Excavation of an early medieval settlement and other sites at Dromthacker, Tralee, Co. Kerry

ROSE M. CLEARY*
Department of Archaeology, University College Cork

[Accepted 2 November 2007. Published 4 June 2008.]

Abstract

This report presents the results of excavations of a ringfort, an enclosure and two fulachtai fia (popularly known as fulacht fiadhl). Pre-enclosure settlement on the ringfort site comprised an oval-shaped house dating to the early sixth–early seventh century period. An enclosing bank and ditch were subsequently constructed and two structures of late sixth–early seventh century were associated with the ringfort phase. The ringfort ditch also appears to have become redundant and was partly back-filled in antiquity. The surviving material culture was poor although there was evidence for iron-working on the site. The enclosure was large and surrounded by a deep ditch that was back-filled in antiquity, and the upper levels were infilled in modern times. There was no evidence for the date or function of the site and it may be early medieval or earlier in date. Modern features to the north included four lime-kilns of unusual morphology. Two spreads of burnt stone were excavated and one site had the remains of a trough and is dated to the early Bronze Age.

Introduction

Excavations at Dromthacker, Tralee, Co. Kerry, were undertaken in 1997.¹ The site² is located at the north-eastern side of Tralee town on a gradually rising ridge between the Big River to the west and a tributary of the River Lee to the south (Fig. 1) and consisted of c. 60 acres of agricultural land. The development site included a ringfort (RMP KE029-095) and an enclosure (RMP KE029-026, see Fig. 2a). The ringfort was recently altered and a complete excavation was undertaken at this site to determine if any archaeological features remained in situ. The ringfort excavation uncovered evidence for pre-enclosure settlement, followed by the construction of an enclosing bank and ditch. The enclosure had no surface remains and excavation

¹ Author’s e-mail: rcleary@archaeology.ucc.ie
² Exact location: OS 6˝ scale sheet no. 29, Co. Kerry; Td. Dromthacker, Bar. Trughanacmy; National Grid Reference Q 154837. Ringfort RMP KE029-095; location: 34.1cm from east margin; 27.4cm from north margin. Site RMP KE029-226; location: 32.3cm from east margin; 28.4cm from north margin. Fulacht fiaadh no. 1 location: 23.7cm from east margin; 32.6cm from north margin. Fulacht fiaadh no. 2 location: 33cm from east margin; 24.8cm from north margin.
confirmed that the site was an enclosure, although there was no indication as to when it was constructed. A second ringfort (RMP KE029-094) was not intruded on by the development, and remains unexcavated. The development site also included two fulachtí fia and these sites were archaeologically examined. This report presents the results of the excavations to add to the corpus of published material on early medieval settlement.
Previous information on the sites

The ringforts are recorded on the first edition 6” Ordnance Survey (OS) map (surveyed in 1841–2, see Fig. 2a) and on the 25” map (1899). The excavated ringfort (RMP KE029-095) is indicated as an oval-shaped enclosure where the surrounding eastern bank skirts a roadway and the remaining sections are indicated as part of field boundaries (Fig. 2b). The north side of the enclosure (RMP KE029-026) was recorded on the first and second editions of the OS maps as a curved field fence. *Fulachtai fia* were recorded by Michael Connolly, Kerry County Council, in the archaeological

Fig. 2a—Site location 25” scale OS map (surveyed 1899); b—Detail of lower section of 25” scale OS map (surveyed 1899) reproduced in Fig. 2a.
section of an Environmental Impact Statement (1996) and of six potential sites, two were confirmed through excavation as *fulachtai fia.*

**Ringfort excavation**

The ringfort had a surviving enclosing bank up to the Ordnance Survey of 1899 but was altered significantly within the recent past to become a garden feature. The banks were largely rebuilt and a modern wall was constructed along the inner face of the bank circuit. A modern entrance was inserted on the north-eastern side of the site. An entrance in the south-eastern quadrant was blocked-up using boulders. Sections of the enclosed area were paved and trees were planted and removed subsequently using a mechanical excavator. Topsoil was added to the interior and modern cultivation furrows were uncovered at depths of between 0.30–0.50m below the pre-excavation surface.

The enclosed area of the ringfort was oval in plan and measured c. 19m E/W × 24m N/S internally (Fig. 3). The majority of surviving features were concentrated in the southern and eastern quadrants. Many of the features were truncated during ridge and furrow cultivation and more recent activity and the north-western and

---

**Fig. 3**—Ringfort (RMP KE 029-095). Plan of bank and ditch, gully (F343) and paving (F325).

---

22
Excavation of an early medieval settlement and other sites

central areas were almost devoid of archaeological remains. The interpretation of
the occupation sequence is that there was initially an unenclosed settlement (Phase
1) associated with a linear gully (F343) recorded under the eastern bank. A clay
layer (F256) was introduced over the primary settlement and an enclosing bank and
ditch were subsequently constructed. An occupation horizon including the remains
of two houses was recorded on the introduced layer (F256).

Phase 1: pre-enclosure activity

The earliest features recorded on the site were a series of post-holes, stake-holes and
pits, representing the vestiges of an oval-shaped building on the eastern side of the
ringfort (Fig. 4; Pl. 1). These features were recorded under an extensive layer of soft
reddish silty clay (F256) that extended into the ringfort interior and under the eastern
bank. The features were cut into a layer of stony subsoil. A cobbled area (F259)
extended from the interior of the structure to the east and may mark the entrance to
the building. The cobbled may have counteracted wet ground around the entrance
and prevented puddling. A more deliberately set paved area (F332) was recorded to
the east and a gully (F343) was subsequently cut into this area. Archaeobotanical
evidence (Appendix A) for wild turnip seeds (which grow in wet habitats) in the
gully fill suggests that the localised environment in that area was wet.

The post- and stake-hole features represent the remains of a building inter-
preted as an oval-shaped structure with the perimeter formed by posts and stakes
(Fig. 4). The estimated maximum axes are 3.80m (NW/SE) and 3m (SW/NE). The
perimeter was defined by five post-holes (F266, F268, F270, F278 and F284) and
three stake-holes (F280, F335 and F337). The post-holes varied from 0.16–0.35m
in diameter, averaging 0.25m and were 0.14–0.22m deep, averaging 0.16m deep.3
The stake-holes were 0.06–0.09m in diameter and were 0.05–0.12m deep and all had
pointed ends. The post- and stake-hole fills were generally charcoal-flecked brown
sandy clay. Only one post-hole (F284) had packing stones.

Two post-holes (F286 and F309) within the building were driven to depths
of 0.16–0.22m suggesting that they may have been load-bearing roof supports.
Other post- and stake-holes within the structure occurred randomly and may have
been the vestiges of internal fittings or unrelated to the structure. These had an aver-
age diameter of 0.10m and were 0.12m deep with charcoal-flecked silt fills. One
stake-hole (F272) to the north of the structure was at the same level as the Phase
1 structure. An internal pit (F261) had a diameter of c. 0.55m and was 0.40m deep
but did not contain any diagnostic material to indicate function. A stony surface
(F259) measuring 2m × 1.20m, was interpreted as a paved area and this extended
from a possible entrance on the east of the building towards the gully (F343). A
hone-stone (97E0022:259:1) was recovered from F259. A second stony surface
(F314) extending from within the projected perimeter of the building towards the
north was interpreted as a paved area but was not as compact as F259.

3 Full details of the post- and stake-holes are available in the stratigraphic report submitted to
the Heritage Service and in the site archive.
Fig. 4—Plan of Phase 1 house, gully and paving.
The paved area (F332) to the east was c. 3m (N/S) and 0.60m wide and comprised irregular sized stones varying from 0.05–0.10m. A hone-stone (97E0022:332:1) was found on the paved surface. A gully (F343) cut into the paving and was stratigraphically later but it was probably related to Phase 1 occupation. The gully (F343) was 14.60m long × 0.90m maximum width × 0.40m deep with sloping sides (Pl. II). The silt fill (F342) included wild turnip seeds in the charred plant remains, which are indicators of a wet environment around the gully when it was in use (Appendix A). A relatively large quantity of charred oak fragments with minor quantities of charred willow/poplar, hazel and alder fragments were found in the gully fill (Appendix B). Two hone-stones (97E0022:342:1 and 2) were also recovered from the gully fill. A radiocarbon determination from charcoal from the gully fill (F342) produced a date of 1520±30 / 530–610 cal. AD (GrN 23798).

The Phase 1 features were covered by an introduced 0.10–0.20m thick layer of reddish silty clay (F256). The layer partly infilled the gully (Fig. 5, Section 2: layer 9) and was directly under the bank along most of the eastern section. This may have been brought in to level-up the ground, perhaps to counteract wet conditions or in some way sterilise the site prior to constructing the ringfort and Phase 2 occupation. A grey clay layer (Fig. 5, Section 2: layer 7) was recorded towards the north-east over the introduced layer (F256) at the northern end of the gully (F343) and below the bank. This was similar to a buried sod horizon. The layer may have originated from sods stripped from the ditch area prior to bank construction, similar to a layer recorded in the western bank (Pl. III).

Phase 2: the ringfort

Bank and ditch
The excavation uncovered the remains of the original bank along the perimeter. This remained extant to a maximum height of c. 0.40m on the east side and 0.75m on the
west side. Most of the eastern ditch was excavated and a further six 2m-wide cut-
tings were excavated across the ditch in order to establish the location of the ditch 
and the original curvature of the bank (Fig. 3). All the ditch sections on the western 
side flooded once the ditch fill was removed. This was due to a combination of a high 
water table and surface water draining from the field on the west into the ditch.

The enclosing bank (Figs 3, 5–6) was severely altered within the recent past 
and reduced in height and width. Six sections were initially excavated across the 
bank in order to determine its original composition. In the course of the excavation, 
it became apparent that the clay layer (F256) (Fig. 5) extended under the eastern 
bank (Fig. 5, Section 1: layer 8; Section 2: layer 9). This layer extended under a 15m 
long section (N/S) of the bank and the bank was removed to excavate the pre-bank 
features. An earlier occupation phase (Phase 1) and a gully (F343) were uncovered 
when the layer (F256) was removed.

