

2. Prehistory and history on the N5 Charlestown Bypass in counties Mayo and Roscommon

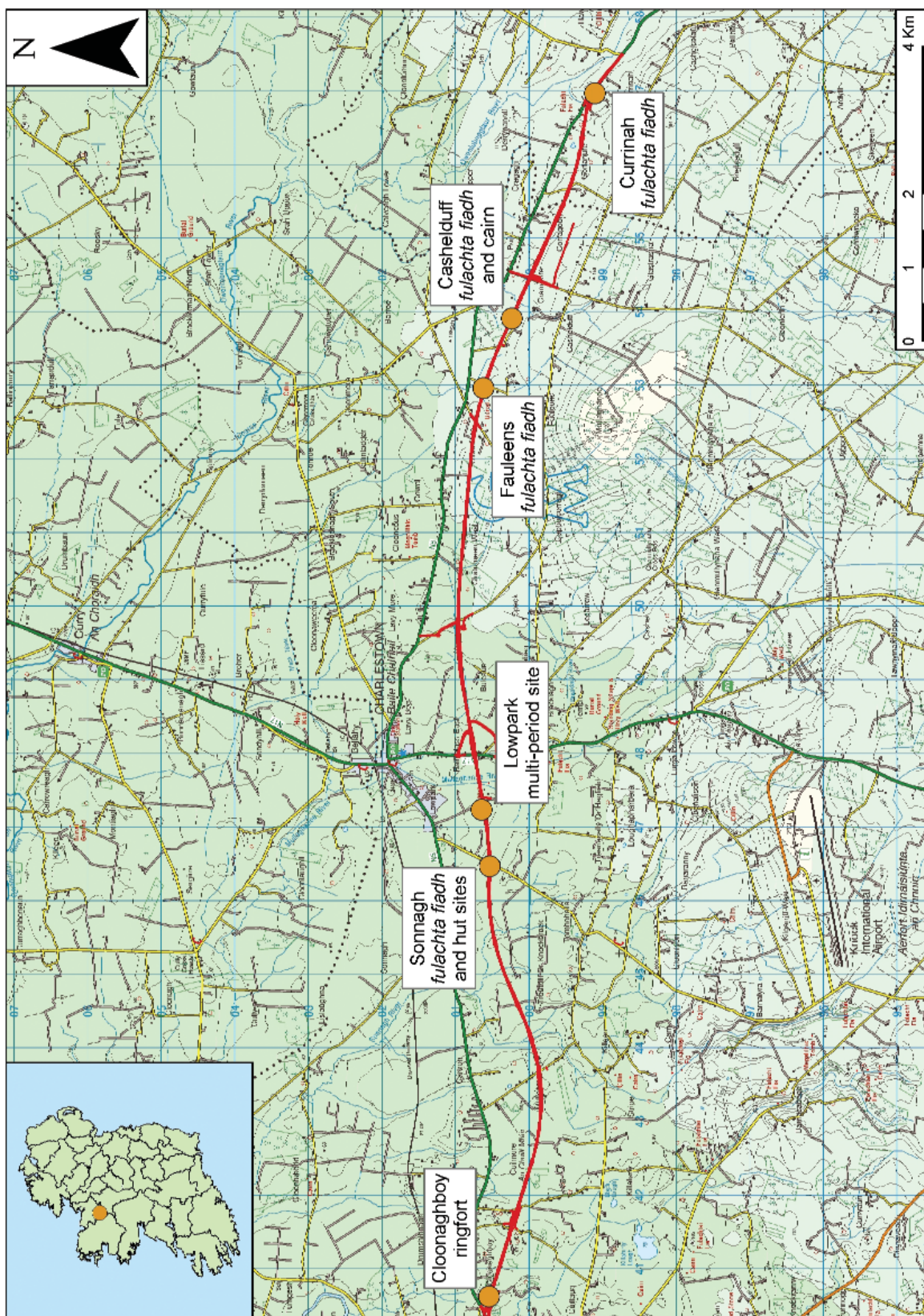
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This paper provides an overview of the archaeological excavations on the N5 Charlestown Bypass in counties Mayo and Roscommon carried out by Richard Gillespie and Agnes Kerrigan, Mayo County Council, on behalf of the council and the National Roads Authority between 2004 and 2006. The Environmental Impact Statement for the scheme identified five Recorded Monuments and Places (RMP), i.e. known archaeological sites with statutory protection, and eight additional areas of archaeological potential for excavation or testing. Test excavations were opened by machine, under archaeological supervision, throughout the footprint of the road scheme, and the groundworks of the main contractor were subsequently monitored when construction of the road got under way. In addition, surveys of vernacular structures and townland boundaries affected by the scheme were also carried out. Thirty-three previously undocumented archaeological sites were identified by testing; one site was identified by monitoring of the excavation of badger sets by the scheme's consultant ecologist; and six further sites were identified while monitoring the road contractor's groundworks. These discoveries led to the excavation of archaeological material from the Neolithic, Bronze Age and medieval periods.

