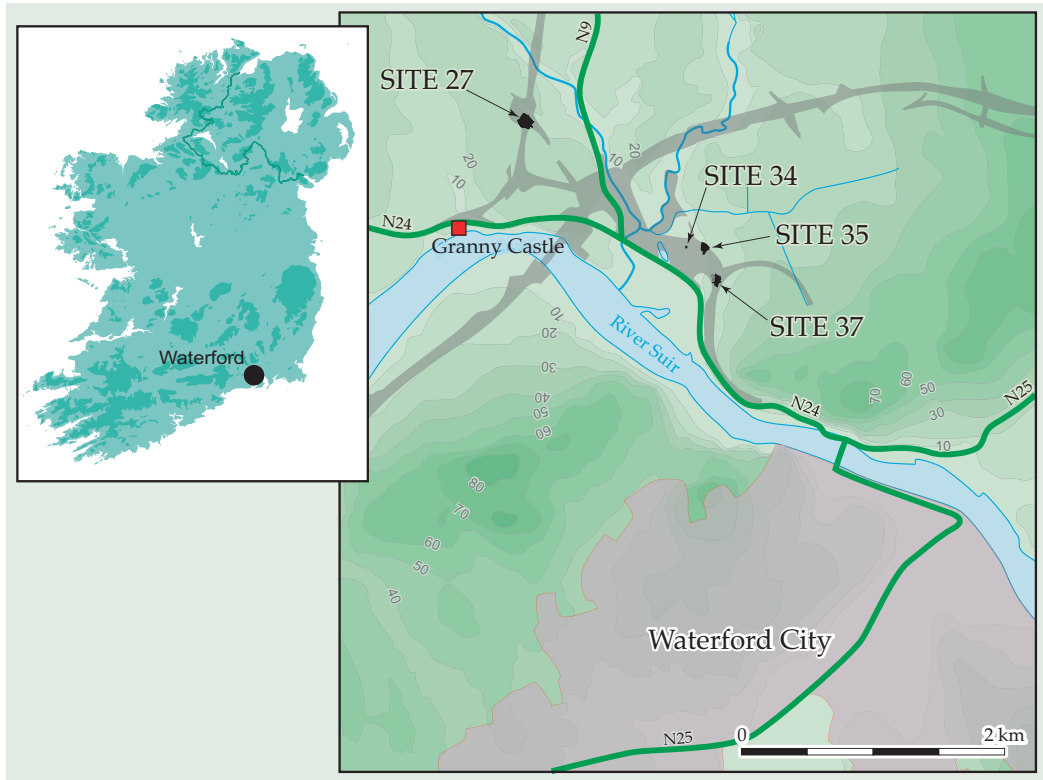


3. Two Neolithic structures in Granny townland, County Kilkenny

Joanne Hughes

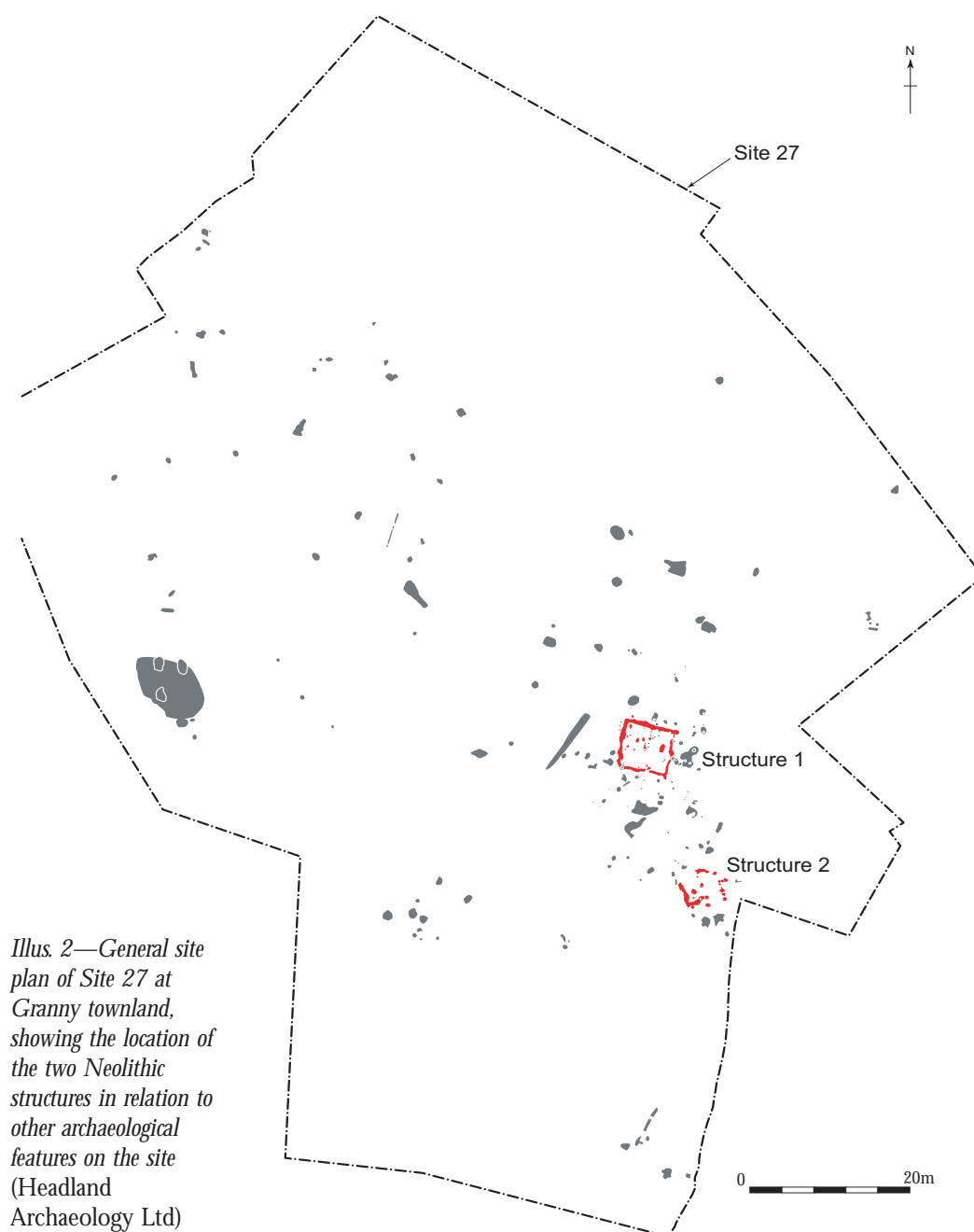


Illus. 1—Location map showing Site 27 at Granny townland, in relation to the proposed N25 Waterford City Bypass (Headland Archaeology Ltd, based on the Ordnance Survey Ireland map)

Pre-construction archaeological testing on the proposed N25 Waterford City Bypass identified an area of high archaeological potential in the form of pits, possible post-holes, burnt mound type material and a flint scraper in Granny townland, County Kilkenny. This work was commissioned by Waterford City Council, the lead authority acting on behalf of Waterford County Council and Kilkenny County Council, and was undertaken by Archaeological Development Services Ltd in 2003¹ (McLoughlin 2003). An area encompassing almost 11,500 sq m (Site 27) was stripped of topsoil as part of the archaeological resolution between April and June 2004. Two Neolithic structures² (the first such structures identified in County Kilkenny) with probable associated pits and post-holes (Illus. 2) and possible roasting pits of Early Bronze Age date were fully excavated by

¹ Site 5, Field 1, NGR 25784, 11544. Height c. 30 m OD. Excavation Licence No. 03E0421.

