

St Brides Chapel, Lamlash: Archaeological Mitigation

Written Scheme of Investigation

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on behalf of North Ayrshire Council

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Introduction

1. This Archaeological Written Scheme of Investigation has been prepared for North Ayrshire Council (as landowner and client) in respect of a consolidation work on St Brides Chapel, Lamlash. The archaeological works are designed to mitigate adverse impact on the historic fabric of the chapel and any archaeological strata affected by the works.
2. The chapel is both a Scheduled Monument (SM6639) and a category B Listed Building (LB7484). As such all consolidation works are subject to a consent process, primary among these being Scheduled Monument Consent as administered by Historic Environment Scotland. This Written Scheme of Investigation defines the structure of archaeological mitigation works appropriate to support consolidation within this consent process.
3. Rathmell Archaeology Limited has been appointed to develop the archaeological mitigation strategy. This Archaeological Written Scheme of Investigation summarises the known archaeological and historic background of the site, provides an assessment of the archaeological potential and details the mitigation works pertaining to the consolidation.
4. The mitigation works are those necessary to ensure that the consolidation deals appropriately with the identified adverse impact on the archaeological resource. A suggestive consideration of the possible post-excavation and reporting structure for these works is also presented. Inevitably as works proceed the character of the later stages of this Archaeological Written Scheme of Investigation will be subject to review and enhancement.
5. At each stage of implementing this Archaeological Written Scheme of Investigation the specific details of each stage of these works must be agreed with Historic Environment Scotland, who will also monitor their implementation.

Standards

6. This specification has been designed in accordance with current best archaeological practice and the appropriate national and regional standards and guidelines including:
 - ❖ Code of Conduct (Chartered Institute for Archaeologists);
 - ❖ Standards and Guidance (Chartered Institute for Archaeologists);
 - ❖ Standard and Guidance for the Collection, Documentation, Conservation and Research of Archaeological Materials (Chartered Institute for Archaeologists 2001); and
 - ❖ Treasure Trove in Scotland: A code of Practice (Scottish Government 2008)

Terminology

7. The following key terms are recognised within this Written Scheme of Investigation:
 - ❖ The Client – North Ayrshire Council (NAC);
 - ❖ The Conservation Architect – Robert Potter & Partners LLP (RPP)
 - ❖ The Curator – Historic Environment Scotland (HES);
 - ❖ The Archaeological Contractor – Rathmell Archaeology Ltd (RAL)

Archaeological Monitoring

8. Within the Scheduled Monument no ground breaking works will be undertaken except where this has been formally agreed through Scheduled Monument Consent. The section below details the archaeological response to such granted consent only.
9. Across the ground upon which St Brides Chapel stands there is the potential for

previously unknown sub-surface archaeology. The principle is to avoid the loss of archaeological strata where possible. To ensure this principle is followed, all agreed ground breaking works would be subject to archaeological monitoring. Should an agreed build element adversely impact an archaeological strata, then a programme of formal excavation would be undertaken. The archaeological materials recovered would then need to be analysed and reported. On conclusion of the project the results from these works would be published.

10. The programme of mitigation works will address all ground-breaking soft-sediment elements of the consolidation works and will, where appropriate, comprise in sequence the following components:

Stage 1: On-site Mitigation

- ❖ a programme of monitoring will be undertaken. This will enable examination of the disturbed archaeological resource in order to recover artefactual, palaeo-environmental and structural evidence (Stage 1a);
- ❖ the reaching of an agreement on the exclusion and preservation *in situ* of significant archaeological features where this can be achieved in the long-term (Stage 1b);
- ❖ where preservation is not feasible, managed excavation through formal area excavation of the archaeological resource to recover artefactual, palaeo-environmental and structural evidence (Stage 1c);
- ❖ the undertaking of preliminary technical reporting for the on-site mitigation to: detail the works as implemented; the character of any archaeology excavated and preserved; the materials (artefacts, ecofacts, sediment samples and records) recovered (Stage 1d);

Stage 2: Post-excavation and Publication

- ❖ the development and agreement of the research design for the post-excavation analyses that will determine the appropriate scale and remit of subsequent works (Stage 2a);
- ❖ the implementation of an agreed programme of post-excavation analyses on the archaeological material recovered from the site works to the agreed design (Stage 2b); and
- ❖ the implementation of an agreed programme of dissemination of information typically through: an academic journal paper; public lecture; and archive deposition (Stage 2c).

