

# **Caherconnell Cashel, Co. Clare**

## **Preliminary Archaeological Excavation Report for 2015 season**



**Licence No: 10E087**

**by  
Michelle Comber**

**August 2015**

**Caherconnell Archaeological Field School**



## Introduction

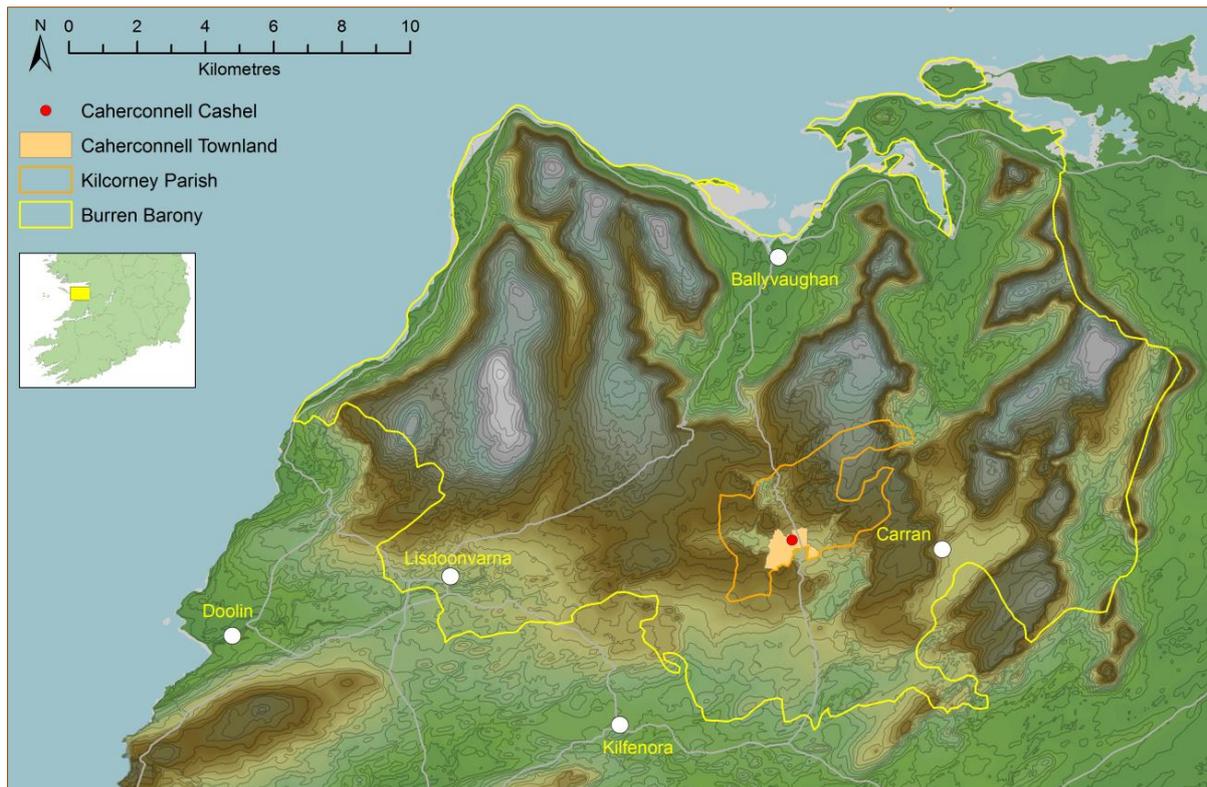
This report documents the preliminary results of the 2015 season of archaeological excavation at Caherconnell Cashel, Co. Clare (NGR 123622 199486, SMR CL009-03010) (Figs 1 and 2). Test excavation in 2007 demonstrated the archaeological potential of this site to address questions of native settlement in medieval Ireland. An international field school, the Caherconnell Archaeological Field School, was established in 2010 to provide a secure source of funding and quality control for research excavation at Caherconnell.



*Fig. 1 Caherconnell (circled), with preserved enclosures and field walls to southwest.*

## Location

Caherconnell Cashel is located in the townland of Caherconnell, Kilcorney parish, Burren barony, Co. Clare (Fig. 2). The landscape in the immediate vicinity is part of the 'High Burren' and is karst limestone. The land is currently used as pasture. The cashel lies at approximately 130m above Ordnance Datum, on the northern slopes of the shallow, but fertile, Kilcorney valley. The valley is ringed by archaeological monuments of various age. Settlement enclosures of probable Early Medieval date (mostly cashels) are situated on the valley slopes, while prehistoric sites (mostly megalithic tombs) can be found on the highest points in the area (including Poulabrone to the north, and Poulawack to the south). Caherconnell cashel is one of four drystone enclosures in the townland of that name, and is located to the immediate west of the R480 road that links Leamaneh and Ballyvaghan, a natural routeway through the Burren uplands.



*Fig. 2 Location of Caherconnell.*

### **The Cashel (Fig. 3)**

The enclosure at Caherconnell is a circular, drystone ringfort or ‘cashel’. It measures 42m in external diameter, with walls up to 3m wide at the base and up to 3.6m high.



*Fig. 3 Caherconnell cashel, from northwest.*

The quantity of stone tumbled from the walls suggests at least another metre in original height. The walls are composed of rough horizontal courses of local limestone blocks and slabs, with smaller stones used to fill the gaps between them. Occasional vertical seams are visible along the external face of the wall. The inner face of the wall has been rebuilt in several places – evident in the vertical and angled setting of the replaced stones. Although Westropp noted the lack of any internal wall terraces or steps, it appears that some of the rebuilding and tumble simply masked such features. A narrow ledge does run along the inner face of the wall to the south (and was also identified in some excavation cuttings). This is

approximately 0.3m – 0.5m wide. In addition, a short flight of steps was discovered just inside the entrance during excavations in 2010. The entrance gap is situated on the east of the site, with Westropp recording vertical jamb-stones defining its external edges at the end of the 19<sup>th</sup> century. A modern timber access stairs filled this gap prior to the 2010 excavation and few, if any, traces of the original entrance could be discerned.

The modern interior of the cashel is clearly raised above that of the external ground surface, an average of 0.7m in the difference. Excavation has proven that this is due to a build-up of occupation material within the enclosure. The interior surface is now somewhat uneven, marked by relatively frequent grassed-over stones and other features. The partially grassed-over wall tumble around the circumference of the interior gives it a somewhat ‘dished’ appearance. A number of features are visible above the surface.

#### *Internal Features (Fig. 4 below)*

##### *Dividing Wall*

The interior is divided in two by the remains of a partly grassed-over drystone wall running roughly east–west across the site in a slightly curving fashion. Though the edges of this wall are masked by collapse, it is possible to identify a double-faced wall with a rubble core, approximately 1–1.3m wide where the original width is visible. A maximum of four courses is discernible, though the tumble on both sides would suggest a greater original height. This wall is quite late in date, contemporary with Structure A (the subject of the 2007 and 2015 excavations).

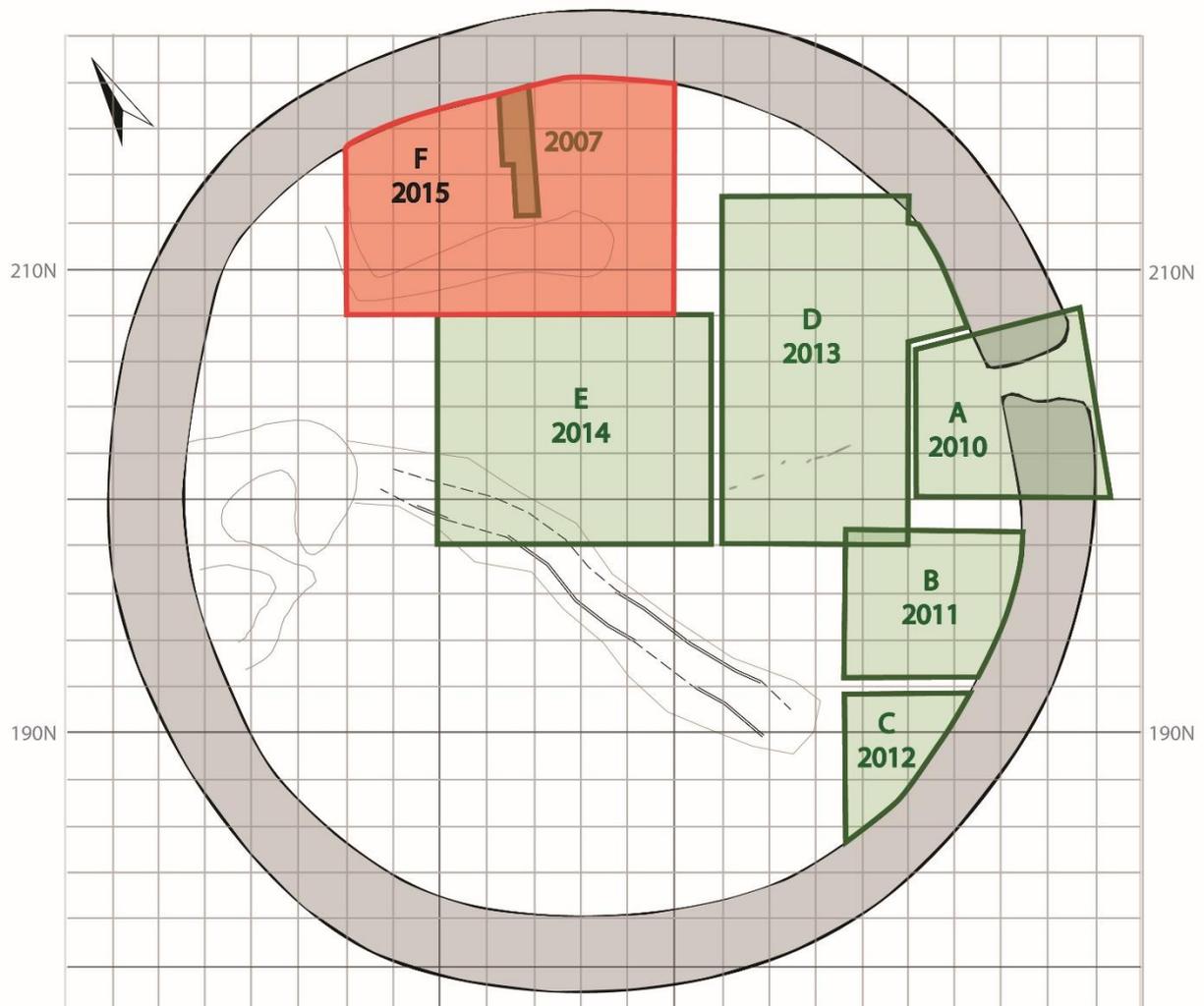
##### *Structure A*

One of two visible internal structures, Structure A is situated just inside the north wall of the cashel, and was the subject of the 2007 and 2015 excavations. Rectangular in plan (with its long axis running east–west), it was defined before excavation by a partly grassed-over drystone wall visible to the west and south, but hidden by cashel tumble to the north, and almost completely denuded to the east. Stretches of original, *in situ*, walling were visible amongst the collapse, particularly along the south side wall. Here, the wall had an internal and external facing of contiguous limestone slabs set on edge. The grassed-over nature of the area between the faces prevented the positive identification of a rubble core or horizontal coursing. The original width of the wall reached a maximum of 1.2m, and 0.25m in surviving height. Internally it measured roughly 10m by 5m. Prior to excavation its relationship with the cashel wall was uncertain. The small 2007 excavation showed that Structure A was free-standing rather than keyed into the cashel wall, had opposed doorways near the eastern end of the structure, had a limestone mortar floor and was likely to have been constructed and occupied between the early 15<sup>th</sup> and early 17<sup>th</sup> centuries (Comber and Hull 2010).

##### *Structure B*

Structure B is built up against the west wall of the cashel. It is sub-rectangular in plan, with its interior divided in two by a rather flimsy drystone wall. Internally it measures approximately 7.5m by 5m. Its north wall forms part of the dividing wall running across the site and it is difficult to separate the two visually as this section of the wall is covered with vegetation. Up

to six horizontal courses are extant on this side. The remaining eastern wall is not very substantial. The walls are much collapsed and partly overgrown, perhaps explaining the difficulty in positively identifying an entrance or entrances. The most likely position of such is along the eastern length of wall. The entire structure appears rather late.



*Fig. 4 Survey of Caherconnell, with excavation cuttings marked (2015 Cutting F in red).*

#### *External Features, Caherconnell townland*

A number of non-modern features can be seen in the immediate vicinity of Caherconnell cashel, particularly to its south and southeast. Closest to the cashel (just east of its entrance) is a small, partially grassed-over cairn of large stones. This measures approximately 2.5m in diameter and 1m in height. The possibility of a prehistoric burial mound or covered well cannot be ruled out. To the north of the cashel lies a small, sub-circular barrow, 11m by 14m in diameter, of probable Late Bronze Age or Iron Age date.

The 2008/9 focus of test excavation was a doline (Fig. 5), a natural sink-hole, located approximately 20m southeast of Caherconnell Cashel (08E0535). Attention was drawn to this geological feature by limited visible remains of what appeared to be a partially collapsed stone chamber. Excavation, however, unearthed a much greater range of evidence than the visible remains suggested.



*Fig. 5 Backfilled doline – modern posts mark prehistoric post-holes on left, medieval structure on right.*

The earliest activity within the sheltered doline was associated with a rectangular house defined by post-holes, with an internal stone-lined hearth. The house is of Early Bronze Age date. Prehistoric artefacts from the excavation included a fragment of a possible saddle quern, polished stone balls/marbles, a sherd of Neolithic pottery, and thousands of pieces of worked chert (the local substitute for flint) of both Neolithic and Bronze Age type. Also recovered, though possibly reflecting slightly later activity, was a small assemblage of Middle Bronze Age pottery. Anna Brindley has suggested that this may represent the remains of Middle Bronze Age/Late Bronze Age flat cemetery that once existed in the vicinity of the doline, though she does not rule out the possibility of the pottery having served a domestic function (pers. Comm.).

The stone structure partly visible prior to excavation was revealed as a circular chamber built against two walls of the doline. The chamber's walls (at least 1m thick) probably originally rose into a corbelled stone roof, judging by the quantity of collapsed stone found in the interior of the structure. A wide entrance gap led into a 2m-diameter chamber that contained a pit filled with semi-articulated animal bones, and some scattered preserved grain. The discovery of a medieval bedding mortar at the base of the wall, in conjunction with a small assemblage of medieval artefacts and some radiocarbon dates, suggest a medieval date for the, as yet unique, structure. It may have been built by the adjacent cashel dwellers, perhaps as a store (explaining the wide entrance, bone and grain remains, and lack of occupation evidence or hearth within the chamber).

The final event revealed by excavation within the doline was the placing of human remains within the partly silted up entrance of the medieval structure (Fig. 6). The remains comprised



disarticulated bones of at least three individuals, largely those of an adolescent though missing most of the long bones.

*Fig. 6 Human remains from doline.*

The bones were radiocarbon dated to the 15<sup>th</sup>/16<sup>th</sup> century AD, a time when a branch of the ruling Gaelic O'Loughlin family was living in the adjacent Caherconnell cashel. It seems likely that the remains were accidentally disturbed

elsewhere, sometime after the 15<sup>th</sup>/16<sup>th</sup> century, and redeposited in the doline. Perhaps part of an ancestral cemetery of the O'Loughlins was uncovered by farm or building works at a time when it was no longer marked or known as a burial place. The now missing long-bones could have been wrongly identified and discarded as animal bones. However, once a human skull was encountered, the remaining disturbed bones could have been gathered together and simply placed in what was then a convenient hole in the ground.

Caherconnell cashel is one of four drystone enclosures in the townland. Lisnandrom is the westernmost of the four, measuring 28m in diameter. It sits on top of a low inland cliff, with conjoined structural foundations located at the foot of that cliff. Situated between Lisnandrom and Caherconnell are two possible boulder burials and miscellaneous other features. Due south of the main cashel are more extensive remains, comprising a circular cashel, a sub-square drystone enclosure, ancient field walls, routeways, and smaller house-like enclosures scattered about the area (Fig. 7). An old route-way also skirts Caherconnell and runs off to the south-southwest.



*Fig. 7 Circular and square enclosures south of Caherconnell cashel.*

The sub-square enclosure is the focus of a Royal Irish Academy-funded research excavation, directed by the author (10E119). Excavation occurred during the summers of 2010, 2011, and 2012. Three definite structures, lengths of yard wall, and the original entrance were all investigated. Finds included quantities of animal bone, hazelnut and sea shells, metalworking slag, chert and flint lithics, stone axes, iron tools, bronze dress-pins, glass beads, bone artefacts, stone tools, quernstone fragments etc. Initial radiocarbon dates have provided a 7<sup>th</sup> to 9<sup>th</sup>-century AD date for much of the activity. Questions remain over the site's shape, size, entrance orientation and prehistoric artefact assemblage, questions that are currently being addressed by post-excavation analyses.

### **Research framework**

The excavation at Caherconnell was designed to reveal information on the site itself, to integrate the monument into a wider study of the archaeological landscape currently being undertaken by the author and colleagues in the Department of Archaeology, NUI, Galway, and to provide students with hands-on training in archaeological excavation.

The study of archaeological landscapes is becoming increasingly popular in Ireland and elsewhere. Recent work by Billy O'Brien, Liam Hickey and Nick Hogan on the Beara peninsula, Co. Cork, has revealed the potential of such work in an Irish context (O'Brien 2009). The Beara studies (at the Barrees Valley, Cloontreem and Ardgroom) mapped extensive archaeological landscapes that survived in the valleys and along the lower slopes of an upland region. These surveys, and some excavation at Barrees, revealed much about past human activity in these areas, and suggested what the landscape may have looked like in other areas where such remains have not been preserved. The Burren, with its extensive preserved remains, should, at the very least, provide similar information for the west of Ireland.