² Site 27, NGR 25784, 11544. Height c. 30 m OD. Excavation Licence No. 04E0548.



Illus. 2—General site plan of Site 27 at Granny townland, showing the location of the two Neolithic structures in relation to other archaeological features on the site (Headland Archaeology Ltd)

Headland Archaeology Ltd. In addition, a large number of anomalous features which did not form any recognisable pattern or structure, and a series of natural geological solution holes were investigated. A small quantity of worked flint and chert as well as prehistoric pottery was recovered from the excavations. A third Neolithic structure³ was excavated in the adjoining townland of Newrath in 2004 (Wren 2004), but is not discussed here.

Site 27 is situated on a roughly north–south orientated ridge, at an altitude of approximately 30 m above sea level (Illus. 1). It is located almost 3 km north of Waterford

³ Site 37, NGR 25929, 11421. Height c. 30 m OD. Excavation Licence No. 04E0290.

City, adjacent to the Waterford–Kilmacow road. The topography in the area is gently undulating. The Neolithic structures were sited close to the top of a limestone ridge, which slopes westwards towards the River Suir and eastwards to the local River Blackwater. The subsoil varied in nature and consistency, but in general comprised friable orange-brown sandy clay with deposits of naturally occurring sand and gravel (containing flint pebbles) at the western side of the site. The depth of topsoil also varied: it was most shallow (approximately 0.3 m deep) at the western side and increased steadily (to almost 0.7 m) at the eastern limits of the site, following the contours. The area was predominantly under pasture, with limited evidence for cultivation identified during the excavation.

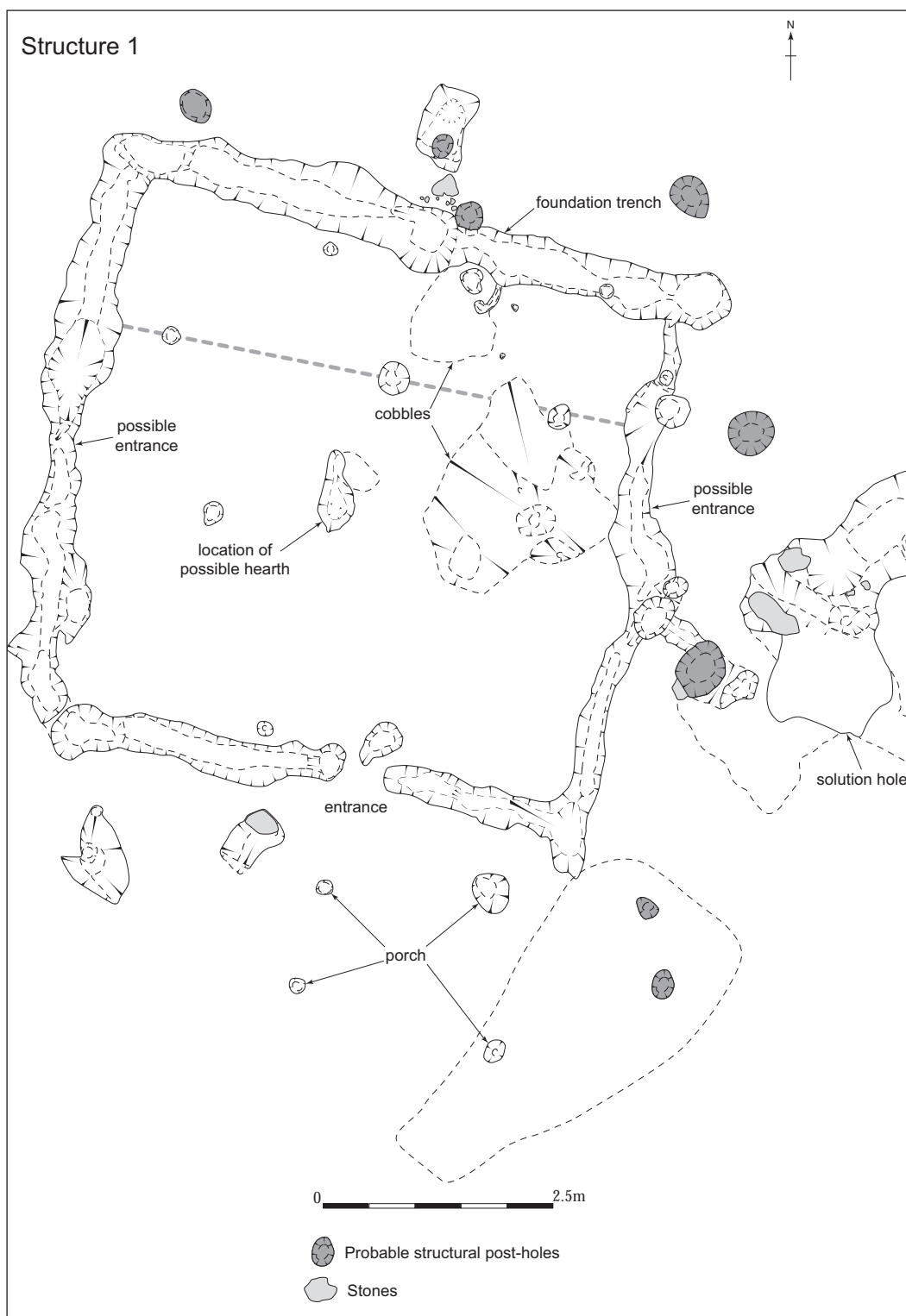
Prior to the discovery of the Neolithic structures in this area, prehistoric settlement was implied by the presence of various monuments, by lithic scatters (identified through fieldwalking) and by caves dotted across the landscape. The monuments include the passage tomb of Knockroe in County Kilkenny, and a group of possible tombs around Tramore Bay. The Gaulstown portal tomb is sited in an adjacent townland, and Neolithic human remains were identified from Kilgreany cave, also in County Waterford. The N25 Waterford City Bypass works presented an opportunity to increase our knowledge of the regions settlement history by exposing a sample of previously unknown sites within the broader archaeological landscape.

