

SURVEY & RECORDING ROUNDUP 2019–20





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COVER

Spiral staircase at the lower ground floor, 109 Dundas Street, Edinburgh. DP323318

I. INTRODUCTION

What is the historic environment?

We see it as everything that has been created by people over time: the tangible and intangible. It can be a place, an object or an idea. It can be a castle, a ruined abbey or a stone circle; a high street, a colliery or a garden; a book, an instrument — even a song or a piece of music. It's all those things that we've made, all the way up to today. The historic environment is Scotland's story.

HES, <u>Heritage for All: Corporate Plan 2019 Onwards</u>

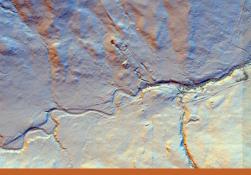
At Historic Environment Scotland (HES), we look after over 300 historic properties and sites, but we are also interested in the whole of Scotland's historic environment, from prehistory to the present day. In order to understand what we see around us, as well as what has gone before, we research, survey and document archaeological sites, buildings, industries and monuments. We share what we discover through the National Record of the Historic Environment, which you can view online at <u>canmore.org.uk</u>; we also carry out a programme of engagement so that we can work together to learn more about places that matter to local communities. This, our second annual roundup, showcases some of the work that the HES Survey & Recording Group carried out between April 2019 and March 2020 in order to tell more stories of Scotland's historic environment.

THE SURVEY & RECORDING STAFF

Our Survey & Recording
Group includes archaeologists,
architectural historians, data
specialists, mapping experts,
photographers, surveyors and
curators. We work together but
also break into five smaller groups
to deliver all that we do.



Our *Archaeological Survey* team surveys and records landscapes and sites from all periods, continuing the work that we've done for decades.



Our Rapid Archaeological
Mapping Programme team also
does this, but with a special
remit for experimenting with new
technologies and cutting-edge
methods. The team also take to
the air to record Scotland from
above.

Whether you would like more information about a site or place, or have an idea about how we might help provide training so that you can investigate what interests you in our historic environment, the first point of contact will normally be through the HES Public Services team at archives@hes.scot. Through them we can provide information and advice, or perhaps work with you to develop your own heritage projects.

See what we found

You can find out about what we discovered this year as well as what we've investigated and collected for over a century at canmore.org.uk.

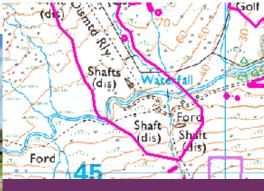
You may also like to visit our Public Search Room at John Sinclair House in Edinburgh to consult original historic drawings, photographs and manuscripts: see our website for details of opening times and access, or contact our Public Services for help at archives@hes.scot or phone +44 (0)131 662 1456.

Meeting the aims of government

Our Place in Time is Scotland's strategy for the historic environment. Published in 2014, it sets out a vision of how the nation's historic environment can be understood, valued, cared for and enjoyed. HES plays a vital role in leading the delivery of the strategic priorities in this important document, the first ever of its kind for Scotland. We protect and celebrate the historic environment so that we can pass it on to future generations while also making sure that it contributes to the nation's wellbeing here and now. We investigate and record Scotland's historic environment, continually developing our knowledge, understanding and interpretation of Scotland's fascinating past, and we share what we discover.



Our *Architecture and Industry* team documents all types, styles and periods of buildings as well as documenting the nation's industrial heritage.



Our **Data Management** team makes sure that quality information is captured and entered into the National Record in the best ways possible for all our users.



Our **Engagement** team works with communities and helps get the results of our work out into the world innovatively and creatively.

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The National Record of the Historic Environment	1	All our research and field investigations contribute to enhancing the dynamic inventory of Scotland's archaeology, architecture and industries.	
Percentage increase in records meeting Minimum Standards	5.2	Behind the scenes we're constantly improving the quality of our data so that it meets the needs of all our users.	
Young people in rural areas that engaged with Survey & Recording	430	We worked alongside primary school learners in Badenoch and Strathspey to share and celebrate the heritage that matters to them.	
Information updates to the Buildings at Risk Register	1,113	We continuously improve this resource for everyone trying to improve the condition of our historic buildings and places.	
New Site Records Created	1,700	We're adding new sites to the National Record to tell the full story of Scotland's historic environment.	
Numbers visiting Past Forward, the Scotland's Urban Past exhibition	2,000	The numbers attending the programme's finale meant that we engaged with over 10,000 people during this five-year programme of community engagement.	
Site Records Updated	3,925	We're finding new information all the time through our work, as highlighted in this Survey & Recording Roundup.	
Visitors to Survey & Recording exhibitions throughout Scotland	4,000	Our work was on show for all to see in our exhibitions, including <i>Practising Landscape:</i> Land, Histories and Transformation and Scotland's Coasts and Waters.	
Hectares surveyed in large area surveys	3,200	Our landscape recording and our Rapid Archaeological Mapping Programme enabled us to investigate large areas of Scotland.	





data available to all, in collaboration with local community projects.

mostly in Scotland.

