

9. Excavation of a children's burial ground at Tonybaun, Ballina, County Mayo

Joanna Nolan



Illus. 1—Excavation of an infant skeleton at Tonybaun, Co. Mayo (courtesy of Chris Randolph)

In 2003, Mayo County Council archaeologists undertook the excavation of five archaeological areas in advance of the construction of the N26 Ballina to Bohola (Stage 1) road scheme. These excavations were conducted on behalf of the National Roads Authority and Mayo County Council and included the excavation of a known children's burial ground or *cillin* in Tonybaun townland, 6 km south of Ballina (Illus. 1 & 2). It is recorded in the Record of Monuments and Places as MA039-107 (NGR 124790, 312310; height 20 m OD; excavation licence no. 03E0139). Some 248 burials were discovered at the site; subsequent radiocarbon dating indicates a period of use beginning in the late 15th century and ending in the mid-20th century. The majority of those interred here were infants. Archaeological investigation of this type of site can be a difficult experience, especially, in this case, for the local community, who had a strong attachment to this burial ground. The excavation led to the reburial of these individuals in the parish graveyard at Ballynahaglish with full funeral rites. These individuals, who had been set apart in the past, were ultimately reintegrated into the wider community.



Illus. 2—Location map of children's burial ground at Tonybaun, Co. Mayo (based on the Ordnance Survey Ireland map)

Separate burial

Children's burial grounds are fairly common sites in Ireland. They were used for the interment of those who, for various reasons, were considered ineligible for burial in consecrated ground. This practice may have come about as a result of canon law in the 1600s, which stated that such people were to be laid in a place set apart. But it probably also has roots in the traditions of the early church. There are the well-attested examples of the separate burial of men and women at ecclesiastical sites such as Inishmurray, Co. Sligo, Clonmacnois, Co. Offaly, and Iona, Scotland. There was also a tradition of the burial of men who had died in battle in the least-favoured areas of a graveyard, usually north of the church (Hamlin & Foley 1983).

Those buried during the modern phases of children's burial grounds were generally stillborns and babies who died at birth and had not been baptised. Several other classes of people were seen as similarly ineligible for burial in consecrated ground (see Channing & Randolph-Quinney, this volume). Suicide victims were considered excommunicate, as were those who were perceived to have died unrepentant, such as strangers, criminals, men who had died in battle, the mentally retarded and famine victims. Mothers who had died in childbirth and had not been 'churched' (i.e. had not undergone a prayer ceremony after childbirth) and older children, perhaps because they were not considered as full members of the community, were also sometimes interred in these burial grounds (Leigh Fry 1999, 176–87; Donnelly et al. 1995; Hamlin & Foley 1983). This practice did not fully end in Ireland until the 1960s, after the Second Vatican Council.