Structure 1

This was the larger of the two Neolithic structures and was roughly 42 sq m internally (Illus. 3). The house was almost square in plan with its southern side being approximately 1 m shorter than the northern side externally. The house foundation trench was defined by a large quantity of angular and sub-angular packing stones, and was punctuated by a series of post and stake-holes. A clearly defined entrance was noted at its southern side while possible additional entrances were noted at both its western and eastern sides. Evidence for a possible internal sub-division formed by a roughly east–west line of cut features, and suggested episodic renovation or re-modelling of the structure were found at the northern side of the building, although no evidence for a break in occupation was uncovered. Internal floor deposits included two areas of cobbling and a compact clay surface at the northern side of the structure, and a localised deposit at its south-western corner, which may relate to the decay of the building. External structural features included a line of post-holes and pits at both the northern and eastern sides of the structure. These may have contained timbers which supported the roof of the building. Evidence for a possible porch was found at the southern side of the structure; this consisted of three post-holes and a pit arranged in a rectangular pattern.

The foundation trench

Excavations revealed that apart from the southern and eastern sides, the foundation trench had been dug as a single continuous unit. A number of post-holes were found to have pre-dated the house foundation trench. A post-hole in the south-western corner was separated from the western side of the trench by a high ridge of natural subsoil and pre-dated the foundation trench at its southern side. The doorway at the southern side of the structure was approximately 0.75 m wide and was defined by a substantial post-hole and a distinct



Illus. 3—Neolithic Structure 1 at Granny townland, showing the various internal and external structural and associated features (Headland Archaeology Ltd)

break in the foundation trench, with a shallow pit or possible post-hole at the eastern side of the entrance. The three remaining corner post-holes post-dated the foundation trench. Roughly mid-way along the northern side of the foundation trench a very substantial post-hole with evidence for later reinforcement was identified. At both the western and eastern sides of the building two post-holes forming roughly opposing pairs demarcated possible entrances. The foundation trench was not well defined between both pairs of post-holes and contained a distinct paucity of packing stones at both locations. The apparent irregularity in the ground plan of the house was caused by the projection of all but the south-western corner post-holes beyond the corners of the foundation trench, and these posts were shown to post-date the foundation trench.