2.1 BUILDINGS AT RISK REGISTER



The premises of Rothesay Academy, which were in use from 1959 to 2007, Bute, Argyll and Bute. DP101697

2019–20 has been a time of change and new beginnings for the Buildings At Risk Register for Scotland (BARR). The Register has been providing information and statistical data on the state of Scotland's historic built environment to our organisation and the wider heritage sector since 1990. It has been run by a small team within the Survey & Recording section since 2011. Now, with a new Corporate Plan and Historic Environment Policy in place, we are reviewing the Register's aims and approaches so as to make it ready to deliver on HES's future strategic outcomes.

As a result of the BARR initiative becoming a part of HES in 2016, we began to consider how the Register could take advantage of being 'in-house' and become an integral part of our organisation's functions and what we offer to the public, in particular those who are looking to repair and reuse the heritage assets on the Register.

From the outset, stakeholders highlighted to us that they saw the quality and currency of BARR

data as key strengths of the service, and so retaining these at the core of the project has been fundamental. Continuing to work primarily on a cyclical, region-by-region basis allows us to ensure a consistent, even approach to maintaining and reviewing the national dataset. However, we are proposing to visit the regions less often, changing to a five-year rather than three-year survey cycle, so that we can make time in our work schedule for more reactive and community engagement work. We're also proposing changes to the range of sites we will target and assess via this fieldwork. Instead of going to see all the A-listed buildings in an area, as we would have done before, we propose to engage more extensively with local authority stakeholders, key contacts in the sector and the public to identify which buildings to visit. We are also keen to include more non-listed buildings when they are suggested to us as buildings of local cultural or heritage significance — although only if we consider that there is a possibility of their regeneration as heritage assets.

Working reactively to the needs of the sector helps us become a bigger driver for the work of BARR. If there is an opportunity for investment or targeted regeneration, for instance a proposed Townscape Heritage Initiative, a Conservation Area Regeneration Scheme, a City Deal or Town Centre Action Plan, we will resurvey the area to ensure that an accurate and up-to-date set of BARR data can inform such initiatives. We'll also look at particular building types if change is apparent or investment is available. This approach will be starting soon with ecclesiastical buildings in recognition of the changes being made to the use of the Church of Scotland estate.

The post-survey process too is changing, as we seek to use our resurvey information as a means of promoting reuse and positive action in the historic environment. Every local authority regional resurvey will be summarised in a report of our findings and data, which will highlight change, success and emerging issues in each area. We will explore ways of getting this report out to

local communities in the regions to best promote opportunities in heritage regeneration, and we'll offer to meet with local authorities, together with our casework experts, to identify how joint working and engagement might lead to positive action in dealing with buildings at risk.

We have in the BARR a dynamic dataset that has monitored the condition of Scotland's historic environment over the last 30 years. Through comparing our data with other datasets, such as the Scottish Index of Multiple Deprivation and the Scottish Vacant and Derelict Land Survey, we can better understand what's happening across the historic environment. Working with this data and other initiatives beyond the heritage sector, such as the Empty Homes Partnership, we aim to improve the relevance of BARR across the whole of Scotland. As we expand the reach of the Register beyond heritage alone, we hope that the information we produce will be an even better driver than it has already been for regeneration and reuse.



Lennox Castle, East Dumbartonshire, a large sandstone mansion, built 1837-41. It was converted to a hospital in the late 1920s. DP198802



Main cottage at the Corr, Highland. DP066317

2.2 A BIRD'S-EYE VIEW OF OUR SCHEDULED MONUMENTS

Scotland has over 8,000 scheduled monuments. Historic Environment Scotland is responsible for monitoring the condition of these special sites and for working alongside owners and occupiers to encourage their positive management. Visits by Field Officers to see the monuments for themselves are vital for assessing their current condition. Taking time to talk over issues face to face with owners is also important as they are often extremely knowledgeable about their sites. In addition to this up-close-and-personal approach, Field Officers have been taking to the skies with the Survey & Recording Aerial Survey team to get a bird's-eye view of some of these monuments.

Looking down at a landscape from 2,000 feet gives us a useful overview because many of the things that might affect the condition of a monument are clearly visible from the air. And the photographs we take when we are up there can be pored over later in great detail while we look for evidence of what is happening on a site in order to help us to monitor its condition. Changing vegetation on a site, with encroaching shrubs, bracken, and especially trees,

What is a scheduled monument?

A scheduled monument is a site that has been recognised as nationally important. Scheduling began in 1882, when the first Ancient Monuments Act was passed, and the ongoing aim is to preserve our most significant sites and monuments as far as possible in the form in which they have been passed down to us today. We assess and reassess monuments as our knowledge and understanding of what survives and its importance changes.

