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Project Gallery

Brusselstown Ring: a nucleated settlement agglomeration in prehistoric Ireland

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Following the identification of more than 600 suspected house platforms on aerial survey data from Brusselstown Ring hillfort, four test excavations revealed evidence of Late Bronze Age and Early Iron Age occupation, positioning the site as the largest nucleated settlement so far identified in prehistoric Ireland and Britain.

Keywords: Ireland, Late Bronze Age, Early Iron Age, remote sensing, lidar, hillfort

Context

The Baltinglass hillfort cluster in County Wicklow stands out as one of the most complex prehistoric landscapes in Ireland, sometimes referred to as 'Ireland's Hillfort Capital' due to its exceptional concentration and diversity of monuments (Condit 1992). The cluster comprises up to 13 large hilltop enclosures, across a 'necklace' of hills at the south-western edge of the Wicklow Mountains, with at least seven major hillforts and several additional enclosures (O'Driscoll 2019) (Figure 1). The area displays continuous use and monumental construction from the Early Neolithic through the Bronze Age, *c.* 3700–800 BC. Several hillforts (e.g. Rathcoran, Hughstown, Spinans Hill 1) have Neolithic origins, with banks first constructed in the fourth millennium BC, while others (e.g. Rathnegree, Sruhaun, Tinoran) were enclosed in the Middle/Late Bronze Age, *c.* 1400–800 BC (O'Driscoll *et al.* 2024).

Within the cluster, Brusselstown Ring is unique in terms of its size and density of occupation. It constitutes one of the largest hillforts in Ireland, with the remains of two widely spaced ramparts encompassing a footprint of 41.19ha, according to current survey data. The outermost enclosing element forms part of a much larger contour fort (Spinans Hill 2), encompassing both Brusselstown Ring and the Neolithic enclosure of Spinans Hill 1 on the neighbouring hilltop (Figure 2), for a total enclosed area of 131ha. Hillforts encompassing more than a single hilltop are exceedingly rare across

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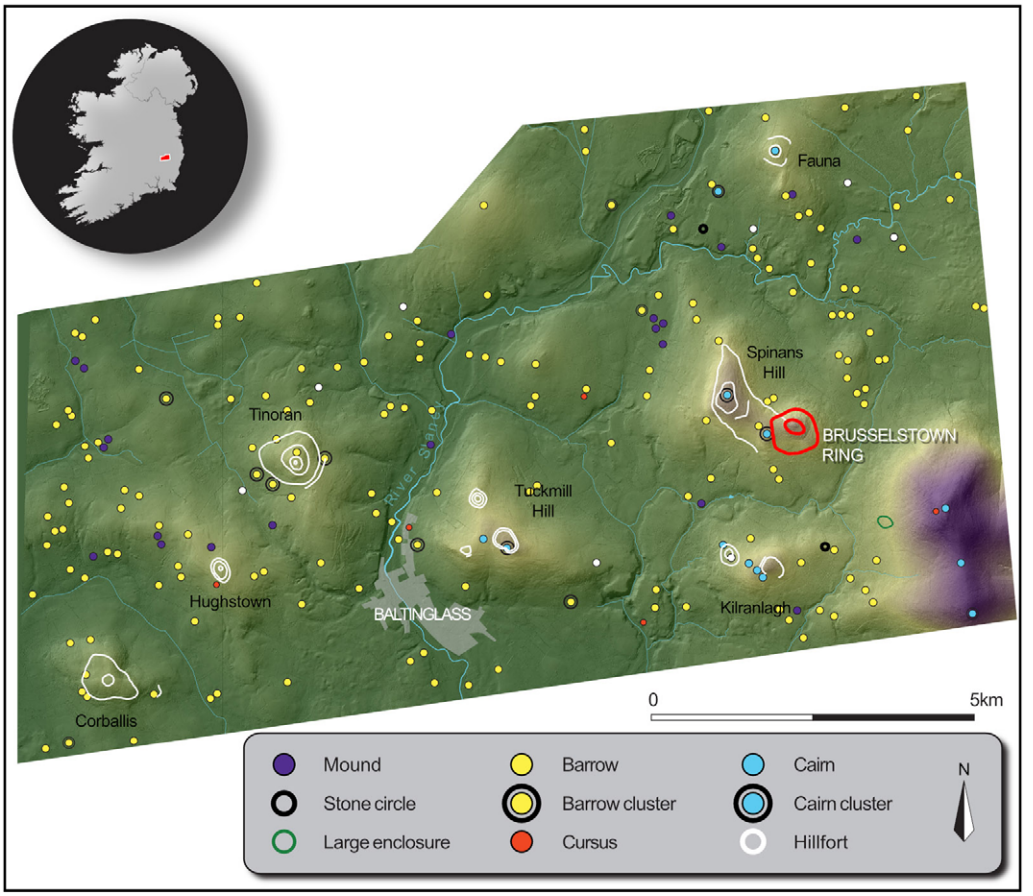


