

## 9. A fixed abode: Neolithic houses in County Carlow

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*Illus. 1—Location of the sites at Russellstown and Busherstown, Co. Carlow (based on the Ordnance Survey Ireland map).*

The type of evidence that archaeologists uncover for Neolithic settlement in Ireland can come in a variety of forms, ranging from small-scale temporary sites to larger, more permanent enclosed landscapes such as the Céide fields in County Mayo. Neolithic buildings form one part of this mosaic of settlement evidence. The remains of two Early Neolithic rectangular houses were excavated in the townlands of Russellstown and Busherstown, Co. Carlow, by Headland Archaeology Ltd in 2006 on behalf of Carlow County Council and the NRA.<sup>1</sup> This work was undertaken in advance of construction works for the N9/N10 Kilcullen–Waterford Road Scheme: Prumpelstown to Powerstown (Illus. 1). Their identification and excavation provide important additions to our knowledge of this site type in a part of the country where they have not been documented previously. Prior to the discovery of these buildings, evidence of Neolithic settlement in County Carlow was limited to a number of impressive funerary monuments, such as Kernanstown Portal Tomb (Record of Monuments and Places no. CW007-010), known locally as Brownshill Dolmen, and the Baunogenasraid Linkardstown-type burial tomb (CW008-031001). Both the Russellstown and Busherstown sites were located within a 3.5 km radius of Brownshill Dolmen and within 5 km of the Baunogenasraid tumulus. Although it cannot

be proven at present, the likelihood that those involved in building these tombs may have lived in one or both of the houses under discussion cannot be discounted.