There are around 8,000 scheduled monuments, comprising uninhabited archaeological sites and structures such as prehistoric burial mounds, Roman forts and early Christian carved stones, dating from around 8,000 years ago up until the Second World War. Scheduling means that each site is protected by law and permission is needed to do most works, including repairs.

is the most widespread factor in the poor condition of monuments and is easily recognised on aerial photographs. So too is damage by farm stock and other animals, which can threaten archaeological



remains, as can natural processes such as storms on the coast. When we see these issues from the air it helps Field Officers prioritise sites for follow-up visits.

The bird's-eye view has also proved to be especially effective where sites are difficult to access, for instance when a monument lies on a narrow promontory bounded by sheer cliffs. In cases such as these, where ground visits might be difficult to plan and perhaps dangerous to undertake, aerial photographs are a major source of information. They are also an efficient way to gather information; during a three-hour flight around parts of Shetland, for example, we could record 70 monuments, something which would take many weeks if we had to visit on the ground. Aerial evidence is also becoming increasingly important in the face of threats from climate change. With an increased frequency of extreme and unpredictable weather events and rising sea-levels, the erosion of coastal sites will accelerate and this needs to be carefully monitored.

Our work with our Field Officer colleagues is therefore enhancing condition monitoring, with the view from the air complementing the continuing ground visits and site meetings. As for the future, the aerial photographs that we take of our nationally important monuments become part of the National Record of the Historic Environment and will continue to inform our effective management of Scotland's past as well as being available to view by all.



Neolithic homestead situated west of Loch of Browbeck, Shetland. $\underline{\text{DP3}10545}$

Loch Dochart Castle, Stirling. $\underline{\text{DP297293}} \ \& \ \underline{\text{DP297292}}$



2.3 POST-1975 SURVEY & RESEARCH PROJECT



 $\textbf{Hunter Building, Edinburgh College of Art, Lauriston Place, Edinburgh.} \ \ \underline{\texttt{DP3133332}}$

In 2019 HES began a small-scale survey, recording, and research project dedicated to the buildings and sites of the post-1975 period, up to and including the 1990s. The project focuses on surviving buildings, and it records both significant and representative post-1975 buildings and sites. The project developed from a recognised, pressing need to tackle a period of increasing interest to historians of architecture, heritage professionals and the general public.

But why post-1975? The mid-to-late 1970s marked an important shift away from Modern Movement architecture, planning practices and ideals of the post-war years. In architectural practice, the economic downturn of 1979 closed many offices, but by the late 1980s pioneering practices were once again being formed. The architects' client-base shifted increasingly from 'public'

(the state and local authorities) to 'commercial' projects (shopping, leisure and culture), and private practice boomed.

In terms of architectural design, there was also a significant shift from the social welfare driven collective spirit, to that of individualism. In contrast with the regional planning of the post-war era, Scotland's cities in the 1980s and 1990s were now in competition to be Scotland's cultural and commercial centres, with ambitious new public projects, 'sensitive' redevelopment of the historic centres, and housing refurbishment and regeneration in residential areas. Stylistically the postmodern architecture of the 1970s and 1980s in Scotland rejected the functional modernism of the post-war era and reinvented its relationship with historical forms. Postmodernism revived historical building styles, but no period or style of

architecture was now privileged or copied slavishly. Some, such as art deco and classicism, were favoured but a preoccupation with Scotland's own traditional built forms (the castle) and the works of the 'great master' architect C R M Mackintosh, had a direct impact on the visual language of new architecture in the 1980s and early 1990s.

Our new survey is arranged by building type. The first year has focused on educational buildings: chiefly schools, colleges and universities. In this field, architects of the 1980s and 90s strove to design more complex school building models and developed new ideas of place and community. Buildings selected for survey have included Gryffe High School, Houston (1978–9, Strathclyde Regional Council, job architect P J Cronin); Taylor High School, New Stevenston (1980–2, Strathclyde Regional Council, job architects J Struth and D Toner) and the New Leith Academy, Edinburgh

(1991, Edinburgh, Department of Architectural Services, Lothian Regional Council, project architect Laura Ross). Further and higher education projects surveyed include prestigious new-builds and contextual 'in-keeping' expansion in what was becoming an increasingly competitive university market. These include the ground-breaking Hunter Building, Edinburgh College of Art (1971-7, Wheeler & Sproson); the Royal Scottish Academy of Music & Drama, Glasgow (now Royal Conservatoire, 1982-8, Sir L Martin/ William Nimmo & Partners) and the adjacent Alexander Gibson Opera School (1998, Boswell Mitchell & Johnston); and, of course, the vast multi-phase campus of Heriot Watt University at Riccarton, West Lothian, first master-planned by Alan Reiach in 1968, and built chiefly in the 1970s and 1980s.

Our next year of survey will focus on recreation and commercial building types but survey progress will be limited due to Covid-19 restrictions.





2.4 A NEW SURVEY OF EAST LOMOND HILLFORT

A central aspect of archaeological survey is the interpretation of what we see. How we share observations and our interpretation of them in a way that others can understand easily is crucially important. A recent survey of a hillfort gave us an opportunity to think about how we use digital 3D data to inform the detailed mapping of sites. The hillfort in question lies on East Lomond Hill in Fife and our archaeological survey of it was developed in partnership with the Falkland Stewardship Trust.