Neolithic period

The earliest remains identified on this scheme date from the Neolithic period; these included lithic assemblages (i.e. stone tools, mostly of chert and flint) from Cashelduff, Sonnagh and Lowpark, Co. Mayo. A stray find of a chert plano-convex knife from Cloonaghboy ringfort, Co. Mayo, was also recorded (Illus. 1). This finely crafted stone knife is an artefact typical of the Neolithic. An enclosure site at Cashelduff (NGR 153910, 300229; height 114 m OD; ministerial direction no. A020/010; RMP MA063-033) consisted of a natural raised area covered by a 'cairn' of small stones with two roughly concentric C-shaped rows of large stones. One of these was located close to the base of the cairn and the other at the top, delimiting a central area of charcoal-rich soil covering two central pits. A total of 159 struck pieces of chert and flint, including several characteristically Neolithic artefacts, were recovered, although not from secure contexts. Similarly, the Sonnagh lithic assemblage included unstratified Neolithic artefacts. There were at least two phases of Neolithic activity at Lowpark (NGR 147233, 300643; height 84 m OD; ministerial direction no. A020/012). Both phases consisted of pits dug into the natural subsoil, with pottery, lithics, burnt/cremated bone and charcoal included within their fills.

At one site in Lowpark, six pits containing Early Neolithic pottery and lithics were excavated close to and within medieval palisaded enclosures (described below). The Neolithic pottery from these features was identified by Rose Cleary, University College Cork, as bone-tempered ware. Some sherds had the characteristic profile of Western Neolithic round-bottomed shouldered bowls, with both rims and shoulders in the assemblage. This pottery dates from c. 4500–3000 BC. This area also included one Bronze



Illus. 1—Location of principal archaeological sites on the N5 Charlestown Bypass in counties Mayo and Roscommon (based on the Ordnance Survey Ireland map)



Illus. 2—Pit containing over 1,600 sherds of Late Neolithic pottery, with inset of a pottery sherd decorated with applied clay pellets (Mayo County Council)

Age pit. Subsequent medieval activity is likely to have disturbed more prehistoric features, resulting in the unstratified finds and some truncated pits.

The second prehistoric site in Lowpark was identified during archaeological monitoring of the excavation of badger sets. This site included a series of 14 pits on a relatively flat, natural terrace on the west side of a glacial ridge, 40 m to the west of the Early Neolithic features described above. These pits were oval, circular or subrectangular in plan and were filled with silty sand and gravel with varying amounts of charcoal. Finds from the pits included numerous sherds of Late Neolithic pottery, an assemblage of flint and chert artefacts, a miniature polished stone axehead and frequent small fragments of burnt bone. Over 1,600 sherds of pottery were recovered from one pit (Illus. 2). Rose Cleary identified this assemblage as including later Neolithic Grooved Ware and large bucket-shaped vessels, with a minimum of 15 vessels present. Pottery from nearby pits included sherds of small flat-based bowls with twisted cord impressions just below the internal rim, similar to pottery from Knowth and Newgrange, Co. Meath, dating from c. 2600–2200 BC. Large flat-based vessels with applied clay pellets were also found in association with the Grooved Ware (Illus. 2, inset). To date, this type of decoration is not known from any other Irish Late Neolithic context. Some vessels have post-firing perforations on the vessel walls. A similar feature is found on the Newgrange Grooved Ware, but the form of the vessels is not paralleled at Newgrange.