The eastern bank section over the introduced layer (F256) is recorded in 
Sections 1 and 2 (Fig. 5). The upper layers (1 and 2) were clearly of recent origin

Pt. II—Phase 1: gully F343 and paving F332.
and included modern objects and may have been added when the ringfort was altered to become part of a garden. A gravel deposit in bank Section 2 (Fig. 5: layer 3) may also be recent. As with other sections of the bank, the internal face was truncated when a limestone wall was built along the interior of the ringfort. The remaining layers of green gritty sand (Fig. 5, Section 1: layer 3; Fig. 5, Section 2: layer 4) and redeposited boulder clay (Fig. 5, Section 1: layer 4; Fig. 5, Section 2: layer 5) are interpreted as part of the original bank of the ringfort. The maximum extant height of the eastern bank varied from 0.40–0.70m and the width was 2.20–2.25m (Fig. 5, Sections 1 and 2).
The bank was best preserved on the western side and stood to a height of 0.75m (Fig. 6, Section 4: layers 3–4; Fig. 6, Section 5: layers 3–5) and varied in extant width from 1.20–2m. The inner side (east) of the bank was truncated by a modern wall and it is also likely that the outer section was also reduced in width and height at some time in the past. A short section of a modern wall was constructed against the modern topsoil (Fig. 6, Section 4: layer 2) suggesting recent additions to the bank. The pre-ringfort old ground surface was apparent as a 0.10m-thick layer of greyish-purple sandy clay (Fig. 6, Section 4: layer 5; Section 5, layer 6). There were also some indications that the sod stripped from the ditch area was piled on the pre-bank surface and this was recorded as a 0.30m thick layer in the western bank (Pl. III). This piling of stripped sods was localised on one section of the western bank and the layers above the pre-bank surface were mostly re-deposited boulder clay or upcast from below the sod layer of the ditch area. A green-grey gritty sand layer was recorded over the re-deposited boulder clay in Section 4 (Fig. 6, layer 3). The upcast in Section 5 was different in that the lowest level over the old ground surface (Fig. 6, Section 5: layer 6) was a sand/silt layer (Fig. 6, Section 5: layer 5) and above this was a silty humic layer soil with large boulders (Fig.
Excavation of an early medieval settlement and other sites

6, Section 5: layer 4). A gravel layer was recorded above this (Fig. 6, Section 5: layer 3) and this was similar to gravel lenses in Section 2 of the bank (Fig. 5, layer 3).

The basal ditch section was cut into the underlying bedrock on the western side and into gravel on the eastern side of the ringfort. The profile was generally ‘U’-shaped and the depth was c. 1.50m with an upper width of c. 2.70m tapering to a basal width of c. 0.80m. With the exception of Section 4 (Fig. 6), all the ditch fills indicated recent infill of the upper levels e.g. Fig. 6, Section 5: layer 7. The original ditch fill was in the main gravel with large stones e.g. Fig. 6, Section 5: layer 9 and a layer of

Fig. 6—Sectional profiles of bank and ditch; Sections 4 and 5.
sandy gravel (Fig. 6, Section 5: layer 10). The infill in Section 4 (Fig. 6) comprised stonier layers and sandy clay. Some silting had occurred prior to infilling and there was 0.40m-thick deposit of silt in the southern ditch area (Fig. 6, Section 4: layer 9). An access to the ringfort (see below) had been made across this section of the ditch in modern times and was obvious as a cobbled surface over the ditch fill. The eastern part of the ditch was under a farmhouse access road recorded on the Ordnance Survey map of 1841–2. The sectional profile across the widest part of the eastern ditch showed that it was a broad 'U'-shape with a maximum extant basal width of 2m and the upper section widened to 3.70m with a surviving depth of 0.65m. A layer of boulder clay along the west (Fig. 7, layer 3) is interpreted as bank slump. Layers of sandy gravel (Fig. 7, layer 4) and stony boulder clay (Fig. 7, layer 2) may indicate a deliberate back-filling. As there was no indication of basal silt, it is possible that the ditch was either cleaned out periodically or infilled shortly after excavation. The fill above the boulder clay (layer 2) was modern topsoil and the modern road surface.

Interior of the fort
Phase 2 occupation was recorded over part of the western section of the introduced reddish clay layer (F256) and was mainly confined to the eastern and southern sections of the ringfort interior. This occupation may have been more extensive but evidence to support this did not survive due to subsequent activity on the site. Phase 2 had surviving remains of at least two subcircular buildings and internal stake-holes that may have been part of the buildings or may represent discrete phases of occupation above the reddish clay layer (F256).

Structure 1 (Figs 8–9)

This was located in the south-eastern area of the enclosure and six post-holes (F25, F85, F102, F127, F136 and F154) and one stake-hole (F33) are interpreted as the
remains of perimeter posts. The post-holes formed the northern and eastern arc of a circular building with an estimated internal diameter of 7.50m. A post-hole (F117) close to the perimeter may also have been structural but was slightly off the projected perimeter arc. The post-holes ranged from 0.20–0.70m in diameter, averaging 0.44m and were 0.10–0.32m deep, averaging 0.17m deep. The fills were generally charcoal-flecked silt and two pad stones were recorded in F136. The southern and western sides of the building were severely truncated by modern disturbance including modern cultivation trenches. A stone spread (F203) on the south-western side may be contemporary with the structure, and similar to the Phase 1 structure, marks an entrance to the house. The stone spread (F203) was of tightly packed sandstone fragments contained within a shallow pit, 2.50m × 2.10m × 0.09m deep.

Two clusters of stake-holes were recorded within Structure 1 (Fig. 9). One group (F31, F120 and F122) were just south of one of the perimeter post-holes (F127). These were 0.17–0.30m in diameter and 0.14–0.20m deep with charcoal-enriched fills. They may have formed some internal element in the building or may be part of a discrete archaeological phase unrelated to the buildings. Little surviving stratigraphy and truncation of features made it difficult to assign features to specific phases, however the proximity of this cluster to the perimeter of the building suggests that they may have held stakes for wall repair or an internal fitting.

The second group (F15, F20, F22, F46, F48, F53, F55, F92, F100, F104, F115, F134, F139 and F149) were concentrated mainly in the centre of the structure and some of these, particularly the largest (F20, F53 and F115), may have functioned as internal roof supports. These central stake-holes may also be multiphase and represent different activities within the building or be unrelated to the structure. The stake-holes varied from 0.08–0.50m in diameter and 0.08–0.30m deep and contained mainly charcoal-flecked fills.

Structure 2 (Figs 8–9)
A second arc of post-holes was recorded c. 2m north-east of Structure 1. Post- and stake-holes (F68, F109, F111, F167, F173, F197, F198, F200, F212, F214, F296, F327 and F329) formed the southern and eastern arc of an oval-shaped building with an estimated long axis of c. 8.5m. The post-hole diameters ranged from 0.20–0.63m, averaging 0.31m and the depths ranged from 0.10–0.29, averaging 0.15m. The fills were charcoal-flecked silty clays. Evidence for the northern and western sections of the structure did not survive and the estimated diameter is based on projecting the arc of the post-holes to include a possible hearth site (F88). Two stake-holes (F327 and F329) on the projected western perimeter are included although they may not have held structural components for the building. Two relatively large oval-shaped post-holes (F95 and F98) with maximum diameters of 0.40m and 0.70m and depths of 0.22m and 0.26m may have been the remains of internal roof supports. A stake-hole (F165) was also recorded within Structure 2. A hearth (F88) on the south-west was 1.45m × 0.70m × 0.50m deep, linear in plan with oxidised silt/clay fill. The charcoal was from hazel, alder and willow/poplar.
Fig. 8—Phase 2 structures and miscellaneous features.
Miscellaneous features (Fig. 8)
Six stake-holes (F31, F35, F51, F94, F113 and F153) and a small pit (F44) were recorded between Structures 1 and 2. The stake-holes may represent activity relating to the occupation of Structures 1 and 2 or belong to other structures of which little evidence survived. One stake-hole (F130) was also recorded 1m east of Structure 2.
The stake-holes were circular in plan, 0.08–0.18m in diameter and 0.07–0.12m deep with charcoal-enriched fills. The pit (F44) was 0.27m × 0.43m × 0.13m deep, oval in plan, with a flat base. The fill included oxidised clay, grey ash-like soil and some iron slag. The sides of the pit were not heat-affected and it did not appear that a fire had been lit within the pit. The fill may have been dumped material from iron-working elsewhere on the site. The pit also produced a limited amount of charred barley and wheat remains (Appendix A). A radiocarbon determination from charcoal in the pit fill (F43) produced a date of 1480±25/560–620 cal. AD (GrN23797).

Three pits (F253, F264 and F304), three stake-holes (F255, F258 and F294) on the western side and three stake-holes (F251, F288 and F290) on the eastern side were recorded in the northern portion of the ringfort (Fig. 8), although in general, it was found that this area was more truncated than the southern portion. The pit, F253, was circular in plan with a diameter of 1.60m and was 0.50m deep. The fill was charcoal-enriched partly oxidised sand/silt (F252) with some fire-shattered sandstone fragments. The charcoal was predominately oak with minor quantities of hazel and willow/poplar. The pit showed evidence of in situ burning on northern and western sides where the earth had been oxidised to an orange-red colour. Several fragments of unidentifiable burnt bone, saddle quern fragments (97E0022:252:1), charcoal, iron slag, a bichrome (yellow and brown) glass bead and a blue glass bead (97E0022:252:2 and 3) were recovered from the fill. The pit, F264, was circular with a diameter of 1.15m and was 0.68m deep. The fill was charcoal-flecked brown sand/silt fill with stones, large charcoal fragments of mainly oak with some hazel and alder and burnt sandstone fragments. The uniformity of the fill may indicate that the pit was back-filled rather than allowed to silt up. Finds from F264 included burnt bone fragments and charcoal. The pit, F304, was oval in plan, 0.40m × 0.60m and was 0.20m deep with a ‘U’-shaped profile and grey-brown silt/clay stony fill. Two stake-holes (F255 and F258), 0.11m apart were recorded 0.20m west of the pit (F264) and may be part of activity centring on the use of the pits. A charcoal spread (F294) was recorded around these stake-holes. Three stake-holes (F251, F288 and F290) were recorded to the north of the pit F253.