The distinctive outline of East Lomond Hill reveals its origin as a volcanic plug. Its steep, often craggy, slopes were adapted for defence against attack by early builders who used them as the basis of three, possibly four, ramparts. We know that it was a successful choice of site because we have been able to identify multiple phases of fortification on the hill. While dating such hillforts is often a problem, the evidence from recent excavations

by the Falkland Stewardship Trust demonstrates occupation in the period between the 1st century BC and the 7th century AD. This makes East Lomond one of an important range of sites fortified in late prehistory and in the early medieval period.

The survey has also informed our ongoing research on how to use digital 3D data to help interpret and depict archaeological earthworks. We started by taking overlapping aerial photographs of the site, combined with accurate ground surveyed points, before processing them to produce a highly detailed 3D model. This provided a base-map which we used both onsite, adding detail as necessary, and in the office, using a range of visualisations to interrogate the ground surface. In this way the plan we have produced is both 'born-digital' and the product of a careful and informed study of the landscape by our expert staff.

Aerial view centred on the remains of East Lomond Hillfort, Fife. DP036655



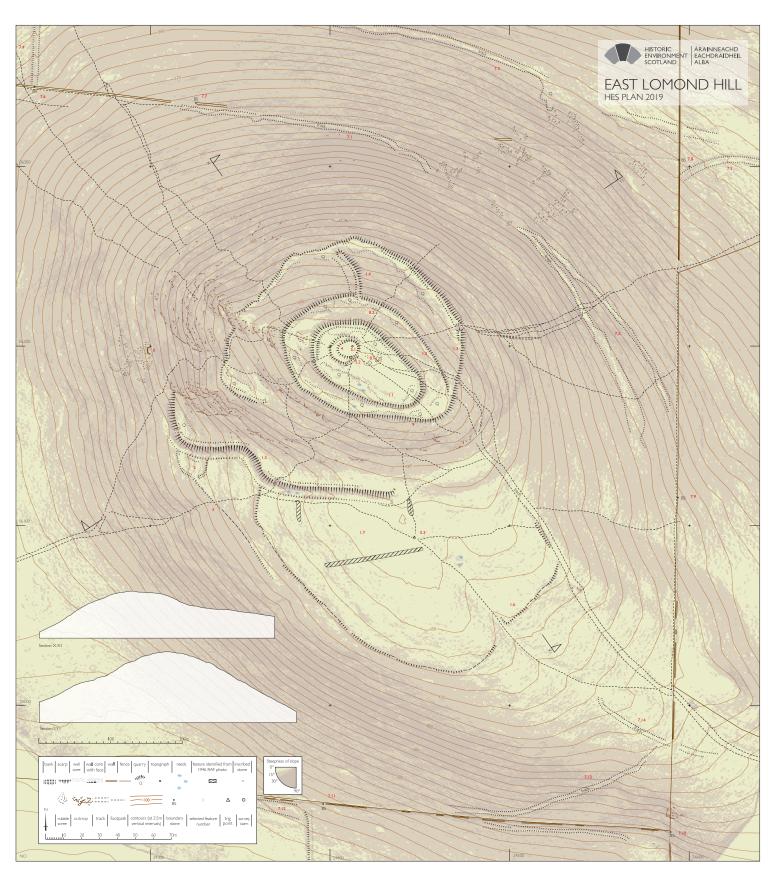
Using 3D data has allowed us to develop the study and illustration of the topography, or lie of the land, on which forts of this type are often sited. We can see that the communities who built these sites carefully designed the defences to make use of natural landforms, whether for defensive purposes or for enhanced display to make them appear more impressive. 3D data has allowed us to develop a systematic way to illustrate the steepness of natural slopes, powerfully demonstrating the hilltop nature that brought the builders here in the first place, and the often-subtle ways in which these emblematic sites were created. By taking an understanding of how we perceive steepness and applying it to our digital data for East Lomond, it is striking how well the ancient ramparts and these different degrees of slope match up. While previously we would have sketched a more impressionistic depiction of the natural topography, the digital topographic data creates a systematic natural background to all our surveys. This will allow us to compare in an objective way how the builders of such forts used natural landforms in their constructions.



Using a differential GPS to accurately map the archaeology of East Lomond Hill. Fife.

Inspecting 3D data in the field using a pen computer.





Site plan of East Lomond Hill, Fife.

2.5 SPECIAL SURVEY IN ABERDEENSHIRE

BLACKMIDDENS FARMSTEAD & DISTILLERY FOR THE CABRACH TRUST



Blackmiddens farmstead, Aberdeenshire, from the south. DP298684

Abandoned 19th century farmsteads represent important aspects of Scotland's rich and diverse historic environment. These are places where ordinary folk were born, lived and died, and as such, they are as worthy of recording as the grandest castle. Ancient monuments inform us about our more distant past but it is just as important to learn about our more recent ancestors. One of the ways we do this is by studying the buildings and other structures they have left behind.

