1. Beside the rath: excavations at Raheenagurren West, Co. Wexford

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Raheenagurren, 2 km south-east of the town of Gorey, Co. Wexford, has long been subdivided into two separate townlands. While the exact meaning of the name is not clear, 'Raheen' refers to a rath or ringfort. These are typical settlement sites of the early medieval period, broadly dating from between AD 500 and 1100. They are well known in most parts of Ireland, and about 150 of them survive in County Wexford. The typical ringfort consisted of a bank and ditch surrounding a farmhouse and outbuildings. The buildings were of wood, and disappeared within a few decades of abandonment. Although we call them forts, they were farm settlements and not military structures. The banks and ditches, and sometimes there were more than one, were partly to keep out occasional cattle-raiders and wolves but could also have been just for show. Further outbuildings sometimes stood outside these defences.

Two ringforts survive in Raheenagurren, but we do not know which one gave the area its name. In the townland of Raheenagurren West, near the Knockduff road, is a ringfort with a single ditch and bank (Record of Monuments and Places no. WX012-003). The proposed route of the N11 Gorey to Arklow Link Road passes directly to the south of it, and it was realised from the outset that this part of the route had archaeological potential.
Illus. 2—General location plan of sites excavated at Raheenagurren West, with the road grid indicated in blue. (Valerie J. Keeley Ltd, based on the Ordnance Survey Ireland map)
Until recently, when ringforts were excavated the work almost always concentrated on the centre, with a cross-section or two through the ditch. This ignored the possibility that there might have been other features outside the bank. Fortunately, the more expansive approach now current on national road schemes allows for the total excavation of affected archaeological sites, and so we felt that this would be a good opportunity to look for these outer structures.

The lands of Raheenagurren rise in a north-easterly direction for 500 m to the top of a low ridge at a little over 50 m O.D., then fall gently for a further 1,500 m. The site was on the western slope and the top of the ridge (Illus. 1). Beyond the ridge, the heavy impervious clay keeps the land wet and marshy, despite the slope and elevation, except when the weather is very dry. At the base of the western slope is a small stream, flowing NNE, which has obviously been straightened at some time in the past.

Although the proximity of a ringfort showed that archaeological features were likely to be present, it was necessary to pinpoint their positions more precisely, so that the excavation could concentrate on the most likely areas. Two methods were used for this: geophysical survey and centreline testing.

The method of geophysical survey employed measures small localised differences in the magnetic field of the earth and can detect man-made anomalies such as buried stone walls and backfilled ditches and pits but also picks up natural variations in the soil. The results give an impression of the type of features to be expected. In this case it was possible to identify certain concentrations of likely features that would prove to include pits, post-holes, linear features and deposits of burnt stone and charcoal.

Centreline testing entails machine-excavating a 2-m-wide trench down the centre of the proposed route under archaeological supervision, with offset trenches being excavated at right angles to this at set intervals, typically 15–20 m apart. This was carried out for the entire route by archaeologist Gerry Mullins for Irish Archaeological Consultancy Ltd and was our first opportunity to see actual archaeological deposits. They were found in seven places. Valerie J. Keeley Ltd was subsequently appointed to excavate these archaeological features on behalf of Wexford County Council and the National Roads Authority.

Two groups of potential archaeological features were detected. Near the ringfort itself were darker patches representing pits and post-holes dug into the natural subsoil, as well as pits containing burnt material, including burnt bone fragments, and linear features. The second group was spread out to the west and south, and consisted of spreads of charcoal-rich soil and burnt stones. These deposits are typical of the class of monument known as a burnt mound, or fulacht fiadh. Like ringforts, they are another very common site type, generally dating from the Bronze Age, though some early medieval examples, contemporary with ringforts, are also known. Before starting the excavation, therefore, we knew that we could probably expect to find traces of two different periods. The seven patches of archaeological material were designated as individual sites, numbered 23 to 29. They coincided with magnetic variations in the soil detected by the geophysical survey.