Some landscape survey has been undertaken in the Burren. The first attempt at landscape mapping was completed by Blair Gibson as part of his doctoral thesis studying the chiefdom of *Tulach Commain* and the archaeological remains in the area of Cahercommaun, to the southeast of Caherconnell. Gibson's survey, however, was not an electronic one and did not record the same density or detail of surviving remains (Gibson 1990). A more recent digital survey in the area was carried out by Carleton Jones of NUI Galway, at Roughan Hill to the southeast. This work had a prehistoric focus, but did incorporate archaeological remains of all periods in its survey (pers. comm.). Christine Grant, with the aid of the Burren Beo Volunteer Trust, is currently mapping remains in the townland of Kilcorney, to the southwest of Caherconnell.

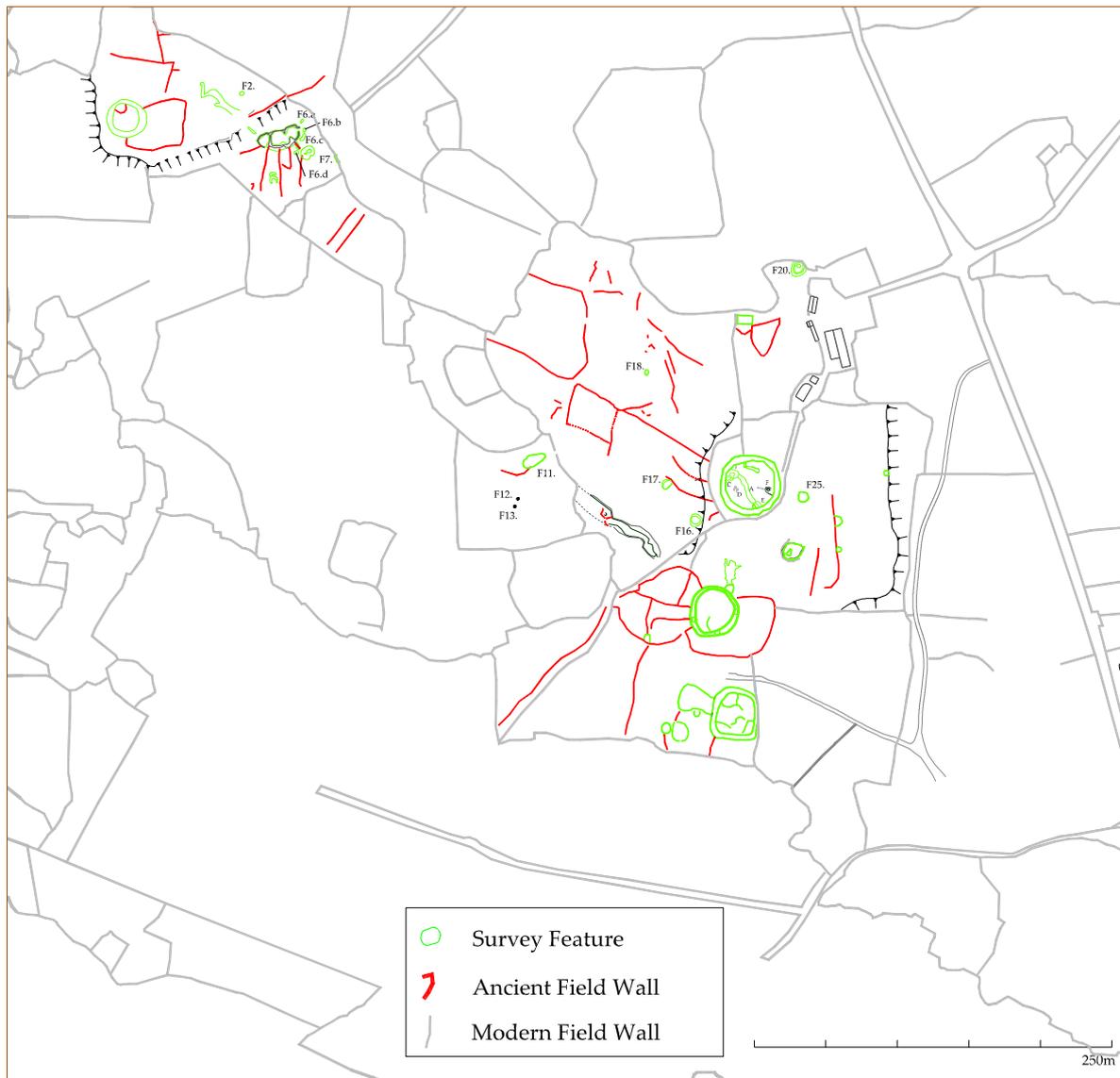
Elizabeth Fitzpatrick of NUI, Galway has recently commenced a study of the later medieval estates, residences and schools of the Gaelic professional classes, including those of the Burren. One of the main foci of her work is the Cahermacnaghten estate of the O'Davorens, a minor gentry family who were keepers of legal manuscripts and teachers of law in the lordship of Burren. In addition to mapping the archaeological remains in the area, the project has undertaken three seasons of excavation in the vicinity of Cahermacnaghten in a search for chronological and functional evidence (funded by the Royal Irish Academy). Excavation

targeted a well-preserved stone building called *Cabhail Tighe Breac* (that may have served as a medieval school building), a possible outhouse structure, and a small possible dwelling house (pers. comm.).

Also relevant to this excavation at Caherconnell, is the survey work of the author; a study of the cashels and associated remains in a study area extending south from Caherconnell as far as Kilfenora, east to Carran and Cahercommaun, and southeast to Leamaneh. This project, *Ringforts and the Settlement Landscape of the Burren in the First Millennium AD*, commenced in 2005 and was funded by the Heritage Council of Ireland. It marked the start of a study of the settlement landscape of the first millennium AD in a chosen study area within the Burren, Co. Clare. The area in question incorporated the shifting political boundaries of *Corcomruad* territory. The first year saw the analysis of data from all relevant monuments within the study area, numbering approximately three hundred extant sites (mostly cashels, raths, enclosures and ecclesiastical remains). This analysis revealed that many of these settlements were deliberately sited to best exploit the most fertile farmland in the area, a not uncommon tendency in this period (Comber 2005). It also suggested, however, that some settlement may have been strategically positioned with regard to communication strategies and territorial politics. Caherconnell is one such site, positioned as it is at one end of a major north-south pass through the Burren mountains (still used today by the two modern roads, the N67 and R480).

More recent work has seen the detailed digital survey and mapping of a preserved archaeological landscape located between the large cashel of Ballykinvarga to the south of Caherconnell, and Leamaneh castle to the southeast (Comber 2006). Extensive field systems and enclosures were recorded in this area, with the area of study expanded through the examination of vertical aerial photographs. Elements from various periods of the past were identified, reflecting the continued use of this zone throughout prehistory, the Early Medieval period, and the medieval periods. These included at least ten different forms of field wall, individual fields, small enclosures, larger settlement enclosures, tracks and roads, cairns, tombs and castle remains. Most of the extant material, however, *appears* to date from the Early Medieval period.

The next, logical step in this study was the acquisition of scientific dating evidence from as many parts of this landscape as possible, from cashels, small enclosures, ancient field walls etc. When the opportunity to excavate at Caherconnell arose, a third phase of survey was undertaken in advance of excavation (Comber 2008). This mapped, in 2d (Fig. 8) and 3d, multi-period archaeological remains in the townland of Caherconnell, including three circular cashels, a sub-square enclosure, field walls, a barrow, boulder burials, house sites etc. These features are now the focus of the Caherconnell Archaeological Project, a project that involved test excavation undertaken by volunteer archaeologists (07E0820 and 08E0535, see summary above), full-scale research excavation funded by the Royal Irish Academy (10E119, see summary above) and the Caherconnell Archaeological Field School (10E087, subject of this report and previous reports on 2010-14 excavations).



*Fig. 8 Survey of Caherconnell townland.*

### **Excavation aims and methodology**

The 2010 to 2015 excavation seasons are part of a programme of excavation that is intended to examine as much of the cashel interior as possible. This programme will be funded by the Caherconnell Archaeological Field School, led by a team of highly-qualified professional archaeologists (directed by the author), and accredited by NUI, Galway. The field school was established in response to the potential demonstrated by the initial test excavation in 2007. This demonstrated the wealth of preserved archaeological material and its importance for the study of continuous native Gaelic settlement throughout the Early Medieval and Medieval periods. The only way to ensure ongoing funding and consistent high quality for such a significant undertaking was the establishment of an international field school. It is hoped that these excavations will help identify the archaeology of the native Irish in the medieval period, a period largely dominated by Anglo-Norman archaeology. They should, in addition, reveal much of the native way of life in a changing world.

Following submission of a method statement and licence application, a licence to excavate was granted to Graham Hull by the National Monuments Service of the Department of the Environment, Heritage and Local Government, in consultation with the National Museum of Ireland in 2010. The licence was transferred to Michelle Comber in 2012 and extended for 2013, 2014 and 2015. The licence number is 10E0087.

The 2010 (cutting A) and 2011 (cutting B) excavations were focused on the cashel entrance and the internal area to the immediate southwest (Fig. 4). The entrance was targeted first, to facilitate the removal of wooden steps that provided recent visitor access to the cashel interior (the site having its own visitor centre). This improved access for the excavation team and less mobile visitors to the site. The 2012 excavation (cutting C) was situated immediately south, and adjacent to, cutting B from 2011. It measured 7m by 5m (maximum), being defined by the cashel wall on two ‘sides’. Grassed-over possible structural remains were visible in this area prior to excavation. The eastern end of the wall dividing the cashel interior did not run cleanly up to the cashel wall. Rather, roughly 5m from the cashel wall there was a gap followed by the apparent splitting of the wall into two raised ‘banks’ with a sunken area between (see Figs. 4 and 9). It was uncertain which, if either, of these might represent a continuation of the dividing wall. The hollow between them measured roughly 4m by 1.5m, and up to 0.5m deep. It contained partially grassed-over large stones and slabs, some of which were in a horizontal position with voids visible beneath them – all caused by a modern animal burial. Writing at the end of the nineteenth century, Westropp (1899, 375) described this area:

*The earth is divided by a long wall running north-west and south-east; at its northern end are two house sites, one 30 feet long, and at its southern an enclosed hollow, possibly a hut or souterrain.*

It was impossible to determine, prior to the excavation of Cutting C, whether or not this part of the site represented a souterrain or some other feature.



*Fig. 9 Cutting C before excavation.*

Excavation in 2013 comprised a cutting (Cutting D) measuring 14m by 8m (with a 5m by 3m extension on the northeast and a 1m-wide extension along the north, Cuttings D1 and D2, respectively) located immediately west of Cutting A from 2010 (the entrance cutting). It was designed to target the continuation of the slab pathway (context 10) first identified in 2010, the path running between the entrance and centre of the enclosure, and a flat open area to the north with no features visible above the modern ground surface. Several pathways, post-holes and other features were uncovered.

Cutting E was excavated in 2014, located closer to the centre of the cashel, immediately west of Cutting D from 2013. It measured 10m x 12m. It uncovered the continuation of the slab pathway leading to/from the entrance, the continuation of path Context 66, a length of the wall dividing the cashel interior in two, and two structures – an early circular one, and a later rectangular example.

2015's Cutting F targeted the house first investigated in 2007, situated just inside the north wall of the cashel. It was designed to test the 2007 findings, to follow path Context 66, and to search for the return wall of the rectangular house identified in 2014. It was located immediately inside the north wall of the cashel, running up to that wall. The cutting measured 14m east-west, and ranged from 7.2m to 10.5m north-south (depending on the curve of the cashel wall). The archaeological layers ranged from approximately 0.4m (on the south) to 2.2m (against the cashel wall) thick, extending from the sod and tumble right down to the bedrock.

The strip between the cashel wall and the north wall of the 15<sup>th</sup>/16<sup>th</sup>-century house (1m wide maximum) was left largely unexcavated for safety reasons (the cashel wall reaching over 3.5m in height along this stretch, punctuated by at least one large hole, and repaired in places). The upper cashel-wall tumble (22) was removed to reveal the house walls, and a slot trench dug through this material to confirm the stratigraphy recorded elsewhere within the cutting and the cashel. The 2007 trial trench also cut through this material, running right up to the cashel wall. The findings of the 2015 slot trench mirrored those of 2007. Tumble, topsoil and archaeological features and deposits within the cuttings were hand-excavated sequentially. The excavation concluded at the surface of the underlying bedrock. A full written, drawn and photographic record was made in accordance with the Caherconnell Archaeological Field School Excavation Guidelines (2015) and the NMI Advice Notes for Excavators (2010).



*Fig. 10 Field School students.*

The fieldwork took place over three months in June, July and August 2015. The excavations were directed by Michelle Comber, and supervised by Noel McCarthy (licence eligible) and trainee supervisor Pat Cronin. The excavation teams were composed of students from the field school (Fig. 10 etc.) – Amelia Green, James Derr, Madeline Younce, Susan Frank, Rebeca Thornburg, Jamison Lerner, Cassandra Canniff, Jacob Buckholz, Rebecca Reed, Maria Vidrine, Bridget Strang, Hazel Arroyo, Deirdre Gloster, Sara Best, Jenny Sacher, Joseph Normandy, Ian Schmidt, Danyelle Springer, Thomas Johnke, Maddie Beadle, Patrick Hulbert, Amy Kato, Dominic Halliwell, Gary Cothran, Corinne Watts, Antonio West, and Katelyn Canez.

Archaeologically significant contexts (feature fills, occupation layers etc.) were wet-sieved on site to recover small artefacts and ecofacts (principally small bone fragments, Fig. 11). Due to the training nature of the field school, a metal detector was also employed to check the spoil. This exercise revealed very little, demonstrating the effectiveness of on-site supervision and sieving.



*Fig. 11 Wet-sieving in the field next to the cashel.*

### **Artefact strategy**

All stratified and unstratified artefacts from the current season were retained. These have been numbered and recorded in accordance with current National Museum of Ireland guidelines. Artefacts from 2010 to 2014 have now been fully catalogued (using the NMI artefact database). All finds will be treated, stored and conserved in accordance with *Advice Notes for Excavators* (NMI 2010). Post-fieldwork conservation services are provided by a recognised IPCRA conservator (Susannah Kelly, UCD). The artefacts will be temporarily stored in NUI,

Galway and the Caherconnell Archaeological Field School, and will be deposited with the National Museum of Ireland in due course. In addition, an artefact project was launched in 2015 to train local BurrenBeo Conservation Volunteers in the methods of artefact recording (Fig. 12). It is hoped that these volunteers will assist with future artefact processing.



*Fig. 12 BurrenBeo volunteer learning to draw artefacts.*

### **Excavation results**

Thirty-nine new context numbers were allocated in 2015, bringing the total number of contexts recorded thus far to 156. These include numbers for the cashel (01), cashel tumble (02, 05, 06, 22, 24), the sod and topsoil (03, 04), and the bedrock (00).



*Fig. 13 Field-school students recording contexts.*

A total of eight archaeological phases have been identified to date, six of which were clearly evident in 2015. These are described below in stratigraphic/chronological order. It can be stated with a high degree of confidence that these phases date to the early-medieval, medieval and post-medieval periods. It is hoped that further relative dating (artefact typology) and absolute dating (radiocarbon) will facilitate refinement of this stratigraphic sequence.

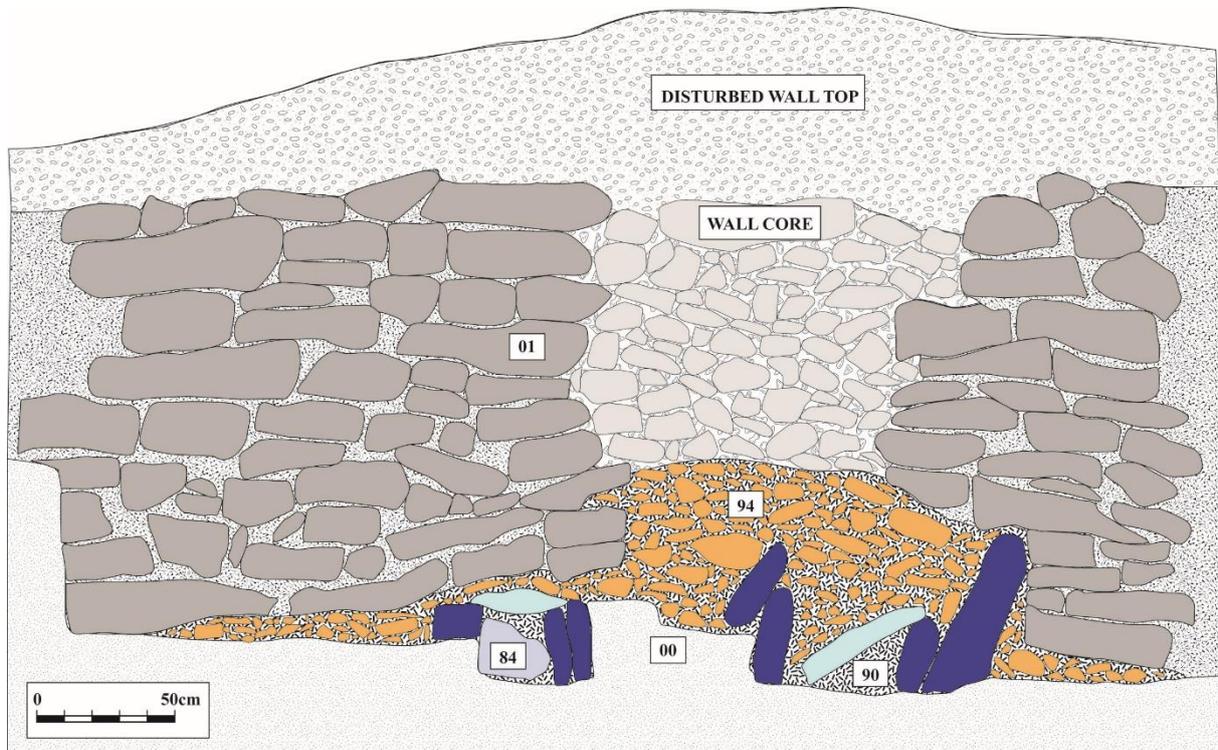
Within Cutting F, the limestone bedrock (00) was karstified and was characterised by frequent shallow grykes or fissures orientated approximately north-south and averaging 0.07m in width. A prominent quartz vein ran along a gryke towards the middle of the cutting. The surface of the bedrock was relatively level, though uneven, throughout (Fig. 14). The bedrock was exposed when the cashel was built, with no trace of an old ground surface/soil cover.