In April 2019, HES recorded a long-abandoned farmstead and distillery at Blackmiddens in western Aberdeenshire. The opportunity to undertake a survey on a farmstead exhibiting such good evidence of phasing does not come along often and so it was a welcome chance for the team from Survey & Recording, which included a trainee, to practise and hone its skills in observation, analysis and interpretation. With permission to survey and excavate readily given by the owners, Forestry and Land Scotland, the project was undertaken in partnership with the Cabrach Trust, which excavated part of the distillery.



The roof of the byre at Blackmiddens exhibits the remains of a turf or peat sod covering, a rare surviving example in western Aberdeenshire of this alternative to thatch or slate. DP298625

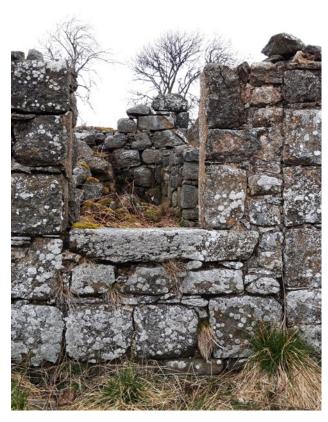
Documentary research told us that Blackmiddens was a mixed arable and stock farm whose steading was rebuilt in the 1820s, complete with a small, two-building, whisky distillery. Little now remains of this small distillery, which was only in production until 1833. The farmstead itself was occupied until the early 20th century when its land was turned over first to sheep and later to trees.

It would be easy to dismiss Blackmiddens as just another ruinous steading, one of hundreds to be seen throughout Scotland. However, by investing time in the detailed recording of sites such as these, we can provide answers to questions such as, 'how do the buildings relate to one another?' and 'how did this farmstead change over the last 200 years?'

All the buildings around the courtyard have undergone some degree of adaptation. Close inspection of the byre on the north-west side revealed blocked windows and doorways, and there is evidence that the building was originally not as long. Its roof has inevitably undergone several phases of repair and replacement. Quite early in its life, before the 1860s, the south-west end of the farmhouse range was completely remodelled and the building on the north-east side of the court replaced.

Our initial interpretation of the roof-space above the stable and cart-shed was that it was a hayloft, but the two small openings in its south-west end and its mortar-rendered internal walls reveal that it was in fact a grain-store. Knowing this, we can visualise the process by which grain from the surrounding fields was taken into the adjacent barn, threshed and then hoisted up into grain-store.

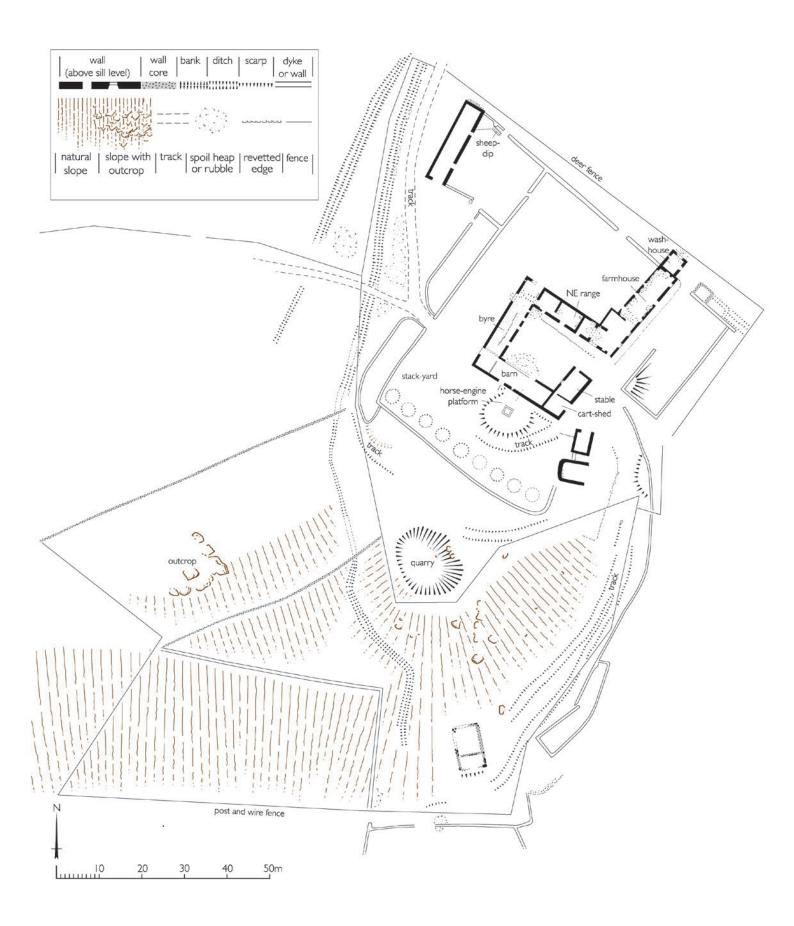
The recent collapse of the north-east wall of the barn, as well as much of the roof it supported, is a reminder of how vulnerable stone buildings are when they are no longer maintained. The buildings at Blackmiddens will almost certainly gradually decay into heaps of rubble. However, thanks to our survey, at least some of the detail that makes them unique will have been recorded and preserved in the National Record of the Historic Environment.



