



Archaeology Research Excavation Grant Report

Recipient name:	Professor Thomas Finan
Discipline and subject area:	Archaeology Research Excavation Grant
Year awarded:	2023
Title of project:	The Rock of Lough Key

Summary of findings:

Excavations continued on the Rock of Lough Key for a third season, following successful campaigns in 2019 and 2022. The goals of the 2023 season were to better assess the building features in Cutting C-F, to define the nature of the features discovered in Cutting D-G, and to bottom out at least one of the cuttings by excavating to a depth that would hit bedrock/boulder clay. The project was successful in the first two goals, and we now believe that we have hit either boulder clay or bedrock in two or possibly three locations.

Data for the project was collected in multiple ways. Contexts were recorded using traditional context I sheets, with these sheets being supplemented with a custom designed ArcGIS module within Survey123. This was primarily used by students and was an effective teaching tool. Photos were taken onsite on a regular basis, with aerial photos taken on daily intervals as weather permitted. Orthophotos of the site were created at least twice daily (and sometimes thrice); these orthophotos are being used to create site plans and profiles and have proven to be an incredible tool for recording the site. And finally, we experimented with a lidar-equipped iPad for recording excavation on the fly; the accuracy of the models with the iPad were as accurate as hand drawn sketches, so to speak, and did not have the high accuracy of the photogrammetric orthophotos. However, for very quick recording of features in 3D, with additional notations made with an ApplePen, it proved to be exceedingly fast and accurate.

The phasing of the site as noted in the 2022 interim report has proven to be valid, in that we see four basic periods of occupation.

The first, an early medieval period, is characterized by the construction of an earlier cashel wall on bedrock/clay. A clay surface was identified in 2022 in Cutting Dn, and another clay surface (C254) was found at the base of the cashel wall in Cutting F. A very well-preserved ring pin was discovered in C254, suggesting that this clay was part of the early construction on the island, perhaps a leveling surface under the cashel. The cashel wall in F appears to have been built on top of this clay.

The cashel wall has now appeared on the interior of the extant wall in nearly all cuttings opened since 2019.





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The cashel has two stone facings with irregularly cut stone with no mortar. The fill is consistent in all cuttings and is composed of stones 10-15cm in diameter.

The second phase is related to what we believe is primarily high and later medieval settlement on the island. In 2019 and 2022 a structure was noted next to a clearly defined building (Building 1). The structure was initially thought to be an earlier building, but upon further consideration and excavation in 2022, the wall identified was peculiar in that the facing would have been on the interior of the building. The area was opened again in 2022 and 2023. Another wall was identified parallel to the original wall. This wall was located on top of an extremely large (1m to 1.5m) flagstone surface that was placed intently on top of the cashel wall and a massive amount of large, rounded stones that were possible fill. The shape of this structure, and its orientation to what appears to be a potential opening in the extant exterior wall, has led us to suspect that this is a medieval entrance feature that was part of a rebuilding of the site in the late 12th or 13th century. The stratigraphy supports this theory; additionally, the flag stone surface and the soil context immediately above the surface yielded a large number of fine quality artifacts, including two round gaming pieces, two peg-type gaming pieces, four dice, a die mold, and at least eight extremely fine quality dress pins. These pins are all securely dated to this period following O'Rahilly's typology.

The flag stones and walls of Structure 2 were placed on top of both the cashel wall and a context (C244) that is comparable to contexts in 2019 and 2022 that exhibited excessive burning, animal bones, and ash. These contexts seem to be consistent in Cuttings A, B, C and F, and are likely a single context. We have argued in Archaeology: Ireland that this could be residual evidence of at least one of the historical fires on the island, perhaps even the great fire of 1185 (ALC 1185 s.a.). This layer of burning was directly on top of the large stone "fill deposit (C250)," and so it would seem that the fire possible occurred after the reconstruction on the island. We will propose a C14 sample using animal bone to date this context.

Further to the north-east in Cutting F a series of contexts were identified that are still under consideration; at least one showed evidence of being an intensive fire, perhaps for metal working, as several pieces of multiple crucibles were found here (and in Cutting G). Two contexts are tentatively identified as footings, perhaps, for a timber frame construction; no walls were found in association with these footings, nor were any potholed found clearly in line with the footings. They very well could be areas where additional industrial activity was taking place.

Cutting D/G has proven to be an incredible challenge in both 2022 and 2023. The earliest occupation level in D/G seems to be the same as that in Dn (2022) and C/F, but we were not able to open as much of this area as we had hoped due to the complicated nature of the cutting and the weather. First, this cutting exhibited a massive amount ash and stratified sequences of very intense burning, mixed with alternating layers of flag stones not quite as large as those in C/F. The nature and color of the ash was fairly consistent; deposits that were roughly 1-2m in diameter, sometimes up to 50cm deep with a bright orange to white color. Samples of this ash were taken at all levels, and multiple analyses are planned to identify the nature. My personal speculation upon conversation with experts in metal working archaeology is that these ash areas are the result of further fine metal working, perhaps for silver and bronze, and they may be contemporary with "Building 2." Multiple very fine quality bone combs were found in this cutting, along with more dress pins.

