill (C94), which consisted of a mid-brown silty sand containing occasional marine shell and animal bone.

Resource processing ditch C7

The processing ditch (C7) was situated to the northwest of the site and surrounded a stony outcrop in the natural topography. The ditch consisted of a long, straight western portion, which was orientated northwest-southeast (Insert Plate) and a 'C'-shaped southern portion that extended eastwards from the southern end of the western portion. It defined an area of the natural subsoil that was noticeably stonier than the area to the south, which gave way to natural clays beyond the ditch.

The ditch (C7) contained a stone partition (C59) to the southwest and three pits (C61, C63 and C91) in the eastern end of the arcing southern portion of the ditch. A ramp, which may have been used to access the ditch, was identified to the southwest of the southern arcing portion of the ditch. The western portion of the ditch ran upslope to the northwest towards the crest of the hill, in the direction of the western edge of the now lost mound (RMP No. DU012-032). The mound was depicted on maps up to the First Edition Ordnance Survey and must have been an important local marker, given that the townland and parish boundaries turn at this point. It appears that the mound, possibly representing a barrow, was subsequently removed by the time of the 1910 edition of the Ordnance Survey. The fact that the ditch (C7) appears to skirt along the edge of the mound suggests that it was extant during the period of the construction of the processing ditch.

The northwestern end the ditch (C7) was particularly shallow with concave sides and a concave



Post excavation shot of ditch C7, looking northwest (top)

Post-excavation shot of ditch C7 looking west (middle)

Post-excavation shot of ditch C7 with stone partition C59 in foreground, looking east (bottom)

to flat base and became deeper and generally wider as it extended to the south. Occasionally a slight stepping was noted on its western edge. This portion of the ditch measured approximately 47m in length, 0.35-1.1m in width and 0.08-0.35m in depth. The southern arcing portion also had concave sides and a concave to flat base. It measured 0.55-1.2m in width and 0.11m-0.29m in depth, extending southeast for 9.5m before arcing to the northeast for a further 7m.



Mid-excitation shot of stone partition C59 within ditch C7, with ramp leading into ditch C7 to left, looking northwest

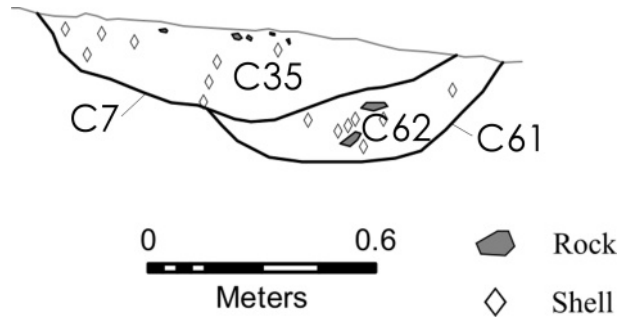
Sluice gate and ramp

A ramp, which possibly provided access to the base of the ditch from the external side, was identified at the bulge in the ditch as the western portion began to turn to the southeast, immediately to the northwest of the stone partition (C59). It comprised a narrow ledge that measured approximately 1.4m in length, 0.5m in width and extended down into the ditch by 0.4m running from southeast to northwest at an oblique angle to the ditch. This feature provided access to the stone partition.

A stone partition (C59), which may represent a water management feature, was situated within the turn of the ditch (C7) to the southeast of the ramp. This was located at the point where the straight shallow ditch turned into a deeper arcing portion of the ditch. The stone partition was constructed directly on the base and is possibly the earliest feature within the processing ditch, predating all fills. A change in the shape of the ditch at this exact point, suggests that the partition was envisaged as the ditch was constructed. It possibly functioned as a dam, used to restrict water running down the slope into the arcing section of the ditch. The partition (C59) was of stone construction with sub-rounded and sub-angular stones up to 250mm in diameter recorded. It measured 1.25m in length, 0.15m to 0.45m in width and 0.4m in height. It was abutted to the east by a clay that contained frequent marine shell (C35) and to the west by a brown clay material (C8) (see below).

Pits within the ditch

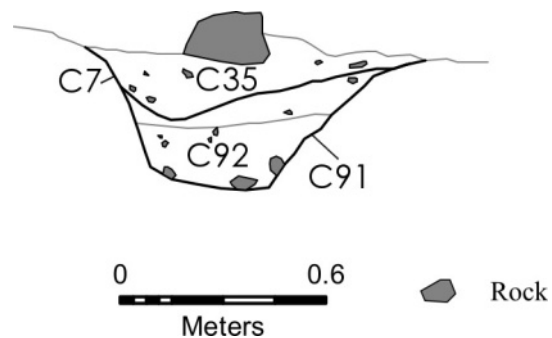
Three pits (C61, C63 & C91) were located within the southeast portion of the ditch (C7).



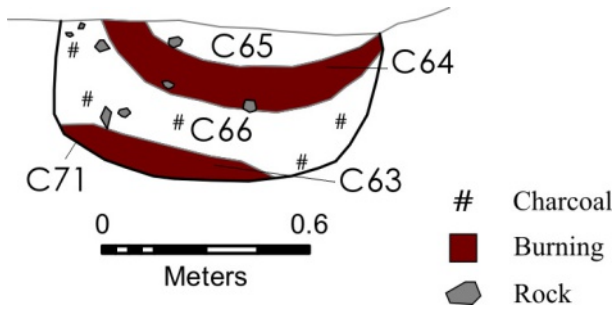
Southwest-facing section of ditch C7 and pit C61 (top)

Mid-excitation shot of southwest-facing section of ditch C7 and pit C61, looking northeast

Although initially it appeared that they were truncated by the ditch (C7), it is more likely that they are contemporary with it with the 'truncation' merely represented a cleaning out of the ditch. C61 was interestingly located at the point where the ditch turned to the northeast and possibly represented the remains of a fire pit. Its western side was cut away by the ditch C7. It was approximately sub-circular in plan with steep sides and a concave base, measuring 1.1m by 0.95m with a depth of 0.3m. Pit C61 was filled with a mid-grey silty clay which containing occasional burnt clay, charcoal flecks and marine shell.



Southwest-facing section of ditch C7 and pit C91



East-facing section of pit C63 (top)

Mid-excavation view of pit C63, looking west (centre)

Post-excavation view of pit C63 in foreground with the terminus of ditch C7 in background, looking southwest (bottom)

Two metres northeast of pit C61 lay an oval-shaped pit (C91). It was U-shaped in profile and measured 0.9m in length, 0.5m in width and was 0.58m in depth. It was filled with a light brown sand (C92) containing occasional marine shell which was cut by C7.

To the northeast of pit C91 a sub-circular pit (C63) was located. It possibly represents the remains of a hearth or a fire pit, which truncated the fill of the ditch (C35) and represents later activity as the ditch was starting to fill up. It was located approximately 1m southwest of the terminus of the ditch of the southeastern (external) side and measured 0.93m in length, 0.6m in width and was 0.55m in depth. It was U-shaped in profile and contained a number of fills. Its basal fill (C71) was a dark grey clay with moderate charcoal inclusions. This was overlain by a light brown silty clay (C66), which contained animal bone, occasional inclusions of charcoal and burnt clay. Above this lay a brownish grey silty clay (C64) containing animal bone and occasional charcoal. The upper fill (C65) was a light brown clay that contained animal bone.

The location of pits C63 and C38 (the latter discussed later on) is interesting in relation to the slot trench (C97), the curving ditch (C7) and the stony underlying geology. The two pits may mark either side of an east-facing entrance into a circular or partially-circular enclosure. In this interpretation, the northwestern portion of the ditch may have been truncated by later activity.

Ditch fills

The ditch C7 contained two fills (C8 & C35). A tan brown silty clay (C8) filled the western portion of ditch, running from the northwest extent of the ditch to the southeast where it abutted the western side of the stone partition (C59). It contained occasional bone, marine shell and occasional charcoal inclusions.

A mid-brown silty clay (C35) was identified to the east of the stone partition, which it also abutted. It filled the remainder of the arcing southern portion of ditch C7. It contained frequent marine shell with periwinkle and cockle dominating the assemblage. It is interesting that nearly six times more animal bone was recovered from this fill compared to that of C8. It



Mid-excitation shot of ditch C7, southern portion, with fill C35, looking east

is possible that the material from this ditch relates to a period when the processing ditch was no longer in use. The marine shell and bone processing that was undertaken within the ditch was discarded, possibly accumulating on a now levelled internal bank of C7 or nearby rubbish heap. When the ditch was no longer in use, this material in-filled the ditch.

Partition slot

Within the southern arc of the ditch C7, a slot trench (C97) representing a possible internal partition was identified. It created a small enclosed space on the inside of the curve of the arcing section of the ditch (C7) and may have been related to resource processing. This was suggested by the concentration of activity within the ditch at this point such as the fire pits (C61, C63), the water management feature (C59) and the remains of waste accumulation (C35). It consisted of a slot trench measuring approximately 8.5m in length, 0.3m to 0.55m in



Post-excitation view of partition slot C97 to centre right. Stony outcrop enclosed by ditch C7 visible, looking sw.

width, 0.25m in depth and had a gap of 1.8m in the middle. This gap may represent an entrance. At either end of the partition was a gap of between 2.2m and 2.5m between it and the ditch (C7), which has led to the suggestion that there may have been a bank on the interior of the curve of the ditch. At the northwestern end of the site it was seen that the ground level had been reduced by approximately 1m in the modern era it is conceivable that a similar level of reduction had been seen here. This may suggest that the slot ran up to the proposed bank of the ditch to the west and the bank of the ditch terminates to the east. The partition enclosed an area of approximately 10m (east-west) by 5m (north-south) within the embanked space.

Posthole C47

This was located approximately 0.6m to the west of the western portion of C7. Its relationship to the ditch C7 remains unclear. It was circular in plan with steep sides and a flat base. It measured 0.3m in diameter and 0.15m in depth.