11. All works will comply with the Chartered Institute for Archaeologists' Standards and Policy Statements and Code of Conduct and Historic Environment Scotland Policy Statements.

Stage 1a: Archaeological Monitoring of Sediment

12. The default approach is that archaeological monitoring will be undertaken on all consented ground-breaking works to ensure that any significant archaeological features are identified and safeguarded until an appropriate response can be agreed.
13. Specifically:
 - a. one archaeologist will monitor the excavation team that is working within an area;
 - b. the excavation team will be monitored by the archaeologist who has the authority to halt the excavations and will, initially, reduce the area necessary for that element of the development to the upper surface of the underlying subsoil (or archaeologically significant horizon or maximum depth of reduction required if shallower) prior to further works;

- c. minor or isolated potential archaeological features identified during the course of works will be excavated (in keeping with excavation protocols below); and
 - d. more extensive or significant potential archaeological features will be assessed, delimited and secured by temporary fencing (erected by the main contractor) pending determination of how the material should be dealt with.
14. Should the potential archaeological features include funerary deposits that include human skeletal material then all works on that area will be halted and the local constabulary, the planning authority and The Curator notified.
 15. A site specific response will be needed for each extensive or significant potential archaeological features. The response will typically prefer preservation *in situ* where this is practicable; alternatively archaeological excavation will be undertaken. The Archaeological Contractor will liaise with the Curator to determine the most appropriate response in any single case.
 16. For each temporary fenced area (i.e. site) the proposed response will need to be formally agreed with the Curator through an addendum to this Written Scheme of Investigation. No works will be progressed within the fenced area (either development or archaeological) until the response is formally agreed.

Stage 1b: Exclusion and Preservation

17. In keeping with planning guidance the preferred option for any significant archaeology that is identified will be preservation *in situ*. Any consideration of preservation *in situ* will cover the entire development and likely management regime to ensure that preservation is credible.
18. Specific preservation mitigation will be prepared for each site or archaeologically sensitive area and incorporated into this Archaeological Written Scheme of Investigation through agreed addendum. The default character of the preservation process where topsoil and overburden has been removed will be:
 - a. to cover the exposed archaeologically significant horizon with a geotextile (e.g. terram);
 - b. the reintroduction of overburden (e.g. topsoil) of sufficient depth that any future works (e.g. drainage) does not reach the geotextile.
19. The default character of the preservation process where archaeology has been identified prior to reduction will be for the main contractor to erect temporary fencing enclosing the area. Enclosing the area will exclude plant and equipment movement across potentially fragile archaeology and prevent other inadvertent damage. The fencing will only be removed once the general area is free of development activity and is ready for final preparation for its end use.
20. The main contractor will be responsible, under archaeological guidance, for undertaking preservation *in situ* tasks.

Stage 1c: Excavation

21. Where excavation is agreed as the appropriate response the extent of the site will be stripped, and the area cleaned using hand tools to define any surviving archaeology. The exposed archaeological strata will then be excavated and recorded.
22. The site grid will be established at the cleaning stage. The grid will be based on 20m spacing and related to the National Grid. A temporary bench mark related to Ordnance Datum will be established.
23. After the cleaning and planning of the excavation area the sampling strategy will be finalised. This will take into account the project aims (which may need modifying at this stage) and the type, quality and quantity of remains revealed. The excavation sampling strategy will seek to maintain the following levels, but the Curator will take the final decision on the appropriate levels of sampling to be applied in any single case:

