Archaeological testing and excavation in advance of the N7 Limerick Southern Ring Road Phase II (LSRRII) was carried out in 2004–5. The road scheme crosses the River Shannon, and a number of archaeological sites were investigated on the northern side of the river by TVAS (Ireland) Ltd on behalf of Limerick County Council and the National Roads Authority. Several of these sites lay within the townland of Coonagh West, the largest of which was a substantial early medieval ditched enclosure adjacent to a number of prehistoric features (NGR 153300, 156876; height 0–3 m O.D.; ministerial direction no. A005/2019).

**Landscape setting**

The site is in an estuarine alluvial landscape at the edge of Coonagh village (Illus. 1). The new road will skirt the village, which is situated on slightly higher ground than the surrounding alluvial landscape. This higher ground might even be thought of as an island.
The Geological Survey of Ireland (Lamplugh et al. 1907, 58), for example, notes that the ‘continuity of the deposit [the alluvium] is broken only in the Coonagh district by a slightly elevated tract of rock and boulder clay, which forms, as it were, an island in the alluvium’. The archaeological site lies on a low ridge on the edge of this island, bounding deeper alluvial deposits.

Flood defence embankments flank the River Shannon, and for at least the last few centuries these have allowed former estuarine mudflats to be reclaimed for pasture. The current banks were constructed in the 1820s, and the previous limit of dry ground is recorded on the first-edition Ordnance Survey six-inch map (1841) as the ‘Old Embankment’. It is easy to imagine that the landscape of mudflats, reeds and tidal channels would have continued further inland before this defensive line was constructed, perhaps reaching the environs of the site, now 500 m from the estuary (Illus. 2). Indeed, analysis by Dr Stephen Carter (this volume) suggests that the area around the site would once have been high saltmarsh.

The elongated gravel ridge occupied by the site is located on the edge of the larger ‘island’, where it is surrounded by alluvium on three sides—indicating that in the past it was almost an island (Illus. 3). This alluvium was the cause of many problems for the archaeologists during both testing and excavation, as some of the archaeological features lay beneath the mud while others sat on its surface.

**Testing**

The archaeological features at Coonagh West had not been previously identified, but during test trenching the monitoring archaeologists noticed a distinct hump in the ground. Their
archaeological instincts proved to be correct: test trenches targeted across the mound revealed evidence of a substantial ditch, indicating a circular enclosure surrounding the mound. A few small possible pits were also located within the enclosure, and a number of other features were found elsewhere in the field. As a result, the site was fully excavated in the summer of 2005.

**Prehistoric activity**

This gravel ‘island’ that would later be the site of an early medieval enclosure was clearly an attractive location for settlers in earlier periods too. Prehistoric activity was concentrated at the western end of the ridge (Illus. 4), and several of the features of this period were buried within or beneath the alluvium. Occupation was indicated by the presence of two small buildings, one represented by an incomplete subcircular gully 4 m across and the other defined by a circle of post-holes 8 m in diameter. Two fulachtá fíadh were also discovered, one of which had a timber-lined trough, while the other used a natural spring as its trough.

A 23-m-long trackway—made from brushwood beneath a rough stone surface—led out from the dry ground to the edge of a small stream within the alluvium. Adjacent to the track was a line of 20 oak posts, all buried by alluvium and therefore well preserved (Illus. 5). Some of the posts were quite substantial and the largest was 1.45 m long. Mechanical assistance was required to lift the timber to remove it from the site, and the presence of two loops carved into the wood suggests that the original builders had needed to attach ropes to the piece in order to manoeuvre it into position. Dendrochronological dates obtained from six of these timbers suggest a 16th-century BC date, with one post producing a felling date of 1507/1506 BC (Q 10824; see Table 1 for details).
A number of prehistoric artefacts were recovered, including five stone axeheads and several chert and flint tools. These items were largely recovered from the surface of the site, the alluvial layers and the topsoil, although several were found in later contexts such as the enclosure ditch fill.