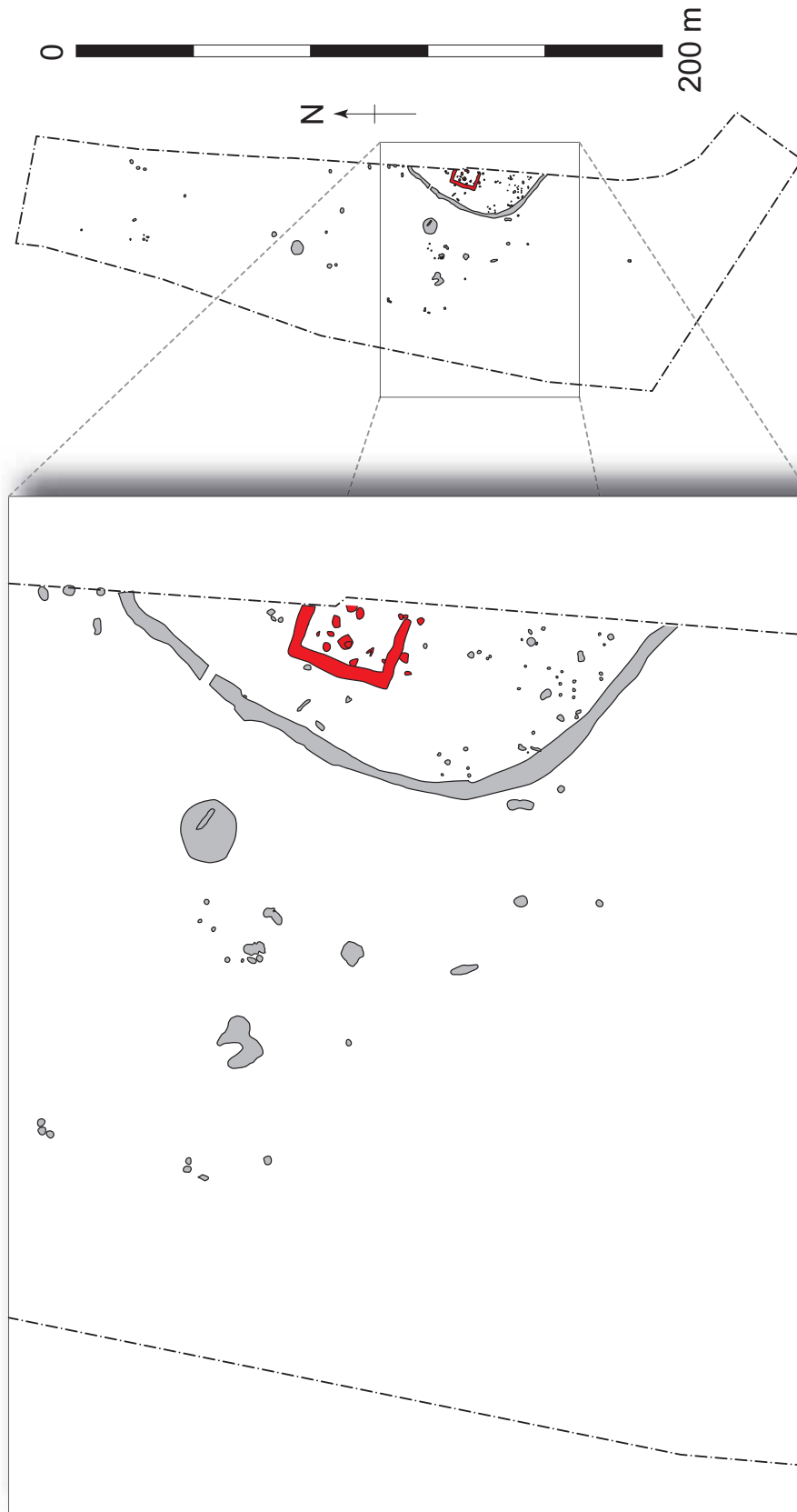
Early Neolithic buildings are being uncovered in increasing numbers throughout Ireland. A review of the literature concerning these structures shows that they often share a number of elements in common: for example, a marked preference for upland sitings on south- or south-west-facing slopes in areas of good soils, with access to a water source (Cooney & Grogan 1999, 42–7). The ground-plans of these buildings also share a number of common characteristics: most are defined by a substantial rectangular or square foundation trench, with the greatest number aligned north-east–south-west, east–west or north-west–south-east. Various building sizes have been recorded, with a tight cluster measuring 6–8 m long by 4–7 m wide (Smyth 2006, 234). A significant number of houses were constructed using a combination of posts, planks and wattle walling (*ibid.*, 238). Internal division sometimes occurred, with one, two or three rooms or compartments within one structure (Grogan 2004, 107). In addition to the walls, internal arrangements of post-holes would have provided support for the roof, which was likely to have been made of thatch (Cooney 2000, 58–9). Evidence for a hearth or the remains of a hearth sometimes occurs (Smyth 2006, 241). Doorways are rarely identified; those that have been recorded, however, generally occur on the gable end walls or at the corners of the buildings (Grogan 2004, 107). Although there is a general consensus in Ireland that these buildings were domestic in nature, some