



Acadamh Ríoga na hÉireann Royal Irish Academy

1. Title:	Dr
First name:	Tracy
Surname:	Collins
2. Amount awarded:	€6210
3. Grant programme	Archaeology Research Excavation Grant
4. Year awarded	2019
5. Title of project	Modelling and contextualising Ireland's earliest burials: geophysical and geomorphological surveys, season 2.
6. Summary of report	<p>This report had two purposes. The first is to detail the second season of on-site investigation at Hermitage, Co. Limerick; a research project undertaken by the Hermitage Archaeological Research Project (HARP) and funded by the National Monuments Service (NMS) and the Royal Irish Academy (RIA). Current land-use at the site is pasture, as is much of the surrounding landscape on both sides of the River Shannon. Season 2 fieldwork undertaken on site comprised further augering at locations that had shown a potential for undisturbed paleoenvironmental material in season 1 (Collins et al 2018). This area was concentrated at the western end of the subject site. Augering in season 2 was undertaken using a Russian auger that enabled detailed sampling of sediments. Augering was successful in the field and showed a potential to yield information on the early history of the site.</p> <p>The second purpose of this report is to detail the post-excavation specialist analyses of samples undertaken in season 1 (2018) and season 2 (2019). These analyses were undertaken under licences issued by the National Museum of Ireland. Radiocarbon date determinations were obtained on 3 subsamples.</p> <p>Two cores were augered, TRA7b and TRA9b: subsamples were retrieved from the organic sequences in both cores, and from the alluvial sand in TRA9b. TRA9b was used for palaeoenvironmental proxy analysis. The results of the analyses showed sediments to conform to the stratigraphy revealed during season 1 fieldwork, although subsample analyses showed somewhat mixed preservation. Pollen was generally well preserved in the organic portion of the sediment column, as was charcoal. Microfossils were not preserved, and no molluscs were identified during augering. Neither identifiable wood fragments, nor faunal remains were identified. Radiocarbon dating of the sediments showed the organic sequence to have commenced aggradation at c. 772-900 cal AD, and to be interrupted by mineral alluvial aggradation at c. 1297-1408 cal AD.</p> <p>The premise that alluvial deposits at the site comprised a sediment capture point which retained a well stratified sequence of deposits held true. Pollen analysis showed the site to record a changing landscape whereby open grassy areas became managed late in the first millennium AD, in the middle of the sequence, probably through clearing hazel and scrub woodland, later to be less intensively curated. Unfortunately, radiocarbon dating showed the alluvial record to relate to long after the Mesolithic focus of the HARP project, meaning any future results focusing on earlier prehistory should derive from excavation.</p>

7. Date the report was submitted

31-10-2019

8. Please provide two appropriate images which can include photographs of team on site, aerial view, objects found during excavation etc and which can be used by the RIA in grant publications, website etc. The following file types are accepted: gif, jpeg, jpg, pdf, png and the image must be high quality (at least 1200x1800 pixels).



[Collins 2019 image 1.JPG](#)



[Colins 2019 image 2.JPG](#)

9. Please outline the objectives of the project

). HARP's proposed research strategy seeks to further understand Hermitage by posing and hopefully answering the following questions:

1. What is the potential for further excavations at Hermitage?
2. What is the extent (if any) of the in situ, undisturbed archaeological deposits at Hermitage?
3. What further burial and other archaeological features survive within the Hermitage landscape?
4. Which landscape formation processes have allowed for the survival of areas of in-situ archaeology?
5. Are geoarchaeological processes at the site sealing deposits with high archaeological/palaeoenvironmental potential?

To address these questions, this project Modelling and Contextualising Ireland's Earliest Burials: Geophysical and geomorphological surveys proposed a first season of geophysical and auger surveys undertaken in 2018 (Collins et al 2018); followed up with further augering and analyses in 2019. The aim of this was to initially assess the extent and nature of underlying archaeological deposits, beyond the limit of the original excavation. It has been noted that in the past geophysical survey was not considered a precise technique in prospecting for Mesolithic features.

10. Please describe the methodology used in conducting the research

For season 2019, a Russian auger was used to take 2 further samples in the field, of which one was then chosen for specialist analyses. Pollen, macro and micro fossils were considered and three radiocarbon dates were returned for humic acid taken from one of the samples. Specific methodologies for each specialism is provided in the submitted report.

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

1. What is the potential for further excavations at Hermitage?
Having explored various non-intrusive methods of investigation, excavation at the site is now the only remaining option to explore the site's potential.
2. What is the extent (if any) of the in situ, undisturbed archaeological deposits at Hermitage?
Geophysical survey has indicated a number of untested anomalies, and areas of ploughing to the east of the site. Augering in 2018 suggested a shallow colluvial unit may cover parts of the site.
3. What further burial and other archaeological features survive within the Hermitage landscape?
Geophysical survey has indicated the possibility of further features being preserved outside the 11m original pipeline wayleave.
4. Which landscape formation processes have allowed for the survival of areas of in-situ archaeology?
Preliminary interpretation of a sand unit identified during the 2018 augering is of a shallow colluvial sand unit.
5. Are geoarchaeological processes at the site sealing deposits with high archaeological/palaeoenvironmental potential?
Colluvial, and potentially alluvial, sands coupled with minimal agricultural disturbance may have served as an agent of preservation. If this is the case, further significant archaeological deposits may remain sealed.

12. a) Please provide details of the dissemination of the outcomes from this project (inc. publications, presentations, outreach, media etc.) including details of any social media/web platforms used to publicise this project

1. Little, A., Elliott, B., Collins, T., Blinkhorn, E., Coyne, F., Warren, G., Cooney, G. and Schulting, R. 2019 H.A.R.P.: investigating Mesolithic landscapes of life and death at the western edge of Europe, *Antiquity*, 93, 368, e8, 1–6.
2. T. Collins presentation Oct 2019 RIA Revealing the Past seminar series.
3. <https://sites.google.com/york.ac.uk/harp/>
4. Forthcoming: local society lecture; publication on project now this part is completed, in journal such as *JIA* or *MM*; book chapter on cremations burial with Drs L.G. Lynch and A.Little.

How will you continue to communicate the results? Publication Plans?

Publication in suitable journal such as *Journal of Irish Archaeology, Antiquity, or Mesolithic Miscellany* or similar.

The HARP team consider this project as the crucial first stage in a longer term project at Hermitage, which will likely be intrusive investigation and excavation. We are very grateful that the NMS/RIA provided this funding to a somewhat unusual project, in that it sprung from a development-led discovery and included both geophysical surveys and also a geomorphological aspect.

The funding for this project has facilitated a very broad collaboration of universities in Ireland, the UK and Belgium and the contract archaeological sector in Ireland and the UK.

This application marks the end of this particular work package/phase of the project. It will now form the basis for HARP to now consider how to progress its wider aims and will consider new funding schemes/grants for excavation at the site, under a different HARP team member as grant recipient.