- a. all structures and all zones of specialised activity (e.g. funerary, ceremonial, industrial, agricultural processing) will be fully excavated and all relationships recorded;
 - b. ditches and gullies will have all relationships defined, investigated and recorded. All terminals will be excavated. Sufficient lengths of the feature will be excavated to determine the character of the feature over its entire course; the possibility of re-cuts of parts of the feature, and not the whole, will be considered. This will be achieved by a minimum 10% sample of each feature (usually a 1m section every 10m);
 - c. sufficient artefact assemblages will be recovered (where possible) to assist in dating the stratigraphic sequence and for obtaining ample ceramic groups for comparison with other sites;
 - d. all pits, as a minimum, will be half-sectioned. Usually at least 50% (by number) of the pits will be fully excavated. Decisions as to which pits will be fully excavated will be taken in the light of information gained in the half-sectioning taking into consideration, amongst other things; pit function, artefact content and location
 - e. for post and stake holes where they are clearly not forming part of a structure (see above) 50% (by number) will be half-sectioned ensuring that all relationships are investigated. Where deemed necessary, by artefact content, a number may demand full excavation;
 - f. for other types of feature such as working hollows, quarry pits, etc the basic requirement will be that all relationships are ascertained. Further investigation will be a matter of on-site judgement, but will seek to establish as a minimum their extent, date and function; and
 - g. for layers, an on-site decision will be made as to the limits of their excavation. The factors governing the judgement will include the possibility that they mask earlier remains, the need to understand function and depositional processes, and the necessity to recover sufficient artefacts to date the deposit and to meet the project aims.
24. The recording system will be based on the Museum of London's *Archaeological Site Manual* (1994). All recording will be in keeping with the recording system which will, at minimum, detail that:
- ❖ all contexts, small finds and environmental samples will be given unique numbers;
 - ❖ small finds will be individually bagged and then located by context, while unstratified finds will be located to 25m grid squares; and
 - ❖ all recording of contexts, samples and activities will be undertaken on *pro forma* record sheets.
25. An overall site plan for each stage will be mapped. All survey data must be three-dimensional, to an appropriate resolution for purpose and referenced to the National Grid and Ordnance Datum, using the same geoid and correction system as employed by the Ordnance Survey.
26. Plans of archaeological trenches will be recorded with sufficient accuracy to depict general layout at 1:100. Additionally 1:20 plans of all the individual features will be prepared and sections drawn at 1:10. Spot heights and those of individual features will be recorded relative to Ordnance Datum. Representative measured sections of the side of the soil strip will be prepared as appropriate showing the sequences and depths of general deposits.
27. A photographic record (SLR colour digital, >7 megapixel resolution) will be maintained during the course of the fieldwork. The topic of images will include:

- ❖ the site prior to commencement of fieldwork;
 - ❖ the site during work, showing specific stages of fieldwork;
 - ❖ the layout of archaeological features within each area;
 - ❖ individual features and, where appropriate, their sections; and
 - ❖ groups of features where their relationship is important.
28. All finds (artefacts and ecofacts) visible during on-site works will be collected and processed. Finds will be appropriately packaged and stored under optimum conditions, as detailed in the RESCUE/UKIC publication *First Aid for Finds* (Watkinson and Neal 1998).
29. Archaeological deposits will be sampled systematically; all investigated features believed to be significant archaeological features will be sampled along with a selection of natural features and topsoil to provide control samples. Bulk soil samples, a minimum of 10 litres but up to a target size 40 litres where sufficient sediment is available, will be taken.
30. Should the potential archaeological features identified include funerary deposits (i.e. human skeletal material regardless of whether cremated or not) then all works on that area will be halted with the local constabulary, Client and Curator notified.
31. Sites with buried human skeletal material are protected. The removal of a body from the grave is not considered theft; rather Scots common law recognises the offence of *crimen violati sepulchre* (violation of sepulchre). In essence, the crime is the disturbance of the corpse without permission. No works will be undertaken that conflict with this law.
32. On conclusion of the excavation the Curator will sign off each excavated area for release to the developer for any further development works that are necessary.