Illus. 3—Fulachta fiadh troughs from Sonnagh (a & d), Cashelduff (b) and Fauleens (c), Co. Mayo (Mayo County Council)

Bronze Age

One large pit from Lowpark (referred to above) included a token deposit of sherds from a Bronze Age Food Vessel in association with burnt bone (possibly cremated human bone). This is the only definite evidence of Bronze Age activity from the Lowpark site.

A total of 39 *fulachta fiadh*, or burnt mounds, were excavated on this scheme. These generally occurred in low-lying areas close to or below the water-table. They ranged from small, disturbed mounds of burnt stone and charcoal with no associated features to large intact mounds (13.5 m in diameter by 1.5 m in maximum thickness) with various combinations of lined troughs, using stone, wood and moss.

These *fulachta fiadh* occurred both in isolation and in groups. The largest group included at least 10 *fulachta fiadh* within a 400 m section of the roadway. They were set within or at the edge of a large peat basin in Sonnagh townland (NGR 146463, 300532; height 71 m OD; ministerial direction nos A020/017, 029, 030–4, 072 & 076–7). Smaller clusters occurred in the townlands of Fauleens (NGR 152964, 3006180; height 106 m OD; ministerial direction nos A020/037–040), Cloonfane (NGR 152778, 300621; height 106 m OD; ministerial direction nos A020/041–4 & 053–6), Cashelduff (NGR 153705, 300316; height 122 m OD; ministerial direction nos A020/018–020) and Cloonaghboy (NGR



Illus. 4—Biconical tin bead from Sonnagh, Co. Mayo (Mayo County Council)

141301, 300284; height 75 m OD; ministerial direction no. A020/071), Co. Mayo, and Currinah (NGR 156643, 299235; height 112 m OD; ministerial direction nos A020/046 & 059-060), Co. Roscommon.

A variety of trough types were uncovered, including 11 rectangular wood-lined troughs, five stone-lined or partly stone-lined troughs, two earth-cut troughs and two oval troughs cut into peat (Illus. 3). Most of the rectangular troughs were of brushwood construction, with tightly constructed sides overlapping at the corners and held in place by stakes or corner posts. The bases were of both plank and brushwood construction, occasionally with layered bases of timbers and moss. The base of one trough comprised three layers each of wood, moss and sand. The more intact of these troughs included about 100 timbers and outer moss linings. One large trough was of similar style but was constructed of large split planks and roundwoods with overall dimensions of 2.5 m by 1.6 m by 0.5 m deep. It was constructed from 31 pieces of timber, with an additional six timbers making up a lower base below the floor of the trough.

Another exceptional trough from Fauleens (A020/038) had internal dimensions of 2 m by 0.3 m by 0.4 m deep. It was constructed of three large oak planks making up the sides and base, and smaller planks making up the ends (Kerrigan 2006). One of the oval troughs contained the collapsed remains of a moss and wicker lining, and the other had a single split timber at its base held in place by two hazel rods bent across it.

One of the Sonnagh *fulachta fiadh* (NGR 146653, 300257; height 71 m OD; ministerial direction no. A020/029) had substantial structural evidence associated with it, in the form

of a series of circular or oval foundation trenches representing a number of phases of construction. One structure consisted of two roughly concentric foundation trenches with maximum diameters of 9 m and 4 m respectively. These cut through an earlier oval ditch that enclosed a space of 8.5 m by 10.5 m. This ditch in turn cut through a small C-shaped foundation trench with a diameter of 3.5 m, which may have been the foundation for a small hut.

Some animal bone and lithics were recovered from the 39 *fulachta fiadh*, as well as a large siltstone barbed-and-tanged arrowhead from Ballyglass West. The most unusual find was a biconical tin bead with ribbed decoration on its surface (Illus. 4), retrieved from a moss layer in the base of one of the Sonnagh troughs. This rare artefact has parallels with material recovered from a Bronze Age site excavated at Flag Fen, Peterborough, England (Pryor 2001).

Medieval period

Two medieval sites were excavated on this scheme: a bivallate ringfort (a ringfort comprised of two enclosing banks) at Cloonaghboy and a newly identified palisaded enclosure at Lowpark.