*Fig. 14 Bedrock in Cutting F.*

### Phase 1: Early Medieval Pre-cashel Activity

Evidence of this phase was uncovered in Cutting D1 in 2013. It comprised a low burial mound covering two cists containing the remains of two infants and an elderly woman, all dating from the late 6<sup>th</sup> / early 7<sup>th</sup> century AD (Fig. 15). No features of this date was identified in Cutting F.



*Fig. 15 Section of burial mound and cashel-wall elevation.*

### Phase 2: Early Medieval pre-cashel Activity

So far, this phase is represented by a rock-cut fire-pit excavated in 2011 (Cutting B). Bone from the pit was radiocarbon-dated to the second half of the 7<sup>th</sup> century AD. No features of this date were identified in Cutting F.

### Phase 3: Levelling and Construction

Cuttings A – C, and this year's Cutting F, showed that the cashel wall (01) was built directly on the limestone bedrock (00). The only deviation from this occurred along the top of a small number of shallow grykes that appear to have had small stones used to fill them (56/37) – before the cashel wall was built over their tops. In Cutting D1 the cashel was built partly on bedrock and partly up over the top of the Phase 1 burial mound.

Immediately over the bedrock within the cashel was a very compact deposit (37) of small stones (0.02–0.07m maximum dimension) in a white to grey sand and gravel matrix. This deposit was used as a levelling material to create a flat, level surface. The deposit was seen in patches across the 2015 cutting, up to 0.10m thick. The upper levels of the context contained occasional fragments of animal bone.

In cuttings B, C and D1 the inner face of the cashel wall showed two distinct styles of construction. The bottom metre comprised relatively thin slabs of limestone laid in fairly regular horizontal courses, a well-built wall with few gaps between the slabs. This bottom metre was mostly below the modern ground surface and, therefore, somewhat protected. Above this the stones are generally shorter and thicker, with only the occasional large slab used. There are also more gaps between the stones. The different nature of the upper stones may relate to the difficulties encountered in raising large slabs as the height of the wall increased, and the gaps between stones are perhaps due to exposure to early modern human and animal activity. There remains, of course, the possibility that the cashel wall was built and/or altered at different stages – though it may not be possible to determine whether or not a chronological gap of any significance occurred between stages.

In Cutting F, the same general pattern of stone use was noted in the cashel wall (Fig. 16). A 0.2m – 0.35m-wide ledge originally ran along the inner face of the cashel wall, approximately 1.5m above ground level. Part of its length was masked by early modern rebuilding of the wall in Cutting F, where the rebuilt upper section of the wall sat flush with the inner face of the lower portion of the wall – effectively ‘filling’ the ledge for a length of approximately 5m. At roughly 2m below the current top of the wall, this ledge did not provide a view out over the wall. No trace of an upper ledge was identified. Its function may have been related to the construction of the wall.



*Fig. 16 Cashel wall in Cutting F, after removal of tumble (22).*

#### Phase 4: Early occupation (Fig. 19)

Overlying the levelling layer (37) was a definite occupation layer (36) [(102) where it occurred beneath house (100), see below]. This deposit (up to 0.10m thick in places) was a grey-brown, moderately compacted silty clay with frequent small to medium stones (0.05-0.11m maximum dimension). Regular charcoal, some charred hazelnut shell, slag, a

considerable quantity of animal bone, and a variety of artefacts were recovered from this deposit.

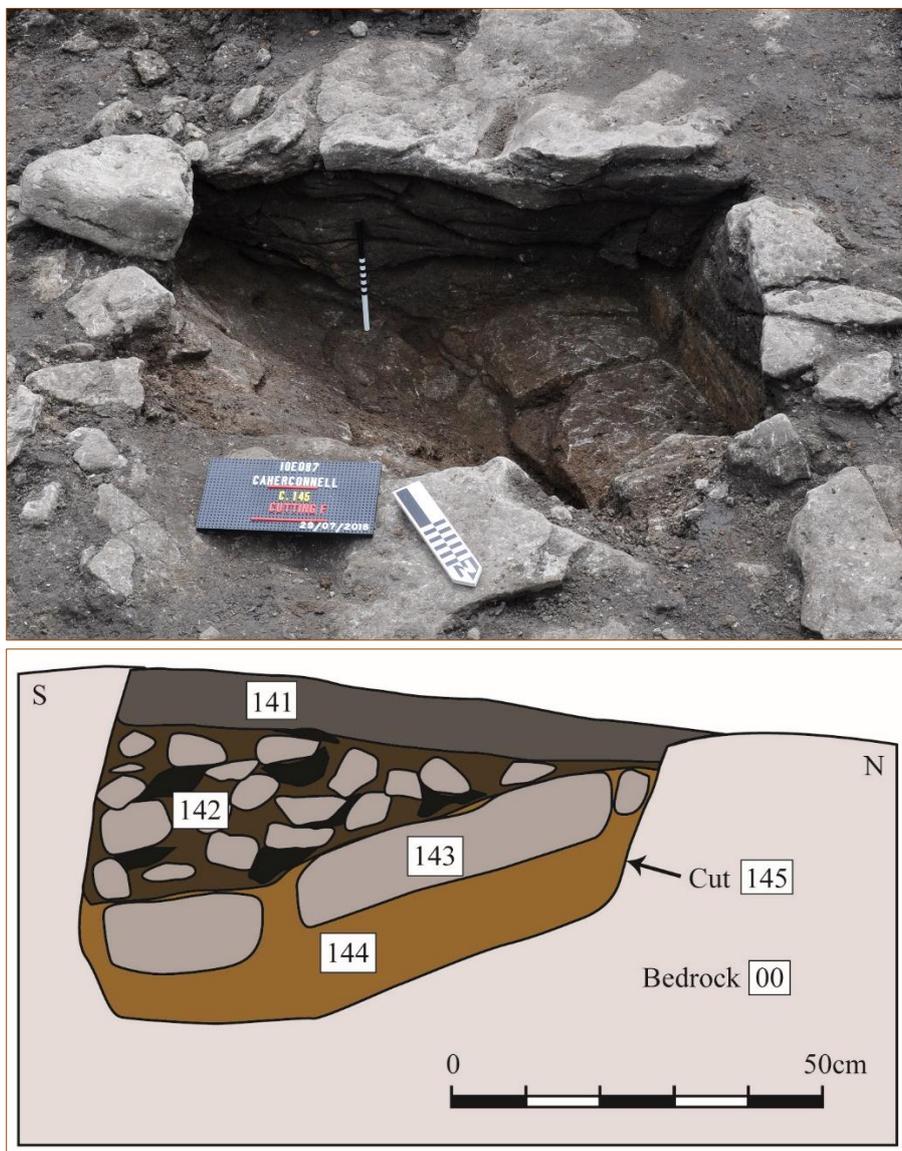
This occupation layer accumulated around the foundation of a circular house situated in the centre of the cashel, partly excavated in 2014. In Cutting F, early features included three post-settings (Fig. 17) and a rock-cut pit (Fig. 18). The three post-settings formed a shallow arc, with 0.7m between the northernmost and middle example, and 1.5m between the southernmost and middle example. The northernmost comprised five pieces of sub-rectangular or sub-triangular limestone set on edge, forming the vertical sides of a post-hole set into the top of a gryke (151). Oval in shape, the hole had a relatively flat bedrock base, and measured 0.2m by 0.25m, 0.44m maximum depth. It contained a light-brown silty clay with four small-stone inclusions, occasional charcoal flecks, and small animal-bone fragments in its upper 10cm (150). The middle post-setting comprised a sub-square arrangement of four limestone pieces on edge, with two ancillary packing stones on the east side, all set into a gryke (153). Its sides were vertical, and bedrock base relatively flat. It measured 0.13m by 0.24m internally, and 0.5m in depth. The fill was a soft mid-brown silty clay containing rare charcoal flecks, small animal-bone fragments throughout, and a fragment of burnt sandstone near the base (152). The third posthole comprised a setting of five limestone pieces placed on edge within a gryke located in the southeast corner of Cutting F (155). The west side of the setting was formed by bedrock. The setting measured 0.59m by 0.52m, and 0.43m in depth. It contained a mid-brown silty clay with occasional charcoal flecks and animal-bone fragments (154).



*Fig. 17 Post settings 151 and 153.*

The rock-cut pit comprised a rectangular cut in the bedrock (145), with three vertical sides and a 45-degree sloping side on the east. The base was partially formed by this sloping side, and a flat, level section or step. None showed any signs of heat or fire. The cut measured

0.82m north-south by 1.2m east-west, and 0.55m in maximum depth. Its basal fill comprised an orange-brown sandy silt with a maximum thickness of 0.2m (144). A piece of animal bone was recovered from its base, sitting on the bedrock. Above this were ten large limestone slabs (up to 0.5m maximum dimension) (143). Sitting atop the slabs was a very stony layer containing frequent voids, with stones measuring between 0.1m and 0.2m in maximum dimension (142). The uppermost fill consisted of a dark-brown silt with frequent large pieces of animal bone and heat-fractured limestone, and occasional burnt sandstone (141). Up to 0.08m thick, this material is very similar to the overlying 11<sup>th</sup>-century occupation layer (16). The bulk of the fill comprised slabs and stones apparently dumped into the pit as a deliberate act of filling, to bring it level with the surface of the bedrock. The silt at the base represents a more gradual accumulation. The function of the pit is uncertain, though it clearly did not operate as a fire-pit or furnace of any description. If lined with an organic material, such as leather, it could have held liquid, foodstuffs, or even refuse that was easily emptied/removed.



*Fig. 18 Rock-cut pit after excavation, section drawing.*

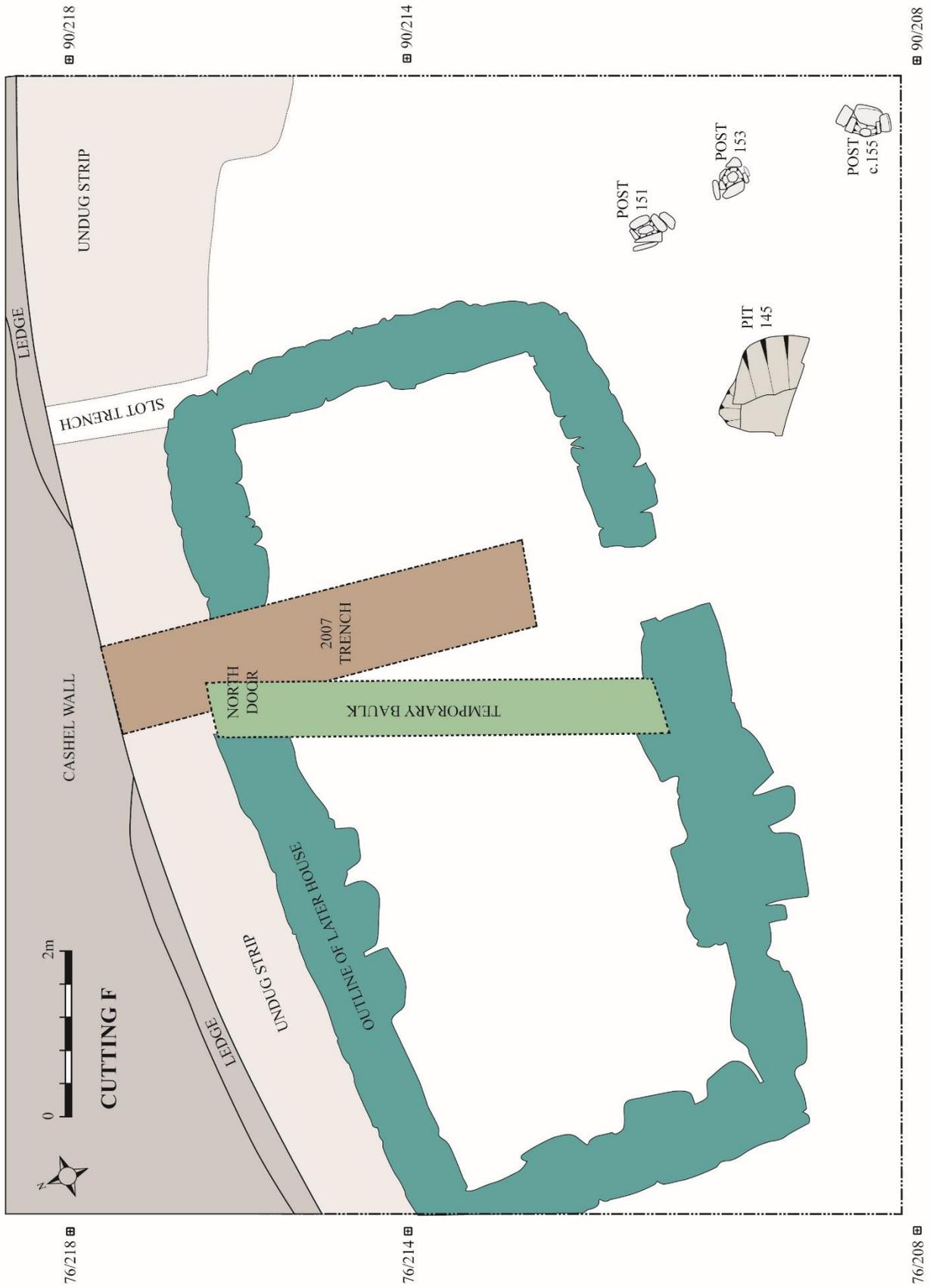


Fig. 19 Early occupation contexts/features.

Phase 5: Middle occupation (Fig. 20)

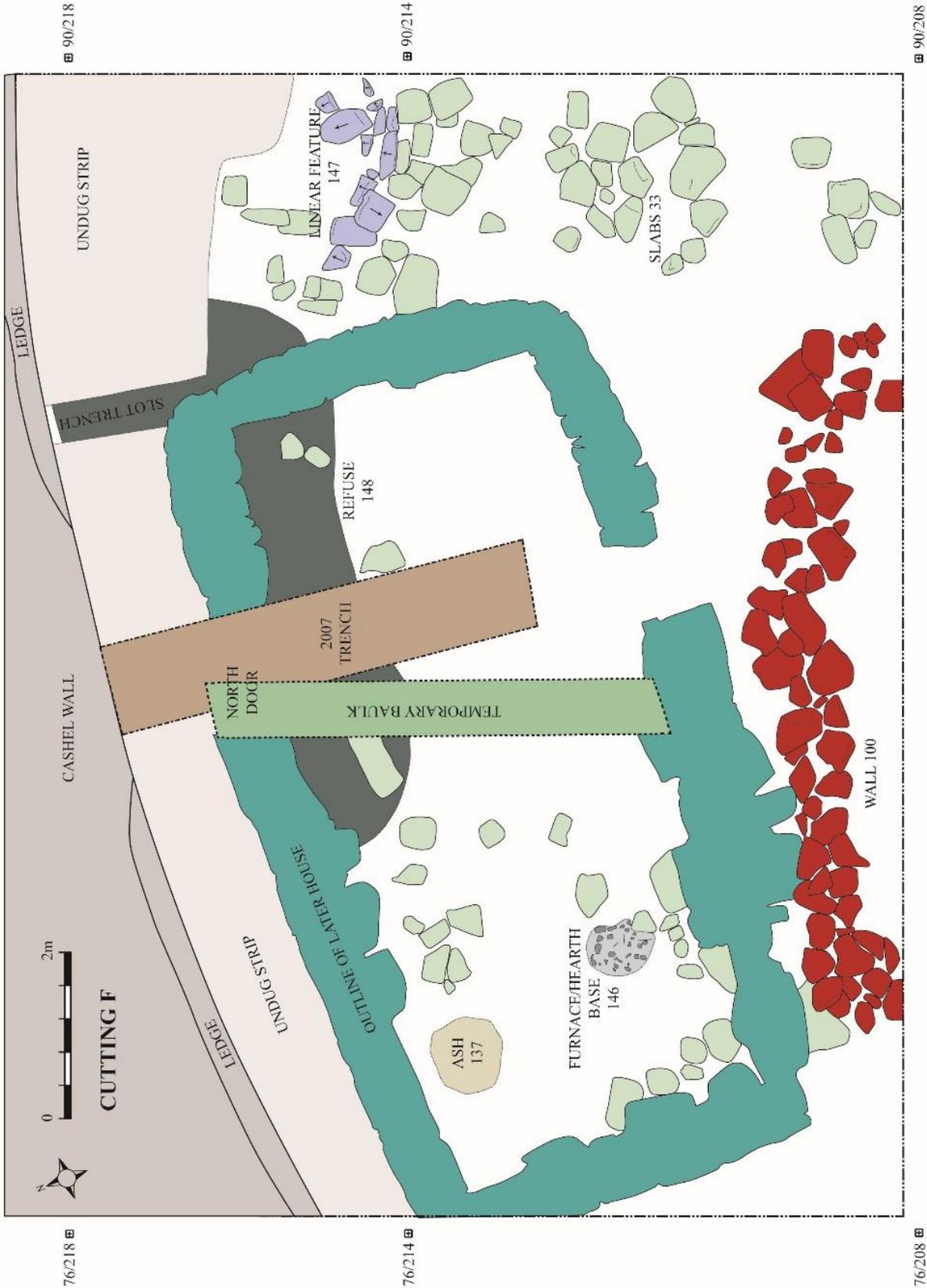


Fig. 20 Middle occupation contexts/features.