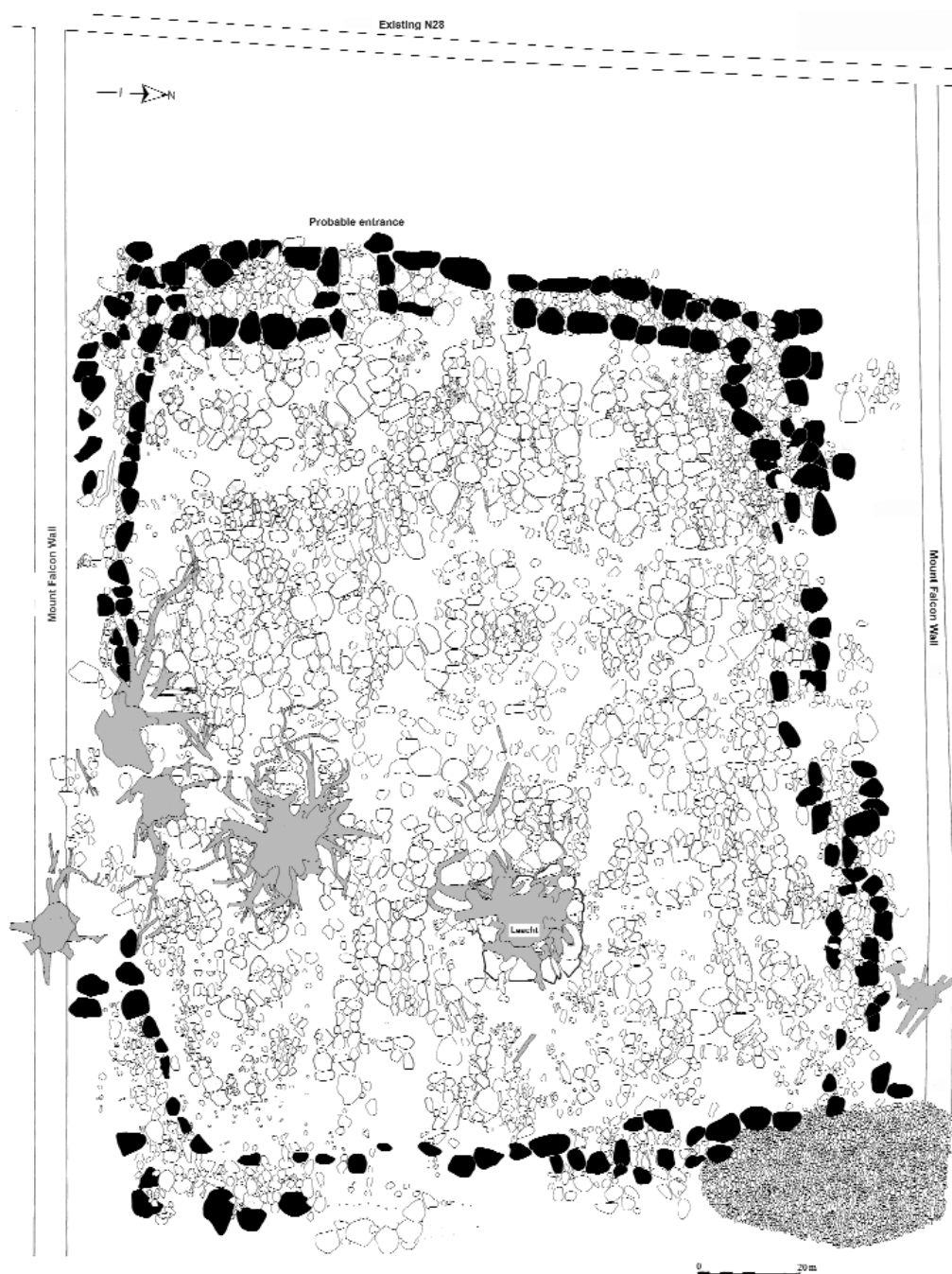
Illus. 3—Extract from 1840 estate map showing Tonybaun children's burial ground (courtesy of Alan Moloney, Mount Falcon)

These burial grounds tended to develop on the sites of earlier, often ecclesiastical, monuments. The relatives of the deceased were probably selecting locations that appeared to have sacred associations. Other monuments reused for this purpose in the west of Ireland include ringforts and prehistoric burial mounds. Such sites would have had religious and/or superstitious associations (Crombie 1988; Aldridge 1969).

The Tonybaun *cillín*

The burial ground at Tonybaun was located beside the original N26 in the corner of a large field on the bank of the River Moy. It was roughly rectangular in outline (17 m north–south by 22 m) and was raised above the surrounding field by about 1 m. It was heavily overgrown by briars, bushes and four or five large sycamore trees. During the Moy drainage scheme in the 1960s, material dredged from the river was deposited and spread over the fields around the site. Local information indicates that the surrounding fields were used for the commercial growing of potatoes up until the early 1900s. The burial ground was well known in the area and there was strong local attachment to it. The last burial appears to have taken place here about 50 years ago.

Because these burial grounds are often sited on earlier monuments, there was a possibility that the vicinity of the site could contain further features relating to earlier uses. A geophysical survey was carried out around the site to investigate this possibility. This survey was carried out by GeoArc Ltd in December 2002 around all but the west side of the site (where the N26 abutted it), and extended out for a distance of 30–40 m. It identified a very subtle anomaly curving around the eastern half of the site, suggesting a large curvilinear enclosure beyond the edge of the roadtake. The excavated area was extended to the north and south of the *cillín* to test for the presence of a ditch. These cuttings revealed that the anomaly had been caused by stone and gravel dredged from the River Moy in the 1960s, which had been buried here to level these fields.