Entrance area (?) (Figs 3 and 8)

A small area of cobbling (F325) of recent origin was uncovered in the south-eastern quadrant and modern cultivation furrows were recorded under the cobbling. The bank at this point comprised only topsoil layers, with no banding or stratigraphy. A modern stone revetment on the exterior face indicated that the bank was reconstructed in modern times. The ditch was, however, continuous outside this area. A post-hole (F351) and two pits (F333 and F347) were recorded under the modern bank and may have been within the original entrance area of the ringfort. The post-hole (F351) was circular in plan with a diameter of 0.22m and 0.11m deep and may have held a gate-post. The pit F333 was circular with a diameter of 0.55m and 0.23m deep with a bowl-shaped profile. The fill included compacted iron slag and charcoal with small

---

* An archival report detailing contextual, weight and volume information is available in the site archive and in a report submitted to the Heritage Service.
amounts of silty clay and fire-shattered sandstone. Charred plant remains from the pit included bramble and elder (Appendix A). The pit F347 was 0.81m × 1.06m × 0.33m deep and bowl-shaped in profile. The fill included fire-shattered stones and vitrified slag, with small amounts of charcoal (Appendix B). This slag came mainly from the upper part of the fill. Knotweed and bramble seeds were also recovered from the pit fill (Appendix A).

The finds

Stone

Hone-stone: 97E0022:259:1. (Fig. 10.1) L. 80.39mm (incomplete), W. 34.59mm Th. 19.97mm, Weight 94.10g. Grey-green, indurated mudstone. Carboniferous shale (local). Parallel sided, sub-oval cross-section. Surface highly polished with numerous cut/chip scars. Phase 1, occupation.

Hone-stone: 97E0022:332:1. (Fig. 10.2) L. 91.25mm (complete), W. 48.30mm, Th. 15.53mm, Weight 156.24g. Black with green degradation, indurated mudstone. Carboniferous shale (local). Sub-rectangular shape and cross-section. Surface highly polished with numerous cut/chip scars on large faces. Red-orange staining (iron oxide) in some areas. Phase 1 paving (F332).

Hone-stone: 97E0022:342:1. (Fig. 10.3) L. 90.85mm (complete), W. 19.31mm, Th. 14.98mm, Weight 42.97g. Yellow-brown, fine to medium grained sandstone. Carboniferous sandstone (local). Sub-triangular shape with sub-rectangular cross-section. Surfaces highly polished and worn (one side is slightly concave through wear). Phase 1, gully fill (F342/3).

Hone-stone: 97E0022:342:2. (Fig. 10.4) L. 118.88mm (incomplete), W. 37.58mm, Th. 35.57mm, Weight 215.8g. Red-brown, fine to medium grained sandstone. Carboniferous sandstone (local). Irregular shape and cross-section. Smoothed on two sides with a possible pin groove. Phase 1, gully fill (F342/3).

Polishing Stone: 97E0022:1:1. (Fig. 10.5) L. 105.66mm (complete), W. 88.45mm, Th. 19.24mm, Weight 215.8g. Dark grey, slightly micaceous indurated mudstone. Probably locally derived carboniferous shale. Sub-circular disc, smoothed on one side. Modern garden soil.

Saddle Quern: 97E0022:252:1. (not illustrated) L. 301.00mm (incomplete), W. 235.00mm (incomplete), Th. 74.00mm, Weight 7761.00g. Light brown/green, medium grained, slightly micaceous sandstone. Carboniferous shale (local). Sub-rectangular shape with sub-rectangular cross-section. Fragmented in antiquity with portions now missing. Thickness varies across middle section from 74.00mm at centre to 25.27mm at original edge. Upper face of stone smoothed and slightly concave in profile. Polishing present near original edges. Some pocking also present in central area of upper face. Saddle querns are generally dated to the Bronze Age (Caufield 1969, 59; Connolly 1994, 30–32; Hencken 1942, 15; O’Kelly 1952, 130) and are rarely found in ringfort contexts. A single rubber stone is known from Carraig Aille I, Co. Limerick (Ó Riordáin 1940, 100). The discovery of rubbing stones at Cush, Co. Limerick, was interpreted as indicating the limited use of the saddle quern and the preference for rotary quern types (Ó Riordáin 1940, 162).
Glass

Blue glass bead: 97E0022:252:2. Diameters 9.76mm (max) x 8.15mm (min). Axis length 7.31mm. Perforation diameter 3.34mm. Weight 0.84g. Sub-circular shape, flattened on two sides at right angle to perforation. Numerous imperfections appearing
as irregularly spaced rounded depressions on surface. Similar beads are known from Lagore (Henken 1950), Carraig Aille (Ó Ríordáín 1949, 40) and Knockea (O’Kelly 1967). Ringfort, fill of pit (F253).

Bichrome glass bead: 97E0022:252:3: (Pl. IV) Diameter 8.67mm. Axis length 8.87mm. Perforation diameter 2.14mm. Weight 0.78g. Mid red-brown glass with decorative inlay of mid-yellow glass. Barrel-shaped. Some surface damage and imperfections. Similar beads are known from Lagore (Henken 1950) and Knockea (O’Kelly 1967). Ringfort, fill of pit (F253).

Discussion

The excavation of the ringfort confirmed that the occupation occurred over two periods. The initial settlement (Phase 1) was unenclosed and was represented by an oval-shaped house approximately 3m × 3.80m, built from upright posts with presumably intermediary walls of mud-plastered woven wattle or turves. The upright posts must have been load-bearing for the roof. The structure was poorly preserved on the southern and western sides due to modern disturbance, but the suggested oval-shaped building is probably correct. A roughly cobbled area on the eastern side extended from within the building to the external precinct and may mark the entrance where the cobbled was laid down to counteract puddling. A paved area further east is also interpreted as part of the occupation phase. A gully was dug subsequently across the paved area and this is interpreted as functioning as a drain to dry the environs of the house. Evidence from the environmental remains suggests
a wet environment around the gully. The gully indicates that the site was prone to holding surface water since the underlying boulder clay was sticky impervious clay. A radiocarbon determination of 530–610 cal. AD from charcoal in the gully places this activity in the early sixth–early seventh century.

There was no evidence from the excavation that the Phase 1 house was enclosed. Excavation within the later ringfort confines to the west, including under the bank and to the east outside the eastern ringfort bank, did not uncover any remains of a palisade or enclosing bank or ditch. Unenclosed settlement of the early medieval period is uncommon in the published excavation record.\(^5\) Seán P. Ó Riordáin’s (1949) excavation at ‘The Spectacles’, Lough Gur, Co. Limerick, remains one of the few examples of unenclosed settlement sites of this period. Evidence for pre-ringfort enclosure occupation was recorded at Knockea, Co. Limerick, where the foundations of a circular house were cut through by a later ringfort ditch (O’Kelly 1967). The pre-ringfort settlement at Dromthacker seems to be relatively uncommon, but this may be largely due to the limited number of ringfort excavations in Ireland. (Of the c. 40,000 known sites, only a tiny portion have been excavated, perhaps in the region of 200 sites or around 0.5%, see Edwards 1990, 11.) Of the excavated sites, there are many instances, where the pre-bank surface was not investigated. The absence of comparatives may therefore be a product of the lack of information rather than a reflection of settlement sequences on ringfort sites.

The hut site of Phase I was also small with axes of 3m and 3.8m, in contrast to the average size of 6m for houses within ringforts (Stout 1997, 33). Indeed, Kelly (1997, 362) cited the Crith Gabhlach notes that the lowest grade of adult freeman or ócaire ‘has a house with a diameter of nineteen feet’ (c. 6m). The nature of early Irish society was hierarchical with clear distinctions between grades. Among the lowest ranks were the bothach or ‘cottier’ and the fuidir, who was not a member of the tribe and of similar rank to the cottier and below these the sen-chléithe or hereditary serfs bound to the soil (Ó Corráin 1972, 42). It is possible, therefore, that the unenclosed hut site at Dromthacker belonged to the lower ranks of society, who lived outside ringforts. An alternative interpretation may be that the hut was linked to farming practice whereby the cattle were brought to hill pasture in the care of a professional herdsman or young people (Kelly 1997, 44). Cattle were also grazed on damp pasture in low-lying areas that were waterlogged in winter (Kelly 1997, 45) and the landscape at Dromthacker fits this profile as the ground, particularly on the northern side of the ridge was extremely waterlogged in winter. The hut site may therefore be interpreted as no more than a herdsman’s shelter.

There are several unenclosed stone huts or clochauns recorded in the Kerry region (Cuppage 1986; O’Sullivan and Sheehan 1996) and the similarity in terms of construction techniques and morphology to known early medieval houses within early Church sites suggests that many of these sites are of that period (Cuppage 1986,

\(^5\) Given the number of recent excavations in advance of infrastructural works, there are undoubtedly examples of unenclosed early medieval houses which will in due course be published. A perusal of Excavations I. Bennett (ed.) did not however source comparatives (Bennett 1988).
This implies that a number of these huts can probably be added to the corpus of unenclosed early medieval settlement sites. Unassociated souterrains are generally accepted as evidence for unenclosed settlement, although Clinton (2001) advises caution in assuming that all souterrains within ringforts are contemporary with their enclosures. Scientific dating evidence places some souterrains as early as the sixth century AD (Clinton 2001, 89) and thus contemporary with the pre-enclosure phase at Dromthacker. Surveys in Co. Kerry have shown that on the Iveragh Peninsula (O’Sullivan and Sheehan 1996), almost 25% of souterrains are not associated with ring forts and on the Dingle Peninsula (Cuppage 1986) almost 60% are unenclosed. These souterrains are perhaps indicative of more widespread unenclosed settlement than is apparent in the archaeological record.