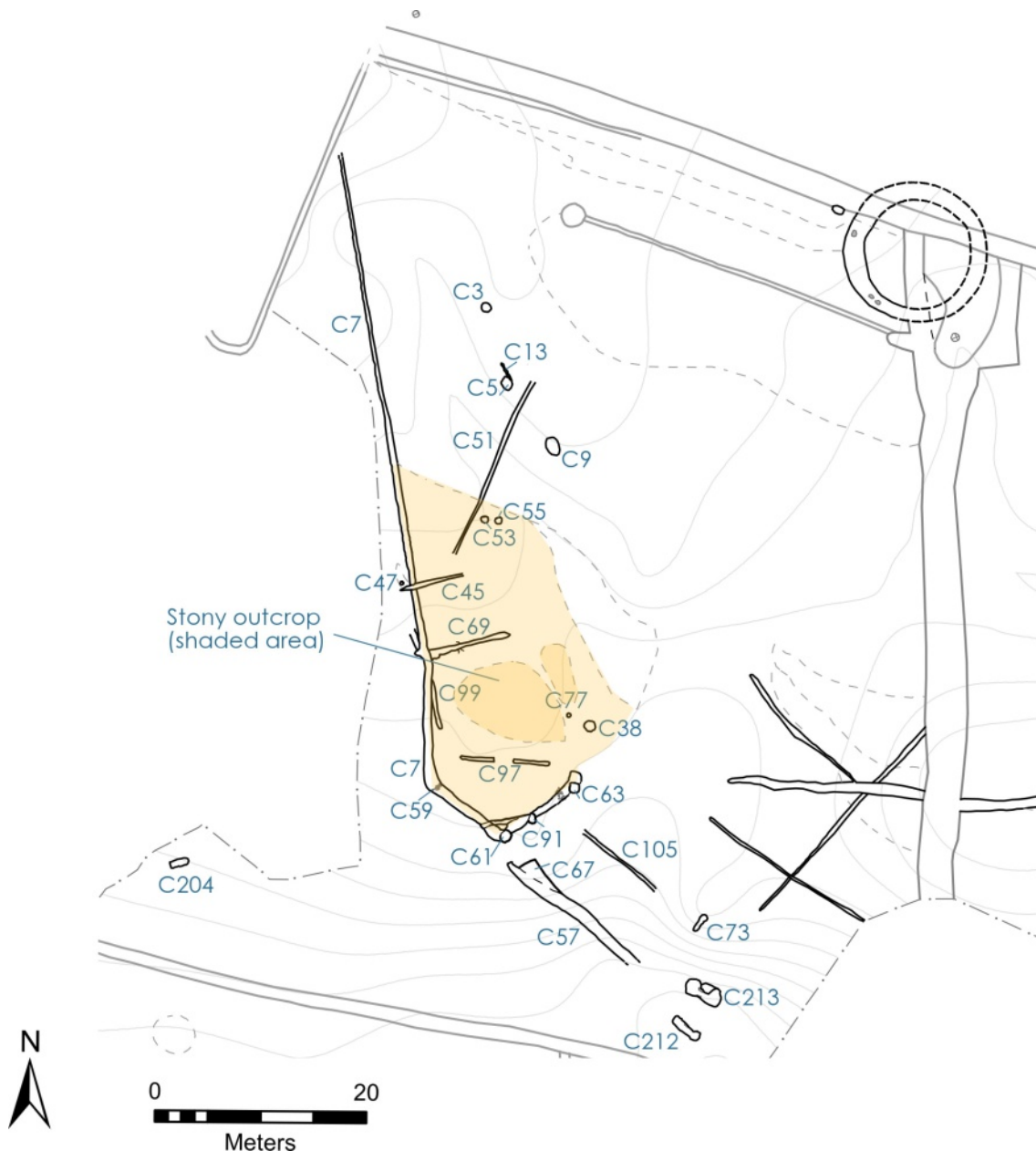
Pits within the resource processing area

A series of pits were identified within the resource processing area. These lay to the north and east of the ditch (C7). In the northern half three shallow pits (C3, C5 & C9) were recorded.

Pit C3 was sub-circular in plan with concave sides and a flat base. It was filled with a mid-brown silty clay (C4) containing occasional marine shell and occasional to moderate charcoal.



Mid-excitation view of pit C3, looking southwest



Plan of the central area of the site (top)

Mid-excavation view of pit C5, looking southwest (bottom)



Pit C5 was a shallow circular pit possibly the remains of a fire pit, containing a clay fill (C6) with animal bone, burnt stone and marine shell inclusions. It consisted of concave sides with a flat base, measuring 1.15m in diameter and 0.15m in depth. The northeast of this pit (C5) truncated a shallow linear slot (C13) that may represent the remains of a wind-breaker. This slot had a 'V'-shaped profile measuring 1.9m in length, 0.2m in width and had a depth of 0.1m. It contained a single fill (C14) of dark grey sand which was quite stony at the base.

Nearby was an oval pit (C9), which may have been a hearth or fire pit despite the absence of in-situ burning. It had concave sides and a flat base, and measured 1.15m by 1m by 0.15m in



Post-excitation shot of pit C5, looking southwest (top)
Mid-excitation shot of slot C13 and pit C5, looking southwest (bottom)

Mid-excitation shot of pit C9, looking northwest (top)
Mid-excitation shot of pit C38, looking east (centre)
Mid-excitation shot of pit C77, looking north (bottom)

depth. Its basal fill (C10) was a charcoal-rich clay with possible burnt clay inclusions that was overlain by an ashen layer (C2).

In the southern half of the resource processing area a number of pits (C38, C53, C55 & C77) were revealed.

Pit C38 may have been a possible hearth or fire pit. It was situated approximately 4m north of the eastern terminus of the processing ditch (C7) and lay 1.5m east of the small pit C77. It

was sub-oval in plan with concave sides and a flat base. It measured 1.2m in length, 0.9m in width and 0.18m in depth and had two fills. The basal fill (C39) was a mid-brown clay with a dark grey mottling and contained frequent charcoal inclusions. The upper fill (C40) contained burnt clay with ash lenses. The nature of the stony natural subsoil in the resource processing area meant that moderate firing within a pit may not have left scorch marks. The ease of disturbing this material even during cleaning could have removed scorching from previous firings

within the pit. As mentioned above, this pit may mark an entrance terminus of a ditched enclosure along with pit C63.

To the west of pit C38 lay a small circular pit (C77) measuring 0.3m in diameter by 0.08m in depth. It was concave in profile and was filled with a light grey clayish silt (C78) containing frequent marine shell inclusions.

A further two pits were located to the northwest of pits C38 and C77. The westernmost of these (C53) was a circular pit measuring 0.7m in diameter with a depth of 0.13m. It had a concave profile and was filled with a compact mid-brown clay (C54). To the east of this was another pit (C55), which was sub-circular in plan, measuring 0.8m by 0.6m by 0.12 in depth. It contained a single fill (C56) which consisted of a mid-brown silty clay that had occasional charcoal and marine shell inclusions.



Mid-excitation shot of pit C53, looking east (top)



Mid-excitation shot of pit C55, looking west (bottom)

Ditches to the southeast

Two phases of a ditch (C57 & C67) lay approximately 2m southeast of the southern arcing portion of the processing ditch (C7). The ditches C57 and C67 appeared to respect C7, possibly being broadly contemporary with it. They may have defined field boundaries or annexes associated with the settlement. The gap between ditch C7 and ditch C57 may have formed an access point, and it is notable that the western terminus' of both ditches ended 2m from the curving arc of ditch C7.

Two phases of activity were recorded, with an original ditch (C67) later being re-defined by the cut C57. Both ditches had terminals that faded out in the same general location to the west. Although C57 survived for 23m it is likely that it originally extended further to the southeast but was subsequently ploughed away in the modern era. Interestingly, two kilns (C212 & C213) were situated on either side of the projected alignment of the ditch, if it did continue,



Post-excitation shot of northwest terminus of ditch C67 with ditch C57 to right, looking southeast



Mid-excavation view from northwest terminus of ditch C57, looking southeast (top)

Mid-excavation view of northwest-facing section through ditches C57 and C67, looking southeast (bottom)



approximately 10m southwest of its surviving southeastern extent. No evidence for a bank survived, but as kilns were often cut into the banks of ditches it is possible in this instance that banks may have existed on either side of the ditch. The earlier ditch (C67) was orientated roughly east-southeast-west-northwest, comprising shallow gently sloping sides and a straight base. It measured 4m in length, 1.35m in width

and 0.14m in depth. It was filled with a greyish brown sandy silt (C68) containing inclusions of occasional charcoal, burnt clay, marine shell and animal bone. There was a layer of possible metting consisting of small rounded pebbles along the base of this possibly providing a rough working surface.

The southwestern side of this ditch was truncated by C57. This was orientated northwest-southeast and measured 23m in length, 0.78-1.05m in width and 0.25-0.35m in depth. It had concave sides and a flat base and was filled with a stony sandy silt (C58) containing rare animal bone and infrequent shell inclusions. The southeast portion of the ditch fill contained a lens of shell located midway into the ditch, which was recorded for a distance of 1m. The western terminus of the ditch was identified where the cut became shallow and ultimately faded out but its eastern extent could not be ascertained due to disturbance associated with modern farmyard activity.

Kilns

Three kilns were located within the resource processing area (C73, C212 & C213). A possible kiln (C73) lay approximately 6m northeast of the ditch C57, 19m east of the processing ditch C7 and 5m north of the kiln C213. Two kilns (C212 and C213) were located 2.75m apart, lying to the south and north of the proposed southeasterly continuation of the ditch C57 respectively. It is possible that either or both of the kilns were cut into the now levelled bank of this ditch.

Post-excavation view of kiln C73, looking north



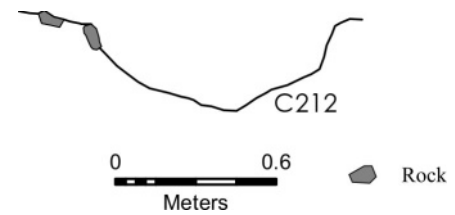


Mid-excitation shot of kiln C213, looking northeast (top)



Kiln C212 (mid-ex), looking northeast (bottom)

(C231) situated on the north side of the flue towards the centre. The earliest surviving fill (C214) was a blackish grey silty clay which was located in the eastern chamber. It contained a large quantity of seeds, frequent charcoal and occasional burnt bone. In-situ burning was identified in the western side of the kiln, along the southern edge of the cut. It is likely that the fire was lit in this location or possibly in a pit to the east outside of the surviving cut, the remains of which has been ploughed away. A single fire-reddened baffle stone (C231) was located on the north side of the flue at the centre of the kiln. The basal fill (C214) was overlain by a layer of sandy clay (C215) that



North-south profile of kiln C212, east end

Small kiln C73

It is unclear whether this feature functioned as a kiln as no in-situ burning was identified. It consisted of a key-hole shaped cut measuring 1.75m x 0.4m-0.67m and was 0.1m-0.25m in depth. It had two fills, a dark brown silty clay (C76) basal fill, which was overlain by a black silt (C75) containing burnt clay and burnt bone fragments. The remainder of the kiln was filled with a topsoil material (C74) which was truncated by an agricultural furrow (C105).