Figure 1. Baltinglass hillfort cluster (figure by authors).

Ireland and Britain, and uncommon even among the Late Iron Age *oppida* of continental Europe, *c*. 150–50 BC.

The number of potential roundhouse footprints at Brusselstown Ring and their dense clustering further underline the exceptional character of the site. Previous terrestrial survey work detected 288 potential hut sites (O'Driscoll 2016: 153–55), while subsequent airborne surveys identified more than 600 microtopographical anomalies consistent with prehistoric house platforms. These data locate 98 potential roundhouse footprints within the inner enclosure, with a possible further 509 between the inner and outer enclosing elements (O'Driscoll *et al.* 2024: 150–57) (Figure 3).

This would make Brusselstown Ring the largest prehistoric nucleated settlement by far in Ireland and Britain. Only a handful of other sites have more than a few dozen roundhouse footprints, and not all of these feature enclosing elements (Brandherm & Boutoille 2022). The next-largest roundhouse agglomerations at Turlough Hill, County Clare, and Mullaghfarna, County Sligo (featuring around 140 and 150 houses, respectively; Bergh 2015: 24), are both unenclosed. Within the Baltinglass landscape, the

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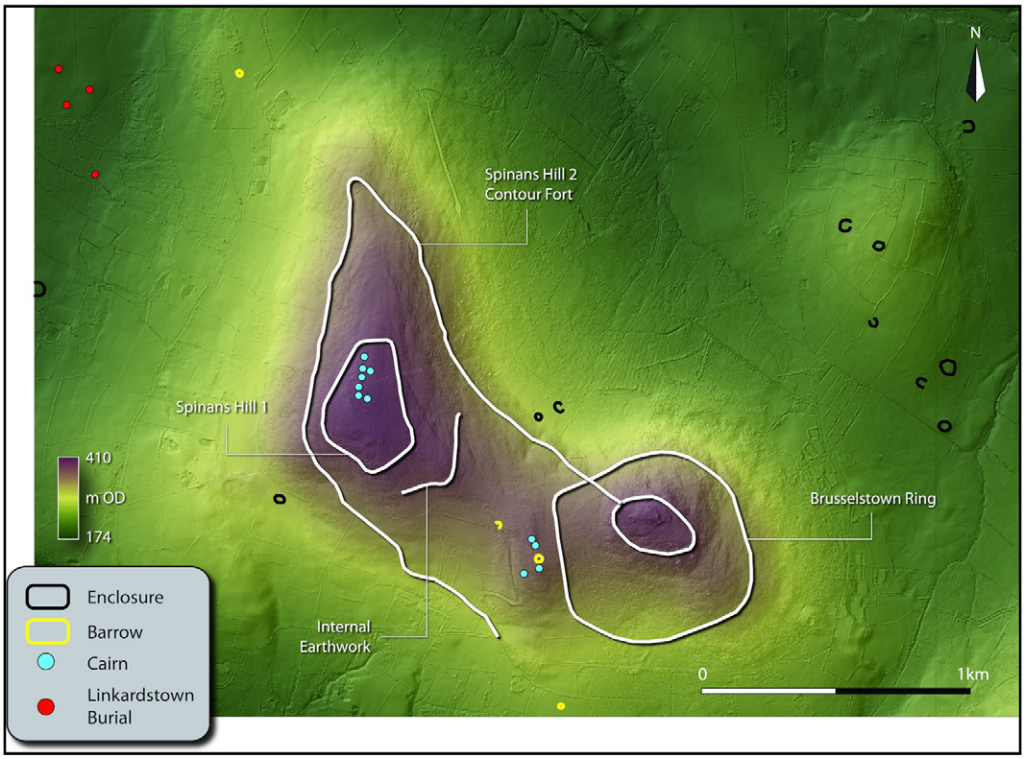


Figure 2. Enclosing elements of Brusselstown Ring and Spinans Hill (figure by authors).

second-largest agglomeration of roundhouse footprints is found at the Neolithic enclosure of Rathcoran, with 124 potential hut sites (O'Driscoll 2023: 23).

