

Mesolithic
c. 7000 – c. 4000 BC

Rock art – petroglyphs – pictographs
Meadowcroft, Monte Verde, La Vache

Development of agriculture
Construction of the pyramids

Neolithic
c. 4000 – c. 2200 BC

Flint tools, Megalithic culture, passage tombs, stone circles & standing stones, Stonehenge, Avebury and Stonehenge
Pyramid of Giza
Construction of the pyramids

Invention of the wheel
First Olympic Games and Asia
Birth of Athens

Bronze Age
c. 2500 – c. 800 BC

First use of bronze tools & weapons, iron smelting
Celtic art, Celtic metalwork, Iron Age
Celtic art
Pyramid of Giza, Stonehenge, Egyptian pyramids
Construction of the pyramids

The birth of Islam
First use of the printing press

Iron Age
c. 600 BC – c. 400 AD

Large ironwork tools
Use of iron for tools & weapons
Iron Age
Construction of the pyramids

The fall of the Roman Empire
The birth of Islam
Birth of the printing press

Early Christian
400 – 700 AD

Invention of Christianity
Invention of the printing press
Construction of the pyramids
Development of early modernism

PREHISTORIC

HISTORIC

The Hidden Archaeological Landscapes Of The M3



Mary Deevy, project archaeologist with Meath County Council National Roads Design Office, provides an overview of new archaeological discoveries on the M3 in County Meath.

Since autumn 2005 archaeologists have been busy excavating over 160 archaeological sites in advance of the works to build the M3 Clonee–North of Kells motorway in County Meath. These sites vary hugely in size, date, function and significance—from a single fire or refuse pit to large settlement complexes, from prehistoric to early modern in date and from the sacred to the profane. In the following articles on the M3 excavations, the interim results from a selection of these sites are described by the excavation directors from Archaeological Consultancy Services Ltd and by other researchers working on the scheme.

The combination of extensive pre-excavation investigation and large, open-area excavations uncovered more than the usual isolated Bronze Age sites in the form of burnt mounds, burials and houses, but more excitingly, and more significantly, they have also revealed aspects of prehistoric landscapes throughout the area of the scheme. A number of sites have both settlement and burial monuments in close proximity and it will be interesting to see if the dating shows that both activities took place simultaneously, or that the use of sites changed over time (that is, were settlement sites re-used as burial grounds or vice versa). One such site is Ardsallagh, just north of the River Boyne, excavated by Linda Clarke and discussed below by Clarke and researcher Neil Carlin. Preliminary analysis, of the pottery in particular, suggests use and re-use of the site over 2,000 years from 2000 BC onwards.

Arguably some of the most interesting sites on the scheme are the early medieval sites. In terms of size and finds, these are the ones that have dominated our attention during the excavations. Three sites in particular—Castlefarm, Roestown and Dowdstown—have produced striking archaeological evidence for high-status dwelling places of prosperous farming communities. Deep ditches and high



PHOTOS: MARY DEEVY

Fig. 1: Excavation Director Rob O'Hara, ACS Ltd, describing excavations at Roestown, Co. Meath, to visitors from the Meath Archaeological and Historical Society on a sunny open day.

Age of Discovery
Big or small the King or Queen of Navan

Viking Age
700 – 1100 AD

Along with
Discovery of the Great, Great Wall
Discovery of the
Discovery of the

Age of Iron
Age of its discovery
Discovery of the Great Wall
Discovery of the

Medieval
late 12th century – early 16th century AD

Along with
Discovery of the Great Wall
Discovery of the

Age of Iron
Age of its discovery
Discovery of the Great Wall
Discovery of the

Post-Medieval
early 16th century – late 17th century AD

Along with
Discovery of the Great Wall
Discovery of the

Age of Iron
Age of its discovery
Discovery of the Great Wall
Discovery of the

Industrial
18th century – 19th century AD

Along with
Discovery of the Great Wall
Discovery of the



Fig. 2:
Open day at
excavations
on the M3.

banks would have enclosed each of these three sites, yet no surface remains were visible in advance of the M3 archaeological investigations. When you consider how such large-scale sites have disappeared completely from the visible landscape and local memory, these sites are a revelation.

John Nicholls and Dan Shiel of Target Archaeological Geophysics carried out additional geophysical survey at various sites across the scheme and they outline the results of some of their work to date. This has included very good results from sites at Castlefarm, Collierstown and Boyerstown, among others. The use of geophysical survey in advance of and during excavation has greatly enhanced our ability to understand the scale and nature of many sites before putting a spade in the ground.

While pottery and flint are typically the most common finds on site, it is the smaller, personal objects, those of bone and metal, that often tell us most about individual people in the past. One such artefact is a tiny, silver medieval ring brooch from Boyerstown, just outside Navan, which is illustrated and discussed below.

A growing area of interest in archaeology is the remains of post-medieval (early 16th century–late 17th century AD) and early modern sites, often surprisingly poorly understood from historical records alone. Lydia Cagney, with Irial Glynn, describes the results of her excavation of one such site—a 19th-century post office, house and smithy at Philpotstown—and illustrates how living memory helped complete the picture sketched from archaeological and historical research.

The M3 motorway project has enabled us to travel back into our past. By bringing a wide range

of scientific investigative techniques into use at the sites, archaeologists have uncovered evidence for how ordinary people lived, worked and died in the landscapes of County Meath, including around the Hill of Tara, the renowned archaeological complex of huge cultural significance.

Through the M3 investigations archaeologists have discovered evidence for prehistoric, early medieval and medieval settlements and burials, post medieval houses, fields and roads and early modern buildings. All of this archaeological evidence has provided fascinating insights for scholars and for the public, and taken together will enable us to understand how this landscape developed over time. Further details of the ongoing work can be found on a dedicated website: www.m3motorway.ie



Fig. 3: Visitors examining artefacts on exhibition during Heritage Week open day onsite.



In Brief GEOPHYSICAL SURVEY

Geophysical survey consists of a number of methods of exploring below the surface of the ground by measuring differences, or 'anomalies', in the magnetic, electrical and other properties of the earth capable of being detected by instruments. These anomalies can be caused by the presence of iron artefacts, kilns, ditches, stone walls or hard-packed floor surfaces.

Imagine a field planted with grass. Then imagine a working farm, with all its buildings, slurry, bonfire heaps and ditches. If you demolish the farm and bury whatever is left under soil, it can look very similar to the first field. But it is not. The demolished farm is now a buried archaeological site and geophysical survey can sometimes 'see' any surviving, hidden remains. Geophysical surveys generally detect differences using magnetic signals (magnetometry), or electrical signals (resistivity). In the grass field the topsoil simply sits over subsoil, giving uniform signals. Over the demolished farm the buried remains show as anomalies through high and low signals recorded on the detecting devices.

Readings are made in straight lines (traverses) walked across the site. With magnetometry the instrument is held above ground, whereas resistivity involves four probes repeatedly stuck into the earth. Two probes project the resistivity signal and two receive it and, depending on what the signal passes through, it is increased or decreased. The traverses are then all run together to create a plan of the anomalies. The challenge is to interpret these anomalies: is it a prehistoric ditch, or a modern drain? Experience can count for a lot, but all geophysical survey results should be confirmed through limited excavation.

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