

8. The M3 Clonee to North of Kells Road Scheme, County Meath

Mary B Deevy

In recent years, there has been much public and media debate over the perceived impact of the planned M3 Clonee to North of Kells Road Scheme on the Hill of Tara—the internationally famous archaeological complex situated on this hilltop in County Meath. However, less well known is the exciting archaeological potential that has been revealed by archaeological investigations along the route of the planned road. This paper will outline the wide range of investigative techniques that have been employed in the project and describe some of the archaeological sites that have been discovered so far—sites that may reveal much about prehistoric and historic settlement in this region across time.

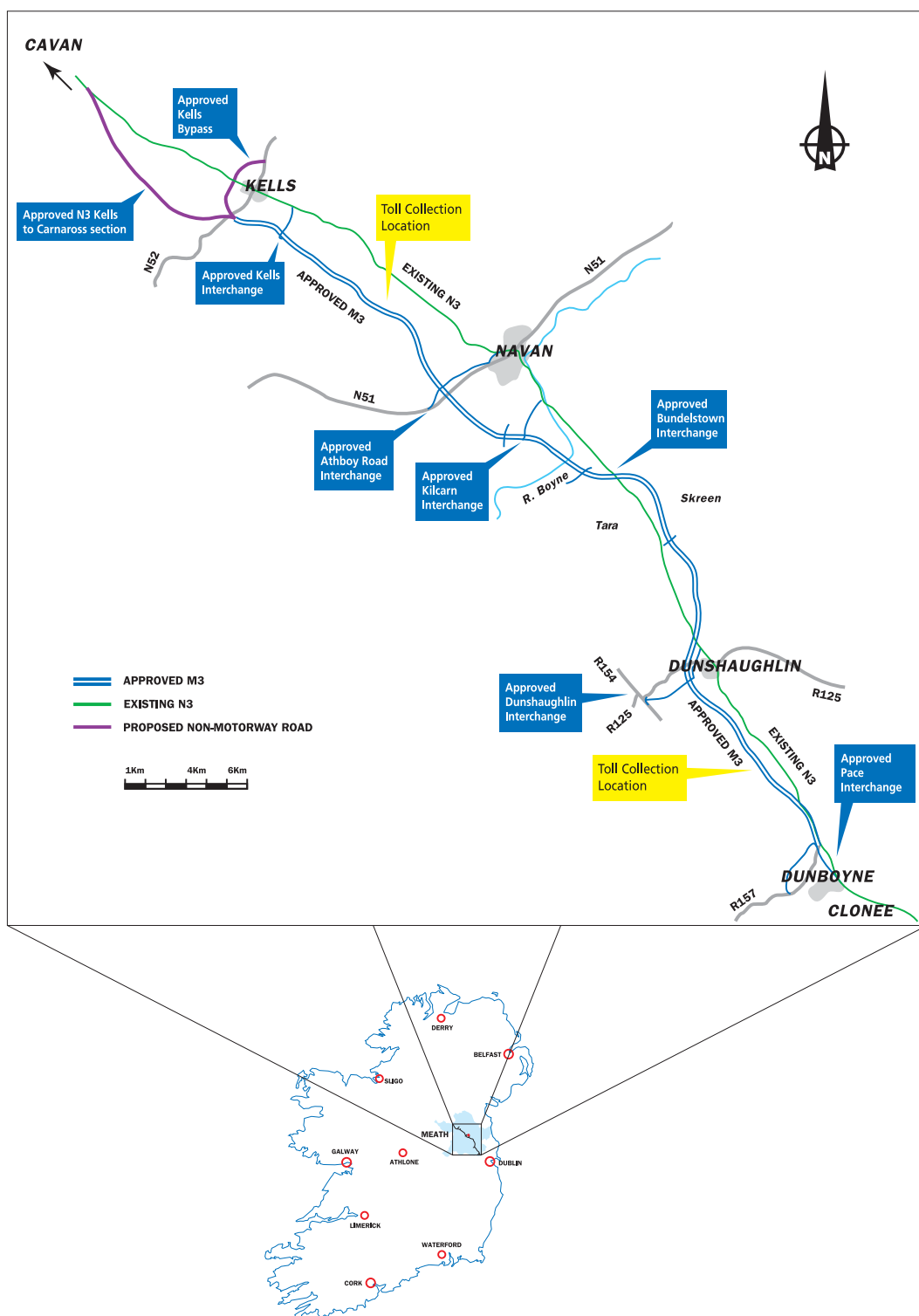
This road scheme is principally a realignment of the existing N3 from Clonee, on the border of counties Dublin and Meath, to the border of counties Meath and Cavan, bypassing Dunboyne, Dunshaughlin, Navan and Kells. The mainline of the scheme is 60 km long but with significant link roads it has a total road length of over 110 km. The scheme runs parallel to and west of the existing N3 for most of its length, except north of Dunshaughlin where it crosses the N3, to pass east around the Hill of Tara, and crosses west again south of Navan (Illus. 1).