question the role of Early Neolithic buildings as dwelling-places and suggest alternative functions for them, for example as meeting places or cult houses where activities such as feasting occurred (Topping 1996; Cooney 2003, 52). Finally, in over half the examples of excavated Early Neolithic buildings, substantial burning of the structure has taken place (Smyth 2006, 246).

## **Russellstown**

The first building under discussion was excavated in Russellstown, on the south-west-facing slope of a small hill capped by the walled, 18th-century demesne of Burtonhall, approximately 5 km north-east of Carlow town. Stream channels were located c. 300 m to the south-west of the site near the lower slopes of the hill.

The excavation was directed by Linda Hegarty and was carried out in February–April 2006. A total area of almost 15,000 m<sup>2</sup> was stripped of topsoil, revealing a variety of archaeological features cut into the underlying subsoil (Illus. 2). In addition to the Early Neolithic phase, the site was reused during the Final Neolithic/Early Bronze Age period, the Bronze Age and again later in the medieval period. Initially, it had been thought that the Early Neolithic building was enclosed by a large curvilinear ditch partly exposed within the road corridor (Logan 2007). A radiocarbon date of AD 903–1038 (UBA-8730; see Appendix 1 for details) was, however, returned for some charred barley grains from the upper ditch fills, providing a medieval date for the infilling of the upper portion of this feature.