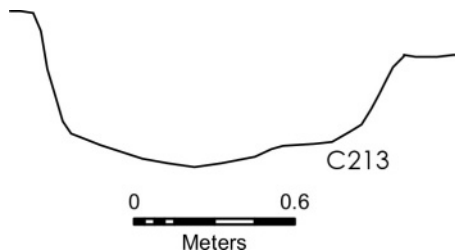
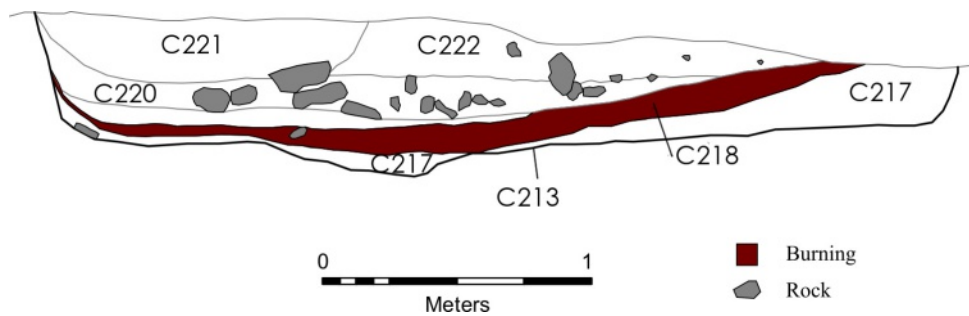
Southern kiln C212

The southern kiln (C212) lay approximately 20m northeast of the northeast terminal of the circular enclosure (C205). It was key-hole shaped in plan with a drying chamber located on the eastern side and a single baffle stone

contained occasional pockets of ash. The remainder of the kiln was filled with a pale brown silty clay (C216), which contained large stones and probably represented the infilling of the kiln.

Large kiln C213

To the north of kiln C212 lay a third kiln (C213), which had an irregular shape in plan. It comprised a large pit comprising of two chambers and a flue with a ledge located on the northern side. It measured 3.78m in length, 1.22-1.7m in width and 0.22m-0.57m in depth. In-situ burning was evident on the base of the western chamber which acted as a fire pit. The kiln contained two baffle stones (C232) within the flue and three large fire reddened stones located within the western chamber that may have been part of the kiln architecture. The baffle stones (C232) overlay the cut (C213) and lay 0.35m apart with their internal faces



South-facing section of kiln C213 (top)
 Post-excavation view of kiln C213, looking NE (middle)
 North-south profile of kiln C213, western end (bottom)

reddened as a result of heat. The base of the kiln was filled with a dark brown clay (C217) which lay against the internal faces of the baffle stones. This was overlain by a blackened charcoal-rich clay (C218) that contained burnt bone and a concentration of charred seeds, which were recovered from the eastern chamber. A thin layer of orange burnt clay (C219), which may represent a second phase of use, overlay this on the western side of the kiln. This material contained occasional animal bone and burnt bone fragments. The burnt clay (C219) was overlain by a dark brown stony clay (C220)

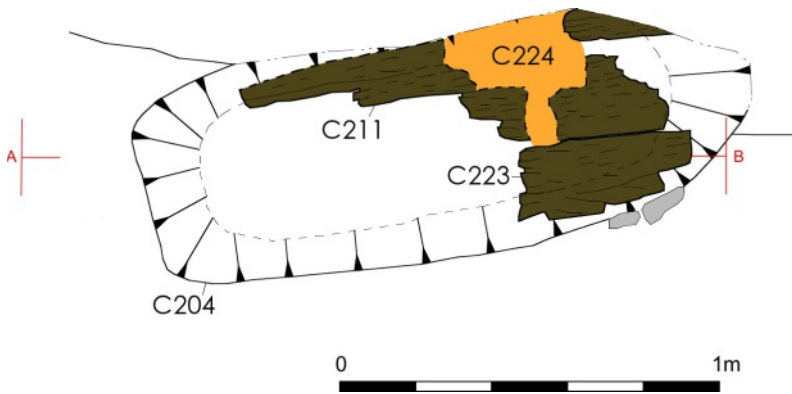
which filled the ledge on the northern side of the kiln. The upper part of the kiln was filled with orange and brown clay layers (C221 & C222).

Charcoal manufacturing pit

A possible charcoal manufacturing pit (C204) was identified 24m west of the processing ditch C7 and 28m northwest of the circular enclosure C205. It was sub-rectangular in plan and measured 1.6m in length (northeast-southwest), 0.63m in width and 0.4m in depth. It was well-defined with slightly concave

edges, a sharp break of slope at top, and very gradual at base. The base was lined with a 0.35m thick layer of charcoal-flecked silty sand (C229), probably representing the heat-affected interface with the underlying natural rather than a fill.

The primary fills of the feature comprised three discrete deposits of carbonised wood (C211, C223 & C226) 0.03m-0.4m thick representing a number of broad planks or the carbonised outer layers of a thicker piece of timber lining the pit. The better preserved parts of these deposits (C211) exhibited consistent grain orientation whereas the badly preserved parts (C226) comprised soft black silt. This was partially overlain by an irregular area of firm fire-reddened silty clay (C224), measuring 0.3m N-S by 0.29m and 0.03m thick. This latter deposit, present over C211, could be interpreted as an area where the timber did not carbonise, and the void left by the decay was replaced with washed-down heat-affected silty-clay. Alternatively it may represent a layer of clay clamped down over the timbers. Above the carbonised wood remains was a deposit of orange silty-clay mottled with black

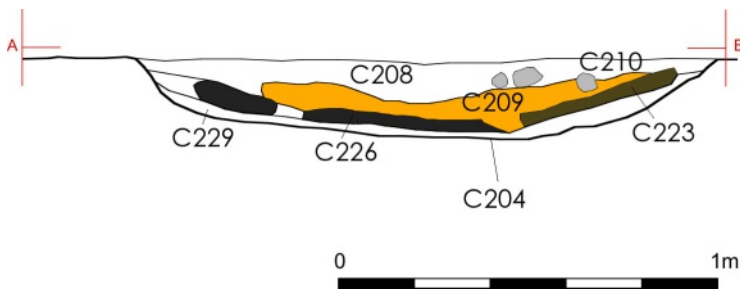


Plan of charcoal manufacturing pit C204 (top)

Northwest-facing section of charcoal manufacturing pit (upper centre)

Mid-excavation shot of northwest-facing section of charcoal manufacturing pit C204, looking southeast (lower centre)

Detail of timber C211 in charcoal manufacturing pit C204, looking southeast (bottom)



flecks measuring 0.06m-0.1m in thickness (C209).

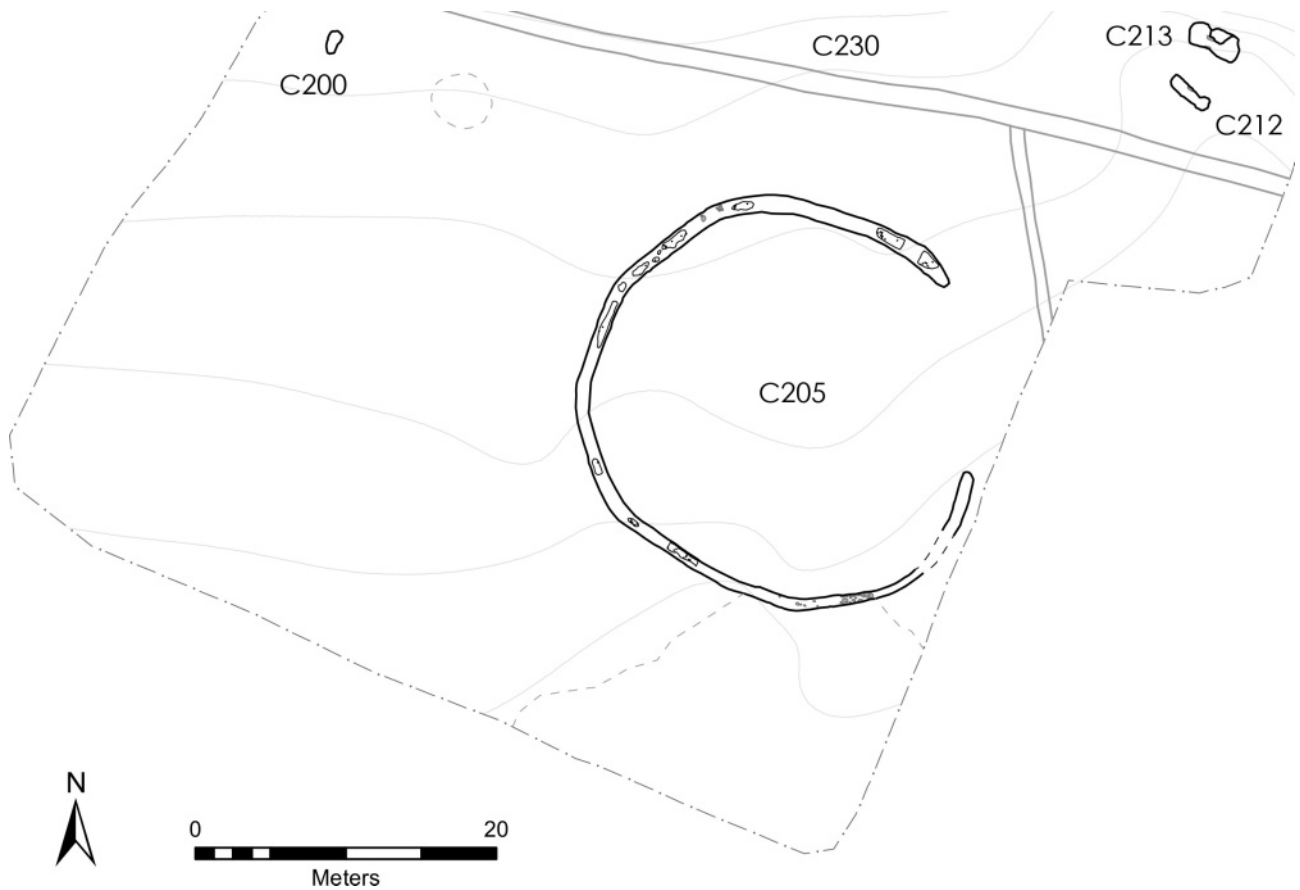
The uppermost part of the pit was filled with a friable greyish-brown silty clay with frequent charcoal containing occasional small burnt bone fragments and small stones 0.11m thick (C208), which became stonier and browner to the northeast (C210). This contained several sherds of prehistoric pottery.



Initially the presence of burnt bone and prehistoric ceramics in the upper fills (C208 & C210) of this feature suggested a prehistoric funerary interpretation, possibly deposition of cremation material in the truncated terminal of a ring ditch or shallow pit. However, the feature has an unusual morphology and sequence of fills, more suggestive of a charcoal production kiln: the carbonised 'planks' lying along the cut representing the last phase of use where the charcoal was laid in the pit and roasted to remove water. In this interpretation the coarse ceramics recovered could represent vitrified elements of the turf/clay kiln covering.