Environmental Impact Assessment

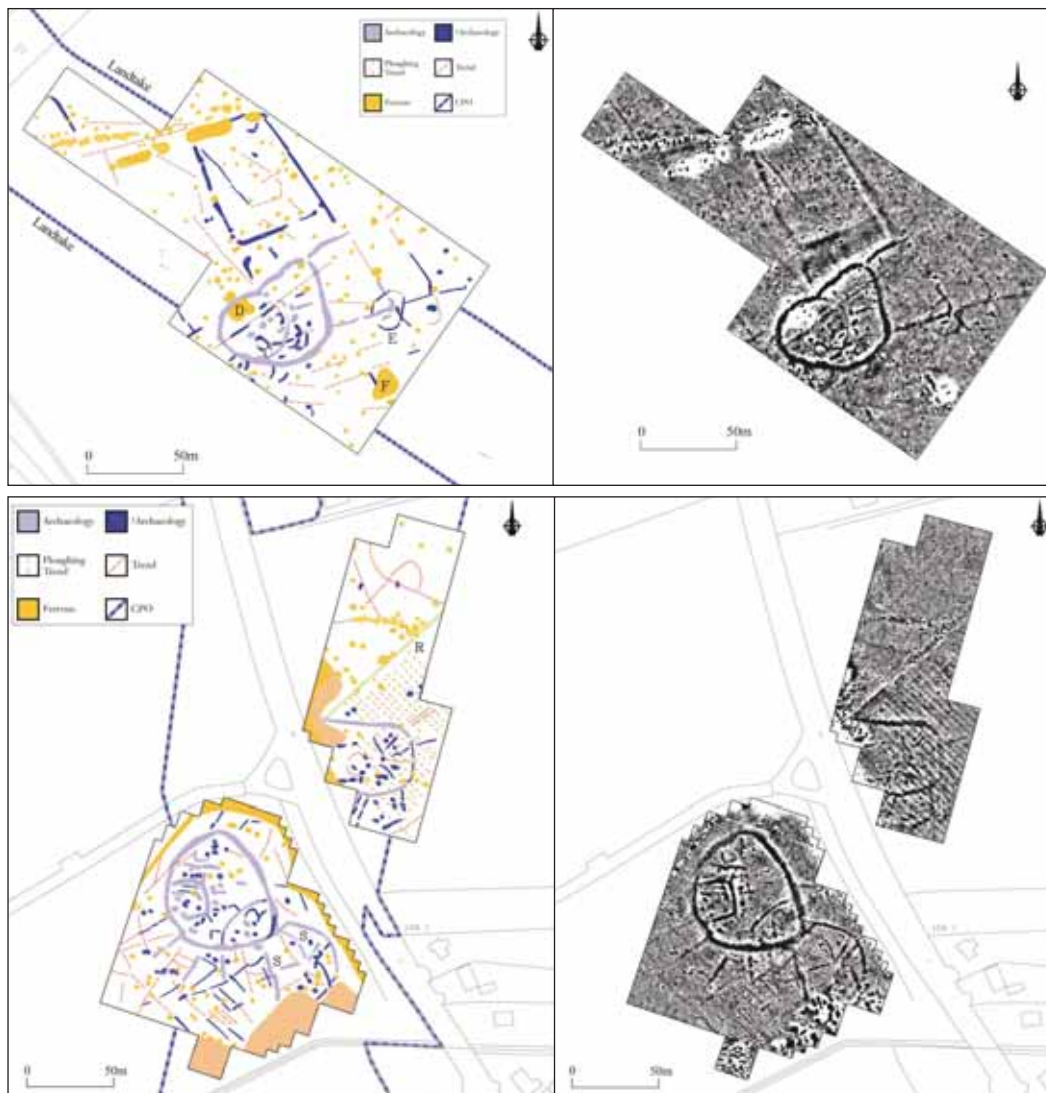
An archaeological desk-top survey and field survey, carried out as part of the Environmental Impact Assessment (EIA) by Valerie J Keeley Ltd and Margaret Gowen & Co. Ltd, on behalf of Meath County Council, identified that there were two sites listed on the Record of Monuments and Places (RMP) that would be affected by the proposed road, along with 15 possible sites identified in the field survey. In addition, on the 15.5 km long Dunshaughlin–Navan section, an extensive archaeological geophysical survey was carried out by GSB Prospection Ltd on behalf of Margaret Gowen & Co. Ltd as part of the EIA. The results were spectacular and clearly identified six new sites along the route. The early identification of these sites allowed for the proposed route to be moved to avoid three of them during the preliminary design stage. In addition, geophysical anomalies were identified at a further 23 locations. These were considered to be areas of archaeological potential, which might or might not be archaeologically significant. The Environmental Impact Statement (EIS) proposed topographic survey and further geophysical survey at some of the 15 possible sites and archaeological test excavation at all known or suspected sites to be followed by full excavation, in advance of construction, where required.