Stage 1d: Technical reporting

33. The technical reporting of the on-site works will be as follows:
- a. Data Structure Report presenting the results of the on-site works and incorporating a detailed listing of the materials (artefacts, sediments; written record) recovered; in addition a narrative would explain the character of the archaeology investigated and compare this to comparable archaeology in south-west Scotland;
 - b. Post-Excavation Research Design, which will be prepared to identify the potential analyses necessary and the structure for the publication and dissemination of results including a timetable for these works;
 - c. Project archive, to be deposited in HES Collections;
 - d. Lists of finds (if any) to be submitted to the Treasure Trove Unit.
34. A full draft of the Data Structure Report (and if relevant the Post-Excavation Research Design) will be circulated to the Client and Curator for comment within four weeks of the completion of onsite works. The Data Structure Report will include the entry for Discovery and Excavation in Scotland for submission. Copies of the finalised Data Structure Report will be sent to the Client for approval and then to the Curator in digital form. The OASIS online report form for the fieldwork will be updated and completed. A digital copy of the report will be uploaded to the OASIS site.
35. Following completion of fieldwork and acceptance of the report by HES, an ordered archive of both object and paper elements will be prepared according to the recommendations in *Archaeological Archives A guide to best practice in creation, compilation, transfer and curation* (Brown 2007) and *Standards in the Museum Care of Archaeological Collections* (Museums and Galleries Commission 1992). Finds will be declared to the Treasure Trove Unit in keeping with their *Practice Guide*.

Stage 2a: Agreement of Post-Excavation strategy

36. A costed Post-Excavation Research Designs will be prepared in conjunction with the Data Structure Report. This will identify the recommended analyses for the recovered material as well as providing the names and brief CVs for the appropriately qualified and experienced specialists who will carry out the works. It will also recommend the structure for the publication and dissemination of the results. This design will be subsequently agreed with HES.
37. The agreed designs must incorporate a finalised timetable of all remaining works and be integrated into the current version of this Archaeological Written Scheme of Investigation.

Stage 2b: Post-excavation Analyses

38. Should archaeologically significant material be recovered during the on-site works then a programme of post-excavation analysis of this material will be required by North Ayrshire Council and will thus be undertaken. Until the on-site works are complete the exact nature and size of any post excavation works will be unknown. Should archaeologically significant material be recovered then this will be a significant stage of works.
39. To some degree the examination will be led by the nature of the materials recovered. However any work is likely to focus on artefact analysis, palaeo-environmental analysis, radiometric dating and stratigraphic interpretation.
40. The works will also incorporate conservation work on any artefacts recovered to ensure their suitability for disposal. Full declaration of all finds will be made to the Queen's and Lord Treasurer's Remembrancer.

Stage 2c: Reporting and Dissemination

41. The results of this strand of the project will be published in an appropriate archaeological journal or monograph should the fieldwork results warrant this. The Curator will take the final decision on the requirement for publication. The suitable level of publication will be dependent on the significance of the project results. Meeting the publication costs will be a costed element of the project to be met by the client.
42. The project archive originally prepared during the initial site reporting (see Stage 1d) will be expanded during reporting to cover all new materials generated by the post-excavation and reporting works. The finalised archive would be submitted to the HES Collections at the conclusion of the project.
43. The lists of finds submitted to the Treasure Trove Unit will be renewed at the conclusion of the project (see Stage 1d) will. The finds will be retained until they can be collected by, or delivered to, the institution awarded the collection by the Treasure Trove Unit.