Before the excavation commenced, the hedges at the top and bottom of the slope were removed. The excavation began with the stripping of topsoil from all the sites by machine. By now it had been decided that Sites 27–9, which were all on the westward slope south of the ringfort, should be amalgamated, so there were now five sites (Illus. 2).
**Site 23: a disappointment**

Sometimes, despite the evidence, a site turns out to be a dead end. Site 23 was of little archaeological interest. It was north-west of the ringfort, in the adjoining field. The features comprised three shallow linear cuts aligned north–south, two small pits or post-holes and eight charcoal spreads (NGR 316312, 158118; height 33 m OD; ministerial direction no. A003/041). A sherd of 17th- or 18th-century pottery and three flint cores were found in one of the linear features. (Cores are the parts of a lump of flint remaining after flakes and blades have been struck off for use as tools.) There were no finds from the other two linear features. These three could have been the bases of drains, as the field was low-lying and wet. On the other hand, they may have been furrows resulting from spade cultivation (see Site 27 below). The charcoal spreads were irregular in plan, and some had narrow sinuous projections, indicating that they were probably the remains of burnt-out tree-stumps and roots. Two pieces of waste flint were found in one. The two pits were filled with charcoal-rich soil and seemed to be contemporary with the spreads. The finds show that the linear features were post-medieval in date but that flint-working took place in the area in prehistoric times.

**Sites 24–6: three burnt mounds**

Mounds of burnt stone and charcoal-rich soil, or spreads resulting from the levelling of such mounds, are a very widespread monument type in Ireland. Archaeologists disagree as to their genesis and use. From the presence of pits and troughs, from later historical descriptions and from modern ethnographic parallels, we know that the main activity on these sites was throwing hot stones into water to heat it. It is possible to cook large quantities of food this way, but the heated water could also be used for bathing or for industrial processes. The majority of such sites produce Bronze Age radiocarbon dates. For a long time archaeologists have used the term fulacht fiadh, found in early Irish literature, for this kind of site, but a recent study has found that that term actually refers to cooking on a spit (Ó Néill 2005) and not to hot-stone technology.

Site 24 was situated to the south-west of the ringfort, 100 m away, on the far side of the stream (NGR 316375, 158033; height 38 m OD; ministerial direction no. A003/042). It was near the present field boundary. This was one of the sites in which a spread of burnt stones had been found during trial trenching, so it was known to be the remains of a burnt mound. The burnt spread was completely exposed. It was about 14 m across and irregular in shape. Under the layer of burnt stones and charcoal-rich soil was a layer of hard grey clay. It extended further than the burnt stones but was certainly part of the burnt mound, as two pits were found beneath it. One pit was roughly rectangular and a little over 1 m wide, with some charcoal and burnt stone in the silty clay fill. A row of stake-holes remained from some type of flimsy structure—perhaps a screen to shelter the pit from the breeze. The other pit was somewhat smaller and was a simple circular feature. The fill was similar. Beyond this there were some more isolated pits and post-holes, which were not necessarily related, and some plough furrows.

The finds included many pieces of waste flint from tool-making and also two intact tools: a blade for cutting and a scraper that could have been used for scraping fat off hides.
These were found in the burnt spread, except for one each from a pit and a furrow. The flints were consistent with the usual dating of burnt mounds, but another find—a stone spindle-whorl—from the burnt stone layer was not. This is more likely to have been contemporary with the ringfort. The spindle-whorl was used as a weight to give momentum to a spindle when wool was being spun into yarn by hand. This old hand-spinning method was later superseded by the spinning-wheel. It may have been lost or discarded in the field next to the ringfort and ended up on the site of the much earlier burnt mound. Alternatively, the radiocarbon dates now awaited may disclose that this burnt mound is one of that rare group of early medieval and not Bronze Age date.