Given its exceptional size, density of occupation and architectural complexity, Brusselstown Ring represents a unique case within both the Baltinglass hillfort cluster and more widely within the Atlantic Archipelago. Despite extensive survey work conducted at the site over the past two decades, critical questions regarding the date, development and function of both the enclosing elements and the internal settlement remain unanswered. To address these lacunae, in 2024, the authors initiated a programme of test excavations, initially targeted at a small sample of roundhouse platforms.

Test excavation and survey results

The microtopographical anomalies detected at Brusselstown Ring range in diameter from 3–12m, with most falling in the 5–10m range, consistent with the dimensions of prehistoric roundhouses. Given the multiperiod nature of site use across the Baltinglass landscape, a series of test trenches were excavated at the locations of four anomalies, to determine the presence of any prehistoric structures and to obtain dating evidence and information regarding structural features (Figures 3 & 4). As size differences between

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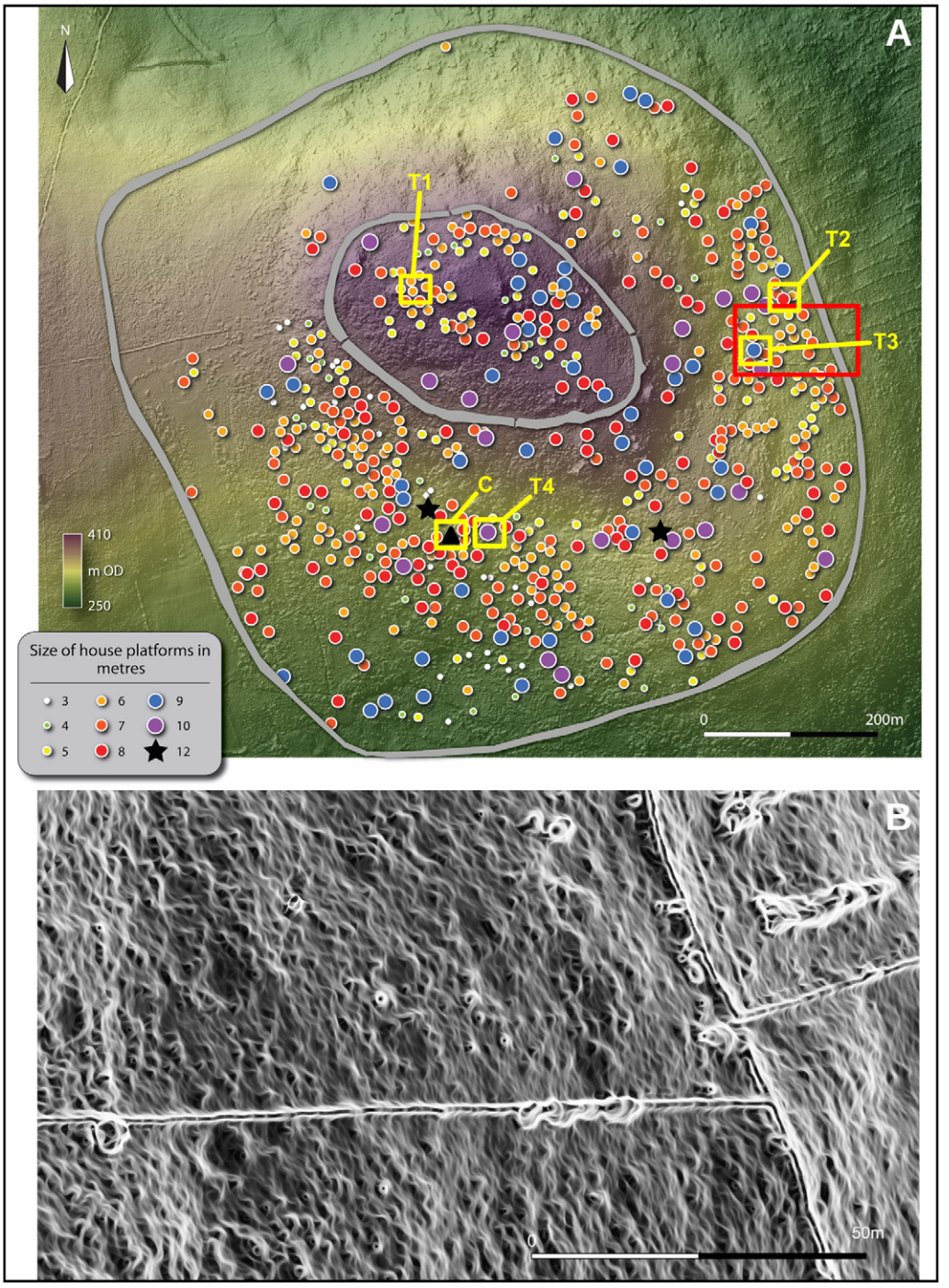