Historic Building Recording

44. Within the Scheduled Monument no alteration to fabric (removal of vegetation, duntaking, raking out, inserting new fabric etc) will be undertaken except where this has been formally agreed through Scheduled Monument Consent. The section below details the archaeological response to those elements of consented works that result in the exposure or removal of historic fabric (ie not the addition of new fabric).
45. The programme of works will address the planned impact on all faces of the historic chapel, comprising in sequence the following components:

Stage 1: On-site Mitigation

- ❖ Inspection and recording of all exposed faces of masonry after removal of vegetation (but before removal of root masses within wall fabric), prior to further consolidation works (Stage 1a);
- ❖ Structured monitoring of duntaking to record the character of the fabric to

improve understanding of phasing of the chapel (Stage 1b); and

- ❖ the undertaking of preliminary technical reporting for the on-site mitigation. This will detail the works as implemented, the character of any historic buildings recorded and provide an analysis of their significance (Stage 1c).

Stage 2: Analysis and Publication

- ❖ the implementation of an agreed programme of analysis on the historic buildings recorded from the site works (Stage 2a); and
- ❖ the implementation of an agreed programme of dissemination of information typically through: an academic journal paper; public lecture; and archive deposition (Stage 2b).

46. All works will comply with the Chartered Institute for Archaeologists' Standards and Policy Statements and Code of Conduct and Historic Environment Scotland Policy Statements.

Stage 1a: Recording masonry

47. After vegetation clearance a record of the fabric of the chapel will be made that is comparable to an Enhanced record (as detailed in ALGAO:Scotland 2013). Typically recording will involve elements of:
 - a. a drawn record of the exposed fabric in context which may include measured or sketched plans, sections, cross sections, elevations or detailed drawings (this will enhance the existing record compiled by RPP);
 - a. a photographic record of the visible fabric in context which will include every external and internal elevation together with a general plan shot of each compartment; and
 - b. a written record will be compiled using pro forma building recording sheets including comments on the condition, construction techniques, materials, fixtures and fittings and interpretation of function.
48. On conclusion of this recording, the ascription of phasing within the fabric of the structure and hence significance will be reviewed and enhanced.

Stage 1b: Monitoring changes to masonry

49. Archaeological monitoring works will be undertaken on a structured basis to support the consolidation works. The structure of these works will follow the ascribed levels of significance (see Archaeological Phasing within RPP Statement of Significance document). Specifically:
 - ❖ Any removal or dismantling of fabric categorised as High Significance will be subject to continuous monitoring;
 - ❖ Any removal or dismantling of fabric categorised as Moderate Significance will be subject to regular but intermittent monitoring visits. The ratio of attendance will not fall below 1 day in 3 during which potentially monitorable works are undertaken; and
 - ❖ Any removal or dismantling of fabric categorised as Low Significance will not be subject to monitoring, though during site attendance for other reasons observations will be made.
50. Note that the significance levels as defined in Archaeological Phasing should be subject to review on conclusion of Stage 1a (see above) and then subject to regularly refinement during Stage 1b. Any change to the allocated significance level must be approved by the Curator before it affects the frequency of archaeological monitoring.
51. Close liaison with the stonemasons on-site will be maintained throughout consolidation

works to ensure that unexpected exposures are responded to within this structure.

52. Where the consolidation works expose new building fabric (i.e. fabric which has not been recorded as an element of the Stage 1a) a record of the fabric exposed or affected will be made that meets the specification for the primary record (see above Stage 1a).
53. Visible portable artefacts, or architectural detail, which have been displaced by the consolidation process will be appropriately packaged and stored under optimum conditions, as detailed in the RESCUE/UKIC publication First Aid for Finds (Watkinson and Neal 1998). The packaged artefacts will be labelled based on their context and location. Artefact recovery may include building material which has been displaced by the refurbishment works if it constitutes a representative sample of the building fabric.
54. Where elements of the building fabric or other anthropic material are uncovered in the course of the works and are anticipated to be adversely affected by the works but have a high significance the archaeologist on-site will halt work in that area until the design team and the Curator, have been consulted and the best way to proceed has been agreed in line with the overall goals of the project.