The Phase 1 house, paving and gully were overlain by an introduced clay layer (F256) and the ringfort bank and Structure 2 of the ringfort occupation of the site (Phase 2) were constructed over this layer. There was no evidence of any intermediary sod regeneration between the introduced layer and the subsequent bank construction and the erection of Structure 2 and it can only be assumed that the time interval between the two phases was not significant. Charcoal from a pit (F44) between Phase 2 Structures 1 and 2 returned a date of 560–620 cal. AD and although the pit was not directly related to the structures, the stratigraphy and proximity to later buildings suggests contemporaneity. The date is close to that from the pre-bank gully, again suggesting that the time interval between the unenclosed settlement and the ringfort construction was minimal. The introduced iron-rich clay layer (F256) is interpreted as a levelling-up of part of the site prior to the bank construction. Environmental evidence suggests that the ground was wet and the introduced layer may have been used to counteract wet conditions underfoot or perhaps to provide a clean surface on which to construct the ringfort enclosure and Phase 2 buildings.

Phase 2 of occupation of the site centred on the construction of a ringfort. In this instance, the shape was oval rather than circular, as indicated by the line of the enclosing ditch. This shape is similar to the cartographic representation of the site on the 25” map of 1899. The overall dimensions of the site were 24m (N/S) by 19m (E/W). If the bank was originally 2–3m wide, the estimated external width was c. 26m (N/S) by c. 21m (E/W). The distance between the surviving eastern (inner) section of the bank and the eastern (inner) lip of the western ditch was almost 5m in the N/W quadrant. This width included a 0.5m-thick modern limestone wall that was constructed along the inner face of the bank. When this wall is excluded from the measurements, the estimated original bank width was up to c. 4.50m on the western side of the enclosure. The dimensions of the ringfort are within the range of ringfort internal diameters for the Kerry region. Toal’s survey (1995) of north Kerry shows that almost one third of the ringforts in that region are between 27–30m in internal diameter. In a national context, almost 85% of ringforts have internal diameters of 20–44m (Stout 1997, 15) and the site at Dromthacker can be seen as an average-sized ringfort.

At some sites, such as Lisleagh, Co. Cork, the importance of the enclosing elements declined and the ditch was allowed to silt-up, thus suggesting that the feature became redundant during the occupation of the site (Monk 1998, 41). The ditch at Dromthacker was also partially infilled in antiquity. The need for enclosures may therefore have become less pressing and reflect local social and political conditions
or a dynamic of the community that was not uniform throughout the countryside. There are also many recorded instances where enclosing banks and ditches were changed during ringfort occupation such as Millockstown, Co. Louth, where the enclosing elements were enlarged (Manning 1986).

The ringfort is located on an elevated site on the side of a ridge with a south-westerly aspect at an altitude of c. 58m above OD. The ringfort location is similar to this type of monument in the Kerry region. A survey of the area to the west of Tralee (Toal 1995) recorded that almost 60% of the ringforts occurred below the 60m contour line (between 16–60m above OD) and a similar situation was noted in the Iveragh Peninsula to the west of the county (O’Sullivan and Sheehan 1996). Stout (1997, 92) noted that the densest concentration is below the 61m contour and that many are on a S/E facing slope in a rolling landscape similar to the terrain at Dromthacker. The ringfort at Dromthacker is typical of many sites where the preferred location was a site avoiding the top of the hill, ‘preferring a location on the break of slope which provided the best possible view and drainage given the nature of the landscape’ (Stout 1997, 93). The site is also located in a high-density area of ringforts (Stout 1997, 82) and this is apparent from the number of ringforts recorded in the Record of Monuments and Places maps of the environs of the site. There are 69 sites within a 3km radius of the excavation that can be positively identified as ringforts and a further 25 are identified as ‘enclosures’. The enclosures are likely to be ringforts where the enclosing banks are levelled. The ringforts and enclosures are more frequent to the north and east of the site and less concentrated towards the south-west. The distribution pattern reflects the local topography where there are more ringforts on the higher ground and less where the landscape sweeps down to Tralee Bay. The density of ringforts is testament to an intensive occupation of this landscape in the early medieval period and although all sites are unlikely to be in contemporary use, there is a marked frequency of this monument type.

The site had been severely altered prior to the excavation. The cartographic evidence (25” 1899 OS Survey) shows that the eastern bank was modified and incorporated into a road boundary and the ditch was under an access road to old farm buildings. The excavation confirmed that the original eastern bank remained to a height of only 0.40m and topsoil and gravel were added in modern times to increase the height. Sections cut across the ditch show that the internal line of the ditch was asymmetric relative to the bank curvature on the eastern side of the ringfort. This is particularly noticeable in the N/E quadrant where the bank curved inwards to accommodate a modern entrance of two brick-built pillars (Fig. 3). The internal bank along the eastern side of the ringfort also appeared to be relatively straight (north/south) in comparison to the curvature of west side of the ditch. The western bank remained extant to a height of c. 0.75m and was added to in modern times. There was no evidence from either the excavation or from a pre-excavation magnetic gradiometry survey that there was a bank external to the ditch and the site can be considered to be univallate. This is also similar to the national morphology of ringforts, as almost 80% of earthen enclosures are single bank and more locally in north Kerry almost 88% are single-bank enclosures (Stout 1997, 17).

The excavation at Dromthacker did not locate an original entrance to the enclosure. An entrance on the south-eastern side of the site had been blocked up in
Excavation of an early medieval settlement and other sites

the 1980s. Paving (F325) at this location was also modern and overlaid modern cultivation furrows. The probability is that the entrance was somewhere on the south-eastern side and evidence for this suggestion is supported by the presence of a post-hole (F351) and two pits (F333 and F347) at this location. Alternatively, the pits and post-hole may be pre-bank activity. The ditch was continuous along the southern circuit although the fill differed to that in other excavated sections and appeared to be stonier (Fig. 6, Section 4: Layers 6–8), perhaps representing a deliberate backfill. There was evidence, however, that the ditch on the south-eastern side was open for some time because a layer of silt had accumulated at the base (Fig. 6, Section 5: Layer 9).

Ringfort entrances were probably located away from the prevailing winds and in the case of the Dromthacker site, these were from the south-west. The preferred location of ringfort entrances in the Kerry region was on the eastern or south-eastern sides of the enclosures (47% north Kerry; 78% Iveragh Peninsula, see Stout 1997, 18–19).

The Phase 2 structures at Dromthacker were located towards the eastern side of the ringfort enclosure. Other buildings may have originally existed within the enclosure, traces of which did not survive due to modern disturbance. Indeed, Stout has noted that ‘circular houses, which are directly associated with the main phase of ringfort occupation, tend to be located towards the centre of the enclosure placing them furthest from an attack from outside the bank’ (1997, 33). Many ringfort excavations have recorded a series of contemporary buildings within enclosures such as Cush and Carraig Aille, Co. Limerick (Ó Ríordáin 1940 and 1949), Knockea, Co. Limerick (O’Kelly 1967), and Raheens, Co. Cork (Lennon 1994).

The Phase 2 structures at Dromthacker were circular and oval in plan, constructed with substantial earth-fast posts forming the perimeter walls. Structure 1 had an estimated diameter of 7.5m and Structure 2 may have been up to 8.5m in diameter. These are slightly larger than the normal house size recorded in ringforts which is usually c. 6m (Stout 1997, 33). The perimeter posts are likely to have supported the roof, though post-holes within both structures suggest evidence for internal roof supports. These may have been necessary because of the large span of the roof trusses. Only Structure 2 had evidence for a hearth although it is probable that both buildings had internal hearths since the survival of a timber-framed building would have been dependent on an internal heat source in order to prevent rapid decay of the structural timbers and roof. A series of internal stake-holes in Structure 1 may indicate that the building had internal fittings such as drying racks, beds, etc.

The surviving Phase 2 houses were interpreted as circular (Structure 1) and oval (Structure 2) in plan and this architectural preference predominates in the earlier phase of the early medieval period (Lynn 1978, 30). The radiocarbon date of 560–620 cal. AD, from a pit (F44) between the buildings, on the same stratigraphic level but not directly related to either structure, suggests a period of occupation in the late sixth to early seventh century.

The excavation uncovered the remains of a pit (F333) which had 24kg of iron slag within the fill and evidence for partly vitrified clay in the upper level that may have been part of the clay surrounding the tuyère. There was no evidence of a clay lining in the pit and the localised vitrified clay may be the sealing of the area around the bellows and tuyère. Iron slag was also recovered from Phase 1 and 2 levels of occupation and from unstratified contexts. The slag had relatively high iron content and some
slag was from failed smelting processes. It may be that iron-working was a small scale
domestic enterprise although Proudfoot (1977) suggests that iron-working is probably
best interpreted as the product of itinerant craftsmen, given the difficulties inherent
in the process, rather than a local craft industry. Scott suggests, however, that iron-
working on early medieval sites was ‘work to meet immediate needs of the occupants’
(1990, 99). There is a difficulty in distinguishing between smelting slags and those
resulting from blooismithing and forging and thus the slag at Dromthacker may have
been from initial smelting or smithing residues as ‘smithing slags also resulted
from the forging up of artefacts from stock at heat’ (Scott 1990, 156). Scott also
noted that the re-use of bowl-smelting furnaces as smithing hearths makes a positive
ascription of function difficult. The size and shape of the pit (F333) at Dromthacker
is similar to many excavated examples where the diameters ranged from 0.30–0.50m
and depths from 0.10–0.30m (Scott 1990, 159–67).

Four hone-stones were also recovered from primary contexts and these may
be related to iron artefact production and use. Two of the hone-stones were sandstone
and two were mudstone, in contrast with the majority of Irish hone-stones where
the raw material is generally sandstone (O’Connor 1991). Mudstone is softer than
sandstone, but may have been suitable for fine-honing. Both the mudstone hone-
stones have one broad flat face where the stone rested without rocking when in use.
The rectangular cross-sections and lengths of the mudstone varieties fit the general
morphology of hone-stones from early medieval contexts (O’Connor 1991). The
long narrow sandstone hone-stone (97E0022:342:1) has a slight oblique form on the
narrower end but this appears to be its natural shape rather than the result of manipu-
lation. The hone-stones from the ringfort were recovered from contexts associated
with Phase 1 occupation and are comparable to the many hone-stones recovered
from other early medieval sites in Ireland (O’Connor 1991).