The start of the next phase of occupation is marked by the deliberate laying of a slab surface across parts of the cutting, the space outside the house from this phase (see below). This, lower, slab surface (33) was originally relatively well constructed from irregularly shaped limestone slabs, measuring up to 1.2m in maximum dimension. Later subsidence of organic material beneath it, and pressure from heavy stone-laden contexts above caused the shifting of some of the slabs from their original flat, level positions. In places of high bedrock, the slabs often run up to it, forming a level surface with the bedrock. Elsewhere they seal the earlier occupation material (36) – always resulting in the formation of a level surface. The slabs did not occur within the house (100), suggesting they were laid at roughly the same time the house was constructed. Both slabs and house occur at the same stratigraphic level, on top of occupation material (36/102). Several features were associated with this slab-surface level, being constructed on top of (33) or on top of (36) where no slabs were present – the wall of a sub-rectangular house (100), occupation deposits (101, 148, 16), a linear stone feature (147), and a metalworking area (137, 146).

The basal course of the north wall of the sub-rectangular house first excavated in 2014 (100) was located within Cutting F. Running relatively straight, east–west, it comprised a double line of flat limestone slabs, turning at its northwest corner to run into the south section of Cutting F at 80E/208N (Figs 20 and 21). Its northeast corner was missing, probably due to its position directly outside the door to the later 15<sup>th</sup>/16<sup>th</sup>-century house (see below). The wall measured 6.4m east-west, averaged 0.85m wide, and survived to a maximum height of 0.2m. It was constructed on top of the earlier occupation material (36/102) and occasional patches of high bedrock. The excavation of this wall puts the overall dimensions of this house at 7m by 9.5m.



*Fig. 21 House wall (100).*

The same general occupation layer (101) that covered the interior of the house in 2014 was also identified in Cutting F. This comprised a moderately compacted mid- to dark-brown sandy silt with regular small-stone inclusions (0.03 – 0.09m maximum dimension), up to 0.08m thick in places. It contained regular animal-bone fragments.



*Fig. 22 Surface of occupation layer (16).*

Covering the slab surface and/or the early occupation layer (36) outside the house was an occupation layer (16) (equivalent of 101 inside house 100), up to 0.16m thick (Fig. 22). This mid- to dark-brown silty clay contained metalworking slag, regular charcoal inclusions, frequent stones (0.01–0.15m maximum dimension) and animal bone, and many finds of iron, bronze, stone and bone. An extensive spread of charcoal-rich dark-brown silt was located at the base of (16) in the northeast corner of the cutting (148). Measuring 2.7m by 2.6m, and up to 0.2m thick, it contained frequent large pieces of charcoal, both burnt and unburnt animal bone, and patches of light-grey/cream-coloured ash. It represents a deposit of domestic refuse.



Constructed on top of occupation layer (36) was a linear arrangement of two rows of stones set on edge, also located in the northeast corner of the cutting (147). Eight limestone slabs comprised the setting, with the stones now tilted inwards, resting on each other (Fig. 23). It measured 0.57m wide at the base, 0.5m in height, and ran for 1.7m within Cutting F, but extended into the eastern section of the cutting. Some possibly fallen slabs at its west end may once have marked a continuation of this feature along the southern edge of the refuse dump (148). The stones may have supported the base of a timber fence, perhaps a revetment/screen for the refuse dump.

*Fig. 23 Linear feature (147).*

Contained within the base of (16), atop (36), were the remains of a metalworking area. A concentrated deposit of highly-fired clay-lining fragments, and some slag pieces, marked the crushed base of a metalworking furnace or hearth in the west of the cutting (146). Covering an area of 0.62m by 0.38m, the feature had been largely destroyed by the later 15<sup>th</sup>/16<sup>th</sup>-century house built over it (see below). A small sub-circular deposit of grey/cream ash and charcoal was found immediately to the north (137), measuring 0.26m by 0.24m and 0.03m thick. A concentration of crucible sherds and slag pieces was found in the general vicinity, supporting the location of a metalworking area in this part of the cashel.

#### Phase 6: Late occupation (Fig. 25)

Sometime after this a second slab surface (28) was laid down on top of occupation layer (16). This, too, consisted of local limestone slabs (0.2m to 1.12m in maximum dimension, up to 0.10m thick), but it appears rougher in construction than its predecessor. Frequent gaps occurred in the surface in Cutting F, with some slabs not lying very flat, and some partly overlapping each other. The surface was best preserved beneath the western half of the 15<sup>th</sup>/16<sup>th</sup>-century house (Fig. 24). Part of this surface, or lying immediately on top of it, was a sub-square slab of limestone, deliberately cut and shaped, measuring 0.62m by 0.58m and 0.01m to 0.05m thick (156). It has two adjacent straight-cut sides, a third bevelled side, and a fourth more roughly flaked and thinner than the rest (Fig. 26). One of the broad, flat, faces is relatively fresh in appearance, however the other is heat reddened and slightly fractured, suggesting its use as a work surface for domestic or craft activity.



*Fig. 24 Slab surface (28) in western half of cutting.*

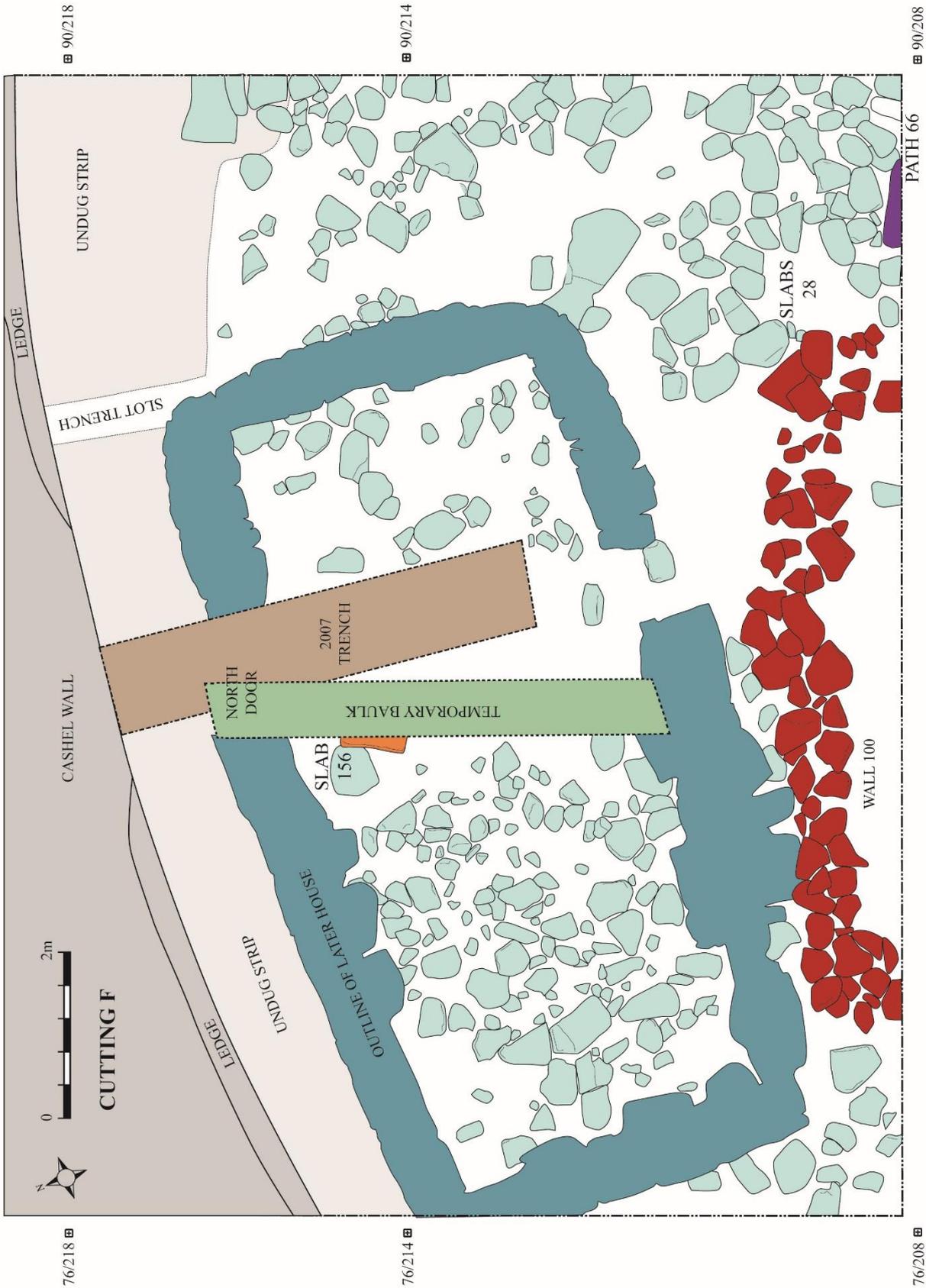


Fig. 25 Late occupation contexts/features.



*Fig. 26 Cut slab (156).*

A relatively level surface was produced, though many areas were damaged by later disturbance and the collapse/settling of lower contexts. Context (28) slabs were not found overlying the earlier house wall (100) or its interior (101) suggesting that it was still in use when the slab surface and associated features were constructed.

The stone path (66/97) excavated in 2014 did not extend into Cutting F, with the exception of one side stone that protruded from the southern section of the cutting. It appears that this path petered out somewhere under the baulk between cuttings E and F. (Fig. 25).

Built up around all of these (house and path) was an occupation layer (25), continuing the stratigraphic sequence identified in previous cuttings. This layer comprised a moderately compact stone and gravel deposit in a brown silty matrix, rich in animal bone. It also contained slag, charcoal, occasional marine shells, and many finds.

#### Phase 7 Final occupation (Fig. 27)

The final human occupation of the cashel is marked by the reconstruction of the cashel entrance (Cutting A, 2010) construction of a rectangular house, House A (trial excavation 2007, and 2015 Cutting F), and a drystone wall (48, Cuttings C and E) dividing the cashel interior in two.

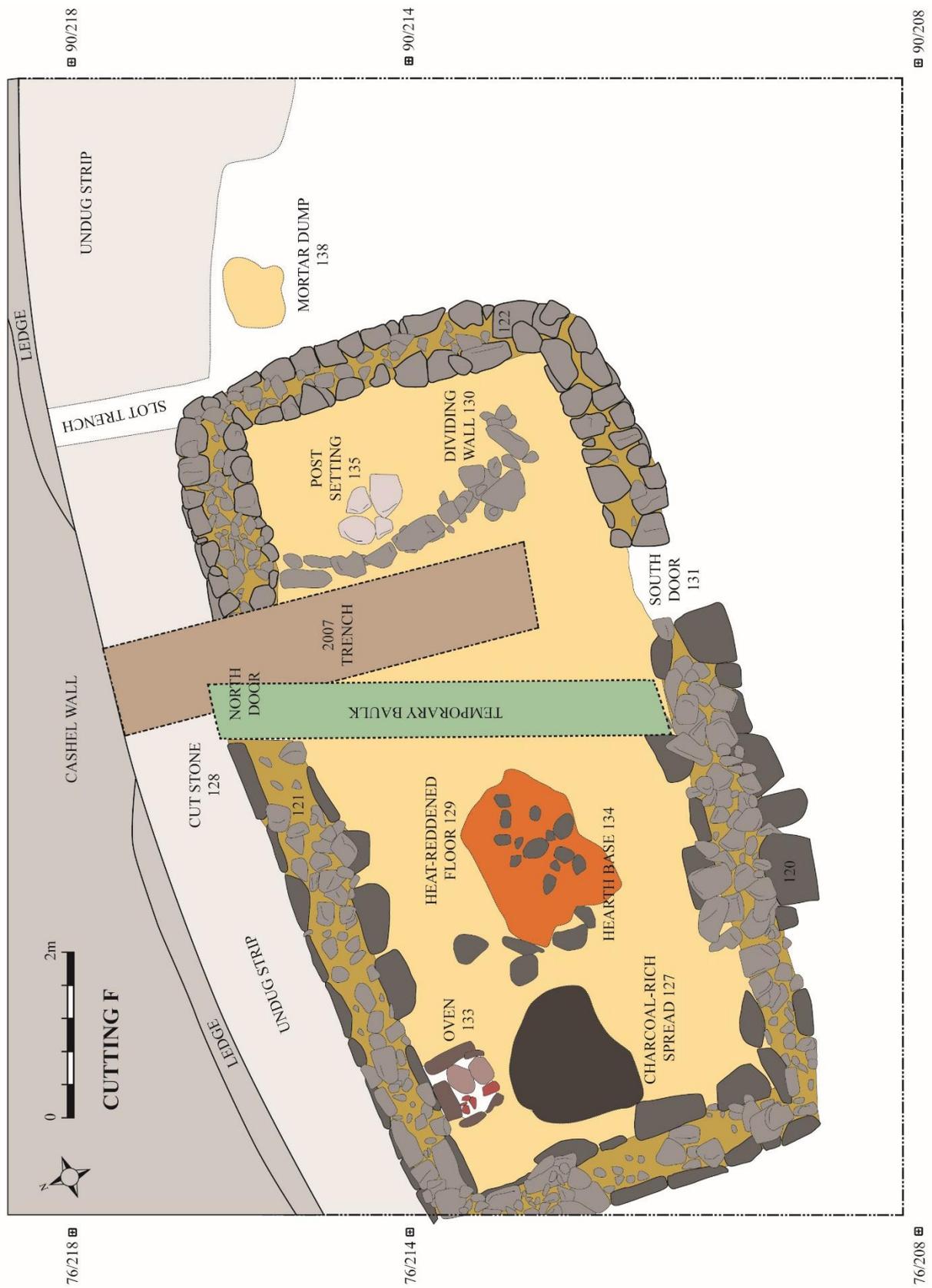


Fig. 27 Final occupation contexts/features.

A new, sub-rectangular, house replaced the earlier Phase 6 house, in all likelihood robbing building stone from the earlier structure (Fig. 28). Situated inside the north wall of the cashel, the house has an almost east-west axis, and measures 3.8m north-south by 8.2m east-west internally (5.4m north-south by 9.8m east-west externally). The house had opposing doorways towards the east end of the north and south walls, an internal division in its east end, a central hearth with adjacent oven, and a deliberately laid lime-mortar floor. Rebuilding of the eastern gable was also evident.



*Fig. 28 House, from northeast.*

The wall of the western two-thirds of the house comprises a double face of contiguous, vertical limestone slabs (120), with a core between (121), and the remains of horizontal coursing above (122) (Figs 29 and 31). Right angles formed the northwest and southwest corners. The wall was best preserved in the northwest corner, where it was protected by a greater volume of overlying tumbled stone from the adjacent cashel wall. The slabs ranged in size from 0.41m to 0.64m high, 0.54m to 0.97m wide, and 0.07m to 0.22m thick. Upon excavation, approximately 50% of the slabs were leaning away from the wall, at angles of between 10 and 80 degrees.



*Fig. 29 Vertical slabs of house wall, change in wall alignment when rebuilt.*

Excavation of a section through the north wall of the house revealed that some of the larger slabs were placed within shallow foundation cuts (Fig. 37). The foundation cut (140) had a relatively straight edge, though its base and side walls were uneven due to the presence of frequent stone in the contexts it was cut through (25 and 16). It measured 0.14m in maximum depth within the wall section. Its fill comprised a mortar-like cream-coloured sandy clay containing five stones that may have acted as packing stones (139). This mortar-like material was identical to that in the core of the wall directly above the foundation cut. The material retained by the wall slabs comprised medium-sized pieces of limestone (0.1m to 0.2m maximum dimension) in a matrix of cream-coloured mortar-like sandy clay that also contained frequent small water-rolled pebbles (0.01m to 0.03m maximum dimension). The limestone pieces were laid horizontally within the matrix, though the matrix accounted for 50% to 65% of the wall core. The matrix was identical to the house floor in composition, however was much softer, lacking the exposure and trampling of the floor material. In the very northwest corner of the house, a small section of horizontal coursing survived *in situ* above the wall slabs and core. Here, a maximum of two horizontal courses sat above the slabs, and partially filled any space between them, caused by their irregular shapes. Only two courses in average width (0.5m to 0.65m), humus (04) from above appeared to have percolated down between the stones.

The eastern third of the house (east of the house doors) was defined by a wall of markedly different construction, and slightly different alignment (Fig. 29). This wall comprises up to six surviving horizontal courses of limestone, with well-built internal and external faces (Figs 30, 31 and 37). A light-brown, sticky sandy clay was used as a mortar to bond the faces and the stones of the core. The core contained up to 40% 'mortar' in places. The wall measured 0.61m to 0.87m in width, and 0.15m (the east side of the southern door) to 0.84m (east side of the northern door) in height. Its northeast and southeast corners were gently rounded externally, and its north and south walls narrowed slightly, making the east gable of the house narrower than the west. This wall partially overlay the lime-mortar house floor that, in the western two-thirds of the house, abutted the wall-slabs, indicating a later date of construction for this part of the house wall. It is generally of sturdier construction to the rest of the house, and may represent a repair to the east gable sometime during the use of the house.



Fig. 30 Coursed section of house wall.