Remodelled entrance to the south-west end of Blackmiddens farmhouse. $\ \, \underline{ DP298673}$



Parts of the 19th century threshing machine at Blackmiddens which has survived despite the roof of the barn collapsing on top of it. DP298663



Site plan of Blackmiddens steading, distillery and immediate surroundings. $\underline{\texttt{SC1849828}}$



3.1 BORN DIGITAL?

DEVELOPING ARCHAEOLOGICAL SURVEY FOR THE 21ST CENTURY

Archaeological survey is a tried and tested way to improve our understanding of the past through fieldwork and desk-based mapping. It is also an approach that depends heavily on physical processes, which can range from 'boots on the ground' inspection of a survey area to the examination of remote sensed data such as aerial photographs. These analogue methods have served us well in generating masses of knowledge about the material remains of the past. However, we are now living in a digital age, something that is having profound implications for archaeological survey.

The increasing availability of digital data and computational tools, such as Airborne Laser Scanning (ALS/Lidar), enables us to explore vast digital landscapes. These exciting developments also challenge us to review our methods and to consider how established techniques fit together with the new technology. While sometimes such assimilation happens organically, in other cases a more fundamental reassessment of how we do what we do is required. (See also the report on our survey of East Lomond.) Our Rapid Archaeological Mapping Programme (RAMP) is a two-year research project that considers how we can improve our methods for enriching the National Record of the Historic Environment.

How might archaeological survey look in a born-digital environment? This is the question we are addressing as we review RAMP's methods.

What is Airborne Laser Scanning (or Lidar)?

Airborne Laser Scanning (ALS), sometimes also known by the acronym LiDAR/Lidar (Light Detection and Ranging), does exactly what the name suggests. A laser, usually mounted in an aircraft, sends out pulses that are bounced back from the ground surface, or trees, and, after processing, provides detailed digital models of the ground surface. These digital surface models can be further processed to provide visualisations that allow us to look at the surface humps and bumps — natural landforms as well as archaeological sites — in a wide range of ways, including adjusting the direction and angle of lighting.

The need for rapid, economic archaeological survey is pressing. Surveys of this type increase the numbers of known monuments in an area by 100% or more, providing evidence for where people in the past lived, farmed, and buried their dead. Our RAMP survey of Arran in 2018–19 more than doubled the tally of known archaeological monuments to over 900 sites. With only about 10% of Scotland currently covered by systematic survey, it is reasonable to expect that this pattern of new discovery will continue as more survey is undertaken. There are also new questions for survey through the broadening of scope and specific activities such as the condition monitoring of monuments and landscapes. The accelerating



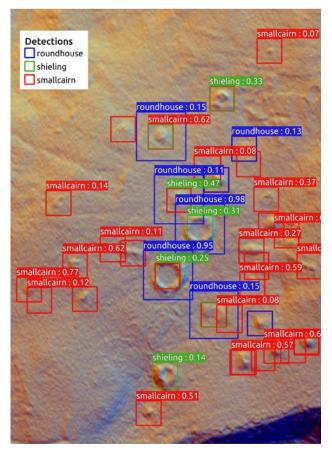
Even on the relatively well-known island of Arran, recent survey based heavily on Airborne Laser Scanning doubled the number of known sites, with a mix of desk-based and field discoveries.

change happening in our landscapes, through forestry, agriculture and the impacts of climate change, means that there is an ever-increasing need for reliable, systematic survey data about our finite archaeological resource that can inform its

management, research and appreciation.

While we are only half-way through the project, we can already identify some benefits for both speed of coverage and the character of the outputs from survey. For upscaling rates of coverage and our capacity to analyse masses of digital data, developments in Al and Machine Learning show their potential, as reported in last year's Roundup. And in thinking about working practice, it has been interesting to explore how different processes such

as desk-based mapping and fieldwork complement each other, and to consider different staff perspectives on the issues raised. While our survey projects used to rely heavily on field visits, we are increasingly shifting the emphasis to desk-based mapping and saving time by using field visits only to address specific questions or uncertainties that arise. Central to these developments is the increasing availability of digital datasets and the opportunities this provides for automating aspects of our work or for introducing a computerised aspect to the process. The efficiencies that are emerging give us more time to think about how the archaeological evidence helps us, and others, to tell Scotland's stories. Exciting times for archaeological landscape interpretation and mapping!



Automated detection in practice: this ALS-derived image of an area on Arran shows the footings of prehistoric roundhouses, small clearance cairns and possible huts overlain by squares indicating Al detections with a confidence score. The high confidence detections clearly match visible sites, although the faint remains of a roundhouse and cairn at the top of the image were missed.

