

what we found

in brief:

Some of the findings in and between **Kinnegad, Enfield** and **Kilcock**.



1. Small finds
Selection of small finds uncovered at **Killickaweeneey**. (Photo I.A.C Ltd.)
2. Ring pin
Copper-alloy pseudo penannular ring pin from **Johnstown**. (Photo A.C.S Ltd.)
3. Burnt mound
Oval trough from a burnt mound uncovered at **Kilmorebrannagh**. (Photo A.C.S Ltd.)
4. *Fulacht fiadh*
Trough of a *fulacht fiadh* uncovered at **Rossan**.
5. Tuyere
Tuyere recovered from excavations at **Killickaweeneey**. (Photo I.A.C Ltd.)
6. Burial site
Inter-cutting burials uncovered on the early medieval site of **Johnstown**. (Photo A.C.S Ltd.)



background



Section face from the early medieval enclosure uncovered at **Killickaweeneey**. (Photo I.A.C. Ltd.)

This scheme consists of approximately 35km of motorway commencing to the south-west of **Kinnegad** in County Westmeath and continuing in an easterly direction through Counties **Meath** and **Kildare** and terminating at the western end of the existing motorway at **Kilcock**, County Kildare.

Archaeological investigations and excavations commenced in 2002 and were undertaken by **Archaeological Consultancy Services Ltd.**, (A.C.S. Ltd.) and **Irish Archaeological Services Ltd.**, (I.A.C. Ltd.)

who completed the on-site archaeological investigations and excavations in 2002 on behalf of the **National Roads Authority** and **Westmeath, Meath and Kildare County Councils**.

An intensive investigation strategy was adopted to investigate all potential archaeological sites along the route and to identify any previously unknown sites. This investigation comprised centreline trenching, geophysical surveys and site specific trenching.

A total of 31 archaeological sites were identified during the investigation phase, which were subsequently excavated between summer and winter 2002. The majority of sites produced evidence of small-scale archaeological activity, the most prevalent being the occurrence of isolated areas of burning which in the main were related to industrial processes dating to the prehistoric and medieval periods.

Other sites uncovered included burnt mounds, kilns, a ring-ditch, two post-medieval buildings and a post-medieval enclosure surrounding a pond.

The largest sites excavated were at **Killickaweeneey**, County Kildare, where a major settlement site was found dating to the early medieval period and **Johnstown**, County Meath, with activity from the late Iron Age right through to early modern period.

M4 KINNEGAD-ENFIELD-KILCOCK MOTORWAY,
Counties Westmeath, Meath and Kildare



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Counties Westmeath, Meath and Kildare



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archaeological DISCOVERIES

front cover images

LEFT: Archaeologist recording one of the burials uncovered at **Johnstown**. (Photo A.C.S. Ltd.)
RIGHT: Aerial view of early medieval settlement uncovered at **Killickaweeneey**. (Photo A.C.S. Ltd.)
MIDDLE: Copper-alloy pseudo penannular ring pin uncovered at **Johnstown**. (Photo A.C.S. Ltd.)



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prehistoric



Aerial view of the burnt mound uncovered at **Kilmorebrannagh**. (Photo A.C.S Ltd.)

Burnt mounds - the Bronze Age

Three burnt mounds were excavated at **Towlaght**, **Kilmorebrannagh** and **Killickaweeneey**. Traditionally burnt mounds are considered to be ancient cooking places dating predominantly to the Bronze Age, however, more recent interpretations have included sweathouses, brewing, textile manufacture, and other industrial processes. They are the remnants of a process of heating stones in a fire and placing them in a trough to boil water. They usually consist of a mound of fire-cracked stone and a trough, which can be lined

with either timber, clay or stone slabs. They are usually located adjacent to a water source and the troughs are often cut into the water table. The best preserved example on this scheme was at **Kilmorebrannagh**, which consisted of a large spread of charcoal and burnt stone, two timber-lined troughs, a hearth and several pits. The site was dated to the Early Bronze Age.

Metalworking sites - Late Bronze Age to post-medieval period

A total of 14 sites produced evidence of iron working dating from the prehistoric to the post-medieval period. Features associated with iron working included bowl furnaces of large and small diameter; smithing floors for bloom working and metal forging, charcoaling platforms and storage/refuse pits. One of the earliest iron working sites in the midlands was discovered at Kinnegad dating to 900 BC.