Figure 3. Photogrammetry map of Brusselstown Ring indicating potential roundhouse footprints, test trench locations and the potential cistern (A), with close-up lidar image of house platforms (visible as circular footprints) on the eastern slope (B) (figure by authors).

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Figure 4. Aerial photograph with indication of test-trench locations (figure by authors).

roundhouse footprints might be indicative of functional or social differentiation, anomalies of different sizes were selected for test trenching.

The relatively small test trenches (1.5 × 1.5m) concentrated on the interior of the suspected roundhouses and consequently did not reveal details of their wall construction, but all four tested anomalies produced evidence of prehistoric occupation. Trench 1 produced a layer of cobbles consistent with a floor, as well as evidence for a large burning event (Figure 5a). Trench 3 revealed part of a hearth feature, surrounded by a series of stake holes (Figure 5c), and trenches 2 and 4 produced evidence for pit features and further potential stake holes (Figure 5b & d). As is typical for Irish hillforts, artefactual assemblages were sparse, comprising a small number of lithics and some burnt clay.

Most radiocarbon dates situate the occupation of the site in the Late Bronze Age, between 1210 and 780 BC. Radiocarbon dates from a stake hole and a pit infill from trench 2 also indicate use of the house platform during the Early Iron Age (750–400 BC).

Additional survey work undertaken alongside the test excavations allowed a better characterisation of some previously identified features, among them a boat-shaped structure with a level interior situated near trench 4 (Figure 6). The boat-shaped outline is inconsistent with a prehistoric roundhouse, and the stone blocks defining its perimeter