Stage 1c: Technical reporting

55. The technical reporting of the on-site works will be as follows:
 - a. Data Structure Report presenting the results of the recording of the historic buildings and incorporating a analysis of the consequence of the new information garnered on the existing analysis of the structure; and
 - b. Project archive, to be deposited in Collections;
56. A full draft of the Data Structure Report will be circulated to the Client and Archaeological Curator for comment within four weeks of the completion of onsite works. The Data Structure Report will include the entry for Discovery and Excavation In Scotland for submission. Copies of the finalised Data Structure Report will be sent to the Client for approval and then to the Curator in digital form. The OASIS online report form for the fieldwork will be updated and completed. A digital copy of the report will be uploaded to the OASIS site.
57. Following completion of fieldwork and acceptance of the report by the Planning Authority, an ordered archive of both paper elements will be prepared according to the recommendations in *Archaeological Archives A guide to best practice in creation, compilation, transfer and curation* (Brown 2007).
58. Should sufficiently complex information be recovered, a Research Design will be prepared to identify the potential analyses necessary, the timetable for such analysis and the structure for the publication and dissemination of results. The Research Design will be issued to the same timetable as the Data Structure Report.

Stage 2a: Analysis of historic buildings

59. Should it be relevant to undertake further analysis of the structural information recovered during the on-site works then a programme of analysis of this information will be required by the Curator, this will then be undertaken. This may encompass further research into the archival material relevant to the design and construction of these buildings. Until the on-site works are complete the exact nature and size of any analytical works will be unknown.

Stage 2b: Reporting and Dissemination

60. The results of this strand of the project will be published in an appropriate journal or monograph should the results warrant this. The Curator will take the final decision on the requirement for publication. The suitable level of publication will be dependent on the significance of the project results. Meeting the publication costs will be a costed element of the project to be met by the client.
61. The project archive originally prepared during the initial site reporting (see Stage 1b) will

be expanded during reporting to cover all new materials generated by the analysis and reporting stages (Stage 2a and 2b). The finalised archive would be submitted to the HES Collections at the conclusion of the project.

General Working Procedure

Health & Safety Communication

62. All works will be in compliance with the Health and Safety at Work Act (1974) and all applicable regulations and Codes of Practice. All archaeological staff will undertake their operations in accordance with safe working practices.
63. A site-specific risk assessment will be undertaken and recorded prior to the commencement of work on site by the Archaeological Contractor. This will be circulated for agreement and approval to the Client.
64. A continuous process of dynamic risk assessment will be undertaken and if significant hazards are identified a specific risk assessment will be undertaken and recorded. Control measures will be implemented as required in response to specific hazards.
65. Safe working will take priority over the desire to record archaeological features or remains, and where it is considered that recording is dangerous, any such features or remains will be recorded by photography, at a safe distance.

Progress Updates

66. Written updates of progress will be circulated, normally by e-mail, at the end of each week when on-site works have been undertaken by the Archaeological Contractor. These will be circulated to the Client, Conservation Architect and Curator.
67. The Curator, will be given notice of when work is due to commence and will be free to visit the site by prior arrangement with the site's manager. They will monitor implementation of the programme of works and evaluate the work being undertaken on site against the methodology detailed in this Written Scheme of Investigation.
68. The Curator will also be responsible for considering any changes to the specification of works; any such alterations should be agreed in writing with all relevant parties prior to commencement of on-site works, or at the earliest available opportunity.

Timetables

69. As noted above, site working schedule will be circulated to the Curator when available. All technical reporting stages (see above) will be completed within 4 weeks of the completion of the relevant site works.
70. Please note all technical reporting stages incorporate specifications for consequent stages if appropriate, and in turn these specifications must include timetables for such works.

References

ALGAO:Scotland, 2013, *Historic Building Recording Guidance for Curators, Consultants and Contractors*

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