Little evidence for the economic life of the inhabitants of the ringfort at
Dromthacker survived. The soil is acidic and with the exception of some uniden-
tifiable burnt bone, no faunal remains were recovered. The charred plant remains
included some barley and wheat. Fragments of a saddle quern were found in the fill
of a pit (F252) on the north-western side of the enclosure in association with glass
beads. Saddle querns are usually recovered from Bronze Age sites and the find in the
ringfort at Dromthacker may be residual from an earlier phase of occupation in the
area. A fulacht fia was excavated c. 350m north of the ringfort and the saddle quern
may belong to that phase of occupation rather than the early medieval period. There
was evidence of cereal production, although the economic bias was probably more
cattle-based (McCormick 1983).

The ringfort was in a poor state of preservation prior to the excavation. The
results, however, provide some information on the site which appears to have been
fairly typical in size and location of earthen univallate ringforts in the Kerry region.
The internal buildings were circular and oval post-built, large structures. Iron-
working was carried out on the site. Poor soil conditions resulted in the absence of
any metal or bone artefacts and the only indicators of the range of domestic objects
were hone-stones and two glass beads.

The contemporary political history for the period of early medieval settle-
ment in Dromthacker is linked with the Ógánanacht, a loose federation of dynastic
groups whose origins are obscure but who had emerged as the political rulers of Munster by the seventh century (Mac Niocaill 1972, 2). The western Eóganacht comprised the kingdoms of Locha Léin and Raithliu, the Locha Léin predominating in the Killarney area with territories extending to the present Cork and Limerick borders. One of their vassal kinships was the Ciarraige Luchra who ‘dominated the farming lands of the North Kerry plain’ (Ó Corráin 1972, 7) and included the present baronies of Trughanacmy, Clanmaurice and Iraghticonnor. These baronies corresponded to ancient túath and were in turn ruled by sub-kings or rí who had direct authority over the people in his own túath (Binchy 1954, 54). Those persons who occupied the average-sized ringforts, similar to that at Dromthacker, are likely to have been the bó-aire or strong farmers (Ó Corráin 1972, 42).

The northern side of the enclosure was indicated on the 1841–2 Ordnance Survey map as a curved field boundary and no trace of the site was visible at the time of the excavation. The field boundaries in the area had been removed between the first (1841–2) and second (1899) Ordnance Survey. The site was presumably levelled before the first Ordnance Survey although indications from the ditch fills (see below) show that at least some of the enclosing bank was levelled in relatively modern times. The site was located on a southern-facing slope and the ground sloped from north to south.

The enclosure only became apparent when the topsoil was stripped and an oval enclosure, delimited by a ring of purple-grey and dark to black fragmented sandstone stones was apparent as the remains of the enclosing element (Fig. 11). This stony band varied in width from 2.5–5m and the ditch was c. 5m wide. The overall external dimensions of the site were 56m (N/S) by 54m (E/W) and the maximum internal diameter was 45m (N/S and E/W). The interior of the site was orange silty soil which was of natural origin and similar to the boulder clay. Some traces of darker soil were also visible along the internal perimeter of the site.

Nine sections were cut across the ditch. It had originally been cut through the underlying sandstone and mudstone bedrock which was highly fractured and loosely-bonded. A section was excavated across the levelled bank on the north-eastern side. The interior of the site appeared to be relatively sterile, though two dark stony deposits were recorded, one on the southern and one on the eastern side. A cluster of features (F98–F135) were visible in the south-eastern quadrant and two linear trenches (F93 and F145) were recorded on the north-eastern and western sides of the enclosure.

The nine ditch cuttings were randomly placed along the perimeter of the enclosure and the profiles showed that the ditch was generally a broad ‘U’-shape and varied in depth and width (Table 1). The ditch varied in width from 1.70m (Cutting 2) to 5.20m (Cutting 5) and depth from 1.10m to 2.35m in Cuttings 2 and 5. It was generally wider and deeper on the southern side which was the lowest area of the site relative to the natural slope of
the hillside. The upper levels of the ditch fill (Layers 1 and 2, Cuttings 1–9) included modern objects (pottery and glass) suggesting that part of the ditch infill process was of relatively recent origin. These layers also included some lenses which again were modern i.e. clay layers 5–7 (Cutting 1, Fig. 12), layer 6 and 7 (Cutting 5, Fig. 12), a stony layer (14) in Cutting 8 and a charcoal-enriched layer (15) in Cutting 9 (Fig. 12). The primary deliberate infill of the ditch was recorded below these layers and this was represented by an orange-brown stony soil (layer 3) that is interpreted as levelled bank material. This occurred in all the sections cut across the ditch fill and
Excavation of an early medieval settlement and other sites

varied in thickness from 0.55m in Cuttings 4 and 5 to 0.75m in Cutting 6 and 0.80m in Cutting 1. A layer of orange-brown clay with less stones in its composition was recorded below layer 3 in Cuttings 1–3, 5, 8 and 9. This is also interpreted as part of the original rampart which was deliberately levelled and used as ditch infill. The composition of these layers (3 and 4) is a reflection of the original structure of the bank formed from upcast from the ditch. These layers were derived from the boulder clay subsoil and their composition is comparable to the boulder clay from the site.

Layers of dark brown and brown-yellow clay (6 and 9) were recorded below layer 3 in Cutting 4 and were comparable in texture to layer 4 in other cuttings; the colour differences may have been due to localised soil factors. A deep layer (10) of silt, c. 0.75m thick was also recorded in Cutting 4 and below this was a stony layer (11) of
brown clay with a layer of yellow silt (12) along the ditch edge (Fig. 12). The silt layer (10) must represent a phase when the ditch at this location was open for some time in order to allow the silt to accumulate. The stony layer (11) and the silt (12) at the edge of the ditch may represent some slippage of bank material into the open ditch. A layer of basal silt (8) was recorded at the lowest level in Cutting 4. This layer (8) was recorded in all sections of the ditch cuttings and must represent the time when silt accumulated at the base of the open ditch after the original ditch excavation and before the first deliberate infill. A grey silt layer (13) was recorded over the basal fill in Cutting 5. This was similar to the grey silt of layer 8, except that it was slightly darker.

Bank

The bank was represented around the enclosure by a spread of purple to dark grey sandstone fragments, the extent of which varied from 2.2m on the north-eastern to 5m on the north-western sides of the enclosure. One section, 3m (east–west) by a maximum 1m wide and 1m deep was excavated across the levelled bank on the north-eastern side of the enclosure. The excavation showed that the vestiges of the bank consisted of sandstone fragments with little soil in the matrix over a thin layer of stony silt.

Internal features

Two features (F145 and F93) on the northern and south-eastern sides of the enclosure are interpreted as possible primary features related to the enclosure. Two intercutting pits (F93) appeared to be part of a larger feature such as an internal ditch. There were no clear edges to feature and the excavated extent was 5m (E/W) × 2.20m (N/S) × 0.30m deep. The fill was redeposited orange boulder clay with small stone inclusions, similar to the surrounding boulder clay and a 50–100mm thick basal layer of charcoal-flecked silt. The ‘pits’ had a rounded base on the eastern side and sloped more steeply to the west. There appeared to be a slight ridge between the eastern and western sections, suggesting two intercutting pits. It was not possible to clearly define the northern and southern sides of the feature and therefore it is tentatively

<table>
<thead>
<tr>
<th>Cutting</th>
<th>Width (m) top</th>
<th>Width (m) base</th>
<th>Depth (m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>4.1</td>
<td>2.2</td>
<td>1.6</td>
</tr>
<tr>
<td>2</td>
<td>1.7</td>
<td>1.2</td>
<td>1.1</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
<td>1.9</td>
<td>1.4</td>
</tr>
<tr>
<td>4</td>
<td>3.5</td>
<td>0.6</td>
<td>2.1</td>
</tr>
<tr>
<td>5</td>
<td>5.2</td>
<td>1.7</td>
<td>2.35</td>
</tr>
<tr>
<td>6</td>
<td>3.5</td>
<td>1.4</td>
<td>1.9</td>
</tr>
<tr>
<td>7</td>
<td>4.8</td>
<td>1.5</td>
<td>2.1</td>
</tr>
<tr>
<td>8</td>
<td>4.9</td>
<td>2.2</td>
<td>2.1</td>
</tr>
<tr>
<td>9</td>
<td>3.5</td>
<td>1.4</td>
<td>1.7</td>
</tr>
</tbody>
</table>
Excavation of an early medieval settlement and other sites

suggested that the feature may have been the remains of an internal ditch. A modern circular hearth (F139), D. 0.7m, was recorded over F93. A linear feature (F145) was c. 1m wide (E/W) × 2m long (N/S) × 0.30m deep and back-filled with bank material in the upper level and charcoal-flecked, re-deposited boulder clay at the base. The feature continued to the south and similar to F93, it may have been an internal ditch or a linear pit.

Post-enclosure features

Two pits, eleven stake-holes (F98–F135) and two cultivation furrows were recorded in the south-western quadrant of the enclosure and partly overlaid and post-dated the levelled bank. The circular pits (F98 and F100) were 0.50m and 1.10m in diameter and 0.16m and 0.20m deep, respectively. Iron slag was recovered from F98. The stake-holes were concentrated, with the exception of F106 on the south-west of pit (F100) and were circular in plan with diameters of 0.05–0.13m and depths of 0.05–0.13m. The stake-holes were shallow and may have held the uprights for a wattle fence or screen.

Two stony deposits within the enclosure in the north-eastern quadrant and southern side lay over and post-dated the levelled bank (Fig. 12). On the north-eastern side was 4.10m (N/S) × 3m (E/W) and southern deposit was 11m (E/W) by 1–3m (N/S). These layers were not investigated during the excavation.

A number of features were recorded to the north and west of the line of the enclosure ditch (Fig. 13; Pl. V). All of these features were modern and included four kilns (F47, F56, F63 and F76), a hearth (F44), an associated charcoal spread (F2) and a wall fragment and wall collapse. The kilns were situated close to the outer (northern) lip of the enclosure ditch and F47 was 0.50m north of the ditch. F56 was 30m to the west of the other kilns. The kilns were circular pits with diameters varying from 2.20m (F56) to 3.10m (F47) and depths between 0.40m (F56) to 0.70m (F47). The base of each kiln had cruciform-shaped flues, visible as channels cut into the bottom of the pits to an average depth of 0.20m below the kiln base. The flues extended from the kilns to the south and those of F47, F63 and F76 were cut into the back-filled enclosure ditch fill. Only the flue in F63 was excavated fully and this extended for c. 1.20m to the south and terminated in a slight widening of the channel.