It is likely that the development of iron working at these sites and the continued use of this technology is in part influenced by the surrounding environment, which from the Late Bronze Age onwards would have been characterised by extensive areas of bogland. These boglands would have provided a ready source of iron ore needed for smelting into iron which can then be used to manufacture tools.

johnstown

county meath

Multi period enclosure and burials - Iron Age/early medieval to early modern period

A multi period enclosure site was excavated at **Johnstown**, south-west of the town of **Enfield**, County Meath. Excavations revealed an Iron Age/early medieval burial, settlement and industrial site that was reused up until the last century as a cillín burial ground (i.e. a burial ground mainly used for the interment of unbaptised children). There were three successive phases of enclosure activity, which formed oval and D-shaped enclosing ditches. Over 398 burials were located within the area demarcated by these enclosing ditches, while the 63 cillín burials were located outside the enclosure.

The earliest burials were located in a small burial mound covering a charnel pit that contained the disarticulated remains of a minimum of three individuals.



Aerial view of early medieval settlement at **Johnstown** from north-east. (Photo A.C.S. Ltd.)



Archaeologist recording one of the burials uncovered at **Johnstown**. (Photo A.C.S. Ltd.)



Inter-cutting burials uncovered on the early medieval site of **Johnstown**. (Photo A.C.S. Ltd.)

Following the construction of the mound, successive enclosing ditches were constructed. Several hundred burials were then continuously interred within this area up until the 16th-17th century AD. These burials consisted of extended inhumations and with the exception of nine that were inserted in possible stone-lined graves, were contained within simple grave cuts and probably buried in simple shrouds.

Analysis of the burials has given us an insight into health, living conditions and life expectancy of the people at **Johnstown**. Females appeared to have a higher life expectancy than males with four times as many females surviving beyond their late forties. Dental health in general was poor. A variety of diseases and disorders were evident such as rickets, scurvy, osteomalacia, osteoporosis and tuberculosis. Three cases of possible congenital syphilis were also identified. Four individuals appeared to have suffered from a weapon wound. Several blade wounds were identified; produced from the slashing or stabbing of a

johnstown

county meath

sword. Injuries and pathologies identified on one of the burials suggest that the person may have been a professional soldier. It is also of particular interest that many of these individuals did not die immediately from their wounds and injuries but survived.

There was also evidence for settlement and industrial activity. Settlement evidence was identified in the form of refuse pits, animal waste and small finds.

The remains of a watermill were found within a ditch. Industrial activity was identified from 12 smelting pits, four bloom smithing hearths and over two tonnes of metallurgical waste. This industrial activity has been radiocarbon dated showing continuous iron working on-site from the 3rd to the 13th-century AD. Radiocarbon dates also prove that settlement and industrial activity took place alongside burial activity at the site as late as the 14th-century.

killickaweeneey

county kildare

Enclosure - the early medieval period

A second early medieval enclosure was excavated at **Killickaweeneey**, approximately 4km west of **Kilcock**, County Kildare. It consisted of a large 'heart' shaped ditched enclosure and appears to have been occupied over 200 years. It is perhaps easier to see how people lived in one of these settlements in the second half of the first millennium.

This site was subdivided into separate distinct areas, occupation in the west, an industrial area to the north and a habitation (living) area to the south of the enclosure; whilst the east is considered to have been used predominantly for livestock.



Aerial view of early medieval settlement uncovered at **Killickaweeneey**. (Photo A.C.S Ltd.)

killickaweeneey

county kildare

The principal structure on the site was a round house. It had an internal hearth with a series of eight associated stake-holes, which were likely to have supported a series of spits over the fire for cooking. In the vicinity of the house a series of refuse pits were identified which contained animal bones and charred barley, oat, wheat and rye seed. Barley was the most dominant cereal, which could be used for making bread, soup, stew and animal fodder. Over 89% of the animal bones recovered were of cattle, sheep/goat and pig, with cattle predominating. However, as with many other early medieval sites, horse, dog and cat bones were also found.



Bone comb fragment uncovered at **Johnstown**. (Photo A.C.S Ltd.)

Refuse pits on the site also produced a rich array of artefacts such as iron ringed pins, iron knives, glass beads, and bone and antler objects such as a decorated bone comb. Evidence for textile manufacture is indicated by the presence of possible weaving tensioners, spindle whorls and needles.

Metalworking however, proved to be the main industrial activity at **Killickaweeneey**. It appears that both the production of iron (smelting) and the working of iron into objects (smithing) took place side-by-side. Three structures were also considered to be associated with this area and interpreted as a smith's workshop, shelter and perhaps even functioned as a trading post.

The excavations at **Killickaweeneey** have given an insight into how people lived between the 8th and 10th-century AD. It portrays a small self-sufficient community, which had the ability to produce its own tools, textiles and food supply. The production of fine metal objects by the smith was likely to have enhanced the status of the settlement.



Archaeologists excavating the early medieval site uncovered at **Killickaweeneey**. (Photo I.A.C. Ltd.)