Cloonaghboy ringfort

The Cloonaghboy ringfort was clearly indicated on the first-edition Ordnance Survey six-inch map (1838) but no surface traces survived (NGR 140619, 300541; height 90 m OD; excavation licence no. 04E1341; ministerial direction no. A020/002; RMP no. MA062-058). It occupied a commanding position near the top of a large gravel hill at an altitude of 90 m OD. Although it had been levelled, two substantial enclosing ditches and part of a stone-built souterrain survived (Illus. 5). The ditches enclosed an area with a diameter of 35 m. The ditches were extant for 90% of the circumference of the ringfort, merged towards the east and then faded out.

The souterrain was aligned north–south and consisted of a linear passage cut directly into the natural gravel subsoil. It was 12 m long by 1.9 m wide and 1.1 m deep. No capstones or roof lintels were present and the southern 2.5 m of the souterrain had been almost completely removed. Two post-holes at the northern terminal may have held wooden door-jambs. The passage was of drystone construction, with up to 10 courses of masonry surviving at the deepest part. A quernstone, some animal bone, charcoal, a corroded metal knife and an antler pin were recovered from the fill.

Lowpark palisaded enclosure

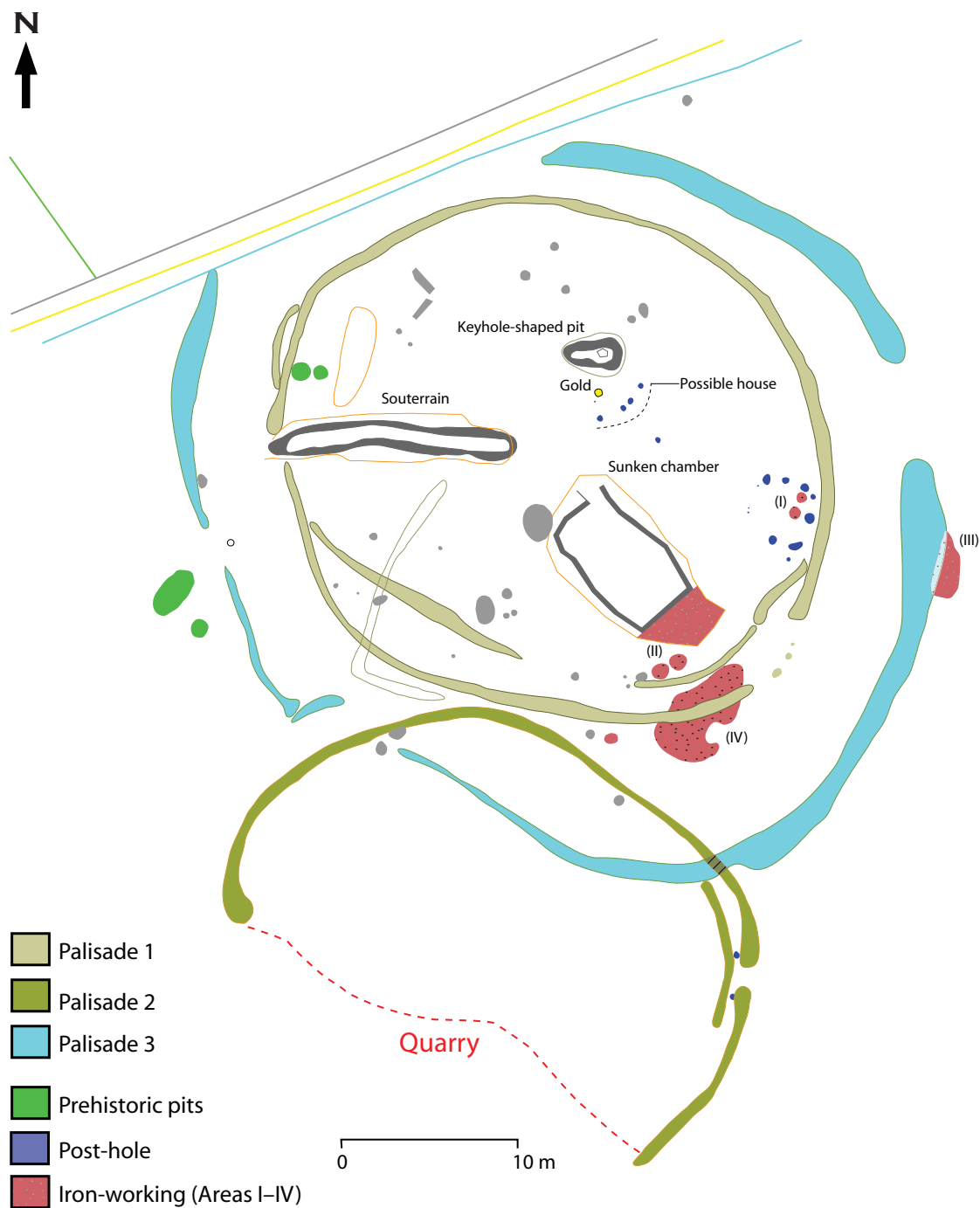
The enclosure at Lowpark was located on a low gravel ridge that had clear views on all sides. The enclosing elements consisted of three palisade trenches (Palisades 1–3; Illus. 6 & 7). The southern half of Palisade 3 and 30% of Palisade 2 had previously been disturbed by modern quarrying activity. Palisade 1 enclosed the main area of archaeological activity, which included a drystone-walled souterrain, a large sunken stone-lined chamber, a smaller stone-lined, keyhole-shaped pit and a series of smaller features. There was extensive evidence for iron-working, and an L-shaped trench may also have held structural elements. Some of these features were cut by the palisades, indicating different phases of medieval



