



Archaeology Radiocarbon Dates Scheme

Recipient name:	Ros Ó Maoldúin
Discipline and subject area:	Archaeology Radiocarbon Dates Scheme
Year awarded:	2023
Title of project:	Dating Parknabinnia wedge tomb and Knockloon barrow

Summary of findings:

Thanks to this Royal Irish Academy grant, five radiocarbon dates were obtained to date the construction and use of a wedge tomb (CL017-009----) and barrow (CL017-009----) on neighbouring hills, Knockloon and Roughan, on the southeastern edge of the Burren uplands in Co. Clare. The dates from the barrow suggest it was initially built in the Middle Neolithic and was used for burial in the Early Bronze Age and Middle Iron Age. The dates from the wedge tomb suggest it was first used in the Chalcolithic and that further burials were placed in its surrounding cairn in the Early Bronze Age. An additional date obtained previously suggests further burials were interred in the cairn during the Middle Iron Age.





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Please outline the findings of your research and/or milestones achieved.

The radiocarbon date from within Parknabinnia wedge tomb has placed its likely construction and earliest use in the Chalcolithic, at the time beaker-using groups built settlements on the hill. The Early Bronze Age date from the cremation to its front, from under the cairn, illustrates the continued use of the site for burial and contributes to our understanding of when the cairn was likely to have been added.

The radiocarbon date from the base of the barrow ditch places its construction in the Middle Neolithic, at a time when the nearby court tomb in Parknabinnia was in use and around the time that the Lindardstown-type burials were placed in a cist at Poulawack. The Early Bronze Age and Iron Age dates from the cremations on Knockloon are a testament to the enduring role this monument played for local communities.

Please outline the objectives of the project.

This project aims to date the use and construction of two burial monuments of differing traditions built on neighbouring hills, on the southeastern edge of the Burren, Co. Clare. The first, Parknabinnia wedge tomb, is located on Roughan Hill on an area of bare karst limestone typical of the Burren. Excavations revealed it to contain a mixture of inhumed and cremated bone seemingly unaccompanied by burial goods. It is likely that it was built in the Chalcolithic or Early Bronze Age (EBA) and, judging by the pottery found in adjacent settlements built, was likely built by beaker or bowl tradition using peoples. A poorly preserved crouched inhumation, to the east of the wedge tomb chamber, dated to the Iron Age (Ua-56662; 2316±30BP), shows that later burial took place around the tomb. This person suffered a violent death.

The second monument, Knockloon barrow, sits on a long drumlinoid hill just to the southwest. All of the human bone buried on Knockloon was cremated, some was deposited in discrete cremation deposits and some appeared to have been scattered on the monument. Among the associated finds are a barbed and tanged arrowhead and a possible bracer fragment, both of likely Chalcolithic or EBA date. A considerable assemblage of glass beads of likely Iron Age and perhaps early medieval date was also recovered from cremation deposits and scattered around the broken butt of a standing stone at the centre of the monument. It appears that during the Chalcolithic and EBA, monuments of different traditions with different burial rites, some accompanied by burial goods and others not, were built on these neighbouring hills and both monuments were the focus of later prehistoric burial, at least until the Iron Age.



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Are these monuments contemporary? What do the different traditions reflect? How were these monuments of differing traditions fitted into the discourses of later communities? To approach these questions, we needed to first further refine our understanding of their relative chronologies.

Please describe the methodology used in conducting the research.

Five samples from the two sites, Parknabinnia wedge tomb and Knockloon barrow, were selected for radiocarbon dating based on their potential to add to our understanding of the relative chronology of the construction and use of the two monuments.

- **17E0216:B1577** is a fragment of human fibula from the lowest fill within Parknabinnia wedge tomb chamber. The remains were disarticulated but provided the best-case option to try to establish an early use date for the tomb.
- **17E0216:B1290** is a cremated bone from a cremation deposit in front (SW) of the tomb. This date helps us understand the chronology of secondary burials around the chamber. A crouched inhumation, to the east of the wedge tomb chamber, has previously been dated to the Iron Age.
- **18E0300:B229** is an unburnt cow bone from the basal fill of Knockloon barrow ditch. This provided the best-case option to date the construction of the barrow.
- **18E0300:B282** and **18E0300:B339** are samples of cremated human bone from discrete cremation deposits. They provided an opportunity to date burials of cremation deposits and to refine the typologies of the artefacts found within them. Two perforated pendants, two bone pins, a bone spatula and a whetstone were found with the EBA cremation, and an assemblage of glass beads were found with the IA cremation.