Within the foundation trench three main deposits were noted, the most abundant of these was probably re-deposited subsoil derived from the digging of the foundation trench. A large number of angular and sub-angular stones were used as packing material to support the posts and walls within the foundation trench, and some of these had collapsed inwards into the foundation trench when the posts had been removed or decayed. No conclusive evidence was found for individual split planks in the foundation trench. The best evidence for walling was found in the northern side of the foundation trench where a charcoal-rich organic deposit may have represented the decayed remains of partly burnt plank material. However, this layer appeared to be interleaved with the re-deposited subsoil trench fill, and could represent evidence for horizontal planks or possible renovation at this side of the building. Despite the paucity of evidence for plank walling, it would seem that the main structure must have comprised of posts and planks, and the posts were probably the main load-bearing elements for the roof. The internal features identified within the structure were generally slight and could not have supported any substantial roof timbers or heavy roof cladding.

Internal features

Within the structure a number of shallow pits and post-holes, as well as substantial floor deposits were found. A cobbled surface composed of tightly compacted heat-shattered stones was concentrated in an area measuring less than 2 sq m at the north-eastern side (Illus. 3). This layer post-dated some of the internal post-holes, but also appeared to have been cut by a number of smaller stake and post-holes. Sporadic patches of this cobbled surface were also identified as the fill of possible natural depressions within the building, suggesting that this deposit could originally have been more extensive. Similar stony material was also found mixed with the general floor surface which extended from the north-western corner to the centre of the structure. However, the stratigraphic sequence found between this surface and the cobbles is unclear. The general floor layer consisted of very compacted, stony clay with charcoal and burnt clay fragments. This layer could represent up-cast material from the foundation trench, combined with possible rakings from an internal hearth. Like the cobbles, this floor deposit sealed some features and was probably cut by others. It may have been associated with either a habitation or a reconstruction phase of the structure. A second internal cobbled area was very different from the first in that it consisted of much larger angular stones, which appeared to have been thrown down and compressed into a shallow depression beside the possible eastern entrance. This cobbled surface resembled the cobbled spread outside the entrance and it was the similarity between both deposits that helped define the possible entrance to the structure at this side.

An internal sub-division may have existed at the northern side of the structure, indicated by an east-west line of features (dotted line in Illus. 3). The features in this group include two post-holes and three pits. Although the pits were quite slight features, they may have supported some kind of light wattle screen rather than fixed structural elements within the building. This line of features may have defined the extents of the internal floor surfaces, and the majority of finds recovered from the structure were concentrated to the northern side of this possible sub-division.

There was tentative evidence for a hearth at the centre of the structure. However, little charcoal was noted within the 'hearth' deposit, suggesting this feature may represent scorched earth below a suspended fire. This feature overlay another floor deposit, which in turn sealed an earlier possible hearth in the same location, suggesting repeated use. The remaining pits and stake-holes within the building did not form any structural pattern and these features might represent stakes or posts used to support the roof, or possible wattle screen divisions.

External features

The evidence of a possible porch at the southern entrance to the building was defined by three post-holes and one pit. In plan, this group of features formed a roughly rectangular pattern measuring approximately 1.5 m by 2.5 m. As the alignment of the possible porch appeared to be off-centre from the entrance, these features could be interpreted as the remains of wind-breaks positioned at the entrance to the building.