Image © Iris Kramer ALS source © Scottish Government



The GPS-recorded tracks of routes walked during fieldwork shown against an orthophotograph. In this case the route taken was designed to check selected desk-based identifications and also to explore the landscape for previously unrecognised sites.

Aerial imagery © Getmapping plc

3.2 #3M_DO_2019 CONTEMPORARY ARCHAEOLOGY WORKSHOPS

Last year we received funding from the Royal Society of Edinburgh to lead and undertake four interdisciplinary research workshops with a view to discussing, exploring and expanding understandings of the contemporary archaeology. These were designed to enable the development of a research culture to create and inform approaches to Scotland's contemporary archaeology, and to open up discussions with policy makers, archaeologists, artists and others about contemporary archaeologies of Scotland.

The workshops were designed by HES Survey & Recording with partners from the University of Glasgow, the University of the Highlands and Islands, and Northlight Heritage. Participants included independent artists; staff from Archaeology Scotland, the Society of Antiquaries and the V&A Dundee; HES colleagues; and both academics and students from Glasgow School of Art, Orkney Research Centre for Archaeology, and the universities of Glasgow, Aberdeen, Stirling, and Highlands and Islands. The name for the workshop programme, #3M DO 2019, is a mashup of the ubiquitous products of the 3M Company (e.g. Post-it® notes), a reference to Dis-Organisation, and the idea of contemporary archaeology in Scotland occupying a space into the 3rd Millennium.

Two research questions lay at the heart of the workshops, which took place throughout 2019:

- What are the roles and opportunities for contemporary archaeology in Scotland today?
- How can contemporary archaeology benefit communities and engage with major social issues of the day in Scotland?

The first workshop in Glasgow during March set the scene, and a lively discussion emerged on possible themes for the following workshops. It allowed participants to meet each other and join in performative practices led by artists. The action then moved north to Aberdeen where the second workshop, 'Art is the new oil', coincided with the city's annual NuArt street art festival. Here, the

What is contemporary archaeology?

The way in which we understand the past has always had clear implications for the present. Over the last two decades a distinctive sub-discipline of archaeology has emerged, that of the contemporary world. This emerging research area explores how archaeological methodologies, practices and theories might be applied to the recent past and contemporary society, places and things. It is an important area of study because it questions recent and current human interactions with places, through the material culture. In questioning the status quo and the potential of change, archaeology can play an important role not only in the present, but also in the future. In writing about this area of research, archaeologist Professor Rodney Harrison said in 2016 that 'one of the central challenges for archaeology over the coming decades will be to find a way to engage with emerging, contemporary, socio-material phenomena and, hence, with issues of both contemporary and future ecological, social, political, and economic concern'. This approach is clearly relevant in light of the current issues such as the COVID-19 pandemic, climate emergencies and Black Lives Matter movement.



Multi-scale street art in Aberdeen as part of the 2019 NuArt festival.

group explored art/archaeology, graffiti and street art as the material evidence of contemporary archaeology before considering how creative thinking could support Scotland in the post-oil age.

In September participants met in Orkney for the third workshop which was themed on climate change, renewables and future archaeologies. This was the perfect location to explore the effects of climate change on contemporary island communities. The group also considered creativity in 21st century landscapes, new museums and personal social media archives. Finally, December's Edinburgh meeting, 'Postmodern archaeologies', was an opportunity to debate the relevance of contemporary archaeology and also to consider the contribution that the discipline can make to society. Future directions were outlined and as a result we are exploring further funding opportunities to expand upon these unique workshops and widen the debate from Scotland to involve partners from across the globe.

Read more:

Why not also take a look at a blog by the Urban Prehistorian about the fourth workshop, held in Edinburgh on a very stormy day in December 2019, here:

 https://theurbanprehistorian.wordpress. com/2020/04/06/facing-our-dystopian-future/

For an introduction to contemporary archaeology:

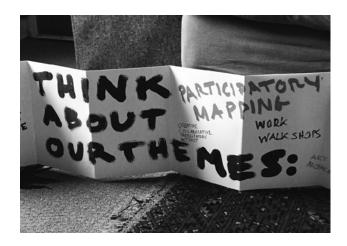
Paul Graves-Brown et al (eds), *The Oxford Handbook* of the Archaeology of the Contemporary World, 2013

https://www.oxfordhandbooks.com/view/10.1093/oxfordhb/9780199602a001

hb-9780199602a001

Rodney Harrison, *Archaeologies of Emergent Presents* and Futures. 2016

 https://discovery.ucl.ac.uk/id/eprint/1527352/1/ HARRISON.pdf



RIGHT
Exploring themes for the four #3M_DO_2019 workshops.

BELOW #3M_DO_2019 participants at the Billa Croo wave energy facility, Orkney.



3.3 AYR UNITED: RECORDING MEMORIES

Can they do it on a rainy night in Ayr?