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Please provide the details of the dissemination of the outcomes from this project.

The IFPA (Irish Fieldschool of Prehistoric Archaeology) [facebook page](#) occasionally releases images and information but will not report these dates until the forthcoming papers are in print. During the excavations, the page built up a healthy number of followers and is at over 7,000.

How will you continue to communicate the results of your project and what are your publication plans?

An *Archaeology Ireland* and a longer national journal article on Knockloon are in preparation and will be submitted for publication in 2024. A book/monograph on the wedge tombs is in preparation and is expected to be completed in 2025. As each publication is released, social media will be used to promote them and release some of the highlights.

How did the award enhance your professional development?

This award helped me further the wider Roughan and Knockloon research project and bring it closer to publication. The wedge tomb book/monograph will be a major personal and professional milestone. The results of the RC dating have also stimulated further interdisciplinary collaboration with geneticists at TCD. Attempts to extract aDNA from the cattle bone from the barrow, dated to the Neolithic with this grant, and a human petrous from the wedge tomb, dated to the Chalcolithic with this grant, are now being made.

What plans (if any) do you have to further your proposal/project?

The excavations for the wedge tomb project are complete and post-excavation work is almost complete. This will culminate in the publication of the book/monograph and a series of talks.

It is intended, after the publication of the initial results, to return to the excavations on Knockloon. The geophysical survey undertaken as part of the project revealed the barrow to be part of a ceremonial complex that – thanks to the RIA radiocarbon dating grant – we now know has an origin at least as early as the Middle Neolithic. The main objectives will include completing the excavations on the barrow, especially around and under the newly discovered standing stone at its centre, and dating the other elements in the complex.

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Radiocarbon Date Certificate

Laboratory Identification: UBA-51072
Date of Measurement: 2023-08-03
Site: Parknabinnia wedge tomb
Sample ID: B1290
Material Dated: cremated bone
Pretreatment: Cremated Bone
mg Graphite: 0.957
Submitted by: Ros Ó Maoldúin OMaolduin - RIA

Conventional ¹⁴ C	
Age:	3355±27 BP
Fraction	using AMS
corrected	δ ¹³ C

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Radiocarbon Date Certificate

Laboratory Identification: UBA-51073
Date of Measurement: 2023-08-03
Site: Knockloon barrow
Sample ID: B282
Material Dated: cremated bone
Pretreatment: Cremated Bone
mg Graphite: 0.979
Submitted by: Ros Ó Maoldúin OMaolduin - RIA

Conventional ¹⁴ C	
Age:	2144±25 BP
Fraction	using AMS
corrected	δ ¹³ C

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Radiocarbon Date Certificate

Laboratory Identification: UBA-51074
Date of Measurement: 2023-08-08
Site: Knockloon barrow
Sample ID: B339
Material Dated: cremated bone
Pretreatment: Cremated Bone
mg Graphite: 0.940
Submitted by: Ros Ó Maoldúin OMaolduin - RIA

Conventional ¹⁴ C	
Age:	3373±24 BP
Fraction	using AMS
corrected	δ ¹³ C

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Radiocarbon Date Certificate

Laboratory Identification: UBA-51075
Date of Measurement: 2023-08-11
Site: Knockloon barrow
Sample ID: B229
Material Dated: bone, antler or tooth root
Pretreatment: Collagen
mg Graphite: 0.997
Submitted by: Ros Ó Maoldúin OMaolduin - RIA

Conventional ¹⁴ C	
Age:	4698±30 BP
Fraction	using AMS
corrected	δ ¹³ C

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Radiocarbon Date Certificate

Laboratory Identification: UBA-51071
Date of Measurement: 2023-08-11
Site: Parknabinnia wedge tomb
Sample ID: B1577
Material Dated: bone, antler or tooth root
Pretreatment: Collagen
mg Graphite: 0.978
Submitted by: Ros Ó Maoldúin OMaolduin - RIA

Conventional ¹⁴ C	
Age:	3852±27 BP
Fraction	using AMS
corrected	δ ¹³ C