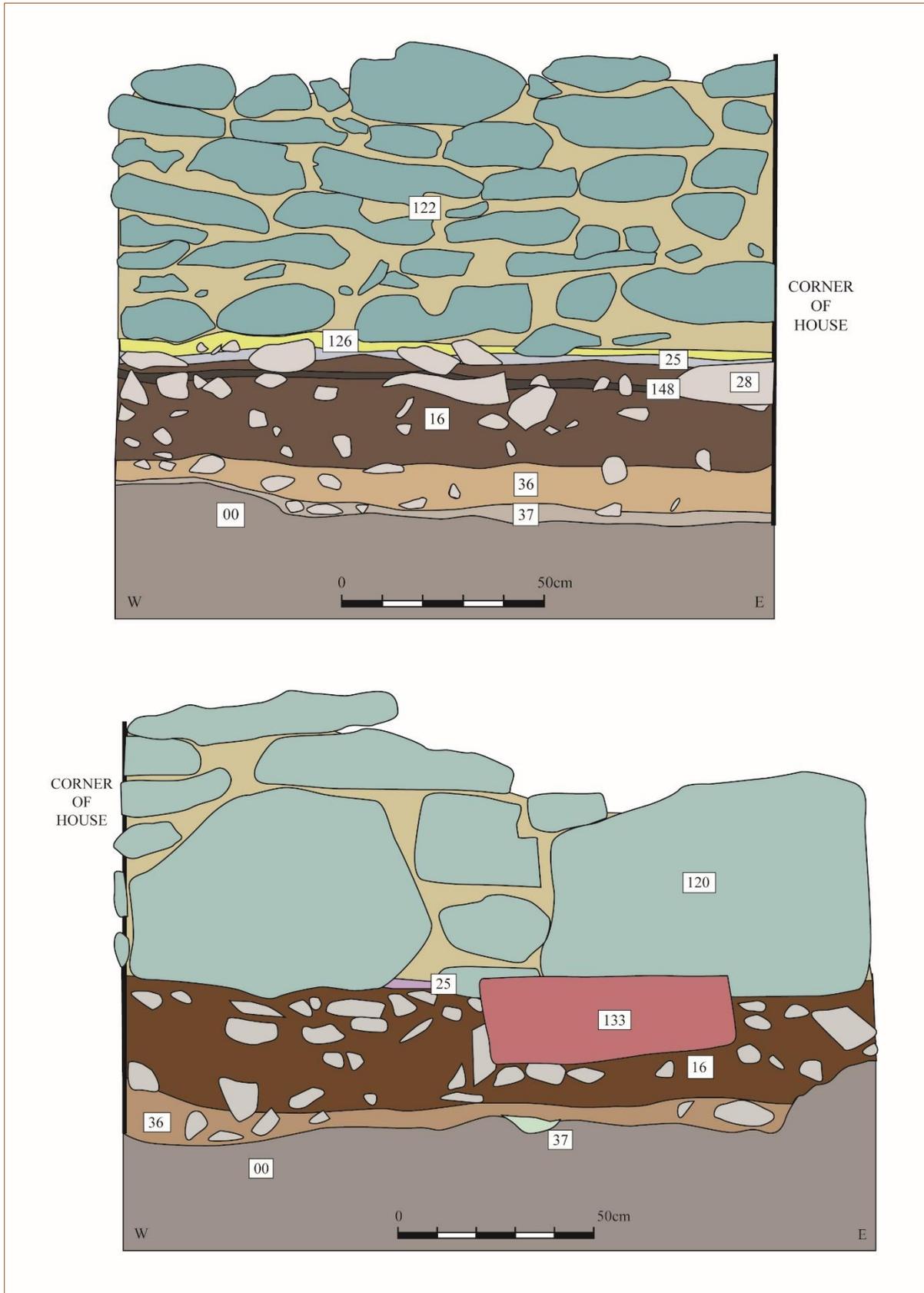


Fig. 31 Elevation of house wall, with section through underlying layers. Top: coursed section northeast interior, Bottom: slab section northwest interior.

The house had two doorways, located opposite each other in the north and south walls, approximately 3m from the northeast and southeast corners of the house. The doorway in the north wall was excavated in the trial trench dug in 2007. Not fully revealed then was a rectangular cut and dressed stone (128) laid horizontally as part of the external slab face of the north wall (Fig. 32). Measuring 0.91m in length, 0.21m deep, and 0.3m high, its east end forms part of the west side of the door in the north wall.



*Fig. 32 Cut stone in house wall.*

The southern example fell within Cutting F (131) (Fig. 33). Much disturbed, this entrance comprised a 0.88m-wide gap, bounded by the original slab-built house wall to the west, and the later coursed house wall to the east. The mortared floor of the house (see below) terminated in a straight line along the inner edge of the doorway, suggesting the original presence of a threshold stone or timber. A large limestone slab lay just inside the entrance, and may have been a displaced threshold stone. In addition, the tumbled stone filling the doorway (123) included an irregular lump of limestone with a cylindrical perforation running through it – an ideal door-support/socket.



*Fig. 33 South doorway, door socket stone.*

The interior of the house was covered by a cream-coloured lime-mortar floor (126) (Fig. 34). This very compact material contained frequent small, water-rolled pebbles, and abutted the wall slabs (120) in the western two-thirds of the house. In the eastern third, it extended beneath the rebuilt coursed wall (122). The thickness of the material varied, being used to level the uneven surface below, ranging from 0.03m to 0.07m. This mortar floor was burnt orange in the central part of the house (129), where it surrounded the base of a stone-built

hearth. This hearth comprised a sub-circular arrangement of medium-sized stones and slabs (0.1m to 0.43m maximum dimension) (134). These covered an area of 1m by 1.1m, and represent the base of a hearth, with the upper levels no longer *in situ*. Four large horizontal slabs occur around the edges, one of which was heat-fractured. Located immediately west of the hearth, on the house floor, was a spread of charcoal-rich silty clay (127). Almost black in colour, it comprised approximately 80% charcoal and contained lenses of pale grey ash. It covered an area measuring 1.74m by 1.45m, and averaged 0.03m thick. The adjacent hearth is its most likely origin.



Fig. 34 House floor (126), hearth and burning (129).

Just to the north of this burnt spread, the remains of a stone-built oven were discovered (133) (Fig. 35). A setting of six limestone pieces on edge formed an open-sided square box set against one of the internal slabs of the house wall (120), its open side being to the south. The base of the feature comprised two large horizontal slabs on the east (both measuring 0.34m maximum dimension), and two heat-fractured and –reddened slabs to the west. A covering



stone was not found *in situ*, but any number of suitably sized slabs were scattered in the vicinity. The feature contained a mid-brown silty clay containing frequent ash, charcoal, burnt and fragmented animal bone, and pieces of burnt stone on the west side. Measuring 0.65m by 0.62m, and 0.21m high, this box appears to have functioned as an oven, with heated stones placed in the west side and foodstuffs on the flat slabs in the east.

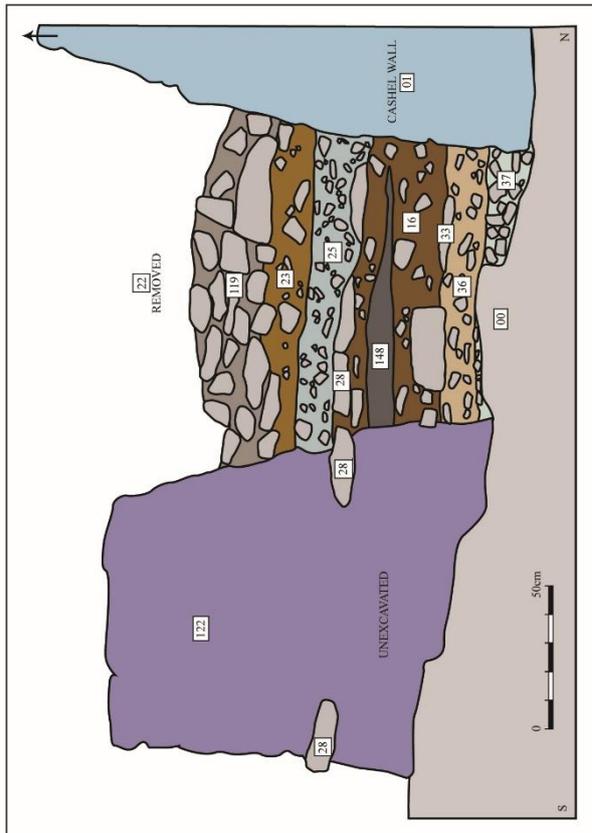
Fig. 35 Oven (133).

The east end of the house – that to the east of the doorways – was separated from the rest of the house by an internal division (Fig. 36). This division comprised a low stone wall and adjacent posthole, suggesting the original presence of a timber screen with low stone wall at its base. The drystone limestone wall was relatively flimsy, comprising one course in width, and two or three in height (130). It ran from the inner face of the north wall for 3.3m before turning east and stopping 0.55m from the east gable wall. It averaged 0.43m in width and 0.3m in height. A stone setting was situated on the eastern edge of the wall. Four flat stones were laid horizontally to edge a sub-square posthole measuring 0.14m by 0.14m, and 0.13m deep (135). It contained a relatively sterile mid-brown silty clay. The purpose of this separate compartment is unknown, though it may have been for sleeping or storage.



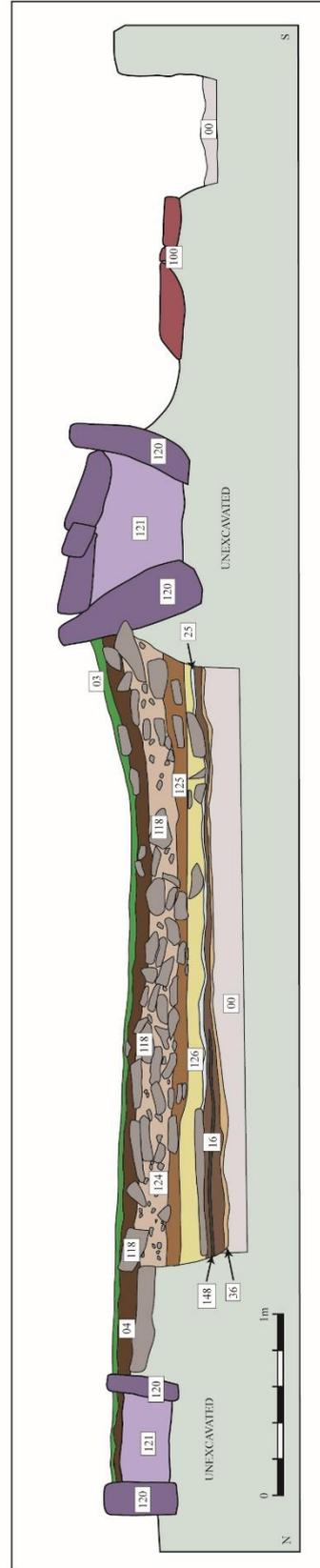
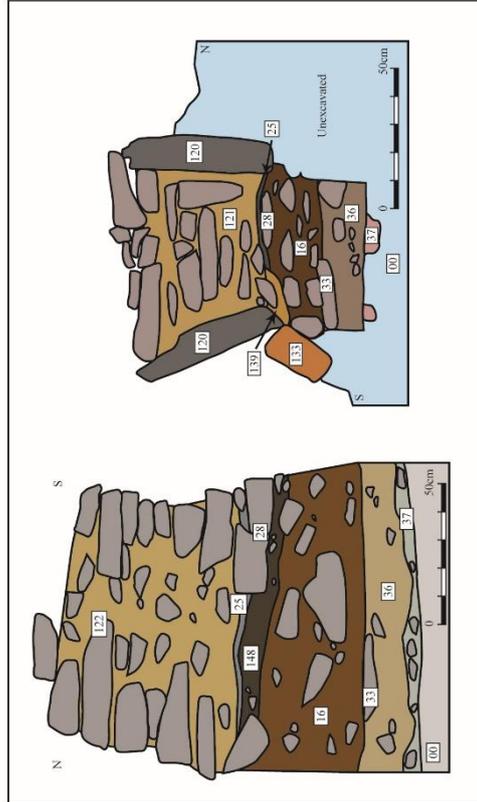
*Fig. 36 Wall (130) internal division, from above, and elevation.*

An occupation layer covered all of these features (125). It comprised a sticky silty-clay, light to mid-brown in colour, 0.05m to 0.11m thick. Moderately compact, it contained animal bone, marine shells, charcoal, and artefacts including a 16<sup>th</sup>-century jeton and two 16<sup>th</sup>-century coins. An equivalent occupation material was found outside the house (23), particularly well preserved beneath stones tumbled from the house and cashel walls. This occupation material comprised a stony deposit in a dark-brown humic-silt matrix, containing animal bone, and with a maximum thickness of 0.3m (outside the southeast corner of the house). When unprotected by stone tumble (see below), context (23) was much disturbed by the later heavy use of the cashel as an animal enclosure, causing much of the layer to be churned up with overlying modern material.



EAST-FACING SECTION OF SLOT TRENCH, BETWEEN HOUSE WALL AND CASHEL WALL

SECTIONS THROUGH HOUSE WALL:  
WEST-FACING COURSED WALL,  
EAST-FACING SLAB WALL



WEST-FACING SECTION OF TEMPORARY BAULK ACROSS HOUSE, EXTENDED TO INCLUDE EARLIER HOUSE WALL, C.100

Fig. 37 Section drawings.

Phase 8 Post human-occupation (Fig. 38)

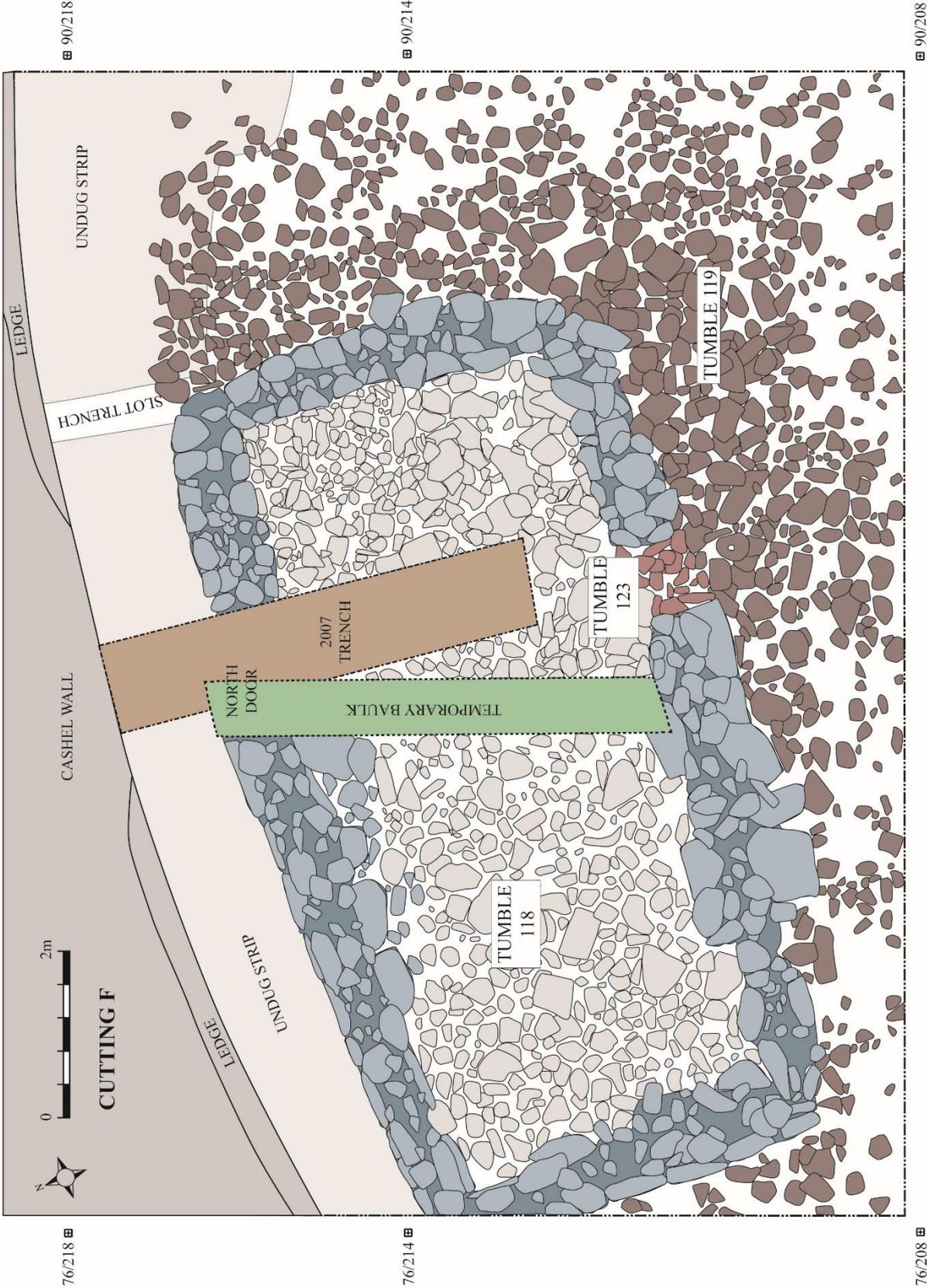


Fig. 38 Post human-occupation contexts/features.

The final layers present in the cashel represent structural collapse, deliberate demolition and/or accidental knocking, probably all related to the use of the site as a stock enclosure right up to the 20<sup>th</sup> century. General tumble from the cashel wall is recorded as context (22). It comprised a loose tumble of limestone blocks and slabs from both the face and core of the wall. The stones were irregular and undressed, with frequent voids between. Approximately 30% of the stones ranged from 0.1m to 0.2m maximum dimension, 50% from 0.21m to 0.3m, and 20% exceeded 0.3m. Several modern animal carcasses were contained within the tumble, which covered the north wall of the 15<sup>th</sup>/16<sup>th</sup>-century house and hid the ledge along the internal face of the cashel wall. This tumble was probably in place prior to the early modern rebuilding of the cashel wall within Cutting F – possibly explaining why the ledge was not respected in the repair work. The tumble ran across the entire length of the cutting (14m), extended from 2m to 4m out from the cashel wall, and ranged from 0.4m to 1.2m thick.