The abandonment of the charcoal within the pit is paralleled at a closely similar feature on the Hardwood 3 site on the M4, where it was suggested that sudden flooding of the pit towards the end of the process meant that the charcoal was effectively useless (Carlin 2008, 101).

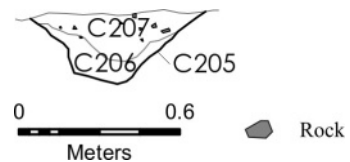
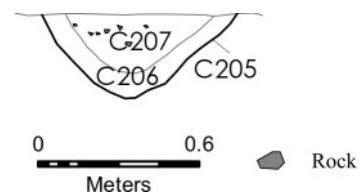
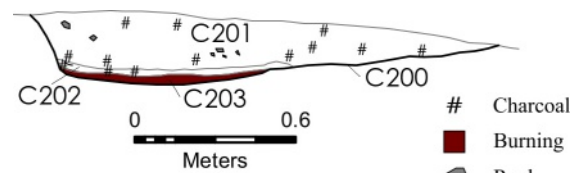


Penannular enclosure

A circular enclosure (C205), possibly representing an animal enclosure or the scarped remains of a ringfort, was identified in the southwest of the site. This penannular ditch was difficult to identify on the surface due to the similarity of its predominant fills (C206, C207 & C225) to the underlying natural.

A circular landscaped garden feature is shown in approximately this location on the first edition OS map of 1837-42. This is absent on the 1910 OS map. On the OS map this feature was shown as bounded to the north by a wall, which was paralleled in the circular enclosure C205 where the foundations of an east-west running masonry wall were also identified to the north (C230), however the location of the circular enclosure (C205) does not correspond to the location depicted on the map.

The ditch (C205) enclosed an area of 24m in diameter and measured 0.54 to 1.6m in width and 0.25 to 1m in depth. It was mostly steep-sided in profile with a gradual break of slope at



Post-excavation plan of circular enclosure C205 (top)

West-facing section of ditch C205, northern segment (upper centre)

East-facing section of ditch C205, northern segment (lower centre)

East southeast-facing section of C205, southern segment (bottom)



Post-excavation shot of circular enclosure C205, looking west (top)

Post-excavation shot of circular enclosure C205, looking northeast (centre)

Post-excavation shot of circular enclosure C205, looking southwest (bottom)

the bottom and a flat base. The southern and southeastern portions of the ditch were severely disturbed resulting in a surviving depth of 0.09m-0.2m and what remained was relatively shallow with concave sides and base.

A possible eastern entrance was identified in the northeast quadrant of the ditch (C205) which consisted of a gap 12m in length between two possible termini. The terminals faded out and consisted of shallow, concave sides and rounded ends. In the northeastern terminus a deposit of mussel shell with occasional charcoal and animal bone also within the deposit which was sealed by a stony deposit (C225). This was interesting as shell was absent from the remainder of the enclosure while this also contrasted to the frequency of sea shell found in the enclosure ditch (C7) to the north. As the

eastern section of the ditch (C205) was greatly disturbed by modern farm activity it could not be ascertained that this section of the ditch represented the eastern part of the entrance.

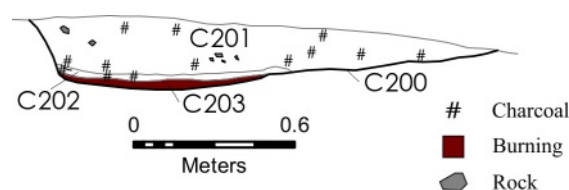
Its basal fill was a clay silt (C206) containing occasional animal bone, which was present throughout. This was overlain by a silty clay fill (C207) which contained occasional charcoal and occasional animal bone. A possible flint tool (14E161:207:1) was recovered from this fill. C207 was overlain in-turn by an pale brown stony clay (C225) which contained occasional animal bone and a possible flint tool (14E161:225:1). Both C207 and C225 were absent from the southeast quadrant where there was evidence for modern disturbance. Interestingly a mid-brown silty clay fill (C228) which overlay C225 was present only in the northern portion of the enclosure. This area of the ditch was the least truncated with C228 possibly representing a middle fill of the original enclosure ditch (C205).

Pits near the circular enclosure

Two pits (C49 & C89) lay to the east of the circular enclosure. A large oval shaped pit (C49) comprised of gently sloped sides and an uneven base. It measured 1.35m in length, 1.05m in width and 0.2m in depth. It was filled with a greyish brown clay silt with moderate burnt clay, marine shell and occasional charcoal inclusions. It was located approximately 1m southwest of an agricultural drain (C43). To the east of C43 lay a circular pit (C89) measuring 0.66m in diameter and 0.44m in depth. This contained a pale brown clay fill (C90) with charcoal inclusions concentrated in the uppermost part of the fill.

Kiln near the circular enclosure

A kiln (C200) was situated in the southwest corner of the site, approximately 25m west of the circular ditch (C205). The kiln (C200) was key-hole shaped in plan, measuring 1.75m in length, 0.35m-1m in width and 0.16-0.27 in depth. The kiln (C200) consisted of a chamber and a flue, with the chamber exhibiting evidence of in-situ burning (C203). This material was overlain by a burnt clay ash deposit (C202) which extended into the flue. This was overlaid by a charcoal rich silt (C201) which contained seeds and rare burnt or cremated bone.



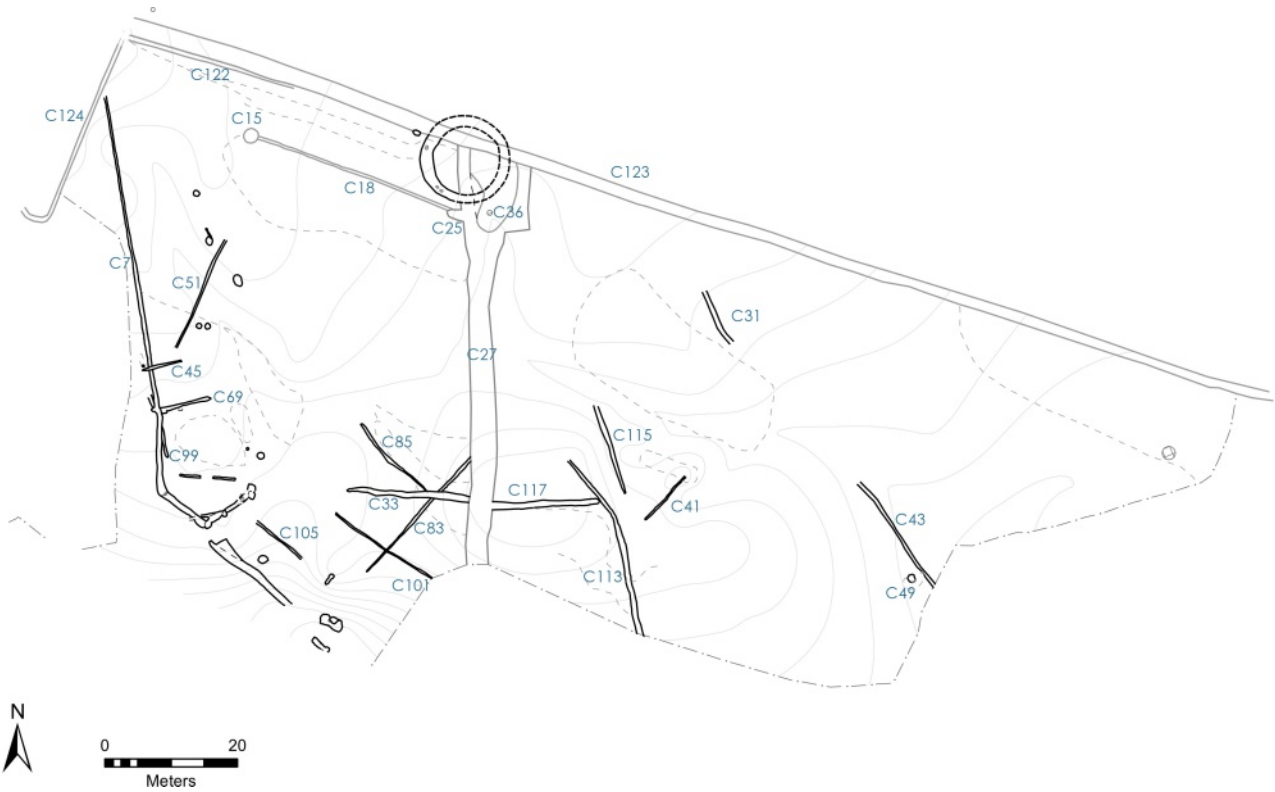
Mid-excavation shot of kiln C200, looking east (top)

West-facing section of kiln C200 (bottom)

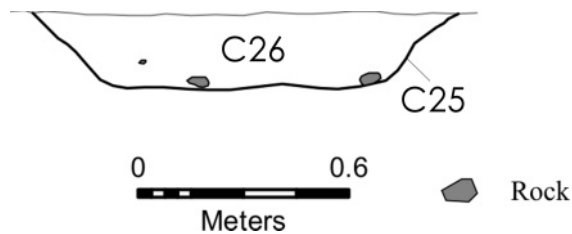
The post-medieval landscape

A large ditch (C123) ran east-west along the northern site boundary, and follows the line of a Parish boundary marked on the down survey from 1656 and continually marked on all cartographic sources from that date onwards. At the west extent of the parish boundary ditch two 19th century walls enclosed the northwest corner of the site. A 19th century heavily mortared wall (C122) ran east for 25m along the southern edge of the parish boundary ditch while a north-south wall (C124) formed a corner with C122, measuring 38m in length and was identified on the First Edition OS map.

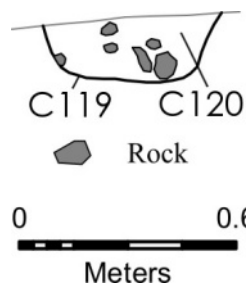
An 18th century field boundary (C27) ran north-south through the centre of the site, from the Parish boundary towards Seamount House. It was approximately 4m wide and 1m in depth and filled with a silty clay (C28) containing of 18th century pottery (14E161:28:1-2). In the 19th century the ditch appears to have been used as a lane, as depicted on the First



Post-excitation plan of post-medieval features on site (top)



West-facing section of agricultural feature C25 (centre)



Northeast-facing section of agricultural feature C119 (bottom)

well (C15) and with an outlet drain (C18) ran west-east to supply a pump (C36) which was marked on the 1910 map. The pump was represented by a deep sump which was sealed by a rubble deposit (C37) containing 19th and 20th century red and yellow brick fragments.