Nearby was Site 25, a similar burnt mound site, just beside the stream (NGR 316405, 158050; height 36 m O.D.; ministerial direction no. A003/043). More of the burnt spread had been removed by later agriculture or drainage works, but the other features were more interesting. There were three pits here. One was a shallow rectangular pit, 0.26 m deep and up to 1.5 m wide, with groups of holes in the corners, showing that it had contained a wooden trough. Another was roughly oval in plan, and 2.6 m across. There were some stake-holes, but the stakes seemed to have been driven into the ground beside the pit, and penetrated through the sides. Beside it, at the northern end, was a group of 38 stake-holes in a roughly rectangular arrangement. There must have been an elaborate wooden or wickerwork structure here, which continued down into one end of the pit. Two waste flint flakes were found in this pit, and five pieces of waste flint were found in the burnt layer itself. Like the flints found at Site 24, they were probably contemporary with the burnt mound. There were also three sherds of pottery that were no more than 400 years old at most, however. Like the spindle-whorl, these may have been deposited at a much later date on the site of the long-forgotten burnt mound.
Illus 4—Rectangular trough with stake-holes found beneath one of the burnt mounds at Site 26 (Valerie J Keeley Ltd)

Illus 5—Elevated view of the cereal-drying kilns and encircling gully at Site 26 (Valerie J Keeley Ltd)
Further upstream, in what had recently been a different field, was a line of three more burnt mounds at Site 26 (NGR 316494, 158024; height 39 m OD; ministerial direction no. A003/044). Like all the burnt mounds mentioned so far, these consisted of layers of burnt stone and charcoal-rich soil level with the present ground surface or filling natural hollows. The third burnt mound at Site 26 did form a low mound, when the soil covering it, which had been washed down the hill, was removed. This was close to the classic kidney-shape of burnt mounds and measured nearly 11 m across (Illus. 3). There were two pits under the mound: a small oval pit, 0.77 m in diameter, with a round base, and a rectangular pit over 2 m across and 0.53 m deep. This had the same concentration of stake-holes on the surface at one end as at Site 25, and also had some stake-holes that penetrated from the rim down to the base (Illus. 4). Two of the mounds had shallow rectangular troughs like the one at Site 25. In one of these, the shape of a wicker lining had been impressed into the bottom, though the wicker itself did not survive or had been removed. Under both of these burnt mounds the pattern of shrinkage cracks in the hard clay below had been preserved by the charcoal-rich silt that had filled them and showed up clearly against the yellow colour of the clay. Again, a few pieces of flint were found.

When Site 26 was first revealed, a dark curved line a couple of metres wide was seen, and this was provisionally identified as the fill of a ditch forming an enclosure—perhaps another ringfort, or perhaps a prehistoric burial site. When it was excavated, however, it proved to be a natural channel that was almost certainly the original course of the stream: not only was this ancient stream course older than the straightened part of the stream, but it was even older than the course of the stream as it was when the burnt mounds were deposited. This could be deduced because in places the burnt spreads extended out over part of the fill of this channel.

On the slope above the old stream channel was a small pit that contained some pieces of waste flint, but also prehistoric pottery. There were five sherds of Beaker Ware, a type of pottery widespread in Europe in the Early Bronze Age, and a sherd of Early Neolithic pottery. The pit itself was unremarkable and was probably just a rubbish pit, but the finds are evidence for other phases of activity on the site in addition to the ringfort and the burnt mounds—as the latter tend to be somewhat later in the Bronze Age than Beaker pottery. As there is a 1,000-year gap between the two types of pottery here, it is likely that they represent a random selection of the potsherds that were lying about in the soil. They survived because they were in a pit: there must have been many more in the ploughsoil that have long since been destroyed by abrasion. A similar group was found on Site 27, and will be mentioned below.