Illus. 5—General view of Cloonaghboy bivallate ringfort, Co. Mayo (Mayo County Council)



Illus. 6—General view of Lowpark palisaded enclosures, Co. Mayo (Mayo County Council)



Illus. 7—General excavation plan of the Lowpark palisaded enclosures, Co. Mayo (Mayo County Council)



Illus. 8—Iron-working Area II, with inset of tuyère (Mayo County Council)

activity. A significant assemblage of medieval artefacts was recovered during the course of this excavation, including quernstones, honestones, iron knives, copper-alloy ring-pins, a bone pin, beads, lignite bracelet fragments, an iron belt buckle and a gold filigree panel.

Successive phases of medieval activity at Lowpark can be broadly distinguished based on stratigraphic relationships, and the results of radiocarbon dating will refine this. The first phase consisted of three iron-working areas, two of which were cut by palisade trenches. The sunken chamber cut another iron-working area. This implies that iron-working was a relatively early feature of the site. The next phase of activity was associated with Palisade 1, which enclosed the sunken features and several pits and post-holes, and was contemporary with and adjacent to Palisade 2. Another iron-working area abutted Palisade 1 and may have been contemporary. Palisade 3 was evidently from a separate phase. It appeared to cut Palisade 2, but the stratigraphy here was unclear as the fills were identical, making this difficult to confirm. Palisade 3 was less well preserved, which may indicate that it was an earlier feature that was robbed out for the construction of Palisades 1 or 2 or the stone-built features.

IRON-WORKING

One of the most important elements of the Lowpark excavation is the iron-working activity. There were four main iron-working areas (Illus. 7), three of which had definite structural evidence, and nine additional pits containing iron-working evidence. Over 1.34 tonnes of iron slag were retrieved. Four large stones with concave surfaces, which may have

been used for crushing ore, were recovered. One of these was located adjacent to a pit in iron-working Area IV. A selection of corroded iron objects, three blow-hole blocks or *tuyères* (i.e. clay funnels for bellows), vitrified clay hearth linings and hammerscale (i.e. tiny metal debris that is a by-product of hammer-and-anvil work) point towards significant iron-working industry at Lowpark.

Iron-working Area I consisted of a roughly circular arrangement of seven post-holes and two stake-holes that enclosed an area 3.5–4 m in diameter and probably held structural timbers. Within the structure were two pits containing iron slag, vitrified material, hammerscale and burnt, oxidised subsoil. One of these pits was flanked by three evenly spaced stake-holes. This structure was immediately adjacent to the foundation trench of Palisade 1, within the eastern side of the enclosure, and was probably contemporary with it. It was located on the surface of the subsoil.