The soil along the sides and on the base of the kilns, and along the flues, was oxidised to a bright red colour and the fills were a mix of stony humic soil and charcoal. Kilns F47 and F76 had fragmented limestone inclusions in the pits. A cobbled surface was recorded on the north-eastern side of F63 and a mound of upcast soil, presumably derived from digging out the kiln chamber, was on the north-western side. A modern hearth (F44) was recorded between kilns (F56 and F76) and a charcoal spread (F2) extended to the north-east of the hearth. Finds from the hearth and charcoal spread included modern pottery, glass and clay pipe fragments. A 2m long and 1m wide modern limestone block wall, standing to a height of 2–3 courses high was east of the kilns. The northern side of the wall had collapsed.

The kilns were obviously used for burning, and the residues of shattered limestone within the fills of two suggest that they were lime-kilns. The kilns and
flues were orientated to take advantage of the prevailing south-westerly winds. The enclosure (RMP KE029-266) bank was levelled at the time the kilns were in use. The dateable finds included modern glass and black-glazed ware and suggest a period of use in the nineteenth century. The morphology of the kilns is unusual
in that most upstanding lime-kilns are stone-built with a central chamber where the lime is burnt and a rake-out aperture below this allows the collection of lime dust.

The finds

Stone

Hone-stone: 97E0022:148:1. (Fig. 14.1) L. 191.25mm (complete), W. 85.65mm, Th. 65.27mm, Weight 1829.6g. Light grey-green, micaceous sandstone. Carboniferous siltstone (local). Sub-rectangular shape with sub-rectangular cross-section. Highly polished on all sides except at ends. Numerous large chip scars on one side. Pronounced pin groove (L. 85.44mm, W. 5.17mm, D. 1.38mm) on one side. A strikingly similar example is known from Cush, Co. Limerick (Ó Riordáin 1940, 160, fig. 42). Paved area associated with kiln F63.

Hone-stone: 97E0022:92:1. (Fig. 14.2) L. 147.56mm (incomplete), W. 37.58mm, (incomplete), Th. 35.57mm, Weight 254.2g. Yellow-brown, fine-grained micaceous sandstone. Parallel sided with rectangular cross-section. Now split longitudinally and broken at both ends. Red-orange discoloration (iron oxide) on one side. Enclosure, topsoil.

Hone-stone: 97E0022:2:1. (Fig. 14.3) L. 65.74mm (complete), W. 63.96mm, Th. 20.53mm, Weight 173.59g. Light brown, indurated mudstone. Carboniferous shale (local). Parallel-sided with rectangular cross-section. Polished and discoloured (red-brown) on two sides. Numerous slight pin grooves/chip scars on flat surfaces. Enclosure, topsoil.

Rubbing stone: 97E0022:4:1. (Fig. 14.4) L. 82.61mm W. 57.99mm (incomplete), Th. 26.46mm, Weight 151.35g. Yellow-brown, fine- to medium-grained, slightly micaceous sandstone. Carboniferous sandstone (local). Egg-shaped (now split longitudinally). Original surfaces are smoothed. Enclosure, topsoil.
The enclosure was roughly circular in plan with an overall diameter of c. 56m and an external ditch varying from 1.10–2.35m. The ditch was cut into a loose layer of fragmented sandstone and it is likely that this slipped back into the ditch soon after its initial excavation. During the archaeological investigation it was found that the

Discussion

Fig. 14—Stone finds from the enclosure and kiln area.
Excavation of an early medieval settlement and other sites

ditch sides were unstable and dangerous and this must have also been the case when it was first created.

The ditch appears to have been back-filled in two stages. Many of its sections had a layer of stony brown soil (layers 3 and 4) which was similar to subsoil and this layer is interpreted as a deliberate back-fill in antiquity. Silt in the basal levels of some of the ditch sections also indicated that part of the ditch was open for some time prior to the back-filling. The upper infill levels included modern glass and pottery and suggest levelling of the monument possibly in the nineteenth century prior to the Ordnance Survey of 1841–2. There was no obvious entrance to the monument, but an entrance may have been masked by the considerable disturbance that had taken place on the site when the enclosure was levelled. Vestiges of the enclosure bank survived as a spread of fragmented sandstone material. This was obviously upcast from the ditch and may have stood to a considerable height in places. There were no traces of an external bank and the site must have been univallate. The excavation uncovered two internal features along the inner lip of the levelled bank that are tentatively interpreted as large pits, but it is possible that these were part of an inner ditch that did not appear to be continuous.

The interior of the site did not have any surviving features which were considered to be contemporary with the construction and use of the monument. The internal area of the enclosure had been completely cleared of any features or archaeological lenses and once the sod was stripped the natural boulder clay layers were exposed. There was also a complete absence of any associated datable artefacts or organic remains suitable for radiocarbon dating. The period of construction of the monument is therefore unknown.

The kilns at Dromthacker are of an unusual morphology, being subterranean circular pits with a flue descending from ground level. The benefit of lime for neutralising acid soil was known from the eighteenth century and many improving landlords of the eighteenth and nineteenth centuries constructed lime-kilns on their estates. In the closing decades of the nineteenth century, Irish farms became owner-occupied and many individual farms used lime-kilns on a seasonal basis. The lands at Dromthacker may originally have been part of the large Denny estates centring on Tralee town or the Chute Estate to the south-east of Dromthacker and latterly transferred to an individual owner.

Introduction

Of the six possible fulachtaí fia on the development area, two sites (Fig. 2) were identified as being archaeological in origin and both were burnt stones spreads. Site No. 1 was identified as a mound on the second edition of the 6” OS map and a burnt stone spread was uncovered during topsoil stripping. No traces of the mound were visible at the time of the excavation. The stone spread was partly overlain on the west side by a 0.40m thick layer of leached grey clay which was of natural origin and the result of sediment accumulation during winter flooding of the field. The layer of burnt stone was recorded on the east side of a natural depression and the layer sloped downwards to the west. The spread of heat-shattered stones
measured 4m (NW/SE) by 4.25m (E/W) and was 0.10–0.30m thick. The layer of stones included charcoal and partly oxidised silt/clay. There was no evidence for a trough or any associated features.

Site No. 2 was located in the north-west of the development area and bounded on the western side by a stream and a modern field fence. The mound of heat-shattered stones was recorded directly under the sod and topsoil at a depth of 0.10–0.20m below the modern surface. The site was disturbed by a drainage channel cut across the centre of the mound. Finds of modern glass and pottery from the upper levels of the mound suggest that the upper mound surface was disturbed.

The mound (Fig. 14)

This was irregular in plan, extended over an area of 140m² and measured 14m (N/S) by 10m (E/W). The mound contours were irregular with a slight rise on the north-eastern side and a shallow depression on the western side. A layer of grey clay on the upper surface of the depression may have accumulated in a pre-existing hollow at the location of the trough. The mound material consisted of heat-shattered sandstone fragments with charcoal and silty soil. The mound stones were relatively concentrated, though a shallow spread of mound material was visible on the south-eastern side. The deposit of mound stones varied in thickness from 0.15–0.30m (Fig. 15: A–A1: B–B1) and the stones petered out towards the edges. A radiocarbon determination of charcoal from the mound produced a date of 3670±30BP/2140–2080 cal. BC (GrN23796).

Trough (?)

A spread of grey clay, 3.20m (E/W) by 2.60m (N/S) × 0.40m thick covered the upper surface of the mound and was the result of natural silt accumulation. This grey clay also filled a pit, interpreted as the trough. The pit had been cut through on the eastern side by a modern drain and the extant dimensions were 1.50m (N/S) by 1.20m (E/W). There was no trace of a pit-lining and the basal area was filled heat-shattered stones. The pit-lining may have been removed prior to the abandonment of the fulacht fia or the pit may have been unlined. The pit sides of boulder clay were relatively solid and impervious.

Hearth (?)

No formal hearth was recorded on the excavation and it may be that the stones were heated in different areas around the trough. One lens of charcoal-enriched soil, 0.75m (E/W) by 0.50m (N/S) × 0.15m thick with some heat shattered stones in the layer was visible on the eastern side and this may represent the vestiges of at least one fire setting.
The finds

Hammerstone: 97E0022:2:1. (not illustrated) L. 90.27mm, W. 72.59mm, Th. 60.40mm, Weight 512.5g. Brown-grey, fine- to medium-grained sandstone. Carboniferous sandstone (local). Sub-spherical shape (now broken in half). Extensively heat fractured and discoloured (grey-dark grey). Flattened on one side. Fulacht Fia 2; burnt mound material.

FIG. 15—Plan and sectional profiles of fulacht fia.
The burnt stone spreads are interpreted as *fulachtaí fia* and Site No. 2 is dated to the early Bronze Age period on the basis of a C\(^{14}\) determination from charcoal. The dating of *fulachtaí fia* by a suite of radiocarbon dates has placed them firmly in the Bronze Age (Brindley and Lanting 1990) and the date from Dromthacker fits well into the chronology. One of the main criteria for location is the proximity to water and at Dromthacker, Site No. 1 was located in a wet field where the dip to the west of the burnt stones easily filled with water and Site No. 2 was adjacent to a stream. Site No. 1 was represented only by a small spread of heat-shattered stones and the topography of the area with a steep slope to the west may have been a naturally occurring dip where water accumulated and was heated by hot stones. The site may have been used only on a limited number of occasions. Site No. 2 was large and had a central pit that is interpreted as a trough. The function of *fulachtaí fia* has been discussed by Ó Drisceoil (1980, 1988) using the available archaeological data and early Irish literature and the main activity was heating water probably for cooking meat with possible uses as bathing places or primitive saunas. The absence of any permanent structures at *fulachtaí fia* sites also confirms Ó Drisceoil’s (1980, 1988) interpretation of these areas as seasonally used hunting camps.