The remains of the Early Neolithic building were located on a flat ridge on the slope of the hill. They were initially revealed as charcoal-enriched soil that formed a subrectangular shape, aligned NNE–SSW, that continued to the east beyond the area of excavation. Excavation revealed that the remains represented structural material within a



Illus. 2—Plan of excavated features at Russellstown, with Early Neolithic activity highlighted in red (Headland Archaeology Ltd).

continuous subrectangular foundation trench. A possible entranceway was identified on the south-east side, where the southern foundation trench terminated near the edge of the road corridor. Internal features included a post-pit, a post-hole, pits and a possible hearth (Illus. 3 & 4).

The portion of the foundation trench within the area of excavation measured 8.5 m by 6 m. It was U-shaped in profile but the width and depth varied between the three excavated sides. The western portion was 0.55–0.6 m wide and 0.3–0.48 m deep. The northern portion was only exposed for 3.5 m and measured 0.7–0.9 m in width and 0.6–0.9 m in depth. The southern portion was the least substantial, 0.32–0.38 m wide and 0.15–0.35 m deep. This portion terminated near the eastern edge of the site, suggesting the location of a possible entranceway. The remains of three possible post-holes and one burnt post (partly within the excavation area) were evident within the foundation trench. These were set into and partly truncated its base. Their presence was only revealed after the excavation of the foundation trench packing fill.

The burnt, and likely in parts decayed, remains of a plank wall were located within the foundation trench. This wall appeared to have been continuous originally, but the evidence of its presence varied along the course of the trench. For example, within the western portion its presence was indicated by charcoal-rich soil, while in the northern and southern portions its course was less well defined. The timber planks were shown in section to have had vertical sides and a flat base. Their recorded depth within the trench was 0.2–0.45 m. Surrounding the remains of the plank wall and filling the foundation trench was a packing fill that incorporated approximately 30 stones to support the wall. The majority of these were subrounded granite cobbles with an average diameter of 0.3 m. Charred hazelnut shells that were recovered from the remains of the plank wall and the surrounding packing fill underwent radiocarbon dating and returned date ranges of 3707–3636 BC (UBA-8731) and 3776–3657 BC (UBA-8734), dating the building to the Early Neolithic period.

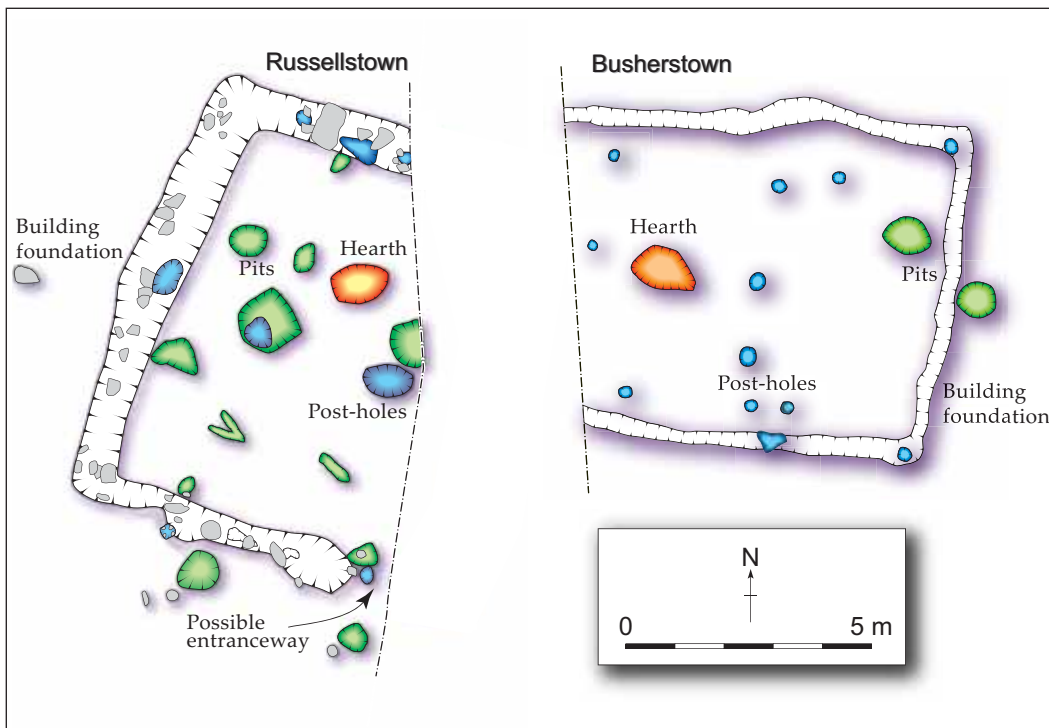
A post-pit and a post-hole within the building formed a linear alignment with a possible post-hole in the western portion of the foundation trench. This line of posts, running down the middle of the building, could have supported the apex of the roof and suggests a possible internal division within the building. A number of shallow pits were located within the structure. Their function was unclear but they may have served as rubbish pits for domestic waste. A patch of oxidised clay subsoil, measuring 1 m east–west by 0.7 m north–south, was located 3.2 m from the northern foundation trench and appeared to denote the location of a possible hearth. A post-hole and two pits were situated outside the southern end of the building. The post-hole is likely to have provided additional support for the wall. Charred hazelnut shells recovered from one of the pits suggested that they were used for the disposal of domestic waste (Stewart 2008a).