The final phase of occupation on the island is related to the use of the island as a hunting lodge by the King family in the 19th century. A large number of pipe stems, fragments of bottles, and transferware china characterize these contexts which are hardly discernible from the topsoil. These contexts are at most 10cm from the surface of the topsoil.

What is somewhat striking is the gap between the medieval and modern material. However, this is plainly explained by virtue of the fact that in around 1500 the MacDermots constructed the tower house that was set into the extant wall on the island. We would argue that this construction effectively moved occupation into the tower, and so any evidence of the period 1450-1700 would likely be found within the rather precarious remains of the tower house.

The 2023 excavations yielded over two hundred artifacts, a good deal of which are of the finest quality according to National Museum. Conservation is being undertaken on all artifacts, and appropriate photos were taken.

As in 2019 and 2022, a massive amount of animal bone was recovered particularly from what we argue are medieval contexts. At present we estimate the animal bone assemblage to be roughly 60,000 pieces. This collection

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constitutes one of the finest assemblages of feasting animal bones yet identified in a Gaelic context in Ireland, and further analysis of these bones is ongoing. Initial analysis of "prime" contexts from 2019 and 2022 have shown that the mixture of pork and cattle bones, and the particular cuts of pork and cattle, show a particular desire to cook massive amounts of meat for public consumption, with the ratio of pork to cattle being nearly 50-50. Some of the pig showed clear signs of dental decay, perhaps suggesting that there were kept on the island for waste disposal and butchered when necessary.

Further survey work was carried out on the external extant wall of the island after clearing a great deal of brush from the shore of the island. This allowed us to, for the first time, create a digital model of the exterior wall in order to identify what we now believe to be two sequences of construction, one high medieval and the other likely associated with the Nash construction in the 19th century. We were also able to use our UAV for collecting more photos and data related to the causeway that connects the Rock to Green Island to the north-northwest of the island. Using an RTK GPS system we were able to clearly create a tentative digital terrain model of segments of the causeway as well as what we believe may be a medieval pier and boat dock.

The successes of the excavations of 2019, 2022, and 2023 can be measured in multiple ways. First, excavations were carried out using Irish, American and Canadian students safely and efficiently. The challenges of working on an island with students are obvious. Transportation, weather conditions, and safety were all issues at one time or another, but in the end, these students wholly benefited from an amazing experience.

Second, we have fully demolished the notion that the Rock is merely a folly, and have shown that in fact it is an incredibly dense site with evidence for occupation dating to the early medieval period. Indeed the Rock is essentially a giant cake pan (the exterior wall), and the cake itself is layer upon layer of medieval settlement. This, coupled with the extensive amount of historical material related to the Rock and Lough Key, gives us an unprecedented view of medieval Gaelic Ireland.

Third, our bone assemblage promises to give real and practical evidence of Gaelic dining, animal husbandry, and feasting for a period that is often overlooked, i.e., the 12-14th century.

Fourth, our artifact assemblage numbers nearly 400 discreet artifacts, ranging from a large collection of medieval nails, to roughly fifteen dress pins, to a dozen bone combs, to gaming pieces, and even a single piece of amber. The assemblage is similar to excavations at Caherconnel and other Gaelic sites, but the connection of our site with historical sources and the animal bone assemblage tends, in our view, to argue that the Rock is indeed one of the more important medieval sites in Ireland. 3

And finally, one final mention of an artifact that has caused quite a stir among our students: on the last day of cleaning up animal bones we recovered a piece of ceramic that appeared to be a roughly molded piece of clay that was fired in the shape of what may be a top or toy. That is fascinating enough; but we also identified what was a very clear fingerprint imbedded in the clay. This kind of personal connection proved to be a cap on the experience for many of the students.

As we move into our seasonal post-excavation we are carefully deliberating our next steps with the project. Indeed, the amount of data and evidence is daunting, and I as the director and grant recipient am





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exceedingly aware of the time frame that we enjoy with Academy funding. The artifacts and animal bones alone are going to require multiple years of analysis and conservation. Our digital archives for the project are massive, and curating this information for the long term is also a very serious consideration for the project. At this stage, after consultation with representatives from the National Museum, National Monuments and the Committee on Archaeology, I am of the mind that we may need to move to full post-excavation analysis sooner than later, because any further excavation could tip us over to a point where we would not have adequate funding to complete the project (or, perhaps, this phase of the project. We plan on consulting with all stake holders in this decision, including the landowner, Mr. Sean Simon, who has been very supportive of our work.

Please outline the objectives of the project.

In 2019 the initial objectives of the Rock of Lough Key excavations were to assess whether there were any medieval remains on the island that might constitute evidence of MacDermot settlement on the island. Upon recognition that the entire island, so to speak, was essentially a medieval high status Gaelic site, our objectives have shifted towards creating a working model of what such a high status site would look like over time, what the artifact assemblage might look like, what the dietary habits would be, and creating a model that can be tested with other comparable sites.