*Fig. 39 Tumble 118 and 119.*

Stone tumbled from the 15<sup>th</sup>/16<sup>th</sup>-century house walls was found both inside (118) and outside (119) the house, as well as filling the door in the south wall (123) (Fig. 39). The internal tumble comprised medium (0.2m to 0.3m maximum dimension) and large (0.3m plus) limestone blocks and slabs, completely covering the house floor. These stones were quite compacted (averaging 0.3m thick), though irregular, probably due to later trampling by cattle. Externally, the tumble was discontinuous, though comprised of similar stones to the internal tumble. It was most concentrated outside the southeast corner of the house, where its upper levels were quite loose. It was 0.7m thick at this point, and possibly too high for animals to trample. The tumble filling the south doorway was very loose, and contained a modern animal burial. This disturbance destroyed any original features of the doorway.

All but the exposed uppermost cashel tumble were overlain by humus (04) and sod/moss (03) that was up to 0.25m thick in places (Fig. 37), reflecting the churning and manuring of the upper levels of the interior during early modern and modern use as a stock enclosure. The tops of some of the house-wall slabs (120) did protrude through the sod/moss, making it possible to trace the line of the western two-thirds of the south wall, and much of the west gable, before excavation.

### **Backfilling (Fig. 40)**

The entire cutting was backfilled and re-sodded, bringing the surface back level with the rest of the cashel interior. As this site is the focus of a visitor centre, an attempt is made to leave certain features visible or marked on the surface – this was discussed with Ann Lynch of the National Monuments Service during a site visit this summer. The house wall (100) was excavated but then restored to a level visible above the modern surface. This drystone restoration follows the line and dimensions of the original wall and can easily be removed at any stage. It does, however, aid visitor understanding of the site, and its representative nature is explained in the site visitor guide (written by the author). The height of this wall was kept low, lower than the other walls of this house excavated and reconstructed in 2014, to avoid blocking the view of the adjacent 15<sup>th</sup>/16<sup>th</sup>-century house. Here, the tilted slabs of the western two-thirds of the house were straightened (having been excavated), and the wall core strengthened (also excavated) to prevent future collapse. The backfilling of the cutting around these walls was low enough to allow them remain visible to visitors. The large volume of cashel-wall tumble that once masked the northern half of the house was not replaced, rather piled to one side (possibly for future removal to the field outside the cashel).



*Fig. 40 Backfilled cutting F, from northeast.*

## **Finds**

A list of finds is given as Appendix 3, the detailed catalogue of 2015 artefacts yet to be completed. Over 150 artefacts were recovered from cutting F, and each can be attributed to one of the phases identified above. Items of stone, fired clay, bone, iron, bronze, and silver were discovered in Cutting F.

Stone artefacts include 9 fragments of rotary querns, two of which were decorated with concentric raised circles and collars (Fig. 41), 2 whetstones (Fig. 42), a rubbing or food-preparation stone (Fig. 42), 7 chert lithics including 3 scrapers (Fig. 43), and 9 flint lithics including a retouched flake and scraper (Fig. 44). Bone was used in the manufacture of composite bone combs (Figs. 45), dress-pins (Fig. 46), and a spindle whorl (Fig. 47). The iron remains vary in form and degree of preservation. They include 12 nails and tacks (Fig. 48), 8 shafts (Fig. 49), 3 fragmentary dress-pins, at least one from a ringed pin (Fig. 50), 11 knives/blades, or fragments thereof (Fig. 51), 3 points including a barbed arrowhead (Figs 52 and 53), miscellaneous objects or tools (Fig. 54), a key, broken shears (Fig. 55), a toilet implement (Fig. 54), 3 sewing needles (Fig. 56), a ring (Fig. 56) 2 hooks (Fig. 56), and various miscellaneous fragments. Bronze items include 7 decorated stick-pins (Fig. 57), 2 clothes-fastening loops, a riveted sheet fragment (Fig. 58), a sewing needle (Fig. 58), a jeton (Fig. 60), and three other fragments/items (Fig. 58). Other materials represented include clay crucible fragments (Fig. 59), a small fragment of a clay pipe, two silver coins (Fig. 60), and a decorated silver finger ring (Fig. 61).

These artefacts reflect something of the activities that took place within the cashel, and the status of its occupants. An assemblage of slag weighing 1955g, the furnace lining fragments weighing 950g, the whetstones, and crucible sherds reflect metalworking in and near the western end of Cutting F (both ironworking and non-ferrous metalworking). It is possible, if not probable, that the metal artefacts recovered during excavation were manufactured at Caherconnell. The range of miscellaneous metal and bone tools were undoubtedly employed in a number of craft activities taking place within the enclosure.

Woodworking is suggested by the presence of iron nails and other tools. Many, if not all, of the stone objects were probably made locally, though (with the exception of possible lithic debitage) there is no definite proof of this. The plentiful supply of raw material, a few partially-worked fragments (from 2011), and a range of finished items (combs, pins, spindle-whorl, bead, possible gaming-piece fragment, points and needles) suggest that bone-working occurred at Caherconnell. In addition, a deliberately sawn/cut section of deer antler (comprising two tines) was uncovered in cutting E. The bone and stone spindle-whorls from cuttings B, D, E, and F, the probable weaving sword from Cutting B, and the sewing needles from Cuttings C, D and F reflect textile production/clothes manufacture, while the quern fragments indicate the processing of grain.

Less ‘domestic’, high-status activities are represented by armour-piercing arrowheads from Cuttings D and E, the barbed arrowhead from Cutting F, the harp-peg from Cutting A (and perhaps the shaft/peg from Cutting E), the gaming piece from Cutting D1 and fragment of

another possible gaming piece from Cutting E. Trade is evident in the presence of bronze, silver, glass and amber at the site, and possibly in the representation of a ship on the whetstone discovered in 2014. The late 16<sup>th</sup>-century jeton and silver coins clearly represent trade, the former having originated in Nuremberg, Germany (minted by merchant Hans Schultes), the latter being English coins of Elizabeth I, and Philip and Mary.



*Fig. 41 Fragments of rotary querns, two decorated.*



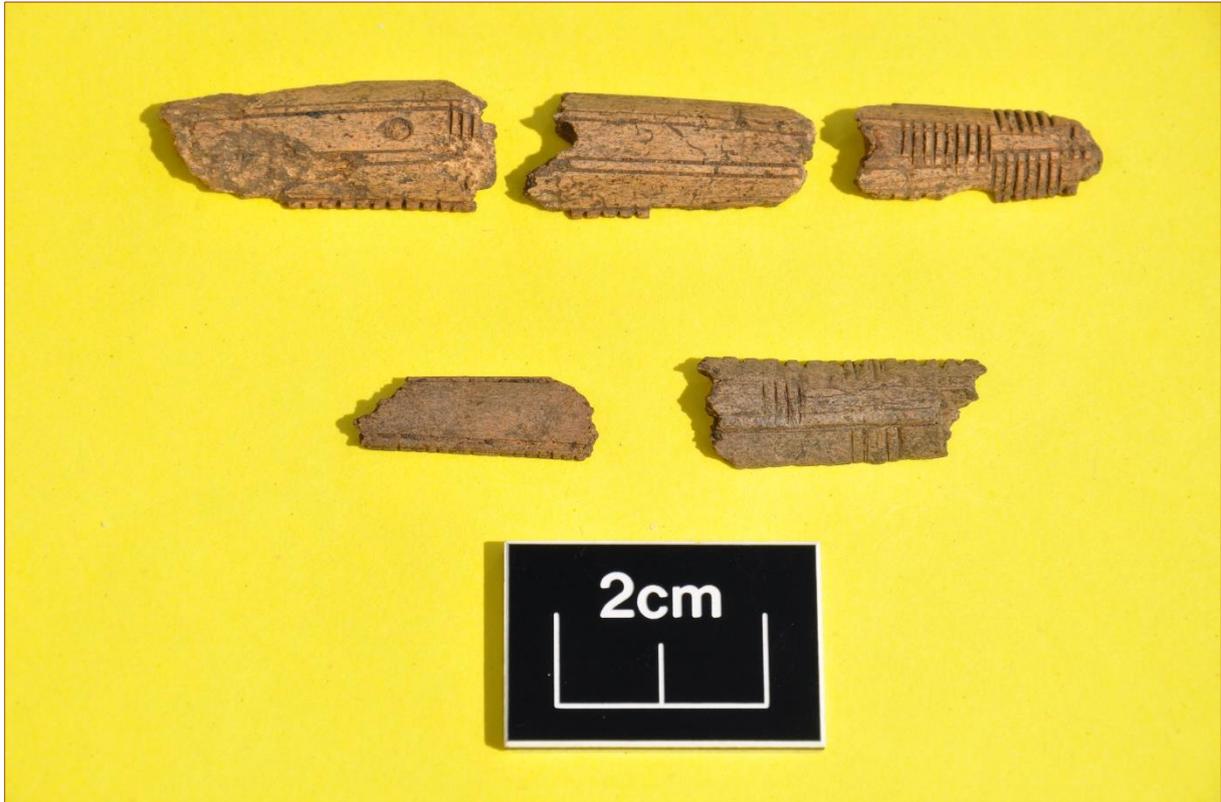
*Fig. 42 Whetstones, rubbing stone, and piece of worked shale.*



*Fig. 43 Chert lithics.*



*Fig. 44 Flint lithics.*



*Fig. 45 Decorated bone-comb fragments.*



*Fig. 46 Bone pin, and fragments of bone pins.*



*Fig. 47 Bone spindle whorl.*



*Fig. 48 Iron nails and tacks.*



*Fig. 49 Miscellaneous iron shafts.*



*Fig. 50 Iron pins and fragments of pins.*



*Fig. 51 Iron knives/blades, and fragments.*



*Fig. 52 Iron points.*



*Fig. 53 Barbed iron arrowhead.*



*Fig. 54 Iron knife, socketed tool, key, and toilet implement.*



*Fig. 55 Iron shears.*



*Fig. 56 Iron needles, ring, hooks, and fitting.*



*Fig. 57 Bronze stick pins.*



*Fig. 58 Bronze awl, shaft, strip, riveted sheet, sewing needle, point, dress loops.*



*Fig. 59 Crucible sherds, including one flat-bottomed (centre).*



*Fig. 60 Jeton (left) and two silver coins, all second half of the 16<sup>th</sup> century.*



*Fig. 61 Decorated finger ring.*

#### **Samples (Appendix 4)**

Bulk soil samples were taken from fourteen deposits, including post-hole fills and charcoal-rich spreads. These will be 100% sieved and floated for charred plant remains and wet sieved for small artefacts and ecofacts. A small collection of charred seeds was recovered during on-site wet-sieving of context (25).



*Fig. 62 In situ scallop shell, miscellaneous shells, washed bone, bone-washing in progress.*

Eight small samples of marine shells, thirty (mostly large) samples of animal bone (Fig. 62), two samples of charred hazelnut shell, and eight samples of charcoal were recovered (Fig. 63). 1955g of metallurgical slag was recovered in 2015 (approximately 22 individual samples), and 950g of furnace lining (Fig. 64). The animal bone and shell will be examined as a single (large) assemblage at the conclusion of the cashel excavations. Charcoal samples are retained for species identification.



*Fig. 63 Burnt hazelnut shell and charcoal.*



Fig. 64 Metalworking slag and fragments of hearth/furnace lining.

## Discussion

### Phasing

Thus far, Phase 1 is represented only in Cutting D1 (2013), by the pre-cashel burial mound, the cists within it, and the human remains preserved inside the cists. No grave goods were recovered. Radiocarbon dating places these burials in the late 6<sup>th</sup> to early 7<sup>th</sup> century AD.

Phase 2 dates to the second half of the 7<sup>th</sup> century so there is only a slight chance of an overlap between phases 1 and 2. It comprises the remains of a fire-pit found in Cutting B. No Phase 2 features were identified in 2015, though it is possible that some of the artefacts could date from this early in the Early Medieval period (i.e. 7<sup>th</sup> century AD) as easily as from the cashel-construction date of the 10<sup>th</sup> century. These include the double-sided hair-comb fragment and the iron ringed-pin fragment (Fig. 65). They may be ‘curated’ objects or, more simply, objects from later in the Early Medieval period when the cashel was built and occupied.



Fig. 65 Iron ringed pin, and double-sided bone-comb fragment.

No constructed features or artefacts were associated with Phase 3 levelling and construction in Cutting F. This was only represented by patches of levelling material (37).

Phase 4 activity, the earliest occupation phase, is marked by the construction and use of the rock-cut pit (145) and three post-settings (151, 153, 155). Definite Phase 4 artefacts, derived from context (36), include iron sewing needles [1051, 1052], and part of a dress pin [1050], parts of bone dress pins [1039, 1048], bone-comb fragments [1056, 1058, 1061, 1062, 1066, 1075], a decorated upper quernstone fragment [1053], a flint scraper [1057], chert scrapers [1060, 1070], a whetstone [1068], and a fragment of riveted bronze sheet [1064].

Features from Phase 5, the middle occupation, include the slab surface (33), the house (100), the linear feature (147), the adjacent dump of domestic refuse (148), and the metalworking remains (146, 137), all covered by an occupation layer (16 and 101). The slab surface appears to have been used to create a more level living surface inside the cashel, levelling off areas of high bedrock. Artefacts from the occupation layer include iron shafts [1029, 1033, 1080], a hook with looped fitting [1032], a pin [1044], knives [1046, 1065], a barbed arrowhead [1071], bone-comb fragments [1027, 1034, 1038, 1041, 1043, 1059], a bone dress pin [1042], crucible sherds [1028, 1030, 1045, 1047], upper quernstone fragments [1036 decorated, 1037], a bronze point [1035], and dress pin [1078].

Phase 6 activity includes the continued use of house (100) and the laying of slabs (28). The slab surface suggests a yard surface that had become muddy and required covering/stabilising in places. The slabs did not occur within the area of the house, reflecting its continued use into this phase. Finds from Phase 6, the late occupation – occupation layer (25) – include iron nails [950, 961 etc.], knives/blades [956, 974 etc.], a buckle tongue [962], broken shears [967], shafts [968, 979, 990, 991], sewing needle [1082], key [1005], points [1009, 1025], socketed blade [1012], ring possibly from a ringed pin [1015], a barbed hook [1016], crucible sherds [946, 952 etc.], flint lithics [948, 958, 1013, 1021], chert lithics [949, 999, 1073], a rubbing stone [964], bone-comb fragments [973, 975 etc.], bronze dress pins [963, 998, 1002, 1004, 1018], shafts [969, 1023], sewing needle [985], and a decorated silver finger ring [1000].

The final occupation, Phase 7, is represented by the construction and use of a new rectangular house to the north (120-2, complete with internal division 130, central hearth 134, and oven 133), and associated demolition/recycling of house (100) walls. The occupation material from this phase (23 and 125) contained iron nails [939, 943, 1076, 1083], a small cylindrical fitting [937], a knife [940], a pin [942], bronze dress loops [954, 955] (Fig. 66), dress pin [945], quern fragment [1069], flint lithic [951], whetstone [959], crucible sherds [941, 957, 960], a late 16<sup>th</sup>-century jeton [933] and silver coins of 1581 and 1558 [936, 938].



*Fig. 66 Bronze dress loops (on right).*

Phase 8 is characterized by tumbled and collapsed stone, from both the cashel wall (22) and house wall (118 and 119). It also saw the burial of animal carcasses in cuttings C, D and F. This phase marks a change in cashel use, from human habitation to animal pen. Finds from post human-occupation Phase 8 layers include a bone-comb fragment [929], a flint flake [930], and quern fragments [927, 935, 926, 928, 934]. Most of these were probably churned up from earlier layers.

### *Chronology*

With a limited number of radiocarbon dates obtained so far, a tentative chronology is all that can be proposed for the various phases identified above (Table 1). Future radiocarbon dates will, no doubt, help refine this scheme. Phase 1 probably represents the earliest evidence so far excavated though, stratigraphically, it is constructed on bedrock, similar to the fire-pit from Phase 2. Phase 2, represented by the fire-pit excavated in 2011, has produced a radiocarbon date in the 7<sup>th</sup> century AD. This feature is cut into bedrock and pre-dates the construction of the cashel by several hundred years. The square enclosure located 100m south of the main cashel was in use between the 7<sup>th</sup> and 9<sup>th</sup> century AD (10E119), its occupants possibly responsible for this early activity.

Phases 3 and 4 saw the construction and initial use of the cashel, with a date of the 10<sup>th</sup>/11<sup>th</sup> century now suggested by three radiocarbon dates. The finds do not disagree with this date, and the identification of two Congals in the records of the late 10<sup>th</sup> century support it (see below). The middle occupation of Phase 5 was also radiocarbon dated to the 10<sup>th</sup>/11<sup>th</sup> century, while the late occupation of Phase 6 produced radiocarbon dates of 11<sup>th</sup>/12<sup>th</sup> century (bone from context 25) and 13<sup>th</sup>/14<sup>th</sup> century (bone beneath slabs of Phase 7 entrance).