The artefacts recovered from the building included a range of stone tools, pottery (Illus. 5 & 6) and small fragments of burnt bone (unidentifiable to species), and suggest a domestic function for the structure. They included a flint concave scraper, a granite hammerstone and numerous sherds of Early Neolithic Carinated Bowl pottery (round-bottomed vessels with distinct shoulders, or carinations, generally having curved necks). Possible evidence for the gathering of foodstuffs and the cultivation of cereals was recovered from the fills of the foundation trenches and associated features. This included carbonised hazelnut shells and grains of emmer wheat, one of the first grains to be cultivated in Ireland (*ibid.*). It is also possible, however, that the shells derive from the gathering of firewood.

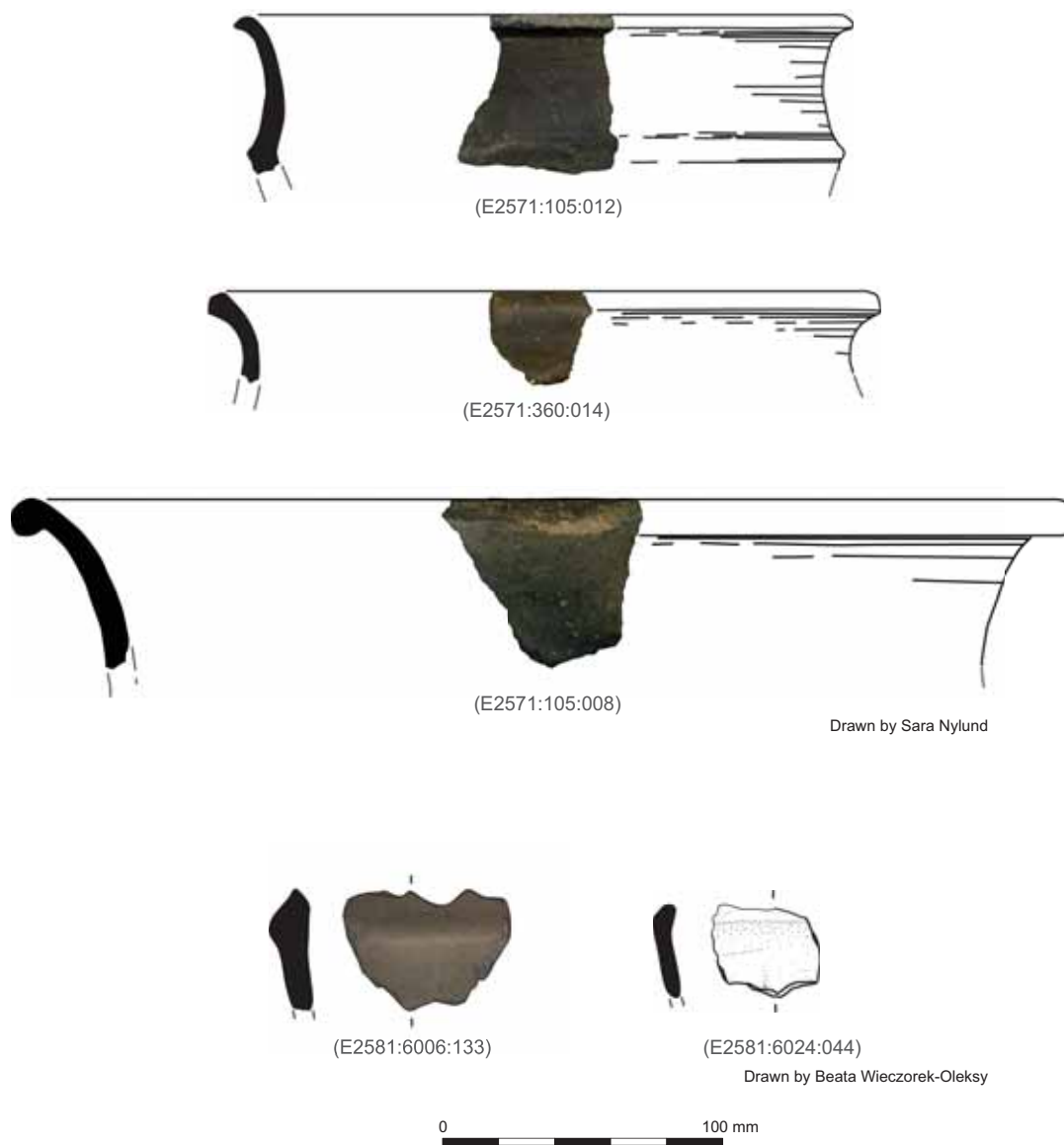




*Illus. 3—The Early Neolithic house remains at Russellstown (Headland Archaeology Ltd).*



*Illus. 4—Ground-plans of the two Early Neolithic houses (Headland Archaeology Ltd).*



Illus. 5—Early Neolithic Carinated Bowl sherds from Russellstown (top three) and Busherstown (bottom two) (Headland Archaeology Ltd).

Other examples of Early Neolithic buildings have been shown to have been destroyed by fire, and this may also have happened at Russellstown. The packing fills surrounding the burnt post and plank remains within the foundation trench were heavily oxidised, indicating that the walls and post were burnt *in situ*. The reason for this type of destruction is not clear: it may have been accidental or it may have been a deliberate act.

### Busherstown

At Busherstown, 4.5 km east of Carlow town and 4 km south of Russellstown, the remains of a foundation trench were uncovered on the lower part of a south-facing gentle slope,