1st Edition OS map which ran from Seamount House. The ditch C27 may have been accessed to the north by a shallow ramp (C25), the fill of which (C26) was similar to that of C28.

The remains of a 19th century garden wall foundation (C230), previously recorded on the First Edition OS map, ran east-west to the north of the circular ditch (C205) forming a corner with a north-south return. These rubble foundations (C230) contained 19th century red brick fragments. To the east of this area the remains of demolished 19th century farm buildings in the form of red brick rubble were identified. These buildings were also identified on the First Edition OS map.

In the north of Area 1 a circular stone-filled

Table of agricultural features on the site

Context	Type	Fill of	Filled by	L. (m)	W. (m)	D. (m)	Interpretation
31	Cut	N/A	C31	9.9	0.4-0.87	0.16-0.18	Agricultural feature
32	Fill	C31	N/A	9.9	0.4-0.87	0.16-0.18	Fill of agricultural feature
33	Cut	N/A	C34	17	0.63-0.72	0.19-0.25	Linear ditch
34	Fill	C33	N/A	17	0.63-0.72	0.19-0.25	Fill of linear ditch
41	Cut	N/A	C42	14.5	0.56-0.6	0.4-0.8	Agricultural feature
42	Fill	C41	N/A	14.5	0.56-0.6	0.4-0.8	Fill of agricultural feature
43	Cut	N/A	C44	19	0.4-0.6	0.1-0.22	Agricultural feature
44	Fill	C43	N/A	19	0.4-0.6	0.1-0.22	Fill of agricultural feature
45	Cut	N/A	C46	6.2	0.56	0.23	Slot trench
46	Fill	C45	N/A	6.2	0.56	0.23	Fill of slot trench
51	Cut	N/A	C52	17.1	0.25-0.3	0.05-0.08	Furrow
52	Fill	C51	N/A	17.1	0.25-0.3	0.05-0.08	Fill of furrow
83	Cut	N/A	C84	22.6	0.2-0.56	0.08-0.27	Linear feature
84	Fill	C83	N/A	22.6	0.2-0.56	0.08-0.27	Fill of linear feature
85	Cut	N/A	C86	14.1	0.2-0.6	0.14	Linear feature
86	Fill	C85	N/A	14.1	0.2-0.6	0.14	Fill of linear feature
101	Cut	N/A	C102	17.5	0.58	0.26	Agricultural feature
102	Fill	C101	N/A	17.5	0.58	0.26	Fill of agricultural feature
103	Cut	N/A	C104	3.1	0.4-0.71	0.14-0.19	Possible avenue ditch associated with ditch C7
104	Fill	C103	N/A	3.1	0.7-0.71	0.14-0.19	Fill of possible avenue ditch
105	Cut	N/A	C106	15m+	0.45	0.06-0.10	Agricultural feature
106	Fill	C105	N/A	15m+	0.45	0.06-0.10	Fill of agricultural feature
113	Cut	N/A	C114	29	0.48-0.81	0.25-0.27	Agricultural feature
114	Fill	C113	N/A	29	0.48-0.81	0.25-0.27	Fill of agricultural feature
115	Cut	N/A	C116	9	0.22-0.28	0.05-0.09	Agricultural feature
116	Fill	C115	N/A	9	0.22-0.28	0.05-0.09	Fill of agricultural feature
117	Cut	N/A	C118	16	0.85-1.2	0.28	Agricultural feature
118	Fill	C117	N/A	16	0.85-1.2	0.28	Fill of agricultural feature
119	Cut	N/A	C120	10	0.43	0.2	Agricultural feature
120	Fill	C119	N/A	10	0.43	0.2	Fill of agricultural feature

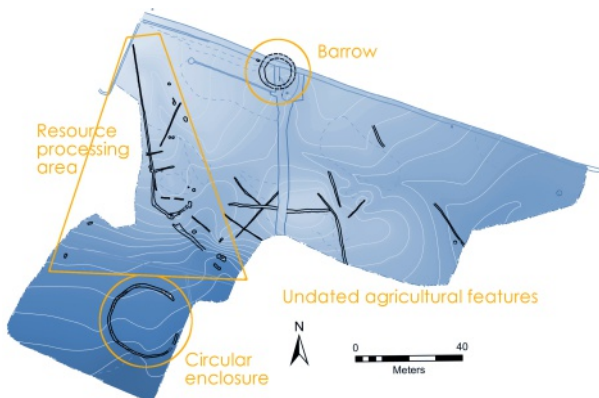
Agricultural features

A series of undated agricultural furrows (C51 & C105) and drains (C31, C33, C41, C43, C45, C83, C85, C101, C103, C113, C115, C117 and C119) were identified across the site. Several of the drainage ditches (C33, C103, C115 & C117) appeared to respect the 18th century field boundary (C27). It is apparent that the majority of the agricultural features were absent from the areas where the archaeology was concentrated which may indicate that the burial monuments and resource processing ditches (C7 & C57/C67) were still visible within the landscape and therefore intentionally avoided.

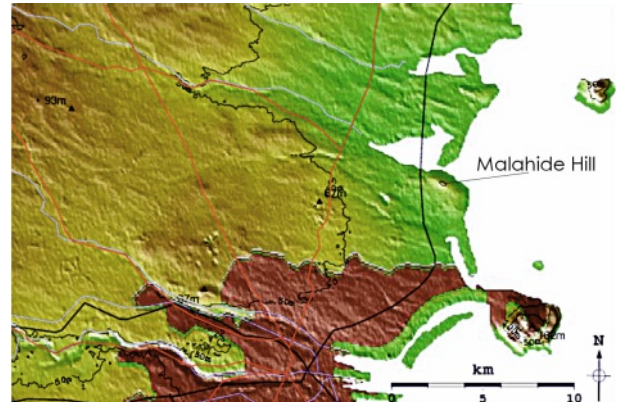
Section 3 Discussion

Historical continuity of landscape

The archaeological excavation identified evidence for settlement at the site dating from the Late Bronze Age, Iron Age, Early Medieval and through to the modern period. A small enclosure on the crest of the hill is interpreted as a Late Bronze Age burial monument ('barrow') which shows evidence for maintenance during the Iron Age. A truncated Late Bronze Age enclosure at the base of the hill may have defined a settlement or ceremonial space. Between these were the remains of a partly-enclosed early medieval farmstead associated with specific activity areas for processing shells, animal remains, and corn-drying kilns.



A strong historical continuity of landscape is reflected in the archaeological features from the site. Prehistoric monuments placed along the crest of Malahide Hill formed visible markers that could have defined territory and ownership. Even after their origins had been forgotten, the monuments and their dominant position in the landscape continued to define space and boundaries. The early medieval farmstead, for example, was positioned in reference to the prehistoric monuments. Later on in the medieval period, Church parish boundaries followed the same line. Although an intensification of farming practices on Malahide



Topographic map of Dublin Airport and surrounding area, courtesy of www.weather-forecast.com/locations/Dublin-Airport.

Hill from the eighteenth century levelled and reorganised the landscape, some features continued to respect the focal points that had been marked, and re-marked, from the earliest times.

Monuments on the hill 2500 BC-500 AD

Malahide Hill forms a dramatic regional high point on the north Dublin coastal plain. At almost 62m above sea level in height, it is matched locally only by the rises on Lambay Island and Howth, and by the lower rise at Portrane. To the west, the coastal plain continues until Swords. The views from the top of Malahide Hill are extensive and extraordinary, encompassing the entire Dublin coastal landscape. Malahide Hill is high enough that the views extend over Sutton into Dublin Bay to the Wicklow Mountains to the south. Three islands are visible from Malahide Hill: Lambay, Ireland's Eye and Dalkey Island, as well as Howth. This hill may have leant its name to the area: Malahide may be derived from Mullach Ide, the 'hill of Ide' (Joyce 1995, 497; Flanagan 1984, 117). The name Seamount may be an anglicised form of Sidhe Manannan, Manannan being a mythological sea god (Flanagan *ibid*)

who also lent his name to the Isle of Man, and *sidhe* meaning a mound that formed a connection to the underworld.

Malahide Hill forms a linear rise about 2.5km long and 1km wide oriented WNW-ESE to the south of Malahide village, encompassing the townlands of Malahide, Robswalls, Saint Helens and Carrickhill, and includes Paddy's Hill to the south. The highest point of the hill is situated just northwest of the excavation site, but the long crest of the hill passes along the northern site boundary and runs for 2km down towards the sea.

A line of archaeological monuments ran along the crest of the hill down towards the sea. Two are situated on the site: A circular mound shown on the first and second OS 6-Inch maps near the highest point of the hill (RMP DU012-032), which no longer survives, and the ring-ditch excavated during the current archaeological excavation (14E161) 50m southwest of the mound along the ridge.

A few hundred metres further east along the ridge is a shell midden with medieval pottery (DU012-012; 02E0385) and a burnt mound (DU012-065; 02E0386). The RMP maps place these sites slightly lower down the slope to the north, but the excavation co-ordinates place them right on the crest of the hill. A second shell midden (DU012-062) on the crest of the hill lies slightly further east on the ridge, and archaeologists identified a scatter of flint artefacts (99E0550) in this area that became notably denser at the highest point of the site near the hillcrest. Duncan's map of 1821 shows two mounds on a hill in this approximate location, which could represent additional prehistoric monuments on high points.

Further east towards the sea on the hill ridge are two more lithic scatters (00E0037 and DU012-063) and St. Patrick's holy well (DU012-038), which still survives. The highest concentration of artefacts comes from Paddy's Hill further southeast where almost 3,000 stone artefacts have been identified through field-walking in the 1980s (Keeling & Keeley 1994) that range in date from the Neolithic to the Early Bronze Age (Flanagan 1984).



Malahide Hill is a focal point of prehistoric activity, and a dramatic highly-visible setting for the monuments that run along the crest of the ridge. The first of the two monuments within the development site was a mound (RMP DU012-032) appears on 19th century maps (OS 6-Inch 1837-42 & 1872) but not on early 20th century maps (1910), and was not identified during the excavation. The land immediately to the west of the monument's location rises very steeply, so it is likely that it was completely levelled in c. 1900. A modern electrical pylon has been erected near the monument, and this probably caused additional disturbance to the monument. The parish boundary between Malahide and Portmarnock, which is marked on maps from the 16th century, takes a sharp turn at this monument, suggesting it was a prominent landscape feature in the medieval period.

The second monument (not listed as an RMP) also appears on the 19th century maps (OS 6-



Recorded monuments and archaeological sites identified on Malahide Hill.