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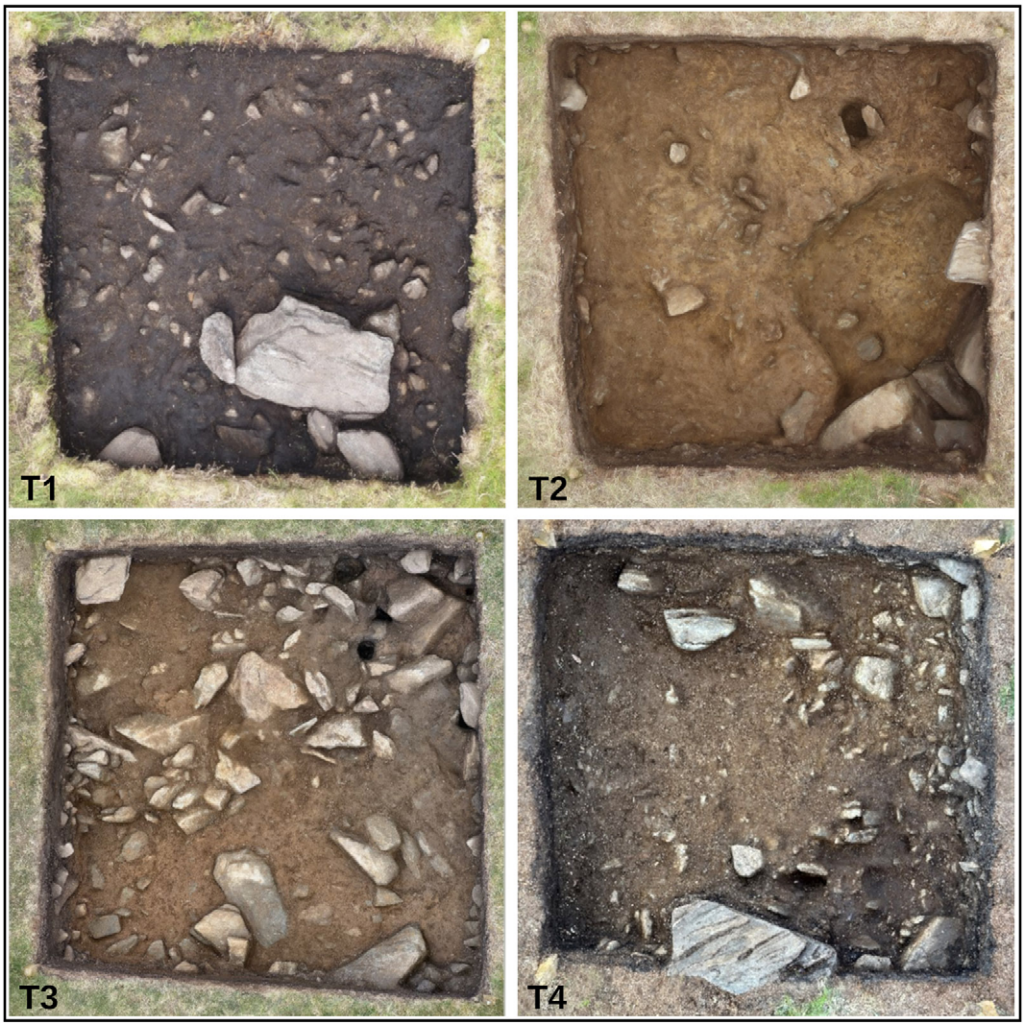


Figure 5. 3D recordings of test trenches 1–4 (figure by authors).

are considerably larger than those usually associated with roundhouse footprints at the site. Earlier survey work recorded a small stream of water running into the interior of the structure, seeping from the foot of a rocky outcrop further up the slope (Department of Housing, Local Government and Heritage n.d.). The shape and dimensions of this structure are consistent with Bronze Age and Iron Age cisterns known from other parts of Europe (Lull *et al.* 2015: 102–109; Borau 2020: 74–79). If the number of roundhouse platforms identified at the site can be taken as indicative of population density, some provision to supply the resident population with clean water should perhaps be expected. If further excavation confirms that this structure functioned as a cistern, it would represent the first known feature of its kind from an Irish hillfort, raising

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Figure 6. Aerial view of the potential cistern, in the foreground of the image (A) and a view from its interior showing a line of kerbstones (B) (figure by authors).

questions about the extent and nature of communal infrastructure in the settlement and the level of co-ordinated planning required to meet the needs of the populace.

Conclusion

The preliminary results from our ongoing fieldwork at Brusselstown Ring suggest that at least a substantial proportion of the more than 600 microtopographical anomalies identified by topographical surveys represent prehistoric house platforms. The available evidence indicates their occupation mainly during the Late Bronze Age, with continued use or reuse of some house platforms in the Early Iron Age. This makes Brusselstown Ring the largest nucleated settlement agglomeration by far in prehistoric Ireland and Britain.

Future work will focus on confirming the nature and the date of the potential cistern, identifying structural features of the prehistoric roundhouses and establishing the nature and chronology of the enclosing elements.

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Author contributions: CRediT Taxonomy

Dirk Brandherm: Conceptualization-Lead, Funding acquisition-Equal, Investigation-Equal, Methodology-Equal, Project administration-Equal, Supervision-Lead, Visualization-Supporting, Writing - original draft-Lead, Writing - review & editing-Lead. **Cherie Edwards:** Data curation-Equal, Investigation-Equal, Project administration-Equal, Visualization-Equal, Writing - original draft-Equal, Writing - review &

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editing-Supporting. **Linda Boutoille:** Investigation-Equal, Methodology-Equal, Visualization-Equal, Writing - review & editing-Supporting. **James O'Driscoll:** Investigation-Equal, Methodology-Equal, Supervision-Supporting, Visualization-Equal, Writing - review & editing-Equal.

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