Please describe the methodology used in conducting the research.

I should say that the excavations on the Rock of Lough Key are but one (and a major one) part of a wider analysis of the medieval Gaelic settlement around Lough Key that I have undertaken over the last twenty years. The project has been through multiple phases already, with the projects at Kiltasheen and the Rockingham Moated Site being part of this analysis. Our methodology has always been straightforward:

1. conduct extensive archival and historical research related to the landscape of Lough Key
2. Identify likely sites that were connected to the historical record through landscape and topographical survey
3. Conduct geophysical surveys at sites to assess likelihood of medieval remains that would offer extensive information about Gaelic settlement in Moylurg
4. Conduct focussed excavations at sites that will yield further information about Gaelic settlement, landscapes, and assemblages.
5. Bring all of this information together in publications that provide true inter-disciplinary analysis

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

As mentioned in the project summary, we have achieved an incredible amount of progress in three years of excavation. We have in fact proven that the Rock is likely one of the more significant medieval sites in Ireland, and we have collected a massive amount of data relative to the project that all needs to be synthesized and analyzed. This process has been ongoing, but our results from 2022 and 2023 have, frankly, been overwhelming in just how successful the research has been.

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

Articles about the project have appeared in *Archaeology: Ireland* and *Archaeology* (the largest magazine related to archaeology in America). We have also published the following articles:

1. Living in a Gaelic Castle (Chateau Gaillard 2018)



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2. Church and Castle in Gaelic Ireland (Chateau Gaillard 2024, forthcoming)

3. The Siege at MacDermots Rock (article in collected volume on castle studies forthcoming 2023)

We are planning articles for submission on the following topics relatively soon:

1. Feasting on a medieval Gaelic site

2. "Fun and games" on a Gaelic site: dice and gaming pieces from the Rock

3. A summary typology of dress pins on the Rock of Lough Key

The Saint Louis University Art Museum is planning a major installation related to my twenty year research around Lough Key in January 2024. This installation will not use any artifacts from research, but instead will be based upon photos, historical research, and 3D printed artifacts that were scanned in 2022 and 2023. More details about this installation (which will, of course, highlight the support of the Royal Irish Academy) will be forthcoming.

I am on sabbatical this year to finish a monograph related to the interplay between the Rock and the surrounding lake and landscape of Lough Key. This is going to be with Liverpool University Press' Medieval Castle series. Should be submitted in January or February 2024.

I am also the recipient of a Fulbright Specialist award which is going to be used to create a collaborative digital project related to recent projects in "Gaelic Ireland," creating ways that scholars can actively share data in open and new ways that will lead to better understanding of this era of Irish history and archaeology. This project will be getting underway in 23-24.

One issue that needs to be stated for the record: we are extremely concerned about the prevalence of metal detectorists who have attacked the island in the last year. Upon recommendation of the National Museum we have not advertised any of our finds aside from the odd bone or nails. We are struggling with this, because we really wish to better preserve the site, but its nature leaves it open to these problems, and our work travels very quickly.

b) No. of Academic Papers/articles published: 5

c) No. of Lectures given/outreach events: 10

d) Media Coverage (article in local newspaper, feature on University website etc.): our universities are actively reporting on the project. see comment above about this.

How did the award enhance your professional development?

My university is what we would call an American Research-I aspirational university. Several of our departments have achieved R1 status, including my home department of History, where I was the chair for four years. Part of our success as a department has been to hire faculty with international reputations in terms of research and publications. An RIA grant figures into this calculation, and I continue to be honored that the Academy has deemed our project worthy of this support.

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

We are considering our next steps, but we realize the massive post-ex that is in front of us. In the immediate term, the following steps must be taken:

1. submission of CI4 licenses for export and modification to the Museum. Several of our contexts require dating to confirm our chronology, and we anticipate sending these out as soon as possible.



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2. The animal bones are going to be a multi-year analysis. We hope to have the bulk of the major medieval contexts completed by Spring, 2024, but in all likelihood it will be summer 2024.
3. I have been research a number of specialist projects for our samples, particularly the samples of ash from the site. I hope to have some firm plans for this shortly.
4. We have begun our process of artifact identification and classification, but we await the work of our conservator, Stefanie Stott, as a number of items that needed cleaning have, in fact, proven to be of far more exceptional quality than we initially thought (including one buckle from 2022 that was likely gold plated).
5. We have been in discussion with National Monuments about the possibility of conducting a side scan sonar survey of the island and lake. I am of the firm conviction that there is no doubt a huge amount of underwater archaeology waiting to be discovered.
6. And finally...not really related to this phase of the project...I am often asked about the "common people" in Gaelic Ireland, and where they lived while the high status people inhabited places like the Rock. his is a perplexing but important question. Over the years we have conducted surveys of ring forts in Lough Key Forest park, an my assessment of these ring forts is such that I believe we can likely see settlement of later medieval farmers in addition to higher status people on the Rock within the confines of the park. This is a longer term phase after we finish our work on the Rock.