Iron-working Areas II–IV were dug into the subsoil, with their bases 0.3–0.83 m below the surface of the ground. They were all subrectangular in plan, ranging in size from 3.8–6 m by 2.6–4 m. Five post-holes at the edge of Area II probably held structural timbers (Illus. 8). Area IV included two post-holes and a slot-trench along two sides, which would have supported a wall. In Area III, which had no surviving structural evidence, the position of a *tuyère* near the main pit and its vitrified lining suggest the use of a bellows for smelting or secondary iron-processing. The adjacent large flat stone is likely to have been used for hammering out iron as part of the process. Area II was cut by the sunken chamber, Area IV was cut by the Palisade 1 trench and Area III was below the Palisade 3 trench (Illus. 7).

The quantity of slag currently being examined by Angela Wallace, Mayo County Council, is indicative of industrial activity. The slags include large smithing hearth cakes (0.1–0.4 m in diameter) and may be the result of ore extraction or primary smithing of furnace bloom. This form of iron-working involved hammering impurities out of the heated iron. These impurities filtered down to the hearth base and amalgamated to form a rounded ‘cake’ of waste material. Smaller smithing hearth cakes that were rounded or oval (0.05–0.1 m in diameter) are more likely to be from secondary smithing or artefact production. The small assemblage of finished iron artefacts recovered from this excavation may have been produced in these iron-working areas.

The L-shaped foundation trench was located to the south-west of Palisade 1 and is stratigraphically later than Palisades 1 and 2. It consisted of a slot-trench that ran 12 m NNE–SSW and continued for a further 7 m WNW from the SSW end (Illus. 7). This may be the remains of the foundation trench of a large rectangular structure or enclosure.

THE PALISADE TRENCHES

The enclosing elements of this site included three main palisade trenches. Palisade 3, the outermost palisade (shaded in blue on the plan), was roughly circular in plan, measuring 44 m in diameter. It was relatively poorly preserved. Its profile was irregular and was best preserved in the north-east, where it was 0.75 m wide with a stepped profile narrowing to a U-shaped base, with a depth of up to 0.64 m. Its fill consisted of relatively loose sand and gravel with occasional small and medium-sized stones. Breaks in its circumference to the ENE, south-west and west may have served as entrances.

The trenches of Palisades 1 and 2 almost abutted each other and were probably contemporary. Palisade 2 was roughly circular in plan, with an internal diameter of 30 m. Owing to the modern quarrying there were no significant features within the remaining



Illus. 9—Sunken rectangular chamber at Lowpark within Palisade 1 (Mayo County Council)

area. The palisade trench was U-shaped, 0.52 m wide and 0.47 m deep. It contained *in situ* and displaced packing-stones that probably held a plank palisade fence. There was a well-defined entrance feature in the eastern side of the palisade, consisting of a 1-m-wide break in the trench with two post-holes at each side. A short trench parallel to the palisade occurred within the enclosure and may have been associated with the entrance. The post-hole arrangement at the entrance would have been suitable for holding a movable hurdle similar to that described in early Irish law-texts (Kelly 1998, 378).



Illus. 10—Gold filigree panel from Lowpark (Mayo County Council)

Palisade 1 was well preserved and enclosed the most substantial archaeological features. It was subcircular in plan and had an overall diameter of 30 m. This trench had a U-shaped profile with an average width of 0.55 m and ranged in depth from 0.24 m to 0.72 m. The fill of the trench was well preserved, with numerous large packing-stones surviving *in situ*. A series of additional sections of palisade trenches may be related to various phases of building or repair. Palisade 1 enclosed a souterrain, a large sunken chamber and a stone-lined, keyhole-shaped pit. Of the smaller features, one group of post-holes may be the remains of a circular house.

The features within Palisade 1 suggest human habitation similar to that associated with ringforts. In marked contrast, Palisade 2 was almost devoid of features except for the substantial entrance, pointing to its use as a livestock enclosure. This is important because cattle were the main currency in the medieval Irish economy. Palisade 3 was concentric to Palisade 1 and cut or was cut by Palisade 2; their chronological relationship is unclear, however.

