Archaeology Research Grant 2021

Laura Corrway Final report

1. Title: Miss

First name: Laura

Surname: Corrway

3. Grant programme Archaeology Research Grant

4. Year awarded 2021

5. Title of project

6. Summary of report (Minimum allowed 100 words)

Revealing Roesia: geophysical survey at the de Verdun castle at Roche, Co. Louth.

Castleroche (LH003-029001-, National Monument in State Guardianship no 460) is situated on a rocky outcrop overlooking the flat plains of north Co. Louth. It comprises a curtain wall enclosing a subtriangular area, within which is situated the main focal buildings of the castle the residential chamber and ceremonial hall as well as a possible kitchen. The curtain walls rise directly from the edge of bedrock on all but northeast side along which a large twin-towered gatehouse is located. Analysis of ownership and research on the historic fabric of the castle (O'Keeffe 2013) suggests it was constructed by Roseia de Verdun c. 1238; however, little is known about what lies within its immediate environs. On a large plateau to the east of the castle, separated by a wide rock-cut fosse, are the remains of a possible deserted medieval village (DMV) (L003-029002-). A weekly market and annual fair were established here by 1284 AD and a borough is mentioned in 1332 AD (Bradley & King 1985).

In August 2021, a Geophysical Survey was carried out by J.M. Leigh Surveys Ltd at Castleroche, County Louth on behalf of Laura Corrway and Dr Karen Dempsey for the 'Revealing Roesia' research project. This project aims to investigate the building remains within the Anglo-Norman castle and potential Deserted Medieval Village on the plateau to the east. Detailed gradiometer and resistance surveys were carried out in three areas covering an area of c.2 hectares; The area within the curtain walls of the castle, the large plateau to the east of the castle, and the lower ground to the North, North-East and North-West of the Castle. The results of these have revealed several areas of archaeological potential. Responses identified within the curtain walls of the castle may represent the remains of former buildings such as a chapel and accommodation. A possible ditch was identified along the eastern side of the plateau as well as the remains of possible rectilinear and curvilinear structures within the plateau itself.

7. Please provide two appropriate images



Aerial view of CastleRoche.jpg



Geophysical survey being carried out at Castle Roche.jpg

outcrop for maximum spectacle. Castleroche (LH003-029001-, National Monument in State Guardianship no 460) is situated on a rocky outcrop overlooking the flat plains of north Co. Louth. It comprises a curtain wall enclosing a subtriangular area, within which is situated the main focal buildings of the castle - the residential chamber and ceremonial hall as well as a possible kitchen. The curtain walls rise directly from the edge of bedrock on all but northeast side along which a large twin-towered gatehouse is located. On a large plateau to the east of the castle, separated by a wide rock-cut fosse, are the remains of a possible deserted medieval village (DMV) (L003-029002-). A weekly market and annual fair were established here by 1284 AD and a borough is mentioned in 1332 AD (Bradley & King 1985). But beyond the upstanding remains and the scant historical sources what do we know of its immediate landscape? To date, very little archaeological, historical or architectural research had been carried out at this castle. Using geophysical survey, this project intends to reveal the immediate layout of the castle buildings as well as the wider castle complex. This project endeavours to shed light on the intentions of its patron - Roesia de Verdun, and ascertain if, as some sources suggest, there was an associated settlement. As a first step towards addressing these questions a geophysical survey has great potential to reveal the scale and arrangement of buildings or plots within the underexplored environs of this castle complex.

The main aim of the survey was to identify any responses which may represent previously unknown archaeological remains within the application area. It is the objective of the survey to identify the location, nature and extent of any responses of potential archaeological interest, in particular those that may be associated with the Anglo-Norman castle and recorded deserted medieval settlement. The project aims to reveal, for the first time, the layout of any potential medieval buildings and their adjacent spaces which may have functioned as gardens within the castle complex and at the site of the deserted medieval village.

9. Please describe the methodology used in conducting the research

The geophysical survey was carried out at Castleroche between the 11th and 20th of August 2021 by J.M. Leigh Surveys Ltd and covered c.2 hectares of the site of Castleroche. Both resistivity and gradiometry was used on almost the entire area. The detailed resistance and gradiometer surveys were conducted under licence 21R0100 issued by the Department of Housing, Local Government and Heritage.

Castleroche is situated in a rectangular field which is bounded by an unnamed road to the north and a small watercourse to the west. It is surrounded by further pasture to the south and east. The site of Castleroche is located on a high rocky outcrop which drops away steeply on all but the eastern side. As such, ground conditions during the survey were difficult comprising of steep slopes, rocky terrain and outcrops, and long grass.

Detailed gradiometer and resistance surveys were carried out in three areas; The area within the curtain walls of the castle (Area A), the large plateau to the east of the castle (Area B), and the lower ground to the North, North-East and North-West of the Castle (Area C).

The gradiometer survey was undertaken throughout all of Areas A, B and C. A detailed gradiometer survey detects subtle variations in the local magnetic field and measurements are recorded in nano-Tesla (nT). Some archaeological features such as ditches, large pits and fired features have an enhanced magnetic signal and can be detected through recorded survey. Data was collected with a Bartington Grad 601-2 instrument. This is a specifically designed gradiometer for use in archaeological prospection. Data was collected with a sample interval of 0.25m and a traverse interval of 1m, providing 6400 readings per 40m x 40m grid. The survey grid was set-out using a GPS VRS unit.