Inch 1837-42 & 1872) but not on early 20th century maps (1910), marked as a similar sized circular feature 50m east of DU012-032. It has been truncated by the ditch that runs along the line of the Malahide and Portmarknock Parish boundary, however the original boundary may have respected the monument and passed just north of it, as suggested on the First Edition OS map. The eastern half of the feature was truncated by an 18th century field boundary.

Despite all the damage done to this second monument, it had been constructed on slightly lower-lying ground to the first, so the c. 1900 levelling did not completely remove all sub-surface traces of it. Part of the arc of a circular ditch (C121) that measured 2m in width and just over 1m in depth was found and excavated. The ditch appears to have enclosed a small area c. 9m in diameter on the crest of the ridge. No features were identified in the internal area, however this had been mostly truncated away. Large flat stones in the lowest fills of the ditch probably fell inside from above, and may once have formed part of a revetment to the earthen mound or bank. Radiocarbon dating returned a Late Bronze Age date (997-839 BC at 2 sigma Poz 93590) from cherry charcoal from the basal fill of the barrow ditch.

A second phase of use of the monument was identified in the form of a shallower re-cut of

the ditch (C11). This re-cutting must have taken place after the monument had begun to degrade, as it post-dated the large collapsed stones. Birch charcoal from this phase returned a Final Bronze Age or Iron Age radiocarbon date (751-406 BC at 2 sigma Poz 93589).

The partial cremated remains of a human adult (only the hand was identified) was found at the base of the re-cut ditch, to the west. The upper fill of the barrow contained an unburnt adult left and right femur, presumably from a different individual. These partial remains suggest the continued use of an early monument for burial and/or partial burial of both cremated and non-cremated human remains. It is also possible that they became incorporated into the monument unintentionally, as the upper fill of the barrow ditch contained a large amount of animal bone representing well-preserved primary butchery waste. The faunal assemblage was dominated by cattle, pig, horse and deer, and was very similar to the animal bone remains of the early medieval settlement to the south. A possible rubbing stone (14E161:12:1) was also found in the backfill of the secondary cut.

Archaeologists use the terms 'barrow' (or sometimes the less funerary-sounding 'ring ditch') to describe circular monuments surrounded by a ditch built throughout the late

prehistoric period (Bronze Age to Late Iron Age, 2500 BC - 500 AD) (Carlin 2006, 23; Waddell 1998, 364-367). These are often associated with cremated human remains, found either in pits in the centre or within the ditch, however they are not always interpreted as burial monuments primarily (see Corlett 2005, 69; Giacometti 2010, 62). The remains of both monuments within the site (RMP DU012-032 and Barrow C121) are likely to represent two small Late Bronze Age circular monuments. At least one of these was associated with pre-Christian human cremation burial, either from the time when it was constructed, or else at a later stage during the early Iron Age.

These monuments ('barrows') did not exist in isolation. As pointed out above, they formed part of a prehistoric ritual landscape that extended along the high ridge of Malahide Hill and downslope towards the sea. Other

monuments marking highly visible locations that can be seen from the site include the cairn on top of Howth (DU019-00403) and the cairn on top of Lambay Island (DU009-001010). The views from these monuments across the Dublin coast would have been as spectacular in prehistoric times as they are today. We will never be sure why, or by who, the monuments were constructed, but we can imagine the impact they would have had on the many people who saw them once they were erected. Sited in such a dramatic position, they were unmissable, and could be seen from far away in almost every direction. They would have served as topographical reference points and landmarks that defined spaces and distances along the hilltop, and indeed one of the prehistoric monuments formed a key point along the medieval parish boundary. Their coastal location (on the east-facing seaward side of Malahide Hill), combined with the possible association of

A representation of 'Mannanan Mac Lir chariots over the waves' (Image: Loime Studios)





View east from site towards Ireland's Eye

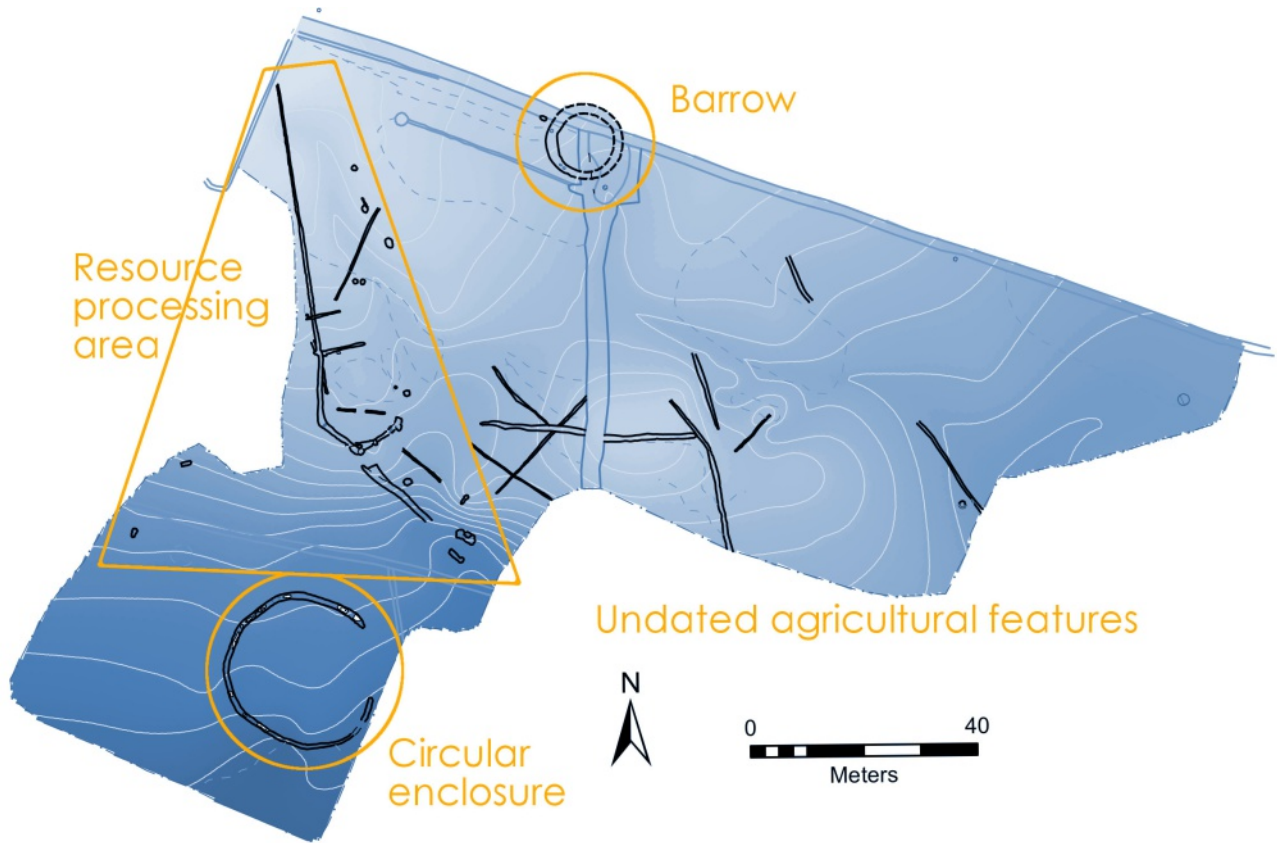
the mound with the sea god Manannan, may also suggest an additional purpose of the monuments, and perhaps other conspicuous ones along the coast: as markers to assist sea navigation.

Each monument would have been named, and perhaps associated with specific families or lineages, either real or mythical, and those links could have been emphasised to create and maintain claims to land ownership. Even long after their original names and associations were forgotten, new mythological connections could be forged. The monuments could be re-dedicated, previous histories erased and new histories created that served new interests. This process may have happened with one of the monuments further down the ridge: St. Patrick's Holy Well (DU012-038). Holy wells often had prehistoric origins, but were renamed and rededicated in the medieval period.

The excavated prehistoric monument (Barrow C121) showed evidence for re-cutting during the Bronze Age/Iron Age transition period after it had fallen out of use, which must represent its rededication as a ritual monument. The cremated human remains from this recut phase may have been interred during the initial Late Bronze Age dedication of the monument,

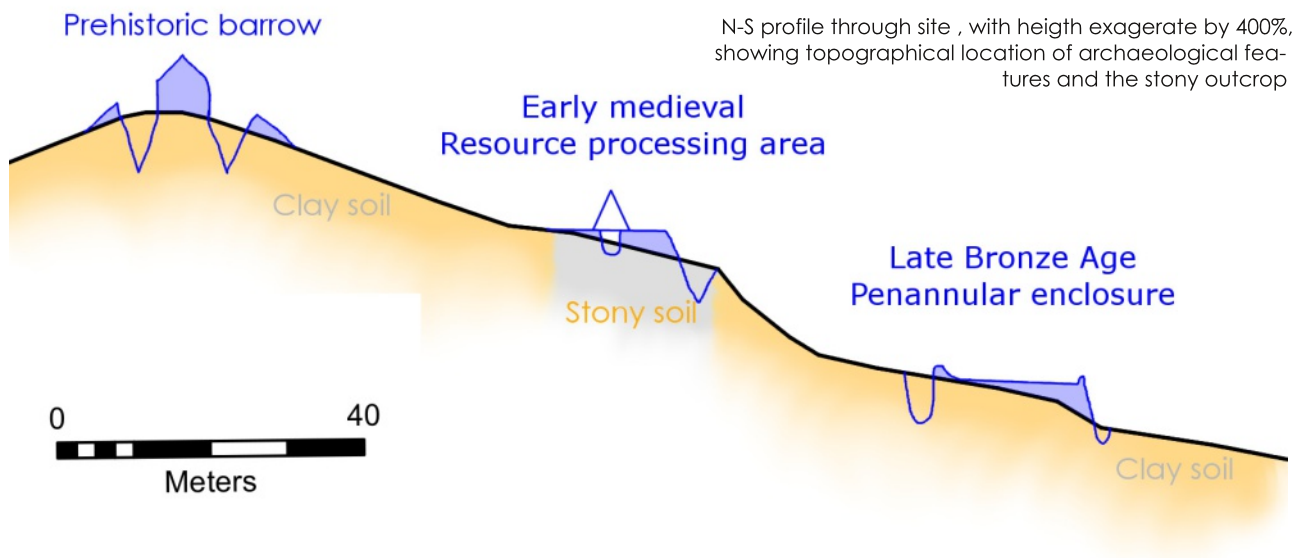
and uncovered by the Iron Age builders when they reconstructed the monument. They may have recognised these human remains for what they were, or interpreted them as the remains of a mythological ancestor, before placing some of the exhumed remains back inside the ditch.

