

TEAM DIGITAL PRESERVATION

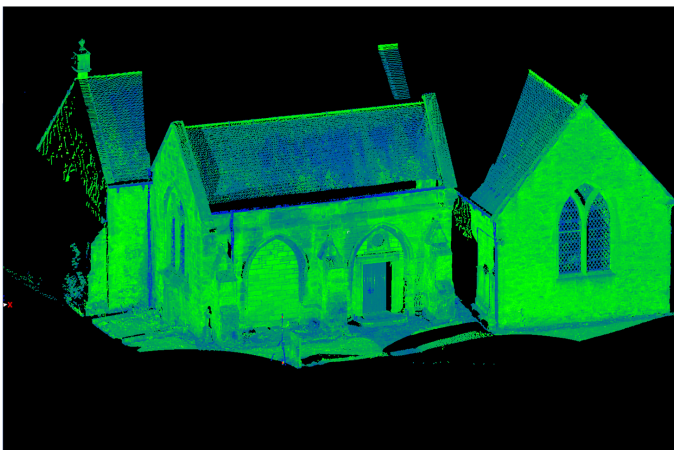
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Hannah Smith Digital Archives Officer at Historic Environment Scotland

My name is Hannah Smith and I work for Historic Environment Scotland. I work within the collections section at HES, in the digital archive team which consists of myself and the Digital Archive Manager. We have been actively collecting digital archive since the 1990's, receiving both internally and externally generated material. We currently hold over 500,000 catalogued digital items in our collection, which will only continue to grow in the future meaning as an organisation we need to be equipped to safeguard our archive to preserve and promote our digital material.

Current Scottish planning guidance (<http://www.gov.scot/Publications/2011/08/04132003/1> (accessed 22 July 2016) places emphasis on preservation in situ, but where this is not possible or appropriate it encourages recording or excavation following by the publication and archiving of that record. Preservation by record is a widely recognised concept within archaeology, but it can only be achieved if those archives have a place of deposit where they will be preserved for the future. So our role in ensuring this is possible and happens is a vital part of this chain of archaeological responsibility and we consider this as important as the excavation.

The priorities for HES digital archiving are to collect all primary material relating to archaeological and architectural fieldwork and excavation undertaken within Scotland and Scottish territorial waters. This remit covers an extremely diverse range of information types including: textual reports; databases; geophysical survey; air photography; mapping (GIS) and topographic survey; buildings survey; visualisation reconstruction; and digital video and audio. Some of these data types can pose challenges due to their complexity for example 3D laser scans which is a technology that is being utilised more and more for recording the built environment.



3D laser scan of Pencaitland Church © HES

As technology evolves and file formats become obsolete we have to choose the best way to maintain access to the collections we hold. The only practical way we have to do this is to 'migrate' the file into a new format, however with some file types we risk losing or worse altering some of the properties of that file. Therefore we need to understand and define the significant properties of a file so that we can know what constitutes acceptable loss, and what crosses the line into unacceptable loss. We carefully consider these effects and experiment with different migration

routes before finding the best possible balance between minimal or no loss of information or functionality and ongoing accessibility for that information. We also ensure we maintain the original object in an unchanged state so that should new possibilities emerge we can take advantage of them.



Digital photograph over 3D laser scan © HES

To help explain what we do*, I've included this animation to digital preservation, that HES digital archive manager Emily Nimmo helped to create. **We don't wear capes, but still like to think of ourselves as Team Digital Preservation.*

<https://youtu.be/pbBa6Oam7-w>

Most of my day to day work involves processing externally generated material into our trusted digital repository encompassing two areas: digital accessioning and digital cataloguing. We receive all types of digital media and often still receive obsolete media.



5¼-inch floppy disk and Amstrad 3 inch disk © HES

It's a very satisfying job to take the digital media and link the information to our relevant records and know the data is now safeguarded in our archive and available to the public, to researchers and to inform the management of the historic environment in the future.



Submerged wartime defences off Roan Head, Flotta © Orkney Research Centre for Archaeology



Archaeological evaluation © Cameron Archaeology

It also allows me to see all types of interesting archaeology from across Scotland every day – including cute little dogs on site . We come across all sorts of interesting material in this job and there's never a dull day. We get to see little time capsules of archaeological events from all across Scotland, from working shots during an excavation to site diaries through to the final reports. I can live vicariously through commercial archaeologists from the comfort of my office.