THE SOUTERRAIN

The souterrain consisted of a linear passage with a slightly wider chamber at its western end and was lined with drystone walls. The passage was 8 m long, with an average internal width of 0.8 m and a depth of 1.1–1.4 m below the top of the subsoil. The walls had an average height of 1 m and were composed of up to eight courses of drystone walling. The chamber was 4 m long, 1.05 m in maximum width and 1.4 m in maximum depth, with up to 15 courses of dry masonry. Evidence for corbelling of the chamber roof and the presence of a lintel arrangement at the western end suggest a combination of lintel and corbelled roofing. This did not extend to the passage. The souterrain had steps at both ends, indicating

possible access points. The side walls had a total of nine post cavities, including four pairs of opposing post cavities. Timbers within these cavities may have supported the sides during the construction of the souterrain. They could also have supported divisions or acted as door-jambes. Three pairs of post cavities occurred within the chamber, with one pair marking the division between the passage and the chamber at their narrowest point. A copper-alloy pin and a corroded iron knife were recovered from the fill of the passage.

THE SUNKEN RECTANGULAR CHAMBER

This structure was set in a large pit that measured 11.25 m by 5.75 m and had a maximum depth of 2 m (Illus. 9). It contained a rectangular structure measuring 7.6 m by 3.7 m internally. The walls were of drystone construction, with irregularly coursed masonry interspersed with two opposing pairs of post cavities in the south-west and north-east walls. This construction technique was similar to that of the souterrain. A break in the wall and rough stone facing continuing outside the structure indicate a possible entrance feature in the north corner. Artefacts from the fill of this structure included three corroded iron objects, possibly knives, and a bronze ring-pin. A large quernstone and a possible bullaun stone were incorporated into the fabric of the stone wall.

KEYHOLE-SHAPED PIT

The keyhole-shaped pit measured 3.4 m by 2.4 m and was 0.8 m deep at the narrow end and 1.4 m deep at the wider end. It was lined with randomly coursed boulders, unlike the sunken structure and souterrain. An unusual arrangement of stone slabs occurred at the base of the pit. Six flat stones formed a box or lined post-hole that measured 0.8 m by 0.4 m by 0.3 m deep. This was filled with silt and gravel with occasional flecks of charcoal and was partly covered by a horizontal slab or lintel. The finds from the pit included a miniature polished stone axehead, a fragment of a burnt bone pin and a corroded iron artefact. This may have functioned as a food storage pit or *corróc* (Kelly 1998, 367).

Five post-holes were excavated adjacent to the keyhole-shaped pit. Four of these formed an arc that, if extended to a circle, would have had a diameter of about 8 m. This is roughly 27 ft, the diameter of a lord's house as described in early Irish sources (*ibid.*, 28). The fifth post-hole was associated with this arc but was not in line with the others. Its fill produced a small gold filigree artefact of twisted wire and foil (Illus. 10). This artefact is the only known parallel for a gold panel that was recovered from the foundation levels of a royal crannog at Lagore, Co. Meath, dated by Hencken (1950) to the sixth/seventh century AD (N Whitfield, pers. comm.).

Conclusion

These excavations and surveys, particularly of the newly identified archaeological areas, highlight the importance of archaeological testing, excavation and, where necessary, monitoring of infrastructural works on an ongoing basis. The findings give new insights into our past from the prehistoric to the historic periods and will be fully published in the near future. These discoveries have sparked interest on a local and national level from amateurs and professionals alike. Local schools and enthusiasts followed progress on the excavations and await further developments and post-excavation results, while

archaeological specialists have focused on their particular areas of interest. Highlights from the smaller sites include almost perfectly preserved wood- and stone-lined *fulachta fiadh* troughs. The tin bead from Sonnagh is, to date, unique in this country and has only one parallel, from the British Bronze Age. The Neolithic pottery is also exceptional and includes some very unusual features. The lithic assemblage from the whole scheme will also provide an important study. In addition to its rich prehistoric phases, the Lowpark site produced significant medieval remains. The large rectangular chamber, souterrain and keyhole-shaped pit were particularly well preserved and have excited debate as to their functions. A body of early medieval iron-working on a large industrial scale is only now emerging nationally, largely owing to the current roads programme. The Lowpark iron-working remains provide a valuable contribution to this growing body of evidence. The artefacts, particularly the gold filigree panel, capture our imagination and contribute to a picture of life in rural medieval Ireland.