## 10E087 C14 dates

<p><b>Phase 1</b></p> <p>c.(92) from 2013, Cutting D1 – Adult female            UBA-24260      cal AD 541-645 (2 sigma, 1.000)</p> <p>c.(86) from 2013, Cutting D1 – Infant            UBA-24261      cal AD 535-649 (2 sigma, 0.972)</p>	<p><b>6<sup>th</sup>/7<sup>th</sup> century AD</b></p>
<p><b>Phase 2</b></p> <p>c.(42) from 2011, Cutting B – lower fill of fire-pit            UBA-18915      cal AD 641-689 (2 sigma, 0.986)</p>	<p><b>7<sup>th</sup> century AD</b></p>
<p><b>Phases 3/4</b></p> <p>c.(65) from 2007, trial cutting – deposit on bedrock            UBA-8564      cal AD 967-1046 (2 sigma, 0.903)</p> <p>c.(37) from 2012, Cutting C – levelling/occupation layer            UBA-24259      cal AD 950-1053 (2 sigma, 0.761)</p> <p>c.(115) from 2014, Cutting E – hazelnut immediately beneath circular-house wall            UBA-27545      cal AD 971-1047 (2 sigma, 0.914)</p>	<p><b>10<sup>th</sup>/11<sup>th</sup> century AD</b></p>
<p><b>Phase 5</b></p> <p>c.(16) from 2011, Cutting B – occupation layer            UBA-18914      cal AD 981-1045 (2 sigma, 0.939)</p> <p>c.(102) from 2015, Cutting E – immediately beneath rectangular-house wall            UBA-27544      cal AD 983-1049 (2 sigma, 0.820)</p>	<p><b>10<sup>th</sup>/11<sup>th</sup> century AD</b></p>
<p><b>Phase 6</b></p> <p>c.(55) from 2007, trial cutting – pre-house occupation layer            UBA-9068      cal AD 1044-1099 (2 sigma, 0.452) and 1147-1210 (2 sigma, 0.401)</p> <p>c.(18) from 2010, Cutting A – under Phase 6 entrance slabs            UBA-18913      cal AD 1285-1326 (2 sigma, 0.419) and 1344-1395 (2 sigma, 0.581)</p> <p>c.(25) from 2011, Cutting B – occupation layer            UBA-18916      cal AD 1075-1155 (2 sigma, 0.673) and 1022-1059 (2 sigma, 0.310)</p>	<p><b>11<sup>th</sup> – 14<sup>th</sup> century AD</b></p>
<p><b>Phase 7</b></p> <p>c.(57) from 2007, trial cutting – structure A occupation            UBA-8562      cal AD 1442-1525 (2 sigma, 0.653) and 1556-1632 (2 sigma, 0.347)</p>	<p><b>15<sup>th</sup> – 17<sup>th</sup> century AD</b></p>

*Table 1. Radiocarbon dates from the cashel  
 (after Reimer, P.J. et al. 2009 Radiocarbon 51, 1111-1150).*

The final occupation layers of Phase 7 have yet to be radiocarbon dated in cuttings A–F. However, the dressed entrance stones, harp-peg and stick-pin from 2010, and jeton and coins from 2015, all suggest a 15<sup>th</sup>/16<sup>th</sup>-century date for this phase, making it roughly contemporary with the 2007 radiocarbon dates for Structure A. All of this suggests a relatively tight

sequence for phases 3 through 7, from the late 10<sup>th</sup> to the late 16<sup>th</sup>/early 17<sup>th</sup> century AD, with no obvious gaps yet visible in the dating evidence (or stratigraphy).

Phase 8 post-dates all of these, dating from the 17<sup>th</sup> century to modern times. Radiocarbon dates are yet to be obtained for these upper layers.

This tentative chronology can be tied to known historical/political events in the area. A 10<sup>th</sup>/11<sup>th</sup>-century date might suggest construction of the cashel by a branch of the Dál Cais (Uí Thoirdelbaig) who were asserting control over the native Corcomruad at that time. Two ‘Congals’ (*Cathair Congal* = Caherconnell) are present in the historical records from this time – one belonging to the native Corcomruad ruling family, the other a brother of one of the imposed Dál Cais kings. Surviving medieval documents indicate that Caherconnell was held by descendants of Uí Thoirdelbaig, the O’Loughlins, right up to the start of the 17<sup>th</sup> century (1607), making the Dál Cais Congal perhaps the more likely of the two placename candidates. It was then briefly held by the O’Briens, before being taken from them by the English in 1641 and given to the Comyns, ‘transplanted papists’ from Limerick (Comber and Hull 2010, 135–7). The end of O’Loughlin (most likely) or O’Brien ownership probably marked the start of Phase 8, the movement away from occupation within the cashel.

## **Conclusion**

Excavations to date clearly demonstrate the significance of this site, and its potential to provide much-needed information on native settlement in medieval Ireland. The recovered evidence points to continuity of native tradition – the incorporation of ancestral burials into the settlement, the deliberate use of a centuries-old native settlement form, the continuation of long-established processes such as metalworking, textile-production and grain processing, and the use of traditional artefact types such as the bone comb and rotary quern. The curious lack of pottery thus far from the cashel excavations reinforces this idea of native tradition. That this may have been a deliberate choice might be implied by evidence that the occupants did have access to non-traditional/‘intrusive’ items, such as the lead shot found in the cashel in 2010, the German jeton and the English coins (14<sup>th</sup> and 16<sup>th</sup> century) found in the doline outside the cashel in 2008, and within the 15<sup>th</sup>/16<sup>th</sup>-century house in 2015. Other items of Anglo-Norman/English/Continental origin could surely have found their way to the cashel if desired by its occupants. If the pottery absence is upheld in future excavations, then it would appear that the O’Loughlins of Caherconnell made a deliberate effort to assert their native tradition in the face of increasing political pressure from beyond their territory.



*Fig. 67 2015 field-school students de-sodding.*

### **Further work**

Artefacts in need of conservation will be x-rayed, cleaned and conserved by a recognised conservator (Susannah Kelly UCD). This process has already commenced, with all metal artefacts excavated to the start of 2015 having been x-rayed and examined by the conservator. With the exception of the nails and a few miscellaneous pieces, all have been conserved, and some of the unconserved pieces have been deemed unworthy of conservation by Susannah Kelly.



*Fig. 68 Head of bronze pin from Cutting D, conserved by Susannah Kelly. (Head: 5mm long)*

The slag and related material will be examined by an archaeometallurgist (probably Dr. Gerry McDonnell who has examined the material from the square enclosure 10E119) at the end of excavation at the site. The animal bone and marine shells will be washed and sent to a zooarchaeologist for reporting (Dr. Emily Murray, QUB completed the analysis of the material from the square enclosure 10E119 / Dr. Fiona Beglane, Sligo IT examined some of the material being excavated on site this summer) at the end of excavation at the site. The flint and chert artefacts will also be catalogued and reported (by Dr. Killian Driscoll who has examined the material from the square enclosure 10E119) at the end of excavation at the site.

Samples (all animal bone) for radiocarbon dating will be selected from the following contexts and submitted to Queen's University Belfast for AMS radiocarbon dating.

Context 37, next to base of cashel wall, on bedrock

Context 144, base of rock-cut pit

Context 125, on floor of house

Context 25, immediately under floor of house, and/or immediately under house wall

A final archaeological report, suitable for editing for publication, will be produced at the conclusion of the cashel excavation. Interim reports/articles will be published, and public talks delivered, during the life-span of the project. Annual preliminary reports are available online via the Caherconnell Archaeological Field School website ([www.caherconnell.com](http://www.caherconnell.com)).

A summary of the findings of the excavation is being submitted/uploaded to *Excavations 2015*.

---

Dr Michelle Comber, MA  
Caherconnell Archaeological Field School  
August 2015

## References

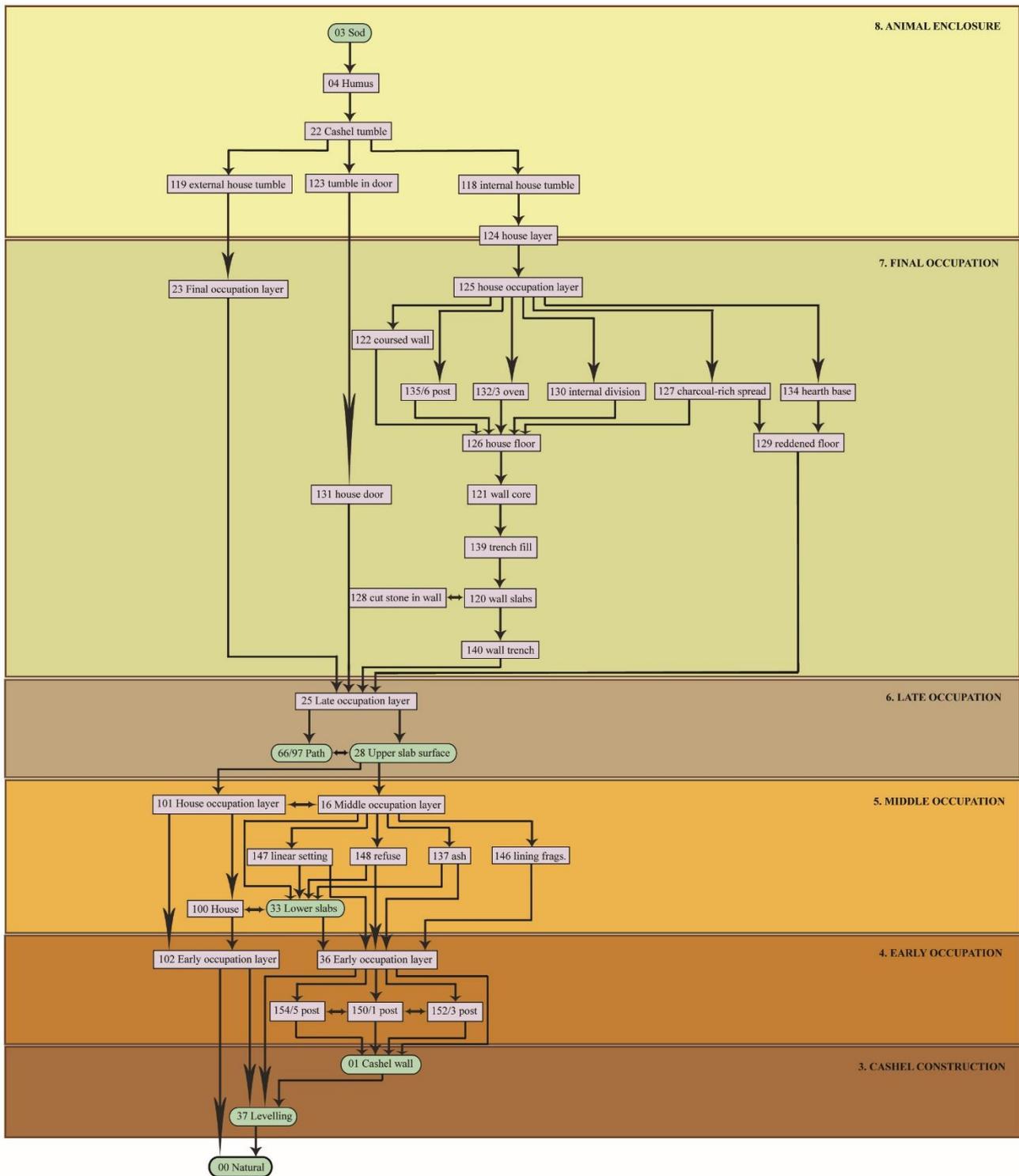
- Comber, M, (ed.), 1999 *Archaeology of the Burren, T.J. Westropp. Prehistoric Forts and Dolmens in North Clare*. Ennis, Clasp Press
- Comber, M. 2005, 2006, 2008 *Ringforts and the settlement landscape of the Burren in the first millennium AD*. 3 volumes. Reports submitted to the Heritage Council of Ireland.
- Comber, M. 2011 ‘Caherconnell, Co. Clare – a cashel of continuous use?’ *The Other Clare* 35, 20–5.
- Comber, M. 2011 ‘Archaeological excavations at Caherconnell.’ *Burren Insight* 3, 25–6.
- Comber, M. and Hull, G. 2010 ‘Excavations at Caherconnell, Burren, Co. Clare. Implications for cashel chronology and Gaelic settlement.’ *Proceedings of the Royal Irish Academy*, 110C, 133–71.
- DAHGI, 1999a, *Framework and Principles for the Protection of the Archaeological Heritage*, Department of Arts, Heritage, Gaeltacht and the Islands, Govt. of Ireland, Stationary Office, Dublin
- DAHGI, 1999b, *Policy and Guidelines on Archaeological Excavation*, Department of Arts, Heritage, Gaeltacht and the Islands, Govt. of Ireland, Stationary Office, Dublin
- Gibson, B, 1990, *Tulach Commáin: A View of an Irish Chiefdom*. UCLA, unpublished PhD thesis. UMI Dissertation Services
- Hencken, H. O' N, 1938, ‘Cahercommaun, a stone fort in County Clare’, *Journal of the Royal Society of Antiquarians of Ireland* 68, 1-82. Dublin
- Hull, G. 2011 ‘A Bronze Age house on the Burren.’ *Archaeology Ireland* 25 no. 3, 11–13.
- Hull, G. and Comber, M. 2008 ‘Caherconnell, Co. Clare, and cashel chronology.’ *Archaeology Ireland* 22, no. 4, 30–33.
- National Museum of Ireland, 2010, Advice Notes for Excavators, unpublished guidelines, National Museum of Ireland, Dublin
- O’Brien, W. 2009 *Local Worlds. Early Settlement Landscapes and Upland Farming in South-west Ireland*. Cork, Collins Press.
- Westropp, T.J. 1899 ‘Prehistoric remains in the Burren, Co. Clare.’ *Journal of the Royal Society of Antiquaries* 9, no. 4, 367–84.

## Appendix 1: List of Cutting F Contexts

No.	Description	Cutting	Grid square	Sample	Date assigned
0	Bedrock	ALL	ALL	-	2010
1	Cashel wall	Multiple	Multiple	-	2010
3	Sod	ALL	ALL	41, 75	2010
4	Humus	ALL	ALL	Multiple	2010
16	Occupation layer	ALL	ALL	Multiple	2010
22	Late tumble from cashel wall	Multiple	Multiple	-	6/11
23	Stony occupation material	ALL	ALL	Multiple	6/11
25	Gravelly occupation layer	ALL	ALL	Multiple	6/11
28	Upper slab surface	ALL	ALL	36	6/11
33	Lower slab surface	ALL	ALL	-	8/8/11
36	Occupation layer	ALL	ALL	Multiple	9/8/11
37	Levelling material	ALL	Multiple	Multiple	11/8/11
66	Early pathway side stones	D, E	88-98/202-6	-	8/7/13
100	House wall	E	80-6/200-6		16/6/14
101	Occupation layer inside house = c.16	E	80-6/202-6	288, 273, 275	16/6/14
102	Lowest layer inside house/pre-house = c.36	E	80-6/202-6	295	20/6/14
118	Stone tumbled from house wall, inside house	F	76-84/210-214	-	5/6/15
119	Stone tumbled from house wall, outside house	F	76-88/208-218	-	5/6/15
120	Vertical slab facing of house wall	F	76-84/208-214	-	5/6/15
121	House-wall core	F	76-84/208-214	389	5/6/15
122	Horizontally coursed house wall	F	76-86/210-214	-	5/6/15
123	Tumbled stone in south doorway of house	F	84/208-210	-	10/6/15
124	Brown humic layer under c.118 inside house	F	76-84/210-214	342, 343	10/6/15
125	Light brown silty clay on floor of house	F	76-84/210-214	344-7, 349-50	11/6/15
126	Lime-mortar house floor	F	76-84/210-214	374	12/6/15
127	Charcoal-rich spread on house floor	F	76-8/210-212	353 etc.	16/6/15
128	Cut and dressed stone in external face of house wall	F	82/214	-	18/6/15
129	Heat-altered area of house floor	F	80/210	354	18/6/15

130	Internal partition wall	F	84-6/210-12	-	18/6/15
131	South doorway to house	F	84/210	-	22/6/15
132	Fill of setting 133	F	78/212	367 etc.	23/6/15
133	Stone-built oven inside house	F	78/212	-	23/6/15
134	Hearth base, inside house	F	80/210	-	24/6/15
135	Post setting	F	84/214	-	24/6/15
136	Fill of post setting 135	F	84.47/214.55	377	24/6/15
137	Ash deposit beneath house	F	78/212	382	26/6/15
138	Dump of mortar outside house	F	86/214	-	26/6/15
139	Fill of wall foundation-trench	F	88/212	-	20/7/15
140	Cut of wall foundation-trench	F	88/212	-	20/7/15
141	Uppermost fill of cut 145, dark brown with frequent bone, charcoal etc.	F	84-6/208	408-410	27/7/15
142	Fill of cut 145, small stones with voids between	F	84-6/208	-	28/7/15
143	Fill of cut 145, limestone slabs	F	84-6/208	-	28/7/15
144	Lowest fill of cut 145, brown sandy silt	F	84-6/208	412, 414-16	28/7/15
145	Pit cut into bedrock	F	84-6/208	-	28/7/15
146	Crushed furnace/hearth-lining	F	78/210	394	28/7/15
147	Linear stone setting	F	86-88/214	-	30/7/15
148	Charcoal-rich spread of domestic refuse	F	84-86/214-216	419	30/7/15
149	Small setting of stones on edge	F	88/210	-	31/7/15
150	Fill of post setting 151	F	88/210	423, 424	31/7/15
151	Post setting	F	88/210	-	3/8/15
152	Fill of post setting 153	F	86/210	425	3/8/15
153	Post setting	F	86/210	-	3/8/15
154	Fill of post setting 155	F	88/208	430, 431	3/8/15
155	Post setting	F	88/208	-	3/8/15
156	Cut limestone slab	F	82/212	-	5/8/15

