

Directed Research for World Heritage Sites Grant 2021 Final Report

1. Title: Dr.
- First name: Elizabeth
- Surname: Twohig
- 2.
3. Grant programme **Directed Research for World Heritage**
4. Year awarded **2021**
5. Title of project **Recording hitherto neglected carvings and inscriptions at Newgrange Co. Meath**
6. Summary of report (Min. allowed 100 words) **This report details research and survey work carried out at Newgrange to establish a more complete record of the megalithic art and create a photographic record of the graffiti from recent centuries. The work combined detailed note-taking of all recorded and unrecorded carvings in the passage and chamber, including the upper surface of all accessible stones in the roof space above the passage, with high resolution photography and targeted use of RTI and DStretch. During this project, several new examples of previously unrecorded megalithic art were identified and recorded and three areas of interest were identified as potentially having prehistoric painting. In addition, several areas of historic painted graffiti were recorded for comparison.**
7. Date the report was submitted **Oct 28, 2021**
8. Please provide two appropriate images



9. Please outline the objectives of the project	<p>The objectives of the project were to re-examine the structural stones of the main passage tomb at Newgrange, both internally and on the upper surfaces of the roofstones over the passage which have to be accessed from a tunnel built into the cairn over the roof. The specific aims were as follows:</p> <ul style="list-style-type: none"> (i) to examine the stones for evidence of picking/pickdressing and to record this by means of descriptions and photographs of each stone. (ii) to record the graffiti which has been carved and painted within the monument (iii) to investigate whether there is any evidence of original painting
10. Please describe the methodology used in conducting the research	<p>All the stones were photographed at high resolution with a 45-megapixel camera using remote flash or constant light sources. In addition, four areas of overlapping incised graffiti and suspected or recorded megalithic were also recorded using Reflectance Transformation Imaging (RTI) to assess whether it can assist in identifying techniques used for each and allow them to be distinguished. The photographic recording included a considerable number of orthostats, corbels and lintels which had never before been recorded. Several examples of previously unknown painting were identified and it became clear that the majority were graffiti which had been partially erased in the past. Three areas of interest for further testing were identified.</p> <p>A complete description of each carved stone was compiled, including not only the front face but also the treatment of the sides and top of each stone. The location of each carving was plotted onto the published plans and elevations.</p>
11. Please outline the findings of your research and/or milestones achieved	<p>We have compiled a written descriptive and photographic record of approximately 150 carved stones/surfaces which occur inside and on top of the passage and chamber at Newgrange. This represents a considerable increase on the published record. The newly recorded items comprise mainly pick dressing, but a small number of previously unrecorded picked-line motifs were also found. Most of the pick dressing is of the type defined as Amorphous Close Area-picking, but some Dispersed Picking was also recorded, and these two forms of picking are also present at Knowth, though used in rather a different way. At Newgrange the Amorphous Close Area-picking was carried out on all the orthostats and on many of the corbels and some lintels. It overlies Standard Megalithic Art motifs on some stones, and on others it avoids it. Most of the picking appears to have been employed to reduce the surface roughness of stones, or to shape the sides of orthostats to fit closer together or to remove projecting bulges and corners on corbels. This picking seems to have been carried out while the monument was being built, and further examination may well reveal more about the chaîne opératoire which prevailed at the site. We have not completed the analysis of the data collected and it would be premature to provide a definitive narrative at this point, as the main work was carried out only in June 2021 (two days) and in mid-September (three days), because of the requirement to await easing of COVID 19 restrictions on work in closed environments.</p> <p>The record of the graffiti, both painted and carved, provides a complete survey of the accessible stones, while more examples may yet be found on the higher courses of corbels in the chamber roof.</p> <p>Painting was identified using both direct observation under daylight balanced LED lights and processing of photographs using the DStretch program on computer. The majority of the painting was identifiable as script graffiti, however three areas of interest were identified which did not follow this pattern and reacted in a different manner during manipulation in DStretch. It may be possible to determine some of the constituent elements of these paint traces using x-ray fluorescence or RAMAN techniques. The feasibility of using either or both of these options are currently being explored.</p>
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	<p>As noted in 11 above, the field work has only just been completed and the data has not yet been interrogated in sufficient depth to justify public presentations.</p>

platforms used to publicise this project

b) No. of Academic Papers/articles published: 0

c) No. of Lectures given/outreach events involved in: 0

d) Media Coverage (article in local newspaper, feature on University website etc.): 0

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

We plan to publish an academic paper discussing on the picking, with particular emphasis on what it tells about the working and preparation of the stones during and after the construction of the monument and how the it relates to the standard megalithic art on the stones. We will avail of whatever opportunities arise to present some lectures in advance of publication, to elicit discussion and critique of our interpretations and we would like to present lecture/s within the local community, which have not been possible due to the pandemic.

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

Using collaborative problem solving methodology both in planning and on site was very productive, since our work skills are complementary, one of us providing a written record and one taking the photographs. It was very useful to be able to discuss and debate the validity of the new carvings as we found them, and to argue out whether they were genuine carvings, or natural features. Additionally from a safety point of view, it was better to work as a team.

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

We believe we need to complete the work of recording the carvings at Newgrange by examining the stones on the exterior, namely the kerbstones and the standing stones of the 'Great Circle', some of which appear to have unrecorded carvings. Pick dressing is known to exist on the kerbstones but it has not been recorded in detail and only limited numbers of small scale elevations of the kerbstones been published. We have applied for funding for this work in 2022.