The resistance survey focused on Areas A and B and a small part of Area C, immediately below the eastern extent of the plateau. A detailed resistance survey is used to record variations in electrical resistance by passing an electrical current through the ground. The subsequent earth resistance (measured in ohms) is recorded and presented in map form for interpretation. Resistance surveys are typically conducted on sites where structural or stone features are anticipated. Detailed resistance survey was conducted with a Geoscan RM85 instrument. Data was collected with a parallel twin-probe array of mobile and remote electrodes. The resistance survey mobile probes were separated by 0.5m. In Area A, data was collected with a sample interval of 0.5m and a traverse interval of 0.5m. In Areas B and C, data was collected with a sample interval of 0.5m and a traverse interval of 1.0m. The survey grid was set-out using a GPS VRS unit and corresponds with the gradiometer survey grid. All data was collected in 'zigzag' traverses. Grid orientation was positioned to best facilitate site work and ground conditions.

A report detailing the findings will be submitted to the Archaeological Licensing Section of the National Monuments Service.

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

The geophysical survey results have revealed several areas of archaeological potential. However, an archaeological interpretation is cautious given the response from the underlying geology. Within the curtain walls (Area A), responses identified may represent the rubble

remains of former structures. Remains of up to three possible structures or features have been identified. These include a linear feature in the western half which may represent the remains of a wall, and fragmented responses which point to the presence of possible structural remains in the southern extent. Within the southern moat, responses were detected on the raised area immediately adjacent to the castle entrance and east of the rectangular hall. A rock outcrop is also visible in this area which appears to have been modified into a rectilinear shape. This area lies directly beneath a garderobe chute and it is possible that the responses in this area may be associated with it.

Within the plateau area east of the castle (Area B), Possible rectilinear and curvilinear structures have been identified. High resistance responses suggestive of a rectilinear walled structure are consistent with the location of a possible spread of burnt material close to the south-western edge of the plateau. Approximately 10m east of this is a possible second structure, demarcated by low resistance and positive magnetic responses which are generally indicative of ditched features. It is possible that this represents the remains of a second structure, possibly the foundation trenches rather than the structure itself. C.12M to the North, a third possible rectilinear structure has been identified. This is not evident on the resistance survey and the magnetic responses are poorly defined and at the limits of instrument detection; an archaeological interpretation is therefore cautious. Three potential semi-circular structures have been identified; one of which is visible on the ground as a raised semi-circular area. All three are located in the western half of the plateau, in the vicinity of the castle entrance. It is possible that they represent structures associated with the castle. A possible ditched feature is evident in both the gradiometer and resistance datasets. The former shows it continuing from the higher ground of the plateau (Area B) into the lower ground of Area C. For a ditched feature to continue across the change in elevation would be unusual, although a gap in the survey data due to the steep slope and rock outcrops mean that it cannot be traced as a possible continuous feature. A sub-rectangular feature is also visible on the ground in this

Also in Area C, Possible rectilinear and curvilinear features have been identified on the lower slopes which lie to the north-west of the castle. While these may represent ditched features, an archaeological interpretation is cautious given the nature of the response.

Multiple responses within Areas A, B and C are indicative of burning and archaeological pittype and burnt features Although no clear pattern is evident, they are suggestive of archaeological features and activity.

11. 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

Over the course of the survey being carried out, the project was publicised on Twitter, Instagram and Facebook through the profiles of the County Louth Archaeological and Historical Society, Blackfriary Archaeology Field School and research partner Dr Karen Dempsey.

During Heritage Week, site tours were given to members of the County Louth Archaeological Society by the principal investigators while the survey was being carried out. This took place on August 17th 2021 and 44 people attended.

The production of a peer-reviewed paper, of which the geophysical results will be one part, will be completed by Spring 2022. An article will also be published in the 2022 journal of the County Louth Archaeological and Historical Society.

A lecture detailing the project and results of the geophysical survey will be given in the Spring of 2022 to both the County Louth Archaeological and Historical Society and the Institute of Archaeologists of Ireland.

An interview was given by Dr Karen Dempsey to the Irish Examiner and was published on the 18th of August 2021 https://www.irishexaminer.com/opinion/columnists/arid-40361537.html

- b) No. of Academic Papers/articles published:
- 0
- c) No. of Lectures given/outreach events involved in:
- 1
- d) Media Coverage (article in local newspaper, feature on University website etc.):
- 1
- e) How will you continue to communicate the results of your project and what are your publication plans?

The production of a peer-reviewed paper, of which the geophysical results will be one part, will be completed by Spring 2022. An article will also be published in the 2022 journal of the County Louth Archaeological and Historical Society. A lecture detailing the project and results of the geophysical survey will be given in the Spring of 2022 to both the County Louth Archaeological and Historical Society and the Institute of Archaeologists of Ireland.

15. How did the award enhance your professional development (e.g. in terms of specific opportunities, opportunities for enhancing skills, collaborations with others etc.)?

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

This was an opportunity for me to expand my research skills in the area of medieval castles and knowledge of remote sensing techniques. This grant has given me the opportunity to expand this research project and to plan further work on this site.

A valuable data set has been collected which has provided further insights into the subsurface remains that comprise the core medieval castle landscape of Roche.

With the continued support of the landowners, the OPW, National Monuments and the County Louth archaeological and historical society, further knowledge of the layout of this castle complex will be explored. Through the development of a community archaeological project at this site, there is a potential to locate the original location of the deserted medieval village. Collectively the geophysics and the known archaeology strongly advocate for further investigations through excavation. This could confirm the origin of some of the features detected during the geophysical survey. Due to the nature of the geology of this area, excavation is needed to confirm the authenticity of some of the features discovered during the survey. An interesting development in the technologies used to record and interpret the exterior and interior of these buildings is computertised 3D modelling. This method will be also further explored by the researchersThis castle to be studied from a variety of perspectives including spatial analysis, scientific dating, social theory and cultural identity. These buildings embodied a way of life on the limits of the Anglo-Norman Pale in the Medieval Period.

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