Table 1—Dendrochronological dates obtained from posts adjacent to the trackway

<table>
<thead>
<tr>
<th>Lab code</th>
<th>Sample/context</th>
<th>Measured tree-ring series</th>
<th>Felling date range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q10818</td>
<td>Post 1365:34</td>
<td>1746–1609 BC</td>
<td>1577 BC ± 9 years or later</td>
</tr>
<tr>
<td>Q10819</td>
<td>Post 1389:1</td>
<td>No correlation</td>
<td>No correlation</td>
</tr>
<tr>
<td>Q10820</td>
<td>Post 1390:1</td>
<td>1760–1598 BC</td>
<td>1566 BC ± 9 years or later</td>
</tr>
<tr>
<td>Q10821</td>
<td>Post 1394:1</td>
<td>1692–1544 BC</td>
<td>1512 BC ± 9 years</td>
</tr>
<tr>
<td>Q10822</td>
<td>Post 1451:1</td>
<td>1720–1583 BC</td>
<td>1551 BC ± 9 years or later</td>
</tr>
<tr>
<td>Q10823</td>
<td>Post 1454:1</td>
<td>1820–1661 BC</td>
<td>1629 BC ± 9 years or later</td>
</tr>
<tr>
<td>Q10824</td>
<td>Post 1458:1</td>
<td>1638–1507 BC</td>
<td>1507/1506 BC</td>
</tr>
</tbody>
</table>
Early medieval activity

At the opposite (eastern) end of the gravel ridge a circular ditch was excavated that enclosed a higher mound of gravel. The ditch had a diameter of 36 m and an entrance at the northwest (the dryland side). It was typically 2.5 m wide and 1 m deep, and there was no evidence of an associated bank. Smaller curvilinear ditches at the western side of the mound suggested that the enclosure had been redefined on at least one occasion.

Although the interior of the enclosure had suffered from erosion of the loose gravel, the remains of a rectangular post-built structure, 4 m by 1.6 m, could be seen (Illus. 4), and it is likely that other, presumably domestic, buildings would have been present when the site was in use.

External features included several pits. One, to the east of the enclosure, contained a collection of animal bone and a pin-sharpening stone that appeared to have been deliberately deposited. Other pits, to the west, showed evidence of intense burning and one of these produced a small crucible fragment, suggesting that fine metalworking was taking place on site. Quantities of iron slag from across the enclosure also show that iron-smithing was being carried out.

A rough, stone causeway had been built from the dry ridge on which the early medieval enclosure was constructed and extended south through marshy ground towards the River Shannon. In contrast to the prehistoric trackway, this feature was located on top of the
alluvium, demonstrating its later date. The discontinuous trackway extended for almost 67 m and may have led to the same stream that was accessed during the prehistoric phase of occupation.

Finds from the ditches included two copper-alloy penannular ring-brooches (Illus. 6), of a type dated to the sixth or seventh century AD, several copper-alloy pins, a small stone disc, a pin-sharpener stone and two quernstones. Also, owing to the excellent preservation conditions, a very large animal bone assemblage, including a quantity of fish bones, was recovered. Additional items recovered included a worked antler handle and a lathe-turned bone spindle-whorl.

**Conclusion**

The excavation at Coonagh West has revealed several phases of use of a dry gravel island at the boundary between dry ground and the estuarine alluvial zone of the River Shannon. This alluvial area appears to us now as an inhospitable wasteland, but in the past it would have been seen as a valuable resource.

The prehistoric activity includes possible domestic structures, fulacht fiadh and trackways that appear to allow access to a watercourse within the saltmarsh. The dendrochronological analysis places the construction of the post row in the Middle Bronze Age, and it is hoped that radiocarbon dating will, in due course, demonstrate that the other activities were of the same date. Fulacht fiadh are commonly found to be Bronze Age in...
date. It is also worth noting that a number of other burnt stone spreads or fulfilachta fiadh were excavated within Coonagh West townland as part of the LSRRII project and, taken together, these sites would indicate that the mudflats and saltmarshes of Coonagh were intensively used in this period. These new sites also need to be viewed in the light of the results of intertidal archaeological surveys conducted by the Discovery Programme's North Munster Project, which located a number of archaeological sites in this part of the Shannon estuary, ranging in date from the Neolithic to the modern period. One site of particular note identified in Coonagh West was a deposit of worked wood discovered in peat submerged beneath saltmarsh clay, which was radiocarbon-dated to 1598–1441 BC (O’Sullivan 2001, 106).

The early medieval phase of use is not yet securely dated, although the presence of the sixth/seventh-century brooches provides an initial indication of the period of occupation. The enclosure seems to have been domestic in character, with a small amount of industrial activity taking place. Analysis of the artefactual material should prove enlightening and, in particular, a study of the large animal bone assemblage will provide information about the economy of the site and the diet of the occupants. Once these further analyses have been carried out, it will be interesting to compare the prehistoric and early medieval economies and to see how the people made use of this estuarine landscape in different periods in the past.

Acknowledgements

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