Further evidence, from the faunal remain assemblage in the uppermost fill, suggests it remained partially open during the early medieval period and formed part of the early medieval settlement. The excavation demonstrated that the occupants of the early medieval farmstead had used the prehistoric monuments as landmarks for the laying out of their activity areas and fields, which were aligned in reference to them. The monuments formed part of the early medieval farmed landscape long after they were built, and it would have been reasonable for the early medieval inhabitants to interact with them; perhaps to carry out a ceremony at them, to repair or maintain them. Perhaps the occupants felt that one of their blood ancestors had built them, or been buried inside them. Perhaps they felt the monuments represented ancient mythological beings, like Manannan (Seamount), the monument/mound of the pre-Christian god of the sea, and they would be dangerous to disturb. The uncremated human remains found mixed



in with animal bone remains in the uppermost fill of the barrow may represent an accidental inclusion of charnel from a disturbed (presumably Christian) burial, rather than

intentional Christian burial within the earlier barrow, but either way it suggests this location continued to be used for funerary activities into the Christian period.



N-S profile through site, with height exaggerated by 400%, showing topographical location of archaeological features and the stony outcrop



View north from site towards Donabate, Portrane and Lusk

Bronze Age penannular enclosure

The large circular enclosure in the south of the site (C205) enclosed an area of 24m in diameter. It was defined by a ditch that varied in width and depth and appeared to be heavily truncated, which may explain the complete absence of any internal features, with an undug opening to the northeast providing an entrance. Radiocarbon dating of wild cherry charcoal from the enclosure fill returned a date of 841-1050 BC (Sigma 2; Poz 93370). Fragments from a Late Bronze Age large domestic vessel and a cremated human leg bone (possibly representing a token cremation burial) were identified nearby in the upper fill of a nearby probable early medieval charcoal manufacturing pit kiln, and may have originally been associated with the penannular enclosure.

The small flint assemblage from the excavation included a late Bronze Age flakes which came mostly from the fill of the penannular enclosure and nearby charcoal production pit. Flakes exhibiting lithic technology suggestive of an early Neolithic date were found in the early medieval settlement, and flakes exhibiting an early to mid-Bronze Age technology were identified in a kiln near the penannular

enclosure.

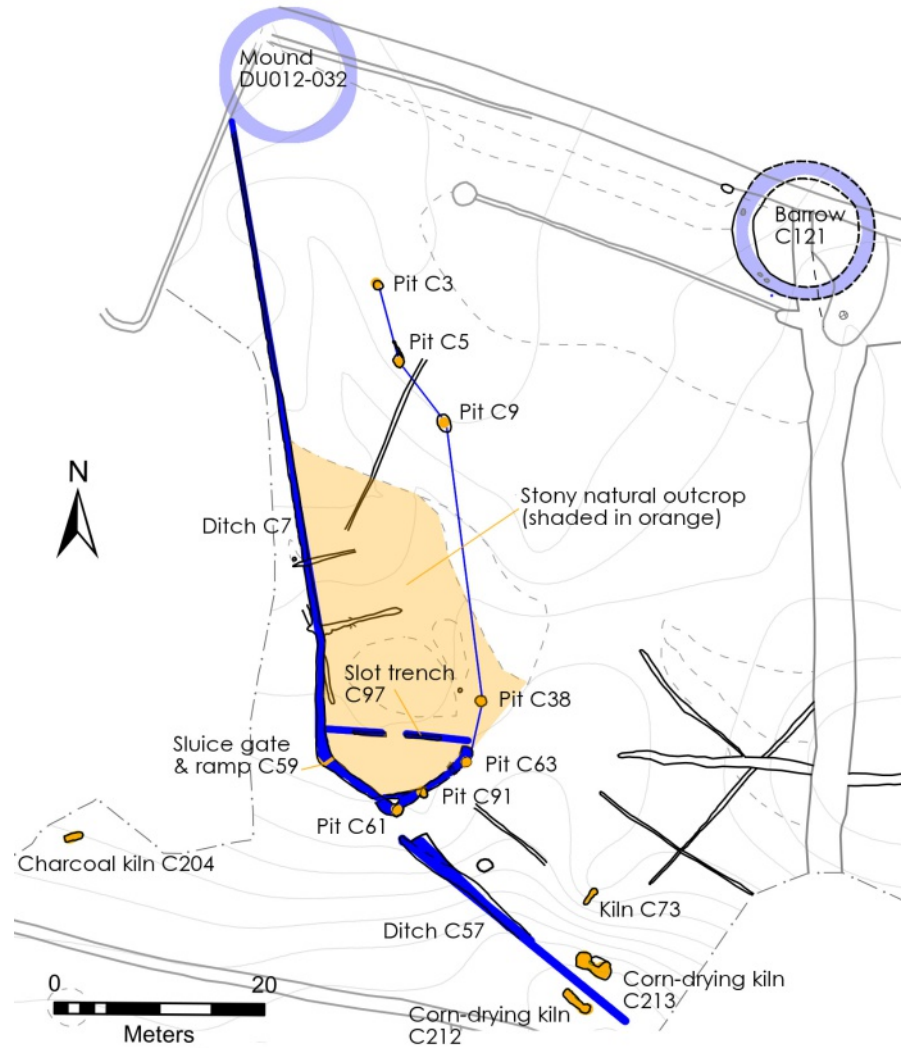
The form and size of the feature is consistent with other prehistoric penannular enclosures, for example at Clonard, also in North Dublin (McGlade 2016) and Ardsallagh, Co Meath (Licence No. A008/034, E3087, Excavations Ref. 2006:1493; Clarke and Carlin 2009, 7), Ask Hill, Gorey, Co. Wexford (Stevens 2007, 36). As with the enclosure at Clonard (radiocarbon dated to 1498-1303 at 2 sigma; 399-210 BC at 2 sigma) it was situated on low-lying land (& see Grogan 2005, 142-3 for further examples) and was near a cremation pit.

The level of truncation is such that no evidence of function survived. Intriguingly, the enclosure may have been appropriated in the 18th century walled garden of Seamount House for use as a garden feature (see below).

The monuments on the hill were not the only evidence for prehistoric activity found on the site. A small number of flint tools were recovered from a number of features, though none of these appeared to be in-situ and no distinct flint-working areas were identified. In addition, sherds of a large Bronze Age pottery domestic vessel (14E161:210:2-6; Grogan &

Roche 2015 pers. comm) and fragments cremated human adult leg bone were identified in the uppermost fills of an early medieval (possibly) charcoal manufacturing pit (C204) further down the hillslope. Once again, this could be interpreted as the conscious interaction of early medieval people with earlier prehistoric funerary monuments, indeed it is possible that the Bronze Age pottery and cremated bone came from one of the monuments on the crest of the hill or the penannular enclosure. The charcoal manufacturing pit had been abandoned with a thick layer of charcoal within the pit, and a parallel with a similar feature at Hardwood 3, Co. Meath suggests the possibility that the kiln was damaged rather than simply abandoned, perhaps by water (Carlin 2008, 101). The re-interment of prehistoric burial remains into the top of the ruined pit may have been a termination deposit, similar to those documented at many early medieval structures (O’Sullivan et al 2010, 46-48).

If these interpretations of early medieval farmers re-using re-interpreting prehistoric burial monuments is correct, it raises questions of a potential conflict of views between early Christian church leaders, such as those residing at Lusk ecclesiastical centre or at St. Doolagh's south of Malahide, and the farmstead inhabitants. Would this behaviour be viewed as subversive to a relatively newly established religious order, or would the reinterpretation of 'pagan' monuments be actively encouraged, or known about but ignored, by the religious elite?



A farmstead on the hill 670-875 AD

A complex of archaeological features was situated between the penannular enclosure and the prehistoric monuments on the hill. Charcoal from various features in this complex returned radiocarbon dates of 659-772 (2 Sigma; Poz-93358), 656-853 (2 Sigma; Poz-93369), 694-889 (2 Sigma; Poz-93368) and 772-967 (2 sigma; Poz-93346) and 720-941 AD (2 Sigma; Poz-93358). A sixth date from the complex which returned a date of 1664-1914 & later (2 sigma; Poz-93692) from willow charcoal reflects later post-medieval and modern agricultural activity. The dates suggest occupation in the early medieval period centred on the 8th century AD, with two non-overlapping concentrations of activity spread across an early phase c. 670-760 (two dates; 1 Sigma) and a later phase c.775-875 (three dates; 1 Sigma).



View south from site towards Dublin Bay, Dalkey and the Wicklow Mountains

Unlike the other two prehistoric archaeological features on the site, this complex was not defined by a circular shape. Instead, ditches defined irregular spaces with a wide range of functions, and were themselves used for resource processing. This contrasts with the barrow and circular enclosure, which were sharply and carefully defined by their circular forms. It could therefore be argued that practical requirements rather than symbolic or cultural senses of place were the primary imperative during the construction of the resource processing area.

The complex was centred on a stony natural outcrop situated on a shelf along the hillside slope. A curving ditch (C7) partially encircled this stony outcrop, then extended up the hillside to one of the prehistoric monuments (DU012-032). The linear part of this ditch may have defined a property or field boundary using the prehistoric barrow as a topographical landmark. Where the ditch curved around the stony outcrop, it changed its shape and incorporated a small access point to allow for a person to climb down into the ditch along a gently-sloping ramp. A crude stone wall (C59) was constructed within the ditch at this point. A

similar feature excavated at an early medieval settlement enclosure at Kiltrough (Gallagher 2011, 151) was interpreted as a sluice gate to control the flow of water through the ditch. A similar function seems likely here, whereby the level of water inside the ditch could be regulated to assist with craft processing.

Although this ditch (C7) held and channelled water for resource processing, it also partly defined a semi-circular space (10m by 5m) on the stony outcrop. The straight side of the space was defined by a shallow slot-trench (C97) that stopped just short of the arcing ditch, presumably allowing for an internal bank. The slot trench, which may have held a wooden wall, had a central gap 1.8m wide which probably functioned as an entrance into this space. Three circular pits had been excavated into the base of the arcing ditch just east of the sluice gate, and these could have been kept filled with water. All three also contained charcoal which probably washed in from above.

A number of pits were identified near this area, and further uphill towards the barrow. One of these (C5) contained a high frequency of shells and was partly surrounded by a small slot trench

or gully, perhaps holding up a windbreak. Most of the pits contained frequent charcoal and evidence of scorching, suggesting they could have been used as fire pits. With a little squinting it is possible to imagine a sort of arcing line of pits that could have defined the eastern extent of the resource-processing area centred on the stony outcrop (see map on previous page). Some or all of the pits may have been the remains of kilns, which are typically situated alongside ditches and banks, possibly explaining the pattern seen here.

