

what we found

in brief:

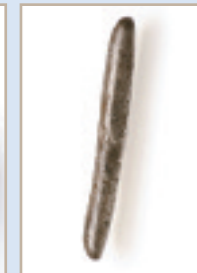
Some of the findings in on the **N25 Waterford City Bypass**.



1. **Sword hilt**
Hilt of sword found in Viking warrior grave at **Woodstown**, the remains of the wooden grip can be seen. (Photo StudioLab)



2. **Lead weight**
Lead weight decorated with an enamel face found during excavations at **Woodstown**. (Photo StudioLab)



3. **Silver ingot**
Silver ingot found during excavations at **Woodstown**. (Photo StudioLab)



4. **Neolithic axe and arrowhead**
Neolithic stone axehead and arrowhead found during excavations at **Newrath**.



5. **Standing stones**
View of standing stone and post-holes at **Kilmurry** after excavation. (Photo ADS Ltd)



6. **Coin**
Ummayed Dirham minted about AD 742 in the town of **Wasit** in the southern part of modern Iraq found in excavations at **Woodstown**. (Photo StudioLab).



7. **Watermill**
Aerial view of the vertical watermill uncovered at **Killoteran**. (Photo ACS Ltd)

background

The N25 Waterford City Bypass scheme is located in east County Waterford and south County Kilkenny. The total length of the scheme is 20 km and it runs through agricultural land suitable for tillage and grazing. The topography is dominated by the River Suir, which forms the provincial boundary between **Munster** and **Leinster**. Almost unique to road projects, a considerable part of the scheme runs along the bank of a river. Archaeologically, this area is dominated by the **Waterford City** itself, founded by Vikings in the 10th century.

A programme of archaeological test excavation was

carried out along the entire length of the scheme. A total of 110 previously unknown sites of archaeological potential were identified as a result of this work. The excavation of these sites took place in 2003 – 2005 and analysis of the excavation results is ongoing. The archaeological works were carried out by **Archaeological Consultancy Services Ltd**, (ACS Ltd), **Archaeological Development Services Ltd**, (ADS Ltd), and **Headland Archaeology Ltd**, on behalf of the **National Roads Authority**, **Waterford County Council**, **Waterford City Council** and **Kilkenny County Council**.

mesolithic

Mesolithic activity and later prehistoric/medieval trackways, Newrath townland, County Kilkenny

This site was located on the eastern edge of a wetland area; the archaeological deposits were located on a probable shelving terrace now covered by marshy estuarine deposits. At the base of organic deposits in two areas, Mesolithic activity was encountered on the underlying boulder clay. Flint blades ('Bann Flakes') of

Later Mesolithic date were found on the original dry land surface under c. 2 m of peat.

This area was a marsh subject to periodic inundation throughout prehistory. It is likely simple hurdles and brushwood trackways that were discovered here, were constructed to access dryer land in the marsh, for hunting, fowling and fishing. Radiocarbon dating has shown that construction of these trackways took place in the Bronze Age, the Iron Age and the medieval eras.

N25 WATERFORD CITY BYPASS, Counties Waterford and Kilkenny



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archaeological DISCOVERIES

front cover images

LEFT: Saddle quern found in the trough of a *fulacht fiadh* uncovered at **Kilmeaden**.
MIDDLE: Archaeologists excavating the ring-ditch uncovered at **Newrath**.
RIGHT: Archaeologists excavating the trough of a *fulacht fiadh* uncovered at **Newrath**.



neolithic

Neolithic house, Granny townland, County Kilkenny

The remains of a Neolithic house were identified in **Granny**. The structure was roughly square in plan and was associated with stone artefacts and pottery. The remains consisted of slot-trenches, post-holes, internal floor surfaces, a hearth and a number of external pits. One post-hole radiocarbon-dated to 3977 – 3728 BC, made this the oldest house in County Kilkenny.

The house was formed by substantial wooden posts at each corner, the walls possibly by timber planking or

wattle-work. The roofing material is unknown but could have been thatch or sods. The structure may have been renovated through time, as some of the posts decayed *in situ*, whilst others were deliberately removed.

An exciting discovery was a new form of Early Neolithic pottery. The Granny pottery has a lip around the inside of the rim, which may have held a lid. Similar pottery is known from south-west England; the identification of this pottery raises many questions regarding Neolithic pottery production and distribution in Ireland.

bronze age

Bronze Age ritual and burial, Kilmurry townland, County Kilkenny

Three standing stones were excavated in **Kilmurry** townland. A small cist (stone-lined pit) was found at the base of one stone but no traces of either burial or pottery were found. Cists such as this commonly date to the Early Bronze Age. A second standing stone was found to be encircled by a ring of 12 circular pits, which originally held upright timber posts.

Burials of Bronze Age date have also been found in

Newrath and **Rathpatrick** townlands, County Kilkenny. In Newrath, a circular ditch (3.2 m in diameter) enclosed a small mound of stony clay sealing a flat slab. This covered a central stone-lined cist containing a cremation in an upturned, highly decorated, vase urn of Early Bronze Age date.

Fulachta fiadh, Rathpatrick townland, County Kilkenny

23 *fulachta fiadh* were found on this scheme, most consisting of one or more troughs with a mound of

bronze age

heat-shattered stone in close proximity. However, a site in **Rathpatrick** appears to have had a more complex use. Six relatively large troughs were identified beneath the mound material.