Investigation strategy

In recent years, since the Code of Practice agreed between the Department of Arts, Heritage, Gaeltacht and the Islands and the NRA (NRA and DAHGI 2000), dramatic

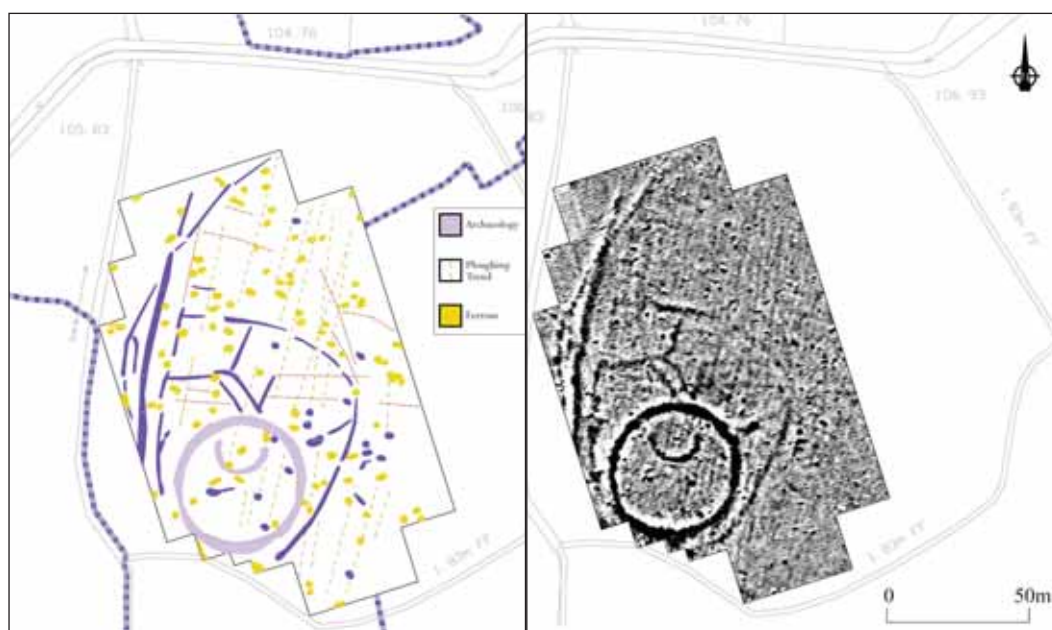


Illus. 1—Location of M3 Clonee–North of Kells Road Scheme, County Meath (Meath County Council National Roads Design Office)



Illus. 2—Geophysical survey results (greyscale and interpretive drawing) from Dowdstown (top) and Roestown (bottom), County Meath (GSB Prospection Ltd)

changes have taken place in the approach to archaeology on national road developments. Previously, archaeological monitoring of topsoil stripping at construction stage was the means of finding new archaeological sites, hidden beneath the ground surface. Now, in a radical departure from previous procedures, investigation strategies are developed to identify new sites as early as possible in advance of construction. In line with this policy Meath County Council extended the proposals in the EIS to carry out geophysical survey, followed by extensive testing along the whole of the route. This is a proactive strategy to actively seek out new archaeological sites so they can be excavated and recorded before road construction starts. This strategy is also innovative in using techniques such as geophysical survey that were previously reserved for research projects.



Illus. 3—Geophysical survey results (greyscale and interpretive drawing) from Baronstown, County Meath (GSB Prospection Ltd)

Archaeological geophysical survey

The first geophysical survey was a magnetometer survey carried out in two stages on the 15.5 km Dunshaughlin–Navan section as part of the EIA. Initially magnetometer scanning was used as a prospecting technique to identify areas of high archaeological potential for the second, more intensive, phase of detailed magnetometer survey. Detailed survey was carried out at 30 areas covering 26 ha (approximately 25% of the