Five kilns were identified slightly lower down the hillside. Two of the kilns (C212 & C213) were well-preserved and straddled either side of a ditch that may have formed an early medieval field boundary leading from the shell-processing area. The kilns were probably cut into the banks of the ditch, and both were keyhole in shape with drying chambers, baffle stones and flues. Both kilns contained large amounts of charred grains and functioned as corn-drying kilns. Environmental analysis of the grains identified cultivated varieties of barley and oat, and a small amount of wheat, and the similarity between the grain proportions of kilns C212 and C213 suggested they were in use at the same time. A third kiln (C200) contained a slightly different proportion of grains, with fewer oat and wheat and more barley. A fourth (C76) contained barely any grains so was well cleaned out. The high incidence of oat and barley in contrast to wheat in the kilns has been identified at other Irish early medieval sites (Monk, 1986, 33; McClatchie, et al, 2011, 57). The charcoal from kilns C212 and C213

comprised a mixed wood assemblage comprising hazel, wild cherry/cherry, ash, willow and pomaceous woods, which is in keeping with charcoal results from medieval kiln deposits (Lyons et al, 2011; O'Carroll, 2012). Kiln 200 had a different assemblage, comprising hazel and cherry.

The charcoal manufacturing kiln (C204) was a shallow trough 1.6m long and 0.63m wide lined with three carbonised oak planks covered by fire-reddened clay. This feature is paralleled by very similar charcoal kilns from Ardnamullan 1, Newcastle 2 and Hardwood 3 which returns dates of AD 720-1250 (Carlin 2008, 101). No radiocarbon date was acquired for the Malahide charcoal kiln, however a broad late 7th to 9th century date is probable based on the surrounding archaeology. The identification of the wood planks as oak is significant as oak charcoal is commonly identified from medieval charcoal production pits in Ireland and often the only wood present (Kenny, 2010; O'Carroll, 2012). The planks would have been laid in the trough and roasted to remove water, creating wood charcoal which could have been used for metalwork. The fire-reddened clay found on top of the planks probably represents vitrified elements of the turf/clay kiln covering. The abandonment of the charcoal within the pit is paralleled at a closely similar feature on the Hardwood 3 site on the M4, where it was suggested that sudden flooding of the pit towards the end of the process meant that the charcoal was effectively useless (Carlin 2008, 101). Late Bronze Age pottery, flint and a possible cremation in the uppermost fill of the

Panoramic view east from site showing Lambay Island, Ireland's Eye and Howth





charcoal pit could be interpreted as a termination deposit (see previous section) or the collapse into the abandoned kiln of an adjacent prehistoric cremation feature.

A particularly high concentration of marine shell was identified in the ditch which suggests that this space could have been used for shell or shellfish processing using the ditch's sluice gate and series of sunken pits to control the level of water. The excavation as a whole recovered 337 shells in total, of which a third came from the later phase of the barrow on the crest of the hill, a third came from the arcing part of the ditch (C7), and a quarter from a pit (C5) between these two features. The shellfish assemblage was dominated by periwinkles (63%), with lesser amounts of oyster (15%), cockles (11%), and small amounts of clam, razor-clam, limpet, mussel, scallop and whelk (mussel had poorer survival than the other shells, so is severely under-represented here). As well as a source of food, marine shells were sometimes processed to make dyes in the early medieval period (O'Sullivan et al 2010, 139), especially whelks. Twelve whelk shells were recovered from the excavation, of which seven came from this area. The other five whelk shells came from the upper fills of the barrow, which were also probably deposited in the early medieval period.

The animal bone assemblage recovered from this arcing ditch area comprised well-preserved primary butchery waste. The assemblage was dominated by cattle and sheep/goat, as well as pig, horse and dog. These are all domesticated species which would have formed part of a typical diet in an early medieval settlement (McCormick & Murray, 2007) or, in the cases of the horse and dog, would have been domesticated within the settlement.

Although no direct evidence for houses were identified in the resource-processing area, it may have served a residential function. Several of the fire pits could have functioned as hearths, for example. The corn-drying kilns, charcoal kiln, animal remains processing and shell processing all suggest small-scale resource processing activities consistent with what would be required for a single self-sufficient farmstead.

The presence of large volumes of shell in both the resource-processing area and the backfill of the later phase of the barrow monument is interesting. It has been suggested above that the early medieval farmstead inhabitants reinterpreted the prehistoric monument(s) for their own purposes, as demonstrated by the large volumes of domestic residential waste directly comparable to the dated early medieval period waste in the uppermost barrow fill. It has also been suggested that the inhabitants associated the monuments with an old pre-Christian god of the sea, an associated preserved in the local placename of Seamount (Sidhe Manannan - monuments/mounds of the sea god). The density of marine shell from the resource-processing area in comparison to other remains (animal bone, seeds and charcoal are much less well represented), combined with the coastal location of the site, may suggest that the economic well-being of the farmers was primarily dependent on sea-based resources.

The dense marine shell inclusions in both the barrow re-cut and the resource processing area may therefore reflect a conscious association by early medieval farmers between the sea-resources that they depended on, and the earlier monuments that defined their landscape. Perhaps they felt that their reinterpretation of the monuments had some influence over their sea-based livelihoods.

Two fragmentary unburnt human remains were identified on the site: a fragment of skull from a young adult female in one of the early medieval pits near the barrow, and which was dated to 694-889 (2 Sigma; Poz-93368) by Alder charcoal; and an adult left and right femur in the uppermost fill of the barrow mixed in with early medieval refuse. These remains were unburnt, in contrast to the cremated human remains in prehistoric contexts which represented cremation burials. The unburnt human remains in early medieval contexts may represent disturbed or redeposited charnel from Iron Age or early medieval inhumation burials located in the vicinity of the barrow.

In this light, the absence of formal inhumation burials of the Christian tradition and other markers of Christianity on the site warrants discussion. Although human burials do show

up in early medieval settlement sites, they are not common, and overt Christian iconography such as cross-inscribed stones are also rare. Practices which left overt markers of Christian faith often seem to have taken place in specialised ecclesiastical sites, for example at the early medieval ecclesiastical site of Lusk, the round tower of which is visible from the site, and perhaps in the closer holy well of St. Patrick to the east of the site, also on Malahide Hill. Religious practices in both of these locations may have been public and been constrained by communal or elite views on religious norms. By contrast, the reinterpretation of the barrow and the possible termination of the charcoal kiln may reflect the survival of pre-Christian forms of belief and superstition within the private household sphere.

The Post-medieval landscape

A house named 'Seamount' appears at this location on cartographic sources from the early 19th century (Duncan 1821; Taylor 1816). Rocque's map of 1760 marks a walled park on Malahide Hill, with no house, but he does show the Seamount Road. By the mid-19th century Seamount House is depicted on OS maps as a large house with gate lodge, service buildings and landscaped gardens. The original Seamount House burned down and was rebuilt by John Jameson in c. 1904 to a different plan.

The layout of the grounds of Seamount House reflects the archaeological features found during the 2015 excavation in several ways. Two field boundaries to the north of the house, for example, terminate at prehistoric monuments (the parish boundary returns north at mound DU012-032 and the north-south field boundary C27 terminates at the barrow C121). The parish boundary is marked on 17th century maps but may date back to the late medieval period, however the north-south field boundary C27 appears to date to the 18th century based on pottery found within the ditch. In the 19th century a path ran along this boundary from Seamount House northwards to the monument.

The alignment of the earlier phase of Seamount House (as marked on the first edition OS map)

runs north-northwest to south-southeast, mirroring the alignment of the parish boundary further to the north. This axis also passes directly over the stony outcrop that was the focus of the early medieval resource processing area and follows the line of ditch C7.

The first edition OS map depicts four circular features within the Seamount House estate. Two of these on the hillcrest represent the two prehistoric monuments. A third larger feature appears as a circular pathway within a formal walled garden northwest of Seamount House. This feature is the same size and shape as the late Bronze Age penannular enclosure. It is not in exactly the same location, however this may be due to an error by the cartographer, as suggested by the 1910 OS map which shows the remains of the walled garden in a slightly different location than the 1840s map. It is possible that the remains of the prehistoric enclosure survived in the landscape for a thousand years after its abandonment, perhaps as a gentle mound, annular depression or ring of trees, undamaged out of respect or superstition, and was then reinterpreted as a garden landscape feature by the owners of Seamount House.

The fourth circular feature lies outside the archaeological site, to the west of Seamount House. This is a large circle of trees near the entrance driveway some 75m in diameter. Considering that the other three circular features reflect prehistoric monuments, the same could be the case here. Intriguingly, a line drawn from the centre of this circular feature to the

OS maps of Seamount House overlain with excavation findings. Notice how the estate features and field boundaries respect the archaeological remains



barrow monument on the hillcrest (C121) passes directly through the centre of the circular enclosure (C205).

The way in which the Seamount estate reflects earlier archaeological features needs to be understood through changing attitudes to gardens in the 18th and 19th centuries. Perhaps as a reaction to 17th century formal gardens, the aristocratic classes of Ireland adopted a romanticised rural aesthetic in their estate landscapes at this time, as can be seen at Castletown, Carton and Dowth Hall (Fenwick 2013). As part of the new approach, antiquities were frequently appropriated - and indeed created - at strategic points in the estate garden. While aesthetic factors were doubtless important, other considerations may have also been relevant. For example, an analysis of large houses in Kildare has suggested that estates of 'new money', particularly those who made their money from industrialising the landscape, had a greater emphasis on retaining and presenting old monuments than estates belonging to families with long aristocratic pedigrees and deeper local roots (Giacometti et al 2007).

The preservation of the archaeological monuments in the post-medieval landscape at Seamount House can therefore be seen as a process of cultural repossession and appropriation. This is directly comparable to the same processes described above by which the prehistoric monuments were reinterpreted by early medieval farmers. Successive generations of inhabitants at Seamount curated parts of the cultural landscape inherited from previous generations, reinterpreted them for their own needs, and transmitted them to future generations whilst adding something new each time. The archaeological work on this site has revealed a rich and inhabited cultural landscape with links from the prehistoric period through to the early medieval period, into the late medieval period and continuing to the 18th century.

Specialist Reports

All groundworks for the new development (FCC F09A/0015; PL 06F.235190) have been archaeologically resolved. All archaeological features within the areas have been fully excavated by hand and recorded. All artefacts and samples have been analysed. This report presents the final archaeological findings.

Environmental samples were examined by Susan Lyons. Radiocarbon dating was carried out by Poznan Radiocarbon Laboratory. Prehistoric pottery was examined by Eoghan Grogan. Medieval and post-medieval pottery, and one clay pipe stem, were examined by Antoine Giacometti. Flint tools and a rubbing stone were examined by Sean Sharpe. The animal and human bone assemblages were analysed by Jonny Geber. Shell analysis was carried out by the author.

The specialist reports are included in the appendices.

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