Illus. 4—Plan of burial ground showing the earlier boundary within the 19th-century walls and concentration of stones forming rectangular settings or grave-markers (Mayo County Council)

At the time of the excavation the site was enclosed by stone walls built of quarried, roughly squared limestone on all but the east side. These are similar to the walls enclosing the nearby Mount Falcon demesne and it is likely that they were built by the owners of this estate. The Name Book of the first Ordnance Survey (OS) records construction at Mount Falcon in 1826, and an estate map from 1840 based on the first edition OS six-inch map depicts these

walls (Illus. 3). This would date the construction of the walls to just before the Famine (1845–48). Along each side of the burial ground, set 1–2 m inside these 'Mount Falcon' walls and on a slightly different axis, were remnants of what appeared to be an earlier site boundary (Illus. 4). This consisted of linear, contiguous settings of rounded, mainly granite boulders set upright. Excavation revealed that this boundary was constructed using drystone walling techniques, whereby large basal stones were set on/in the ground in two parallel rows to form the base. The stones that survived appear to be the foundation courses, but these presumably supported upper courses built with smaller stones, which did not survive. The later walls extended the burial area to the north and west and it is likely, therefore, that at least some of the skeletons buried between the two walls date from the Famine.

Grave-markers within the burial ground were mostly masked by vegetation and leaf litter, but some protruded very slightly above ground. It was possible to discern that a number of markers consisted of a few stones in roughly rectangular settings. Two layers of topsoil covered the burial ground. The upper one was probably generated by the overgrowth and leaf litter that had built up since the site ceased to be used. It contained a good deal of modern rubbish and had nearly covered the grave-markers completely. When this upper layer was removed these settings turned out to be more complex than the initial survey had indicated. They were found to be roughly rectangular and made up of generally uniform-sized stones. The best examples were quite regular. The north and south sides were delimited by rough parallel rows of stones. The enclosed area was filled with smaller, 'filler' stones, often set on edge but sometimes laid flat or simply jammed in against one another. The head (west) and foot (east) ends were sometimes marked by large stones laid flat. Locally available granites and sandstones were used to build these settings. Not all the grave settings conformed to this pattern. Others were comprised of spreads of small stones set rather haphazardly in a loosely rectangular shape.

One hundred stone settings were recorded but only 25 of them closely corresponded with underlying burials. The others sometimes partly overlay burials or covered burials that had decayed away completely. Also, some of the graves underlying these settings had disturbed earlier burials so that partial skeletons were found around the edges of the settings. The settings seem to have been constructed on and within the lower layer of topsoil. The modern, mainly children's, burials were nearly all contained within this layer (Illus. 5).

A second layer of burials underlay the modern graves (Illus. 6). These rested at the base of the lower topsoil and within the underlying boulder clay. They have been interpreted as representing the earliest phases of the site; they had no associated modern material, such as coffin nails or timbers, and no infants were present in this level. This lower layer of graves appears to contain two types of burial: those aligned ESE–WNW and those aligned east–west (the head laid westwards in both cases). Most of the skeletons that were buried in the former alignment were female, while the east–west-aligned skeletons were predominantly male. It may be that these distinct alignments represent some form of differentiation, if not separation, between the two genders, perhaps originating in the medieval practice of separate burials for men and women. Unfortunately, the range of the radiocarbon dates (AD 1475–1638 to 1664–1951, see Appendix 1 for details) is too broad to do more than suggest that the male burials could be slightly earlier than the females and that there is no definite chronological separation between the two groups.



Illus. 5—Plan of upper layer of burials containing the modern, mainly children's, burials (Mayo County Council)

Excavation of the burials

Once recorded, the marker settings were removed; the area delimited by them was taken as the extent of the grave they marked and excavated as such. It was found that these settings had been placed on top of the graves after they had been backfilled, so that revealing the actual burials was sometimes problematic. Because graves had been dug into the lower layer of topsoil and backfilled with the same topsoil, there was no obvious cut. Occasionally, the grave fill was looser than the surrounding topsoil and this was the only indication of a grave-cut.