available area). The results were spectacular in their clarity. They indicated six definite archaeological sites (one of which was spread over two survey areas). The early identification of these sites allowed for the proposed route to be moved to avoid three of them. Twenty-three additional areas were described as possible archaeological sites or areas of archaeological potential.

The sites identified were three large enclosure complexes at Dowdstown, Roestown and Baronstown¹ (Illus. 2–3). The shape and size of the sites indicated that both Roestown and Dowdstown were likely to be early medieval settlements while Baronstown could be prehistoric or early medieval. The sites subsequently avoided by the route were another enclosure complex at Garretstown and two small, circular enclosures at Berrilstown and Skreen. The square shape of the enclosure at Garretstown indicated that it was likely to be a medieval moated site while both of the small circular enclosures were typical of prehistoric ring-ditch burial sites.

After the EIA, Bartlett-Clark Consultancy conducted a second geophysical survey on the remainder of the route. This was also predominantly a magnetometer survey but with

¹ Dowdstown 2, NGR 289679, 262550. Height 49 m OD. Excavation Licence No. 04E0419. Roestown 2, NGR 295831, 253938. Height 105 m OD. Excavation Licence No. 04E0415. Baronstown 1, NGR 294398, 259387. Height 110 m OD. Excavation Licence No. 04E0423.



Illus. 4—Aerial view of backfilled test-trenches on the route of the proposed M3 (Meath County Council National Roads Design Office)

readings recorded in parallel strips amounting to coverage of approximately 45% of the area of the route. In this survey no definite archaeological sites were clearly identified. Sixty-four areas of archaeological potential were identified, interpreted as 16 probable archaeological sites, nine possible archaeological sites and 39 possible but unlikely archaeological features.