The largest trough comprised of a sub-circular pit under the approximate centre of the mound. This measured 5 m in diameter and regularly spaced stake-holes were located along its base. It is believed that these features are the remains of a sweat-house, the sunken area was roofed by a dome-shaped structure made from hazel rods covered with animal skins. Water thrown onto stones heated in an adjacent fire created large amounts of steam. In this way the people sitting in the sunken area would have enjoyed a steam bath! Certainly bathing formed part of the site's use history, whether this was for purely functional purposes of personal hygiene or for some sort of symbolic/ritual cleansing we will probably never know. Other features under the mound suggest that this site could have been used in the same way as 'traditional' *fulachta fiadh*.

Multi-period settlement, Adamstown, County Waterford

Up to a dozen oval and circular buildings were uncovered in **Adamstown** on a south-east facing slope of **Knockanagh Hill**, overlooking **Dooneen Marsh**. Most were constructed of wooden posts, often with internal supports, while some had slot-trench foundations. A number of the buildings were used for metalworking, evidenced from internal and external floor surfaces, slag, kilns, and a probable smithing hearth. Evidence of an animal stockade formed by a large curving arc of stake-holes, and further pits and small ditches suggested intensive settlement. A number of larger ditches, probably field boundaries, provided evidence of land use continuing into the medieval period. Finds included sherds of coarse-ware pottery (possibly Bronze Age), a saddle quern, a lignite bracelet fragment, a blue-glass bead and medieval pottery sherds.



Archaeologists excavating a Bronze Age trackway uncovered at **Newrath**.



Archaeologists excavating the trough of a *fulachta fiadh* uncovered at **Newrath**.



Archaeologists excavating the slot trench of one of the buildings uncovered at the multi-period site of **Adamstown**.

early medieval

Vertical watermill, Killoteran, County Waterford

The earliest vertical watermill in Ireland was discovered in **Dooneen Marsh** in Killoteran. Radiocarbon dates of AD 410 – 650 and AD 340 – 600 were returned for two structural oak planks. The entirely wooden mill was constructed on a millrace that had been artificially dug along the centre of the marsh and emptied into a small stream leading to the Suir, which was tidal at this point. The mill was fewer than 500 m from the Adamstown houses, some of which may be contemporary, and was 2 km south-west of the early medieval ecclesiastical establishment of **St Otteran** and the adjoining **Hiberno-Scandinavian** site at **Woodstown**.

The millrace measured 3 m in average width but widened into a semi-circular millpond 7 m in diameter. Two dams, 5 m in length and 3.5 m apart, controlled the water flow to the mill wheel. Both dams were constructed of oak planks set longitudinally into a slotted oak base plate. The base plate was set into clay marl and held in place by two large posts. The water-flow was controlled through a sluice at the centre of each dam. A small chute cut into the sluice of the second dam may have directed water onto the wheel. A rectangular mill house was located beyond the second dam in the centre of the

millrace and seems to have been located to one side of the wheel. Finds included a number of upper and lower mill stone fragments, a Mesolithic flint artefact, ships nails, rope and an antler knife handle.

Hiberno-Scandinavian settlement, Woodstown, County Waterford

The largest site discovered on the scheme was found in **Woodstown** townland, straddling the south bank of the River Suir. Sub-surface archaeological remains extend c. 500 m alongside the riverbank. The site began as possibly two late Iron Age forts constructed c. AD 450. There was abundant evidence of craft-workings in fine metals (e.g. silver), as well as iron working, stone, glass, bone, antler and amber. Some finds, including copper-alloy stud mounts with gold foil and a copper-alloy book-clasp, may have been treasure trove from monastic raiding.

During the middle of the ninth century the site was occupied, and presumably taken over, by Viking raiders, who set about strengthening the fort defences. There was no evidence of a hiatus between the Irish and Viking settlements, perhaps suggestive of a cultural overlap. Evidence of Viking metalworking in silver and lead was found, and the site has produced the largest assemblage of lead pan weights outside of Viking Dublin.

early medieval

Exotic finds of possible Norwegian schist whetstones, amber and a fragment of a silver *Dirham* coin from **Iraq** reflect the wider world in which Vikings operated. Ships nails and rivets reflect their maritime basis. A single warrior grave with full battle armour was also discovered, but due to the acid soil no skeleton survived.

The site was abandoned c. AD 1050, for reasons as yet unknown. This site, the fifth archaeological discovery from the Bypass in this townland, may have been an upriver trading station, 6 km from the Viking town of **Waterford**. The settlement has been preserved *in situ* by Ministerial order issued in 2005, necessitating a re-route of the bypass at this location.

background continued

The sites uncovered span a significant period of the prehistory and history of this part of south-east Ireland, dating from as far back as the later Mesolithic period and as recently as the eighteenth century. The excavations have uncovered significant prehistoric remains in a part of Ireland that has seen relatively

little previous investigation of such monuments. In particular, the excavations have served to place the foundation and development of **Waterford City** in its wider context, and opened new avenues for research into the late Iron Age/early Viking Age in south-east Ireland.



Saddle quern found in the trough of a *fulachta fiadh* uncovered at **Kilmeaden**.



Archaeologists excavating the ring-ditch uncovered at **Newrath**. The large slab at the centre of the ring-ditch covered the burial.



Vase urn in the cist in the centre of the ring-ditch uncovered at **Newrath**.