About 8 m to the south-east of the pit was a group of features that may have been contemporary with the ringfort. It consisted of three cereal-drying kilns surrounded on three sides by a gully. One was bowl-shaped and simply dug into the soil; the other two were stone-lined (Illus. 5 & 6). They would all have had some kind of clay or thatched superstructure. Some charred grains found in the fill of the bowl-shaped kiln were identified as barley. The stone-lined kilns incorporated some fragments of rotary querns, which were hand-operated mills for grinding corn. These finds not only confirm the function of the kilns, they give us a date. The types of kiln and quern point to an early medieval date for these kilns. They were probably contemporary with the ringfort.
Site 27: the slope south-east of the ringfort

The area where we believed that buildings connected with the ringfort were most likely to be found was in the field immediately to the south-east—Site 27 (NGR 316478, 158079; height 41 m OD; ministerial direction no. A003/019). This comprised the top and the south-west slope of the ridge.

The first feature to emerge in this area was a series of furrows, which were clearly visible where they had cut into the yellow subsoil (Illus. 7). It soon became clear that there were two main groups: thin plough furrows and wide but shallow furrows resulting from spade cultivation. By carefully examining the points where the different lines crossed, it was possible to establish that the plough furrows were the earlier of the two, but just how early was not clear. The fill of these furrows contained waste material from the manufacture of flint tools, but like other disturbed, residual material found in the ploughsoils on this site, the worked flint may already have been ancient when the furrows were ploughed. Flint is very hard, durable material, and scatters of worked flint debris can survive in ploughsoil over many centuries of repeated ploughing. But some of the plough furrows criss-crossed each other at right angles, hinting at an ancient technique of ploughing.

On the level ground at the top of the ridge, 65 m south-east of the ringfort, a complex of post-holes was found, suggesting a timber structure. The shape of the building was not clear, as it had evidently been rebuilt a number of times with a slightly different plan. In a shallow rectangular hearth some prehistoric pottery was found. Like the pottery found on Site 25, this consisted of Beaker Ware and a single Early Neolithic sherd. Again, this appears to be a representative selection of the pottery present in the soil when the pit was dug, and...
the predominance of Beaker Ware suggests a Bronze Age date for the structure. It is also significant that while the spade furrows cut right across this area, the plough furrows stopped short of it, suggesting that the ploughing took place while the building was still standing: this relationship is a more positive indication that the plough-marks here really are prehistoric.

In the same area, among the post-holes, were some oval pits filled with burnt stones (but with little charcoal and no ash). These were probably later than the building, as shown by one of the few finds: a tiny blue glass bead, no earlier than the Iron Age. It could also be contemporary with the ringfort. While we do not know exactly what the stones here were being heated for, it reminds us again that the hot-stone technology familiar from the burnt mounds was used in other periods as well as the Bronze Age.

The furrows continued over most of the site, but there were few other features, even in the part immediately next to the ringfort, which was where we had expected to find related structures. One feature, however, seemed very promising. In the middle of the area was a large pond in a hollow. As the excavation was taking place in the summer, it was almost dry, but it promised to be of great interest. If it was contemporary with the ringfort, there was potential for organic finds, such as leather or wood, to have been preserved in the mud at the bottom. Excavation soon showed, however, that it was a recent pit from which marl had been dug. (Marl is a type of heavy, mineral-rich clay formerly used as fertiliser.) Scattered throughout the fields here are a number of marl holes, including one that had quarried away part of the ringfort. The name of a nearby hotel, Marlfield House, emphasises the importance of marl in the area in the past. The marl hole near the ringfort may have been dug into a natural pond, but no trace survived.
What we learned

The investigation at Raheenagurren was an excavation with rather surprising results. We expected to find structures and artefacts related to the ringfort, which we probably did, but they were further away than we expected. We also found, unexpectedly, what appears to be a Bronze Age landscape with plough-marks, a substantial structure and a group of burnt mounds. There was also evidence of an Early Neolithic presence. There are simple lessons here. The archaeological landscape can be more complex and rich than is indicated by the visible surviving field monuments alone, and complex multiperiod sites are especially likely to occur on attractive sites such as the elevated, gently sloping ridge at Raheenagurren.