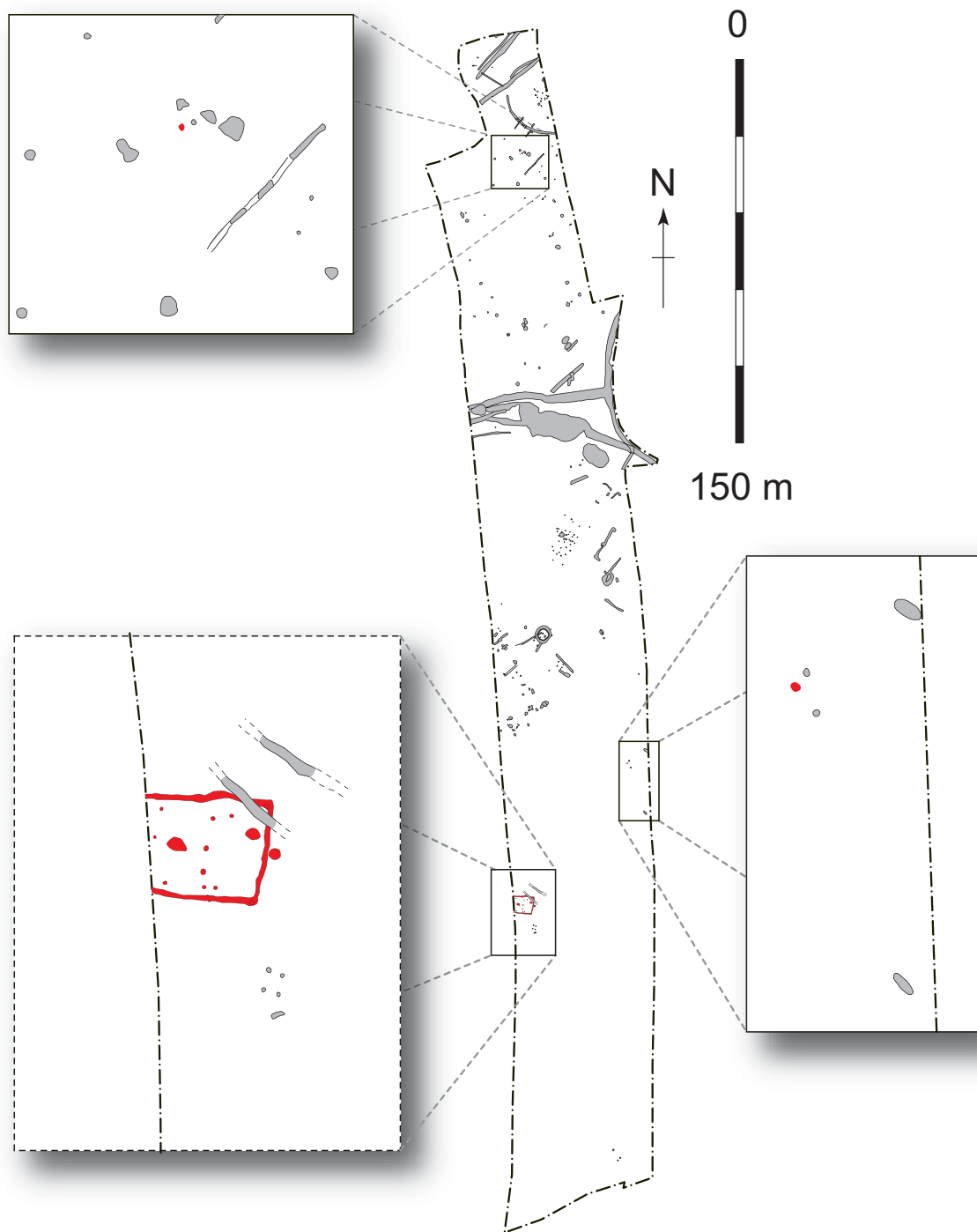


*Illus. 6—Stone tools from Russellstown: (top) possible concave scraper, disc scraper and naturally backed knife (all flint); (bottom) rubbing stone and hammer/rubbing stone (Headland Archaeology Ltd).*

next to the western limit of the excavation area (Illus. 7). The River Burren is less than 1 km to the south, with a tributary 300 m to the east.

The foundation trench was located next to the western edge of the road corridor, with the trench continuing beyond it. The remains within the limit of excavation were rectangular in plan, aligned east–west, 8.4 m long and 6.4 m wide (Illus. 4 & 8). Upon excavation it became apparent that the trench represented the remains of an Early Neolithic structure owing to the recovery of numerous sherds of Early Neolithic Carinated Bowl pottery (Illus. 5) (MacSween 2008) within its fill. A probable hearth was recorded towards the western portion of the excavated area, with several post- and stake-holes appearing to denote internal divisions.