Externally, to the eastern and northern sides of the building, a series of post-holes and pits was identified. The stratigraphic relationship between these features and the foundation trench remains unclear, but it is tentatively suggested that at least some of the features on the eastern side post-date the main structure. The distance between these features was broadly consistent (at approximately 2.5 m on the eastern side and 2.2 m on the northern side), and the regularity of their distribution adds strength to their possible association with the main structure. These features may have supported a lean-to or overhanging roof at this location, or alternatively may be related to phases of renovation or reinforcement of the structure. One external post-hole appeared to have cut through the fill of the northern foundation trench, and when combined with the stratigraphic evidence suggested by an adjacent internal post-hole and the re-modelling of the main post-hole within the foundation trench, strongly suggests renovation at this part of the structure. Similarly, another post-hole appeared to be cut into the cobbled spread at the eastern side of the structure. This cobbled spread was laid down across the top of an infilled natural solution hole less than 1 m to the east of the house. This and adjacent features were interpreted as posts used to brace the structure in case of further ground subsidence and to prevent the possible collapse of the house. The evidence suggests that the inhabitants witnessed ground subsidence around the house and took remedial action accordingly.

The remaining external features did not form any recognisable pattern, and in most cases could only be associated on the basis of their proximity. In general, these features consisted of randomly distributed pits, possible post-holes and natural root boles. Some of the larger features may have been rubbish pits, however, cursory evaluation of the environmental samples indicates a paucity of plant macrofossils and a total absence of animal remains. This is probably a consequence of poor preservation due to unfavourable (acidic) soil conditions.



Illus. 4—Possible flint arrowhead from Structure 1 and chert arrowhead from Structure 2 (Headland Archaeology Ltd)

Finds

The majority of the worked flint and chert from Structure 1 consisted of non-diagnostic tool types, many of which were locally collected flint pebbles from within the sand and gravel deposits naturally occurring on the site. One possible leaf-shaped arrowhead was found in the upper deposit of an entrance post-hole (Illus. 4). A number of hammer or grinding stones were also recovered from within the building, and a re-worked stone adze was found within the cobbles outside the eastern entrance. Approximately 150 sherds of carinated Neolithic pottery were recovered from the structure, the majority of these (58%) were found in or around the cobbled spread on the floor and in the foundation trench nearby. Preliminary specialist assessment indicates a new form of carinated pottery (Illus. 5) has been identified among this assemblage (H Roche and E Grogan, pers. comm.). The defining characteristic of this vessel is an internally projecting lip, probably used to hold a lid in place. A suggested date range of 4000–3700 BC was postulated for the pottery, and this concurs with the radiocarbon date range from a sample from Structure 2 (see below).

Structure 2

This building (Illus. 6) was not as substantial or prolific in finds as Structure 1, located 9 m to the north-east. Evidence for the foundation trench was discontinuous, and in the northern and eastern sides was extremely slight, possibly due to later agricultural activity. The floor area was 36 sq m, and the suggested entrance was located at the south-eastern side of the building. The best structural evidence was a roughly north–south line of post-holes found in the centre of the building. These were substantial features which may have