A children's burial ground at Tonybaun, Ballina, County Mayo



Illus. 6—Plan of lower layer of burials, which provided the samples for radiocarbon dating (Mayo County Council)

Many of the burials were found to have been interred in wooden coffins held together by iron nails. These were typically 0.7 m long and 0.2 m wide at the head (west), tapering to 0.15 m at the feet (east). Samples from five coffins were identified as Scots pine by Ellen O'Carroll of the Archaeology Company. In a few examples enough of the wood survived to give an indication of the structure of these coffins. The grain of surviving wood fragments indicated that the bases were formed of short planks laid transversely; the lid

boards appeared to run longitudinally. The presence of coffin nails in the chest, midriff or knee areas of their related skeletons was common. This suggested that the lid boards might have been held together by nails and wooden cross-pieces, or cleats. The coffin sides appeared to have been single planks set on edge. The nails were sometimes recovered in two layers and often indicated the outline of the coffin from which they derived. Because there were few obvious grave-cuts (and sometimes no surviving bone), the burials were often located solely by revealing the coffin nails that surrounded them.

Bone preservation on this site was often poor; in many cases only fragments of skull and decayed crumbs of the rest of the skeleton survived. The soil pH was tested by the local Teagasc office and was found to be quite low (5.5–7), contributing to the decay of these fragile bones. Where the decay was extreme, the soil containing the fragments within the coffin outline was bagged for reburial. There had also been a good deal of site disturbance, which also hampered bone recovery. Tree roots and animal burrows were common, and caused damage to the graves. Stone settings and skeletons had often been broken up and redeposited as a result.

Analysis of the skeletal remains

The excavation team were advised on the handling, recording and storage of the skeletons by Linda Lynch, osteoarchaeologist with Aegis Archaeology Ltd. Subsequent analysis of the remains was carried out by Dr Eileen Murphy, Queen's University, Belfast; her conclusions are given below. Nine skeletons were sampled for radiocarbon dating at Oxford University Radiocarbon Accelerator Unit. They were chosen from the stratigraphically lowest layer of graves (Illus. 6) so that the date of the earliest use of the site could be ascertained. Two of the samples failed to date because the bone was too decayed to produce any collagen—the protein usually extracted for radiocarbon dating. The other seven produced wide-ranging dates from AD 1475–1638 to AD 1664–1951 (see Appendix 1). It is likely that the site has been in continuous use as a burial ground since the late 15th/early 16th century.

A total of 248 skeletons were recovered from the site—181 children and 67 adults. Of these, 237 were sufficiently complete for analysis and could be allocated to the following age ranges:

- 147 infants (up to two years)
- 23 children (two to six years)
- 4 juveniles (six to 12 years)
- 8 adolescents (12 to 17 years)
- 55 adults: 18 female, 15 male, 22 indeterminate

As expected, the majority of burials were of infants. However, the presence of all other age groups in this burial ground reflects the practice of considering a broad range of individuals as excommunicate, or not in a state of repentance, and therefore candidates for burial in unconsecrated ground.

The poor preservation of the bones made full analysis difficult but it was possible, nonetheless, to identify several characteristics of this population. The most prevalent adult age at death for both sexes was in the 25–35 years age bracket; males who survived beyond

this age seemed more likely to live into older adulthood (i.e. >45 years). Women were more susceptible to earlier death, possibly owing to the danger of death during pregnancy. The infants were notably small at birth, perhaps as a result of poor maternal health during pregnancy.

The surviving teeth presented a picture of poor oral hygiene, evidenced by several dental problems such as cavities, periodontal or gum disease and tooth loss. This was more prevalent among the females. The diet of these people may have contributed to their dental problems. They may have been eating starchy tubers or cereal grains in soft, sticky, porridge-like forms, which contained sugar–starch combinations that caused tooth decay. Soil samples taken from the stomach regions of some of the burials were examined by Dr Meriel McClatchie at University College Cork. Cereal remains were identified in two of these samples, which initially seemed to confirm a link between diet and dental health; the findings were inconclusive, however, as cereal grains were also recovered from non-burial contexts.