Almost 22 m of continuous foundation trench was excavated, and three post-holes were recorded at the base of the trench. The trench had a U-shaped profile and was 0.45 m in width and 0.3 m in depth. One of the post-holes was located at the north-eastern corner, with the second at the south-eastern corner and the third 2.5 m west of the south-eastern corner along the southern portion of the wall. These post-holes were cut c. 0.2 m in depth below the base of the trench and appeared to be the support posts for a wattle and daub wall. Also contained within the fill of the trench was one piece of struck flint, frequent charcoal and



*Illus. 7—Site plan of excavated features at Busherstown, with Early Neolithic activity highlighted in red (Headland Archaeology Ltd).*





*Illus. 8—Excavation of the Early Neolithic house remains at Busherstown (Headland Archaeology Ltd).*

fire-reddened clay. The trench was 0.3 m in depth and would not have been deep enough to support a plank wall such as that uncovered at Russellstown. There was no evidence that the trench had been truncated by ploughing or in any other way denuded, for example by soil erosion. In addition, it was notable that the fill of the trench did not contain packing stones, which would have been vital in helping to support a plank wall.

An oxidised area of subsoil has been interpreted as evidence of a probable hearth towards the western end of the structure, but it was the eastern end that attracted most attention. Here a line of post-holes running north–south, perpendicular to the alignment of the structure, appeared to internally divide off 3.5 m of the length of the structure. What was most surprising was a pit located within this area that contained sherds of Early Neolithic Carinated Bowl pottery, both stratigraphically above and at the same level as a deposit containing unidentifiable burnt bone within a charcoal-rich fill. This feature appeared to have all the hallmarks of a Bronze Age cremation pit yet contained Early Neolithic pottery. A radiocarbon date obtained from the bone indicates that it dates from the period 3517–3358 BC (UBA-8447). This date range straddles the later part of the Early Neolithic and the early Middle Neolithic period, and the presence of Neolithic Carinated Bowl pottery in both the foundation trench and the pit appears to suggest that the pottery in the pit may be residual.

A second line of three internal post-holes was located 2.5–3.5 m further west of the line discussed above. These post-holes were also roughly aligned north–south. Inside the area demarcated by these two lines of post-holes was the probable hearth.

A large post-hole or possible pit was located immediately outside the structure to the east. This feature truncated a smaller post-hole and may have been a support post for the wall.

A small pit c. 65 m north-east of the structure was found to contain a large struck flint in the form of a convex end scraper of Late Mesolithic/Early Neolithic date (Sternke 2008, 9). A second small pit 350 m north of the foundation trench was also found to contain Neolithic Carinated Bowl pottery.

Charred hazelnut shells were recovered from the site, along with cereal grains that were, unfortunately, too degraded to allow for species identification. Nevertheless, the presence of such grains along with hazelnut shells and a hearth suggests a domestic function for this structure.

As with the house at Russellstown, the presence of fire-reddened clay in the foundation trench suggests that the house may have met its end through fire.

## **Discussion**

Both structures appear to conform to the characteristics that have become accepted as typical of an Early Neolithic house. The presence of a hearth, internal divisions, cereal grains, hazelnut shells and pottery all indicate that these structures likely fulfilled a domestic function.

The layout of both houses was remarkably similar to previously published examples, such as Ballyglass, Co. Mayo (Ó Nualláin 1972), Corbally 1, Co. Kildare (Purcell 2002), and Newtown, Co. Meath (Gowen & Halpin 1992). Despite some variation, the rectangular shape or outline of a continuous foundation trench with internal division(s) characterised these sites. Whereas the example at Russellstown was aligned north-east–south-west, the structure at Busherstown was aligned east–west, and these orientations have been shown to be the most common for this monument type (Smyth 2006, 237).

Grogan (2004) has described the ‘plank-built’ method as the most common construction method, and the house at Russellstown was clearly built using this technique. More recent evidence, however, indicates that a significant number of houses were built using the ‘wattle-and-daub’ technique, sometimes in combination with planks. The house at Busherstown appears to have been an example of this type.