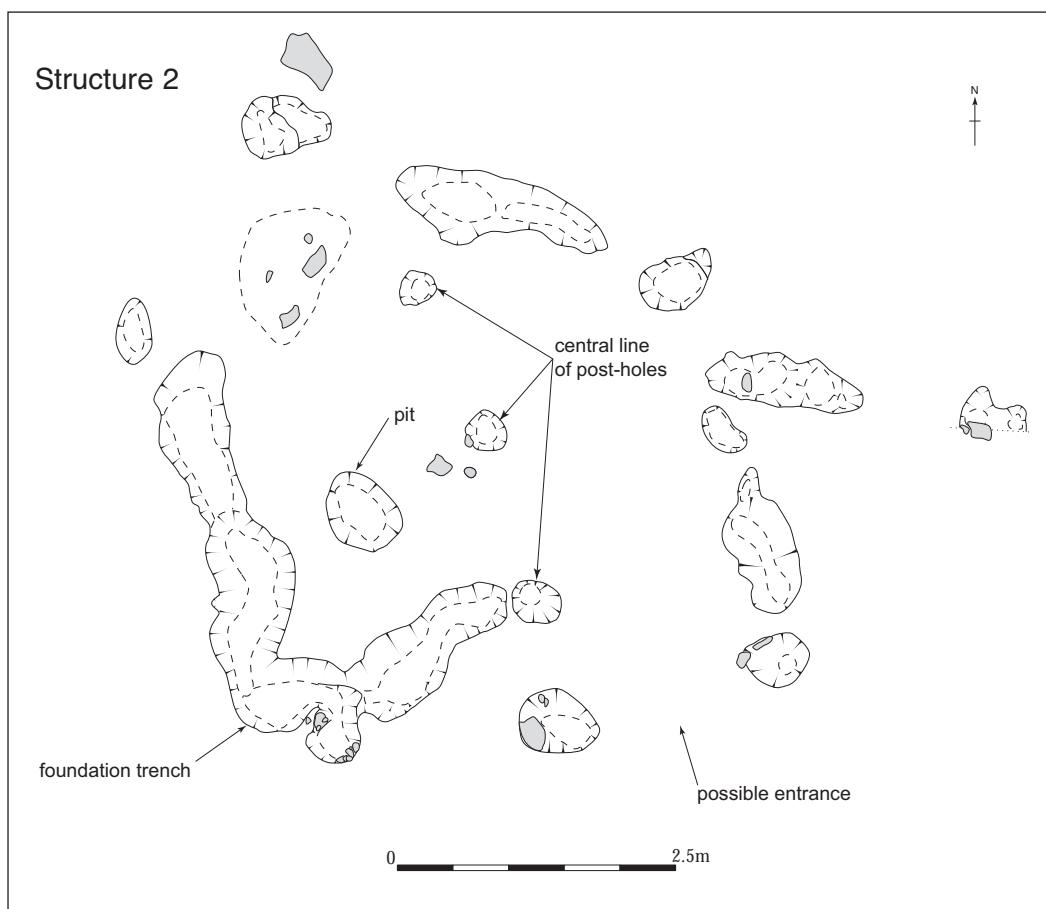
Illus. 5—New form of carinated Neolithic pottery from Structure 1. The defining characteristic is the internally projecting lip which may have held a lid in place (Headland Archaeology Ltd)

supported an A-frame roof. There was no evidence for internal floor surfaces within this building, and the number of finds (see below) recovered was small by comparison with the larger structure. The structural nature of this building raised questions as to its function, and the possibility of it being some form of storage facility or animal shelter, rather than a house for human habitation, cannot be dismissed.

The foundations

The foundation trench for this structure generally consisted of an irregularly cut L-shaped feature, 2.5 m long externally on its longest side. The trench fill contained charcoal inclusions, and in many ways it was the presence of charcoal that defined the nature of the trench, as the fill was otherwise very similar to natural subsoil. A possible entrance 1.5 m wide, comprising a post-hole and pit, was identified at the eastern side of the structure, and the possibility of a porch formed by two other post-holes is suggested. This arrangement is interesting because an entrance at this location mirrors the orientation of the entrance with possible porch found in Structure 1. This arrangement would also mean that two of the post-holes would have fulfilled dual functional roles as both entrance posts and as roof-bearing post-holes within the wall-line of the building.