There are 668 known*fulachtaí fia* in Co. Kerry and a further 125 burnt spreads that are likely to be *fulachtaí fia*. Similar to the distribution pattern in Co. Cork, many of these sites are located in clusters in what can be considered marginal land. The absence of modern tillage in the west of the county probably militates against the discovery of sites where mounds are denuded. There are five recorded *fulachtaí fia* within the environs of Dromthacker, albeit at some distance from the site. A group of four exists c. 5km to the north-west and a fifth site is c. 4km to the south-east. Only ten *fulachtaí fia* were known on the Dingle Peninsula in the early 1980s (Cuppage 1986) and 38 examples were recorded on the Iveragh Peninsula with a concentration of eight on Valentia Island (O’Sullivan and Sheehan 1996). The lack of infrastructural development and associated large ground disturbance may also contribute to the apparent dearth of these monuments in west Kerry. In other areas of Ireland such as Co. Limerick, only six *fulachtaí fia* were recorded in the early 1990s but the construction of recent gas pipelines has unearthed hundreds of them in the county.

There is only limited evidence of Bronze Age settlement in the area and a single standing stone in Carrigeendaniel townland is over 4km to the south-west. Closer to the site, a hoard of six Later Bronze Age horns was recovered from Clogherclemin townland on the Chute Estate to the south-east (Eogan 1983, 91). These are, however, chronologically over a millennium later than the early Bronze Age site at Dromthacker. Further afield, the mining sites at Ross Island near Killarney are testament to early Bronze Age exploitation of the landscape as are stone circles to the south in the Kenmare and Killarney areas.

**Conclusions**

The ringfort, enclosure and *fulachtaí fia* at Dromthacker represent the remains of use of this ridge over three millennia. The latter were located on the north-facing side of the ridge in what can be considered poor land where ground conditions were

---

6 Ursula Egan (Kerry Archaeological Survey), pers. comm.
Excavation of an early medieval settlement and other sites

frequently wet. The fulachtí fia were relatively small-scale sites and may have been in use for only a few seasons. The radiocarbon date places the activity around one site in the early Bronze Age.

The ringfort and enclosure were located on the south-facing slope of the ridge where ground conditions were drier. The excavation established that an unenclosed settlement represented by an oval-shaped house preceded the construction of a ringfort. The unenclosed settlement is dated to the early sixth–early seventh century and the ringfort occupation to the late sixth–early seventh century. The time interval between both phases was not significant and this was confirmed by both the radiocarbon dates and the site stratigraphy. The ringfort occupation was represented by two structures, but given the severe modern disturbance within the site, there is a possibility that other structures may have existed on the site. The buildings were architecturally similar to the pre-enclosure structure, albeit somewhat larger. The ditch was deliberately partly infilled in antiquity, perhaps during the occupation of the site in the early medieval period. Little of the material culture survived on site due to the acidic ground conditions and in all only two glass beads and four hone-stones were recovered. There was also some evidence of iron-working on the site. Animal bone did not survive and the charred plant remains indicate the cultivation of barley and wheat.

The ringfort was typical of many sites in the Kerry region, being univallate and with a maximum internal diameter of 24m, although the oval shape is unusual. A second ringfort (RMP KE029:094) is located c. 70m to the west and is more typical in shape being circular, but is similar in size to the excavated example. The ringforts may not however, be contemporary.

The enclosure was large with an overall diameter of 56m and located c. 200m to the south-east of the ringfort on the same south-facing ridge. The surrounding ditch width varied from 1.70–5.20m and the depth was 1.10–2.35m. No evidence of date or function survived and the site may not have been occupied or used after construction. The ditch was partly infilled in antiquity and the upper sections levelled-up in modern times.

Acknowledgements

The author acknowledges the support of the Institute of Technology, Tralee (ITT), which commissioned and financed the excavation and post-excavation, particularly Donal Fitzgibbon of the Finance Office, ITT. Department of Archaeology, University College Cork (UCC), for the use of various facilities. Hugh Kavanagh, Archaeological Services Unit, UCC, for his help with the graphics for this report. Donal Anderson who drew the excavation plans and finds. The specialist contributors. The staff who worked on the excavation. The anonymous referee for helpful suggestions and comments.

References


Connolly, M. 1996 An archaeological assessment of the proposed Regional Technical College development site at Dromthacker, Tralee, County Kerry.


Excavation of an early medieval settlement and other sites

Appendix A

The archaeobotanical material

MERIEL MCCLATCHIE
Archaeological Services Unit, University College Cork

Introduction

Seventeen soil samples were submitted for archaeobotanical analysis. The samples were taken from deposits associated with a ringfort, a fulacht fia and the enclosure. Ten of the samples produced non-wood plant remains preserved as a result of charring (Tables A.1–A.3). This appendix will detail the types and locations of plant remains recorded, in addition to interpreting the remains in their wider context.

Methodology

The archaeobotanical material was extracted from each soil sample using conventional flotation techniques. Between 7 and 10 litres of soil were processed from each sample. A bank of sieves was used in the flotation process, with sieve meshes measuring 0.25 mm, 0.5 mm, 1 mm and 2 mm. Residual material that did not float was washed through a sieve containing 1 mm mesh. The scanning, sorting and subsequent identification of the archaeobotanical material in all samples was carried out using a stereomicroscope, with magnifications ranging from ×6 to ×50. The seeds were identified by comparison to reference material in the UCC Archaeology departmental collection of modern diaspores and the drawings from various seed keys (Anderberg 1994; Beijerinck 1947; Berggren 1969; Berggren 1981; Katz et al. 1965). Some of the seeds were distorted or fragmented and identified to genus level only. The

<table>
<thead>
<tr>
<th>Botanical name</th>
<th>Plant part</th>
<th>Common name</th>
<th>F44</th>
<th>F333</th>
<th>F343a</th>
<th>F343b</th>
<th>F347</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>POLYGONACEAE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Polygonum sp.</td>
<td>Achenes</td>
<td>Knotgrass</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>CRUCIFERAE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brassica napus L.</td>
<td>Seeds</td>
<td>Wild turnip</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>109</td>
<td>–</td>
<td>109</td>
</tr>
<tr>
<td>Sinapis arvensis L.</td>
<td>Seeds</td>
<td>Charlock</td>
<td>3</td>
<td>–</td>
<td>–</td>
<td>35</td>
<td>–</td>
<td>38</td>
</tr>
<tr>
<td>ROSACEAE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rubus sp.</td>
<td>Seeds</td>
<td>Bramble</td>
<td>–</td>
<td>–</td>
<td>79</td>
<td>–</td>
<td>–</td>
<td>80</td>
</tr>
<tr>
<td>CAPRIFOLIACEAE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sambucus nigra L.</td>
<td>Seeds</td>
<td>Elder</td>
<td>–</td>
<td>1</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>1</td>
</tr>
<tr>
<td>GRAMINEAE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Triticum sp.</td>
<td>Grains</td>
<td>Wheat</td>
<td>1</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>1</td>
</tr>
<tr>
<td>Hordeum sp.</td>
<td>Grains</td>
<td>Barley</td>
<td>1</td>
<td>–</td>
<td>4</td>
<td>–</td>
<td>–</td>
<td>5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td>5</td>
<td>80</td>
<td>4</td>
<td>144</td>
<td>2</td>
<td>235</td>
</tr>
</tbody>
</table>
Excavation of an early medieval settlement and other sites

Identified taxa are listed by context (Tables A.1–A.3). With the exception of cereals, botanical names are listed following the order and nomenclature of *Flora Europaea* (Tutin et al. 1964–83).

**Archaeobotanical material present**

**Ringfort**

Five samples from deposits associated with the ringfort produced archaeobotanical material. Samples from two pit fills (F44 and F347) produced a small quantity of material. Two cereal grains were recovered from pit fill F44, one of *Hordeum* sp. (barley) and one of *Triticum* sp. (wheat). Three seeds of *Sinapis arvensis* L. (charlock) were also recorded in this deposit. Charlock can be found growing in a variety of environments, including field margins and waste places. A fill of a possible firing pit (F347) contained a seed of *Polygonum* sp. (knotgrass) and a seed of *Rubus* sp. (bramble). Knotgrass can be found growing in many different habitats, including waste places and cultivated fields. Bramble can often be found growing close to woodland margins and on scrub land. Another pit fill (F333) produced a substantial quantity of bramble seeds and a seed of *Sambucus nigra* L. (elder). Elder can be found growing on woodland margins and on waste ground close to habitation.

Two samples from a gully fill (F343) were also examined. Four barley grains were recovered from F343a. The other sample (F343b) produced a more substantial

<table>
<thead>
<tr>
<th>Botanical name</th>
<th>Plant part</th>
<th>Common name</th>
<th>F3</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Sinapis arvensis</em> L.</td>
<td>Seeds</td>
<td>Charlock</td>
<td>1</td>
</tr>
</tbody>
</table>

**Table A.2**—Taxa present in fulacht fia samples.

<table>
<thead>
<tr>
<th>Botanical name</th>
<th>Plant part</th>
<th>Common name</th>
<th>F3</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Sinapis arvensis</em> L.</td>
<td>Seeds</td>
<td>Charlock</td>
<td>1</td>
</tr>
</tbody>
</table>

**Table A.3**—Taxa present in enclosure.

<table>
<thead>
<tr>
<th>Botanical name</th>
<th>Plant part</th>
<th>Common name</th>
<th>F2</th>
<th>F63</th>
<th>F96</th>
<th>F145</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CHENOPODIACEAE</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Atriplex</em> sp.</td>
<td>Utricles</td>
<td>Orache</td>
<td>1</td>
<td>–</td>
<td>7</td>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td><strong>RANUNCULACEAE</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Ranunculus repens</em> L.</td>
<td>Achenes</td>
<td>Creeping buttercup</td>
<td>–</td>
<td>1</td>
<td>–</td>
<td>–</td>
<td>1</td>
</tr>
<tr>
<td><strong>CRUCIFERAE</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Brassica napus</em> L.</td>
<td>Seeds</td>
<td>Wild turnip</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td><em>Sinapis arvensis</em> L.</td>
<td>Seeds</td>
<td>Charlock</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td><strong>ROSACEAE</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Rubus</em> sp.</td>
<td>Seeds</td>
<td>Bramble</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td><strong>GRAMINEAE</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Triticum</em> sp.</td>
<td>Grains</td>
<td>Wheat</td>
<td>2</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>2</td>
</tr>
<tr>
<td><em>Hordeum</em> sp.</td>
<td>Grains</td>
<td>Barley</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td><em>Avena</em> sp.</td>
<td>Grains</td>
<td>Oat</td>
<td>2</td>
<td>–</td>
<td>–</td>
<td>1</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total** | | | 5 | 1 | 7 | 8 | 21 |
quantity of seeds. Over one hundred seeds of *Brassica napus* L. (wild turnip) were recorded, in addition to a significant number of charlock seeds. Both wild turnip and charlock can be found growing around waste places, ditches and field margins.