Carbonised hazelnut shells and grains of emmer wheat, one of the first cereals to be cultivated in Ireland, were found on the Russellstown site, and charred hazelnut shells and cereal grain too degraded for species identification were found at Busherstown (Stewart 2008b). Hazelnut shells have been found on the majority of similar sites across the country, while cereal grain has been recovered from many sites, including Corbally 1, 2 and 3 (Purcell 2002), Tankardstown, Co. Limerick (Gowen & Tarbett 1988), and Ballyglass (Ó Nualláin 1972), among others.

It is becoming increasingly apparent that this monument type dates from the earlier part of the Neolithic period. In a recent article McSparron (2008) found that through careful selection of reliable radiocarbon dates for this monument type a clearly defined date range from 3715 to 3625 BC was obtained at a 95.4% confidence level. The radiocarbon date returned for the Russellstown house falls neatly into this date range, while Neolithic Carinated Bowl pottery is also understood to date from this period (Gibson 2002, 69–74). Although a reliable radiocarbon date could not be obtained for the house at Busherstown, the presence of typologically distinct Carinated Bowl pottery suggests that the structure was also from this period. Furthermore, the burnt bone in the pit containing Carinated Bowl



*Illus. 9—Reconstruction of the house at Russellstown (drawn by Sara Nylund, Headland Archaeology Ltd).*

pottery within the Busherstown structure was dated to just after the period outlined by McSparron (2008) and, presuming that human or animal remains were not interred within an occupied house, may indicate the final use/abandonment of this structure. The date (3517–3358 BC) obtained from the bone could suggest that this pottery type continued in use in south-east Ireland beyond the first centuries of the Neolithic period. It has been commonly accepted that Carinated Bowl pottery was being made in Ireland from 4000 to 3600 BC, and probably continued to be made after this date (Sheridan 1995, 17; Gibson 2002, 70). It remains highly probable, however, that this pottery was residual and may have been placed in the pit, along with the burnt bone, after the abandonment of the house.

Destruction through fire is possible, given the presence of fire-reddened clay in the foundation trenches of both structures. There is a growing corpus of evidence that deliberate destruction of Early Neolithic houses occurred relatively frequently. It has also been postulated that this destruction may have been part of the perceived ‘life cycle’ of these houses (Bailey 1996). Experiments carried out by Bankoff and Winter (1979) showed that the complete destruction of an Early Neolithic house was a calculated act and involved sustained effort over many hours. A particularly conspicuous example was recently uncovered during archaeological works in advance of the N2 Carrickmacross Bypass at Monanny, Co. Monaghan (Walsh 2006). Here completely burnt and charred posts were uncovered among the structural remains within ‘House C’; this appeared to be clear evidence for the deliberate burning of that structure. While such pronounced evidence was



*Illus. 10—Reconstruction of the house at Busherstown (drawn by Eavan O’Dochartaigh, Headland Archaeology Ltd).*

not uncovered at Busherstown or Russellstown, fire-reddened clay was observed in the foundation trenches of both houses. Bankoff and Winter’s (1979) experiment demonstrated that the burning of subsurface structural remains only occurred through sustained effort, and so it remains highly probable that these two examples also ‘died’ through fire.

## **Conclusion**

While the remains of both houses partly extended beyond the road corridor, a significant portion of each was situated within the areas of excavation, enough to determine the layout and form of the houses (Illus. 9 & 10). Their shape, orientation and the layout of internal features were all within the established parameters for such structures, and both methods of wall construction clearly belonged to the architectural tradition of the period. The range of finds, including stone tools and pottery, were all typically Neolithic. The type of material culture and environmental material recovered suggests a domestic function for the buildings, offering us a glimpse into the everyday lives of their inhabitants. This provides a tangible connection to Carlow’s Neolithic tomb-builders and ties the two structures to the wider landscape.



## **Acknowledgements**

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## **Note**

1. Russellstown: NGR 278344, 178957; height 83 m OD; excavation reg. no. E2571; ministerial direction no. A021; excavation director Linda Hegarty.  
Busherstown: NGR 277758, 175185; height 88 m OD; excavation reg. no. E2581; ministerial direction no. A021; excavation director Angus Stephenson.