The adults' teeth gave further indications of the health of this population through a condition called dental enamel hypoplasia. This is a linear pitting or grooving on the tooth enamel and is caused by conditions like fever, starvation, congenital infections, low birth weight and parasitic infestation, all of which may occur while the teeth are growing. Thirty-three skeletons were suitable for enamel examination. Most of the incidents that caused the hypoplasia occurred between the ages of two and four and a half. Grooves on the teeth of one of the females who had died at a young age (17–25 years) revealed three separate episodes of ill-health, which may have contributed to her early death. Other information revealed by osteological analysis includes the rare discovery that one of the females (25–35 years of age) was a pipe-smoker, as wear patterns on her front teeth indicated 'pipe-smoker's clench'.

Another female (25–35 years) was found to have been pregnant when she died: fragmentary remains in her pelvic region were identified as the bones of an infant or late foetus. Three blade injuries were identified on the skull of this woman and it would appear that she had been murdered. This would have made her doubly ineligible for burial in consecrated ground—both as a murder victim and because she could not have been 'churched' prior to her death.

Funerary practices

Several of the infants were buried with one or more shroud pins: a total of 53 were recovered from 27 graves. These were made of copper wire, with heads of twisted wire wrapped around the blunt end. Where they were found in direct association with the skeleton they tended to be on the brow area or at the neck, probably where the shrouds were fastened. Other items discovered in direct association with skeletons were buttons, a pair of spectacles, wool and fabric, a small crucifix and a small plastic picture-frame of a type commonly used for religious pictures in the recent past. Although this site type has been associated with secretive, unceremonious and rapid disposal of the dead, some of these grave-goods suggest that care and some religious observances were associated with these burials.

Further evidence for some form of spiritual or commemorative activities is provided by the presence on the site of an altar-like structure (Illus. 7). This has been classified as a *leacht*,



Illus. 7—The leacht or altar cairn after removal of a tree stump (Mayo County Council)

or outdoor altar cairn. These structures occur in many early medieval burial grounds and have been dated to as early as the late first millennium AD. They may have been used at various times as reliquary shrines, pilgrimage stations, altars and burial-markers (White Marshall & Rourke 2000, 29; O'Dowd 1998). This particular example is stratigraphically earlier than the modern burial layer but may have continued in use throughout the life of the burial ground, as has been seen at ecclesiastical sites like Inishmurray, Co. Sligo (O'Sullivan & Ó Carragáin, in press). No evidence of a burial was found associated with this *leacht*. The presence of over 700 small, water-rolled stones, mainly quartz or quartzite, scattered in the ground surrounding and within the *leacht* suggests that its purpose was ritual or memorial. These stones were very rounded pebbles that had obviously been chosen for their 'eye-catching' qualities. There is no natural source for these stones in the immediate vicinity of the site. They may have been brought by mourners and left on the *leacht* as part of a ritual round, or *turas*, accompanying prayers for the dead.

Evidence of earlier occupation

Traces of prehistoric and early medieval activity were also discovered at Tonybaun. Worked chert and flint were common, both in the burial ground and in the test trenches around it. A total of 247 struck pieces of flint and chert were found, consisting of blades, flakes, scrapers, cores, a hollow-based arrowhead, two stone axeheads and a microlith. These artefacts represent very early prehistoric activity around the site from the Early Mesolithic



Illus. 8—Stone-lined, Iron Age furnace pit located to the north of the burial ground (Mayo County Council)

period onwards, but subsequent reuse of the land has completely mixed this material into the topsoil so that their original contexts are lost.

About 40 m north of the burial ground three groups of features indicating metalworking activities, such as ore extraction and smelting, were found. These consisted of furnace pits, containing charcoal-rich fills densely mixed with furnace slag, dug into the sandy natural clay. There were spreads of what appeared to be dumped material around two of the pits, and one of these spreads contained flux-lining slags (formed when the clay edges of the pit became vitrified by heat during the firing process). The most complex of the three furnace pits was stone-lined and had a small slab laid flat to form the base (Illus. 8). This pit has been radiocarbon-dated to 477–210 BC (UB-6765; see Appendix 1 for details). A second furnace pit was radiocarbon-dated to 166 BC–AD 25 (UB-6763; see Appendix 1), dating this metalworking activity to the Iron Age.