Archaeological testing

Archaeological testing was carried out between March–December 2004 by two archaeological companies—Archaeological Consultancy Services Ltd on the southern end of the scheme and Irish Archaeological Consultancy Ltd on the northern end of the scheme. The general methodology consisted of mechanically excavating trenches 2 m wide (using a machine equipped with a smooth-edged bucket) along the approximate centreline of the road with perpendicular offsets every 20 m across the whole width of the landtake (Illus. 4). In addition, trenches were excavated parallel to every watercourse where burnt mounds or *fulachta fiadh* (so-called ancient cooking places) are typically found. This quantity of trenching achieved between 10–15% coverage of the scheme. Agriculturally disturbed topsoil was removed by machine to uncover archaeological features or natural undisturbed subsoil under the constant direction of an archaeologist. This work was licensed by the Department of the Environment, Heritage and Local Government in consultation with the National Museum of Ireland. The archaeological director was accompanied by a team of three other archaeologists who investigated by hand and recorded any features uncovered. A limited amount of partial excavation of features was carried out by hand in order to identify the nature and extent of the site uncovered. Following recording, the features were covered, if necessary, and backfilled.



Illus. 5—Aerial view of Dowdstown cropmarks with 20 m diameter circular enclosure visible in bottom centre of photo (Meath County Council National Roads Design Office)

Testing necessarily involves only limited excavation of a sample of features uncovered and, therefore, the preliminary analysis of sites must be considered tentative and subject to change upon full-scale excavation. Nevertheless, the combined results of all studies to date have given a good degree of confidence as to the number and general nature and extent of archaeological sites along the route. Approximately 160 archaeological sites have been identified on the whole route, which covers an area of approximately 700 ha. These results to date, in terms of both numbers of sites and types of sites, are consistent with those from similar schemes nationwide. Three of these were the sites originally identified as definite archaeological sites by the first geophysical survey. Two sites had already been identified as possible archaeological sites by the field survey and approximately 25 sites had been identified as possible archaeological sites by the geophysical surveys. The remainder, however, were completely new archaeological sites identified by the testing alone. The three largest sites on the route—Roestown, Dowdstown and Baronstown—all currently appear to be early medieval farmsteads, although the latter also has prehistoric activity. The remainder are a diverse mixture of prehistoric, early medieval, medieval and modern sites including settlements, burial sites, burnt mounds, industrial sites (such as kilns) and the remains of 19th-century rural buildings.

The site at Dowdstown is an excellent example of how different techniques of investigation combine to provide a better picture of what lies beneath the ground than could be achieved by any one technique alone. The site is located in a large tilled field adjacent to the River Boyne in what was once the parkland of a large country house. There is no surface indication of the site or any previous record of its existence. It was identified initially by geophysical survey as a series of curvilinear and rectilinear enclosures, some overlapping and therefore of different periods, and some obviously related to each other.



Illus. 6—Detail of first edition Ordnance Survey map (1837) showing demesne landscaping at Dowdstown (Ordnance Survey Ireland)

The current interpretation of the main site at Dowdstown, based on the geophysical survey and the testing, is that it commenced as a classic circular ringfort approximately 40 m in diameter, which was later enlarged to an irregular D-shaped enclosure measuring approximately 60 m in maximum width. Ringforts are primarily enclosed farmsteads typically dating from the seventh to the ninth century AD. A rectangular annexe, possibly an animal enclosure, was later added to the north-eastern edge of the D-shaped enclosure. A further large rectangular field is situated to the north of the site but it is not clear at this stage how or whether it relates to the main enclosure. This field appears to end at a straight ditch and the geophysical survey indicates that there may be a lot of iron objects within the ditch fills.

The site at Dowdstown had not been recorded as visible in any previous aerial photographs; however, an aerial survey of the site taken just before testing in Spring 2004 produced remarkable results (Illus. 5). Almost all the features identified in the geophysical survey were clearly visible as crop-marks. The straight ditch was now visible as part of a long sinuous feature curving around the edge of the field. Examination of the first edition Ordnance Survey maps of the area, published in 1837, clearly showed that this large ditch corresponded to the edge of the 18th or 19th-century demesne planting (Illus. 6). Finds of relatively modern artefacts such as clay pipes, green bottle glass, chinaware and an iron key uncovered in the testing confirmed this identification.