The pit and gully fills associated with the ringfort at Dromthacker produced a narrow range of archaeobotanical material. A small number of cereal grains were recovered, probably representing food waste. Cereals may have become charred during processing of the crop—for example when being dried prior to storage—or during cooking activities. The presence of food waste in a gully fill (F343a) suggests that the gully was, to some extent, blocked with habitation debris, which may indicate problems with management of water courses at the site.

A study of archaeobotanical assemblages from a selection of early medieval sites in Munster indicates that *Avena* sp. (oat) and barley seem to have been the predominant cereal types of this period, with lesser quantities of wheat and *Secale cereale* (rye) being recovered (Monk et al. 1998, 72). The more common occurrence of barley and oat may be related to their status in early medieval Ireland. Documentary sources indicate that various cereal types were imbued with differing levels of status at this time. *Bretha Déin Chécht*, an eighth-century law text, provides a list of seven cereal types, whose order is based on the relative prestige of each type of grain, which is correlated with a particular grade in human society (*Bretha Déin Chécht*, Sections 1–2; Binchy 1966; Kelly 1997, 219). Translations place cereals in the following order: bread wheat, rye, possible spelt wheat, possible two-row barley, possible emmer wheat, six-row barley and finally, oat. Bread wheat is equated with the rank of superior king, bishop or chief poet, whereas at the other end of the scale, oat is equated with the commoner. Other contemporary texts also agree in attaching more value to bread wheat than other cereals (Kelly 1997, 219–20; Fredengren et al. 2004). The more regular recovery of cereals such as oat and barley in archaeological deposits is therefore likely to be related to their status, which was perceived as lower in early medieval Ireland. Cereals such as bread wheat and rye are rarer in the archaeological record, as their status was perceived as being higher. It seems that cereals would have been regarded not just as a source of sustenance, but also as cultural symbols that could distinguish social classes (Fredengren et al. 2004). The wheat grain from early medieval deposits at Dromthacker could not, unfortunately, be identified to species. The identification of wheat species by grain alone is generally unreliable (Hillman et al. 1996) and well-preserved chaff is instead a more reliable indicator. The species of wheat present at Dromthacker is therefore unknown, and it is unclear if a higher-status cereal, such as bread wheat, or a lower-status cereal, such as emmer wheat, is represented. The presence of the lower stone of a saddle quern provides a further indication that cereal processing and consumption is likely to have been taking place at Dromthacker.

A small range of non-cultivated plants was recorded in early medieval deposits at Dromthacker, all of which could have been gathered for consumption. Bramble and elder fruits may have been collected from nearby waste ground or scrub-land. Knotgrass, charlock and wild turnip may also have been gathered intentionally from nearby waste ground or cultivated fields. Lucas has drawn attention to the Irish name for charlock, which is *praiseach bhuidhe*, as the word *praiseach* in modern Irish also means pottage, porridge, gruel or broth (Lucas 1959, 138–9).
Charlock could therefore have been consumed, perhaps when cultivated foods were scarce (Lucas 1959, 138–9). It has also been suggested that wild turnip and knotgrass were consumed in Viking Dublin (Mitchell 1987, 26).

**Fulacht fia**

One deposit from the *fulacht fia* at Dromthacker produced archaeobotanical material. A charcoal and burnt stone spread (F3) contained one charlock seed, representing a species that was probably growing locally near waste places or field margins. The archaeobotanical material recovered from this area does not provide any evidence for activities that may have been taking place at the *fulacht fia*.

**Enclosure**

Archaeobotanical material was recovered from four deposits at the enclosure site (RMP KE 029–266), some of which were relatively modern in date. A modern charcoal spread (F2) contained two wheat grains and two oat grains. One seed of *Atriplex* sp. (orache) was also present. Species of the orache genus may be found growing in a variety of environments, including cultivated and waste ground. F63 was interpreted as a modern kiln and contained one seed of *Ranunculus repens* L. (creeping buttercup), a species that can regularly be found growing in habitats such as damp fields.

F96 was created after the levelling of the enclosure bank. A small number of orache seeds were present in this deposit, perhaps indicating an area of cultivated or disturbed ground nearby. A linear deposit on the interior of the levelled bank (F145) contained a barley grain, an oat grain and a small number of weed seeds, including orache, wild turnip, charlock and bramble.

The lack of secure dating for the deposits in the enclosure and the small quantity of archaeobotanical material recovered limits the wider interpretation and significance of these remains. The modern charcoal spread (F2) contained food waste in the form of a small quantity of cereal grains. The recovery of a single buttercup seed from a modern kiln, F63, does not provide any evidence for the functional interpretation of this feature. It is, however, noteworthy that the weed seeds recovered from deposits laid down after the enclosure bank was levelled, particularly in F145, are similar to those represented in the ringfort deposits.

**Conclusions**

Many of the soil samples examined for this study contained a small quantity of plant macro-remains and a narrow range of species. The plant remains were generally poorly preserved, which could explain the low frequency of seeds present. Cereal grains were recorded in a number of the ringfort samples, probably representing food waste rather than stored products or crop-processing debris. Non-cereal plants recovered from ringfort deposits may indicate the presence of waste and perhaps
cultivated land in the vicinity of the site. Many of these plants could have been exploited for their food value, but there is no direct evidence for any such activity. The fulacht fi a produced a single charlock seed, representing a plant that is likely to have been growing locally. Samples taken from the enclosure site similarly contained a small quantity of archaeobotanical material, including flora also recorded in ringfort deposits. It should be remembered, however, that preservation by charring is biased in favour of plants that are likely to come into contact with fire. It is therefore probable that the inhabitants at Dromthacker would have made use of a far wider range of plants than those represented in the examined deposits.

References


Appendix B

The charred wood

SANDRA A. McKEOWN
Archaeological Services Unit, University College Cork

Introduction

Eighteen samples of charred wood were submitted for identification and of these fourteen were from features such as stake-holes, pit fills, possible hearth material, layers and deposits from the ringfort (RMP KE 029-095). Three samples consist of mound material associated with fulacht tia and one sample was taken from wood fuel used in nineteenth century kilns.

Some wood species cannot be distinguished on the basis of their anatomical features. This is true of sessile oak and pedunculate oak (Quercus spp.). Common and black alder (Alnus spp.) and the willow species (Salix spp.) present similar identification problems. The Rosaceae wood group includes Prunus spp. such as blackthorn and cherry and the Pomoideae group (pomaceous fruits such as apple, pear and hawthorn). It is not possible to distinguish between willow (Salix spp.) and poplar (Populus spp.) charcoal. The smaller charred wood fragments were classified, where possible, as ring porous type (e.g. ash and oak) or diffuse/semi-diffuse porous type (e.g. alder, willow and hazel).

The identified charcoal fragments from each sample were quantified in terms of the number of fragments per species and the weight of charcoal per species.

Results

Eight wood species were identified in charcoal samples from Dromthacker. These include oak, willow/poplar, hazel, holly, ash, Rosaceae wood, Scots pine and alder.

Ringfort RMP KE 029-095

Hazel, willow/poplar, oak and alder were identified in the charcoal samples associated with the ringfort. Willow/poplar and hazel were identified from the fill (F40) of stake-hole (F41) while willow/poplar and oak were retrieved from the fill (F257) of a stake-hole (F258). The fill (F80) of the possible hearth feature (F88) within Structure 2 was a mixture of hazel, willow/poplar and alder wood.

Oak, hazel and willow/poplar were present in material from the fill (F43) of an oval shaped pit (F44). This feature fill is described as possible dumped material from iron-working elsewhere on the site. The fill (F252) of pit (F253) produced evidence for in-situ burning and the charcoal was dominated by oak and included minor quantities of willow/poplar and hazel. Oak was also predominant in the fill (F263)
of a large pit (F264) that also had minor hazel and alder inclusions. Oak fragments were identified in the fill (F254) of a pit (F255) while the fill (F301) of a possible pit (F297) contained only oak wood.

Oak, willow/poplar and hazel were present in a deposit (F348). Oak and hazel were identified an area of burning (F69).

Four charcoal samples from the fill (F342) of the large gully feature (F343) along the internal perimeter of the ringfort. This feature has been interpreted as a channel to drain excess water from the site interior. The samples produced oak and willow/poplar charcoal and hazel was additionally present in three samples and charred alder roundwood stems were also in one sample.

Fulacht fia and stone spread
Sample 1 from the stone spread produced oak and hazel fragments and a sub-sample of charcoal produced six identifiable wood species. The most frequently occurring species were oak and hazel while willow/poplar, holly, Rosaceae wood and ash were also identified. Oak was also an important constituent from the fulacht fia. The wood from a layer (F10) within the mound produced oak, hazel and willow/poplar fragments.

Nineteenth century kilns
A 90g subsample of charred wood was examined from a spread (F2) associated with nineteenth century kilns. The spread was located near a hearth and was interpreted as fire rake-out. Oak, willow/poplar and ash were present together with a minor quantity of Scots pine. Pine is known as an excellent fuel with a high calorific content. Split pine ‘chips’ were used until quite recently in northern Scotland and Ireland for household fuel and lighting (Edlin 1974, 126). Pine, in this instance, may have been included together with roundwood to increase the overall effectiveness of the fuel. Alternatively, it may have been used at the initial stages of fire-setting, possibly being mixed with dry moss, twigs or heather to ignite the fires. This proved a most effective and efficient use of pine during fire-setting experiments carried out at Mount Gabriel, Co. Cork (McKeown 1994).

References