## Appendix 2: Harris Matrix



### Appendix 3: List of Cutting F Finds

No.	Description	Cutting	Easting	Northing	Context	Date
924	Bracelet, modern	F	83.06	217.64	22	1/6/15
925	Bone pin fragment	D	Bone-washing	Bone-washing	16	1/6/15
926	Quern fragment	F	88.02	215.10	22	2/6/15
927	Quern fragment	F	88.97	209.56	04	3/6/15
928	Quern fragment	F	84.58	217.29	22	3/6/15
929	Bone comb fragment	F	85.40	215.65	04	4/6/15
930	Flint flake	F	84.32	215.15	04	4/6/15
931	Iron nail	F	80.90	212.06	124	10/6/15
932	Clay pipe fragment	F	80.16	212.23	124	10/6/15
933	Jeton	F	78.92	211.21	124	11/6/15
934	Quern fragment	F	86.90	209.57	119	12/6/15
935	Quern fragment	-	92.20	213.44	04	12/6/15
936	Silver coin	F	77.50	213.25	125	12/6/15
937	Iron fitting	F	Bone tray	Bone tray	125	15/6/15
938	Silver coin	F	77.72	212.41	125	15/6/15
939	Iron tack	F	Sieve	Sieve	125	16/6/15
940	Iron knife	F	78.55	213.40	126	18/6/15
941	Crucible sherd	F	78.39	212.99	126	18/6/15
942	Iron pin	F	78.83	212.79	127	18/6/15
943	Iron nail	F	80.97	208.26	23	18/6/15
944	Flint	F	Sieve	Sieve	130	22/6/15
945	Bronze pin	F	80.58	213.30	126	22/6/15
946	Crucible sherd	F	80.45	208.36	25	22/6/15
947	Metal strip, rolled	F	78.15	212.45	126	22/6/15
948	Flint	F	87.47	214.04	25	22/6/15
949	Chert	F	77.80	212.86	25	23/6/15
950	Iron nail	F	77.85	213.02	25	23/6/15
951	Flint	F	Sieve	Sieve	127	23/6/15
952	Crucible sherd	F	Sieve	Sieve	25	23/6/15
953	Ceramic sherd - glazed	F	86.24	212.77	25	23/6/15
954	Bronze loop	F	88.06	215.37	23	23/6/15
955	Bronze loop	F	Sieve	Sieve	23	23/6/15
956	Iron fragment	F	Sieve	Sieve	25	23/6/15
957	Crucible sherd	F	78.00	213.20	132	23/6/15
958	Flint	F	84.26	210.33	25	23/6/15
959	Whetstone	F	78.09	203.20	132	23/6/15

No.	Description	Cutting	Easting	Northing	Context	Date
960	Crucible sherd	F	Sieve	Sieve	132	23/6/15
961	Iron tack	F	Sieve	Sieve	25	23/6/15
962	Buckle tongue	F	Sieve	Sieve	25	24/6/15
963	Bronze pin	F	86.28	208.99	25	24/6/15
964	Rubbing stone	F	88.02	210.61	25	24/6/15
965	Crucible sherd	F	Sieve	Sieve	25	24/6/15
966	Crucible sherd	F	79.38	212.40	25	24/6/15
967	Iron shears	F	82.69	212.94	25	24/6/15
968	Iron shaft	F	78.30	211.10	25	24/6/15
969	Bronze shaft	F	78.14	211.98	25	24/6/15
970	Crucible sherd	F	Sieve	Sieve	25	24/6/15
971	Crucible sherd	F	Sieve	Sieve	25	24/6/15
972	Bone pin	F	77.48	213.42	25	24/6/15
973	Bone comb fragments	F	80.34	214.27	25	24/6/15
974	Iron knife	F	84.90	215.39	25	25/6/15
975	Bone comb fragment	F	Sieve	Sieve	25	25/6/15
976	Bone comb fragment	F	80.08	213.46	25	25/6/15
977	Crucible sherd	F	78.56	212.90	25	25/6/15
978	Crucible sherd	F	79.70	213.79	25	25/6/15
979	Iron rod/shaft	F	81.09	214.22	25	25/6/15
980	Bone spindle whorl	F	81.16	213.68	25	25/6/15
981	Crucible sherd	F	78.92	212.23	25	25/6/15
982	Crucible sherd	F	79.31	212.26	25	25/6/15
983	Bronze wire/point	F	79.40	212.22	25	25/6/15
984	Crucible sherds	F	81.48	211.63	25	26/6/15
985	Bronze needle	F	Sieve	Sieve	25	26/6/15
986	Crucible sherd	F	79.21	211.10	25	26/6/15
987	Bone comb fragment	F	Sieve	Sieve	25	26/6/15
988	Crucible sherd	F	80.03	210.99	25	26/6/15
989	Mould/crucible sherd	F	Sieve	Sieve	25	26/6/15
990	Iron rod/shaft	F	81.90	208.55	25	26/6/15
991	Iron shaft	F	89.04	213.70	25	13/7/15
992	Iron fragment	F	Sieve	Sieve	25	13/7/15
993	Metal fragment	F	Sieve	Sieve	25	14/7/15
994	Iron fragment	F	85.34	211.07	25	14/7/15
995	Bone comb fragment	F	84.52	209.11	25	14/7/15
996	Bone comb fragment	F	88.92	215.22	25	14/7/15
997	Iron object	F	85.83	210.67	25	14/7/15

No.	Description	Cutting	Easting	Northing	Context	Date
998	Bronze pin	F	84.70	209.15	25	14/7/15
999	Chert	F	86.07	210.16	25	14/7/15
1000	Silver finger ring	F	86.59	208.81	25	16/7/15
1001	Iron knife blade	F	86.26	210.41	25	14/7/15
1002	Bronze pin	F	88.28	213.85	25	15/7/15
1003	Iron knife blade	F	88.04	214.14	25	15/7/15
1004	Bronze pin	F	87.78	213.91	25	15/7/15
1005	Iron key	F	Sieve	Sieve	25	15/7/15
1006	Iron nail	F	88.90	208.21	25	15/7/15
1007	Bone comb fragment	F	89.15	208.63	25	15/7/15
1008	Iron blade tip	F	Sieve	Sieve	25	15/7/15
1009	Iron point/ferrule	F	86.27	210.40	25	15/7/15
1010	Iron nail	F	87.36	210.23	25	15/7/15
1011	Iron nail	F	Sieve	Sieve	25	15/7/15
1012	Iron tool	F	86.77	209.50	25	15/7/15
1013	Flint flake	F	88.28	210.70	25	15/7/15
1014	Iron blade fragment	F	86.21	209.72	25	15/7/15
1015	Iron ring	F	Sieve	Sieve	25	16/7/15
1016	Iron hook	F	88.61	209.30	25	16/7/15
1017	Iron nail	F	Sieve	Sieve	25	16/7/15
1018	Bronze pin	F	87.86	208.92	25	16/7/15
1019	Bone comb fragments	F	Sieve	Sieve	25	16/7/15
1020	Iron knife	F	88.38	209.60	25	16/7/15
1021	Flint	F	88.73	209.34	25	16/7/15
1022	Bone comb fragment	F	Sieve	Sieve	25	16/7/15
1023	Bronze shaft	F	84.60	212.67	25	16/7/15
1024	Bone comb fragment	F	Sieve	Sieve	25	16/7/15
1025	Iron point	F	Sieve	Sieve	25	16/7/15
1026	Iron blade	F	88.21	208.56	25	16/7/15
1027	Bone comb fragment	F	84.55	215.15	16	17/7/15
1028	Crucible sherd	F	78.95	213.16	16	17/7/15
1029	Iron rod	F	81.39	214.22	16	17/7/15
1030	Crucible sherd	F	79.50	213.42	16	17/7/15
1031	Iron object	F	81.18	213.71	16	17/7/15
1032	Iron hook and fitting	F	Sieve	Sieve	16	17/7/15
1033	Iron shaft	F	86.83	211.53	16	20/7/15
1034	Bone comb fragment	F	Sieve	Sieve	16	20/7/15
1035	Bronze point	F	86.94	211.42	16	20/7/15

No.	Description	Cutting	Easting	Northing	Context	Date
1036	Quern	F	84.60	213.17	16	20/7/15
1037	Quern	F	78.20	214.13	16	21/7/15
1038	Bone comb fragment	F	89.18	212.94	16	21/7/15
1039	Bone pin	F	77.68	214.42	36	22/7/15
1040	Chert	F	Sieve	Sieve	16	22/7/15
1041	Bone comb fragment	F	78.14	210.07	16	22/7/15
1042	Bone pin	F	Sieve	Sieve	16	22/7/15
1043	Bone comb fragment	F	Sieve	Sieve	16	22/7/15
1044	Iron pin fragment	F	Sieve	Sieve	16	22/7/15
1045	Crucible sherd	F	78.21	209.72	16	22/7/15
1046	Iron knife	F	84.04	213.20	16	23/7/15
1047	Crucible sherd	F	Sieve	Sieve	16	23/7/15
1048	Bone pin	F	Sieve	Sieve	36	23/7/15
1049	Iron shaft	F	78.76	210.47	36	23/7/15
1050	Iron pin	F	86.07	213.65	36	24/7/15
1051	Iron needle/shaft	F	88.74	215.65	36	24/7/15
1052	Iron needle	F	88.45	213.30	36	24/7/15
1053	Quern	F	88.55	215.65	36	24/7/15
1054	Iron object	F	88.98	212.27	36	24/7/15
1055	Iron fragment	F	89.00	212.66	36	24/7/15
1056	Bone comb fragment	F	87.86	213.40	36	24/7/15
1057	Flint scraper	F	76.65	208.72	36	24/7/15
1058	Bone comb fragment	F	Sieve	Sieve	36	24/7/15
1059	Bone comb fragment	E	Bone-washing	Bone-washing	16	27/7/15
1060	Chert scraper piece	F	89.24	209.85	36	27/7/15
1061	Bone comb fragment	F	Sieve	Sieve	36	27/7/15
1062	Bone comb fragment	F	Sieve	Sieve	36	27/7/15
1063	Bone comb fragment	F	85.91	209.76	141	27/7/15
1064	Bronze sheet	F	88.29	212.89	36	27/7/15
1065	Iron knife	F	81.51	213.59	16	27/7/15
1066	Bone comb fragment	F	Sieve	Sieve	36	29/7/15
1067	Stone axe fragment	F	88.85	211.48	36	29/7/15
1068	Whetstone	F	88.47	211.90	36	29/7/15
1069	Quern fragment	F	88.10	216.70	23	30/7/15
1070	Chert scraper	F	Sieve	Sieve	36	30/7/15
1071	Iron arrowhead	F	83.39	210.22	16	30/7/15
1072	Bone comb fragment	F	82.70	210.11	25	30/7/15
1073	Chert scraper	F	82.75	209.90	25	30/7/15

No.	Description	Cutting	Easting	Northing	Context	Date
1074	Iron nail	F	83.92	209.84	25	31/7/15
1075	Bone comb fragment	F	Sieve	Sieve	36	31/7/15
1076	Iron nail	F	82.37	212.15	125	3/8/15
1077	Chert	F	81.96	211.94	16	3/8/15
1078	Bronze pin	F	83.43	215.95	16	3/8/15
1079	Bronze fragment	F	82.10	214.62	16	3/8/15
1080	Iron rod	F	82.45	212.06	16	3/8/15
1081	Flint	F	Sieve	Sieve	36	3/8/15
1082	Iron needle	F	82.27	209.44	25	3/8/15
1083	Iron nail	F	76.74	211.33	121	3/8/15
1084	Iron fragment	F	84.01	214.09	16	3/8/15

## Appendix 4: List of Cutting F Samples

Sample no.	Description	Comment	Cutting	Easting	Northing	Context	Date
340	Slag		F	82.25	208.74	23	03/06/15
341	Bone		F	76-88	208-218	04	04/06/15
342	Bone		F	76-84	210-214	124	10/06/15
343	Bone	From sieve	F	76-84	210-214	124	11/06/15
344	Bone		F	76-84	210-214	125	12/06/15
345	Bone	From sieve	F	76-84	210-214	125	12/06/15
346	Soil	Bulk sample	F	80	210	125	15/06/15
347	Shell	Marine	F	76-84	210-214	125	15/06/15
348	Bone		F	76-88	208-214	23	15/06/15
349	Bone	Poss. C14, on floor of 15th/16th century house	F	78.63	212.43	125	15/06/15
350	Charcoal		F	76-84	210-214	125	15/06/15
351	Bone	Poss. C14, top of c.127	F	78.49	211.80	127	16/06/15
352	Slag		F	78.31	213.42	126	18/06/15
353	Soil	Bulk sample	F	76-78	210-212	127	19/06/15
354	Soil	Bulk sample	F	80	210	129	19/06/15
355	Bone		F	84-86	210-212	130	19/06/15
356	Shell	Marine, scallop	F	85.62	210.91	130	19/06/15
357	Bone		F	76-78	210-212	127	19/06/15
358	Bone		F	80	210	129	19/06/15
359	Charcoal		F	76-78	210-212	127	22/06/15
360	Bone		F	76-88	208-214	25	22/06/15
361	Shell	Marine	F	76-88	208-214	25	22/06/15
362	Bone	From sieve	F	76-88	208-214	25	22/06/15
363	Slag	From sieve	F	Sieve	Sieve	125	23/06/15
364	Slag		F	77.77	212.93	25	23/06/15
365	Hazelnut shell	From sieve	F	Sieve	Sieve	25	23/06/15
366	Charcoal	From sieve	F	Sieve	Sieve	25	23/06/15
367	Soil	Bulk sample	F	78	212	132	23/06/15
368	Bone		F	78	212	132	23/06/15
369	Charcoal		F	78	212	132	23/06/15
370	Slag		F	80.12	213.92	25	23/06/15
371	Slag		F	79.85	213.92	25	23/06/15
372	Shell	Marine	F	78.33	213.49	132	23/06/15
373	Daub / Clay		F	79.83	211.81	25	23/06/15

Sample no.	Description	Comment	Cutting	Easting	Northing	Context	Date
374	Soil	Bulk sample	F	76	212	126	24/06/15
375	Slag		F	79.55	211.16	25	24/06/15
376	Slag		F	78.10	210.13	25	24/06/15
377	Soil	Bulk sample	F	84.47	214.55	136	24/06/15
378	Ore	Possible	F	87.49	216.21	25	25/06/15
379	Clay	Small lump	F	79.52	213.40	25	25/06/15
380	Slag		F	79.61	213.09	25	25/06/15
381	Slag		F	81.59	212.17	25	25/06/15
382	Ash	Bulk sample	F	78	212	137	26/06/15
383	Slag		F	79.35	210.90	25	26/06/15
384	Slag		F	76.40	209.41	25	26/06/15
385	Slag	From sieve	F	Sieve	Sieve	25	26/06/15
386	Slag	From sieve	F	Sieve	Sieve	25	13/07/15
387	Seeds / Grain	Charred, from sieve	F	Sieve	Sieve	25	13/07/15
388	Coprolite		F	-	-	25	15/07/15
389	Wall-core matrix	Bulk sample	F	78	212	121	16/07/15
390	Bone		F	76-88	208-214	16	17/07/15
391	Bone	From sieve	F	76-88	208-214	16	17/07/15
392	Shell	Marine	F	76-88	208-214	16	17/07/15
393	Charcoal		F	76-88	208-214	16	17/07/15
394	Furnace lining		F	79.11	211.40	146	17/07/15
395	Bone	Possible C14	F	78.19	214.55	121	20/07/15
396	Slag		F	88.29	210.77	16	20/07/15
397	Slag		F	85.03	208.92	16	21/07/15
398	Bone		F	80-82	208	101	21/07/15
399	Bone		F	76-88	208-214	36	22/07/15
400	Bone	From sieve	F	76-88	208-214	36	22/07/15
401	Coprolite		F	76-88	208-214	16	22/07/15
402	Slag		F	89.28	212.52	16	23/07/15
403	Charcoal		F	76-88	208-214	36	23/07/15
404	Slag		F	86.71	209.60	16	23/07/15
405	Slag	From sieve	F	Sieve	Sieve	36	23/07/15
406	Slag		F	78.80	208.24	36	24/07/15
407	Hazelnut shell	Charred	F	76-88	208-214	36	24/07/15
408	Bone		F	84-86	208	141	27/07/15
409	Shell	Marine	F	84-86	208	141	27/07/15
410	Charcoal		F	84-86	208	141	27/07/15
411	Soil	Bulk sample	F	84-86	208	141	27/07/15

Sample no.	Description	Comment	Cutting	Easting	Northing	Context	Date
412	Soil	Bulk sample	F	84-86	208	144	28/07/15
413	Slag		F	89.00	211.99	36	29/07/15
414	Bone	Poss. C14, base of pit	F	86.09	209.62	144/145	29/07/15
415	Shell	Marine	F	84-86	208	144	29/07/15
416	Furnace lining	Fragment	F	86.07	210.20	144	29/07/15
417	Shell	Marine	F	76-88	208	36	30/07/15
418	Bone		F	80-82	208	102	30/07/15
419	Soil	Bulk sample	F	86	214	148	30/07/15
420	Bone		F	86	214	148	30/07/15
421	Charcoal		F	86	214	148	30/07/15
422	Animal skull		F	86	214	36	31/07/15
423	Soil	Bulk sample, from post-setting	F	88	210	150	03/08/15
424	Bone	From top of post-setting	F	88	210	150	03/08/15
425	Soil	Bulk sample, from post-setting	F	86	210	152	03/08/15
426	Bone	From post-setting	F	86	210	152	03/08/15
427	Bone	Poss. C14, beneath floor of 15th/16th house	F	82.29	212.20	25	03/08/15
428	Slag	Under c.147	F	88.68	214.57	36	03/08/15
429	Bone	From beneath c.122 wall cross-section	F	84	214	37	03/08/15
430	Soil	Bulk sample, from post-setting	F	88	208	154	05/08/15
431	Bone	From base of post-setting	F	88	208	154	05/08/15
432	Bone	Poss. C14, base of cashel wall	F	85.38	218.22	37 base	05/08/15