At its eastern side a roughly east-west line of three post-holes formed the external limit to the building. The foundation trench may have cut through a single post-hole, but no other stratigraphic relationship was noted between the remaining posts and the foundation trench. The deposits within some of these post-holes indicated posts decayed *in situ*, rather than dismantling of the structure. The northern side of the structure consisted of an



Illus. 6—Structure 2 at Granny townland, with various structural elements and associated features indicated (Headland Archaeology Ltd)

NNW–SSE line of four post-holes and a single post-hole at the north-eastern corner. Three post-holes were substantial, with packing stones within their fills; the remaining features were slight and seemed too insubstantial to have supported a roof. Evidence for the foundation trench on the northern side consisted of one pit. However, the slight nature of this feature made it difficult to envisage any substantial structural element being associated with it, and perhaps this may have been an open-ended structure rather than a fully enclosed space. Alternatively, the northern and eastern ‘walls’ of the structure may have been wattle panels rather than the postulated post and plank construction of the larger Structure 1, leaving no traces in the ground.

Internal features

Unlike Structure 1, no floor deposits were identified within this building, and its internal features were confined to a single pit, two post-holes and a possible stake-hole. The pit contained three distinct deposits with evidence for burning *in situ*, and numerous charred hazelnut shells in the upper deposit. The two internal post-holes were part of the central line of four post-holes which may have supported the roof.

External features

As with Structure 1, a number of pits and post-holes were identified adjacent to Structure 2. However, these did not form any recognisable pattern or structure and appeared as isolated features surrounding the building. The interpretation of most of these features is difficult, but a small number of them could tentatively be associated with the building on the basis of further sherds of carinated pottery discovered within their fills.

Finds

The most significant find from Structure 2 was a chert leaf-shaped arrowhead (Illus. 5), which was recovered from the base of one of the internal post-holes. It is likely that this arrowhead was deliberately placed here, like the possible arrowhead found in Structure 1. A small quantity of carinated pottery was also recovered from the L-shaped foundation trench. This pottery was generally in poor condition and consisted of much smaller sherds than the pottery found from Structure 1. As yet, no sherds of the new form of carinated pot have been identified among the sherds from Structure 2, specialist analysis may alter this account.

Radiocarbon date

A charcoal sample from the north-east corner post-hole of Structure 2 was sent to the Radiocarbon Dating Laboratory in the Palaeoecology Centre at Queen's University, Belfast. A calibrated date range in the early fourth millennium BC was returned (see Appendix 1 for details)

Discussion

The Neolithic structures found in Granny townland represent the first such identified structures in County Kilkenny, although a third Neolithic structure was identified in the adjacent townland of Newrath some weeks later (Wren 2004). In 1988, the Tankardstown site in County Limerick represented the seventeenth excavated Neolithic house in the country (Gowen 1988), but by 2002 over 90 such structures had been investigated (Grogan 2002). This increase is due mainly to major infrastructural and development projects in recent years.

The larger of the two structures has close parallels with House 3 at Corbally, County Kildare (Purcell 2002), House 2 at Coolfore, County Louth (Ó Drisceoil 2003) and the Tankardstown 1 house in County Limerick (Gowen 1988). The second structure is similar to House 1 at Coolfore, in that it appears 'unfinished' or incomplete by comparison with Structure 1. The similarities between these structures suggest a pre-designed settlement template (Ó Drisceoil 2003). The location, aspect and proximity to water mirror the preferred settings of similar sites identified in County Donegal (Dunne 2003). This is not surprising as the rivers were probably the main routeways through the country in prehistoric times.

The larger structure at Granny would appear to have functioned as a dwelling, while the function of the smaller structure is less obvious. The construction methods replicated patterns identified in many excavated Neolithic structures, as does the evidence suggesting renovation during the life span of the buildings (Grogan 2002). Regarding the demise of

the buildings, there was little conclusive evidence for deliberate or accidental burning of the structures (implied by the quantity of charcoal and absence of oxidised clay within the foundation trenches). However, some features indicated decay of posts *in situ*, while others indicated the possible removal of posts from the foundation trench.

The finds from the site were few and were probably made from locally derived materials. The exceptional discovery is undoubtedly the new form of carinated pottery, which raises new questions regarding pottery production and regional distribution in Ireland.

Acknowledgements

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