The geophysical survey also indicated at least one curvilinear feature earlier than the ringfort and adjacent annexes. The most exciting result from the aerial survey was the revelation of a completely new circular enclosure (20 m in diameter), partly within the landtake for the road, that did not show up in either the geophysical survey or the testing. This site may be part of the ringfort complex, or it may be a much earlier site, such as a prehistoric ring-ditch burial site.



Above: Illus. 8—Prehistoric flint barbed-and-tanged arrowhead (c. 40 mm in length) from Calliaghstown (Mary B Deevy)

Left: Illus. 7—Medieval green-glazed pottery jug handle (100 mm in length) from Garretstown (Archaeological Consultancy Services Ltd)

A number of burial sites and possible burial sites have been found throughout the route. In their simplest form the possible burial sites consist of a single small pit with charcoal-rich soil that includes small fragments of burnt bone. Cremation was the predominant burial rite in the Bronze Age in Ireland and burials often seem to have consisted of token deposits of some of the remains of the funeral pyre including some of the burnt bone deliberately and carefully crushed. Pending detailed examination and identification of the bone by an osteoarchaeologist it is possible that some of these pits are merely rubbish or fire pits containing mixed charcoal and animal bone (i.e. food debris). When the charcoal and fragments of burnt bone are contained in a prehistoric pottery vessel buried in a pit, such as one found in Collierstown, there is little doubt that the site is a human burial. Even without excavation, and although only the circular rim of the pot was exposed by test excavation, knowledge of previous excavated examples allows a confident interpretation of this vessel as a funerary urn. The pot appears to be intact but will require the assistance of a conservator during excavation.

The most common ancient artefacts found during testing were prehistoric and medieval pottery, such as the green-glazed jug handle from Garretstown (Illus. 7). Animal bone was also quite common. Most of this was merely domestic refuse but a pin made of bone and cut antler tines were also found. Stone artefacts included a number of flint arrowheads, such as the barbed-and-tanged arrowhead from Calliaghstown (Illus. 8), and a number of mill stones.

Future work

The archaeology being revealed on road projects throughout Ireland is changing the face of Irish archaeology, bringing to light previously unknown data and artefacts. The next phase of work will involve a series of further investigations, including geophysical survey, ploughzone field walking and metal detection survey, to assess the potential for artefact retrieval from the agriculturally disturbed topsoil over sites identified in advance of topsoil removal. Wide areas will then be opened around sites scheduled for full-scale excavation.

These investigations will generate a significant corpus of new data. One of our challenges is to feed this information to the academic community and the general public as early as possible to ensure that it will be used to create new knowledge about the past. In order to fully interpret the data, transforming information into knowledge, the investigations will be informed by an overarching research framework, which will aim to place the new archaeological sites into their archaeological, palaeoenvironmental and historical context. To achieve this aim, archaeological, palaeoenvironmental and historical research projects will be carried out in tandem with the archaeological excavations. The results of the work will be integrated and communicated to the archaeological community and the public at regular intervals, culminating in a series of publications on completion of the project.

The choice of route for the Dunshaughlin–Navan section of the M3, which passes near the Hill of Tara, has its committed opponents. However, it is undeniable that the quality and scale of archaeological investigations as described in this paper have been notable. For example this was the first time that extensive geophysical survey had been used as an archaeological prospecting device on a road scheme development in Ireland, and the results were impressive. The full significance of many of the approximately 160 sites discovered on the M3 will only be revealed after excavation and post-excavation, however, the results to date have already indicated sites that have the potential to significantly contribute to major areas of research. Significant research has already taken place in many of the areas through which the road traverses, in particular the archaeological and historical research on Tara carried out by the Discovery Programme (e.g. Newman 1997). The road provides an opportunity to excavate hidden archaeological sites that will ultimately expand our understanding of the settlement of this wider landscape, from prehistory to modern times.