On the periphery of the site the test trenches revealed a series of cultivation ridge and furrows that were of significantly different character to lazy beds encountered in the wider area around the site. The cultivation ridges, which appear to have been hand-dug, were small in comparison to the lazy beds. They were rather 'lumpy' in profile and were not perfectly parallel. The ridges were encountered outside the edge of the burial ground at the north-west corner and outside part of the eastern edge. In both cases they had been truncated by both the burial ground and by lazy beds. A few faint traces of them also survived in a small area underlying burials in the south-east section of the burial ground. Charcoal from the furrows at the north-west corner has been radiocarbon-dated to AD 467–648 (UB-6764; see Appendix 1).

Agricultural activity during the early medieval period is further indicated by twenty rotary quern-stone fragments found in the burial ground, eight of which were reused as parts of stone settings and in the *leacht*. In addition, several scatters of furnace slag were recorded in the burial ground and a fragment of a metalworker's small clay crucible was found incorporated into one of the stone settings. A charcoal-flecked sandy horizon containing lumps of vitrified sand and iron slag was found underlying and cut by the burials



Illus. 9—Reburial plot in Ballynahaglish cemetery, Knockmore, Ballina (Mayo County Council)

in the south-west corner of the site. It was interpreted as residue from metalworking and has been radiocarbon-dated to AD 882–1015 (UB-6767; see Appendix 1). This was underlain by a further activity layer distinguishable by its charcoal-rich content; it has been radiocarbon-dated to AD 772–969 (UB-6766; see Appendix 1). Unfortunately, this layer produced no finds that would assist in its further interpretation.

Although there is good evidence, in the form of both dates and artefacts, for several periods of activity on this site and within its immediate vicinity, the recent reuse of this location as a burial ground and the modern cultivation in its environs have destroyed many of the early features that presumably existed here. One of the main questions with a burial ground of this type is whether it represents the latest incarnation of an early medieval, possibly ecclesiastical, site. There are certainly tantalising traces of early medieval activity here. The narrow plough ridges, the quern-stone fragments, a dated layer of metalworking residue and the crucible fragment suggest that this site was used for agricultural and metalworking activities during the early medieval period. Attempts to date the burials firmly have not been very successful, as the date ranges produced are generally too broad to be truly meaningful (see Appendix 1). Nonetheless, the radiocarbon dating has established that none of the burials pre-date the 15th century.

Conclusion

On 19 June 2005, with the agreement of the National Museum of Ireland, the skeletons were reburied in the local Ballynahaglish cemetery, Knockmore, after a funeral service in the parish church by Dr John Fleming, Bishop of Killala, and Bishop Richard Henderson, Church of Ireland Bishop of Tuam, Killala and Achonry. There was a large attendance from

the local community and it appeared that their understandable reservations about the removal of the burial ground were largely addressed by this ceremony and reburial. A memorial plaque giving details of the burials and the excavation has been erected by Mayo County Council in the graveyard (Illus. 9). Another plaque was erected on the site of the burial ground to mark its original location.

The burials excavated at Tonybaun represent all ages of the community from which they derived but there was a preponderance of infant graves. The skeletal analysis indicates a population existing in poor conditions; children would have been particularly susceptible to the exigencies of poverty and famine. It is likely that many of these babies did not survive birth. Excavating the graves of so many children was a sad experience, but the most poignant graves were those of three sets of twins. All were interred together, and in one case it appeared that the babies had been arranged in such a way that one had his/her arms around the other. This excavation gave us a glimpse of a time in Ireland when infant mortality, though high, was not acknowledged. The aspect of exclusion associated with this site type makes these infant burials especially tragic. The reburial at least gave us and the surrounding parish the opportunity to commemorate these lost lives and to give them at last an acknowledged place in the community.

Acknowledgements

I would like to thank Paul Clarke for assistance with all aspects of this project, Margaret McNamara for research assistance, David Loftus for the line drawings, Jerry O'Sullivan and Tomás Ó Carragáin for their pre-publication typescript of their book on Inishmurray, and Alan Moloney of Mount Falcon for the photograph of his estate map. I would also like to thank Fr Harrison and the people of Knockmore parish for all the help and information they shared with us, all the excavation team and members of staff at the Regional Design Office, Mayo County Council, especially Pat Staunton, project engineer, Tony McNulty, senior engineer, and Gerry Walsh, project archaeologist.