The east covered terracing of Somerset Park, South Ayrshire, with the 'home' fans' view of the football pitch during an evening fixture between Ayr United and Dundee. <u>DP314528</u>

Scotland loves its football. Whether it's Hampden on Cup Final day or the gathering of dog-walkers at the side of a Sunday League park pitch, twenty-two people kicking a ball about means a crowd of people will stop their day to take part in a national obsession. The experience of 'going to the football' has changed over the years as many famous old stadiums have been redeveloped or abandoned in favour of a modern alternative. HES has made a point of making photographic records of many of these traditional football grounds as they've changed. However, these 'historic environment' images of empty stands, terraces and changing rooms are very different to the experience of being at a ground as a spectator during a match.

In 2018, when Ayr United FC were flying high at the top of the Scottish Championship, there was the possibility that their famous home, Somerset Park, might have to be modernised and so it was suggested that we should capture it for the National Record of the Historic Environment before it was changed. This offered us an ideal opportunity to explore a different approach to our work, one that would combine our traditional photographic recording along with an attempt

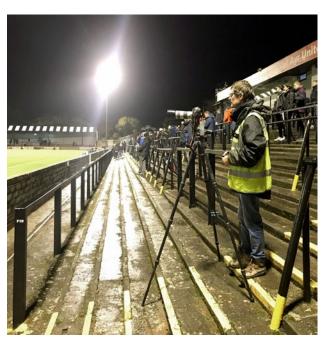
to capture the 'Intangible Cultural Heritage' of a Scottish football match at a little-altered, traditional ground. If we asked ourselves, 'what's it like to be at a football match at a traditional Scottish ground?', what kind of images would we take to help us answer that question? A Friday night, floodlit kick-off against Dundee in mid-October provided the ideal opportunity to experiment: a well-lit, evening match with a big crowd that would make for a bustling atmosphere in and around the ground. As a rule, we would be looking for ideal conditions for making archival images but could we, as the football cliché goes, do it on a rainy night in Ayr?

What is Intangible Cultural Heritage?

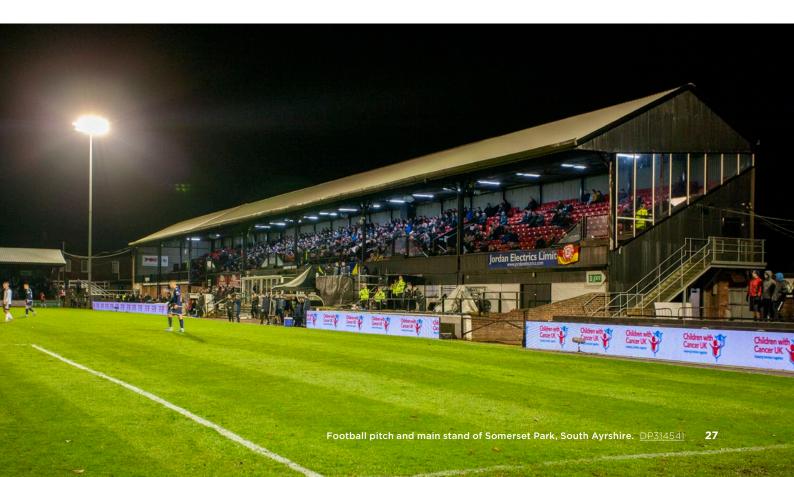
The historic environment is about more than just physical things. It's about those aspects of culture that have shaped our understanding of ourselves throughout our history, informing our perceptions of our place in the world, our relationships with each other, and the places in which we live. We call these aspects intangible cultural heritage.

We used a quickfire, reportage style of photography that's fairly new to us, where conditions can't be controlled and speed is of the essence. Our photographer was up for the challenge though, and as a result we've brought a different perspective to the National Record. Capturing 'use' in the historic environment is often key to giving our records meaning beyond our traditional audiences. This exercise wasn't only about recording the event of Ayr Utd vs. Dundee, it was about creating a record that would go beyond photographing an empty terrace in broad daylight in attempting to capture the experience of looking towards the pitch across a crowd of heads on this same terrace during a match. We tried to evoke the build-up to the match, starting late afternoon with people approaching the ground and collecting tickets, photographing the turnstiles as well as fans finding their usual spot, mascots and kick-off. We photographed a concentration of noisy young home fans behind one goal, hardier souls standing on the open side terrace, and the small grouping of away fans behind the opposite goal, with a view to showing the way that people choose how to inhabit the place, thereby capturing the atmosphere of the ground in use. These are the things that will hopefully make the images useful, not only as a record of Somerset Park but also for helping

us understand Scottish football grounds more generally and what these places mean to people in terms of their identity and heritage. (By the way, Ayr Utd 1 - Dundee 2, final score. Lots of grumbling home fans and a very happy Dundee-supporting HES photographer!)



Photographing general views of Somerset Park, South Ayrshire. $\underline{\text{DP3}14649}$





A core purpose of our work is to add to the National Record of the Historic Environment, but we also present our discoveries in other ways so as to reach as many people as possible. We believe that Scotland's historic environment can be interesting to everyone. Much of our work is visual, so exhibitions continue to be an effective way to meet new audiences.

2020 is Scotland's Year of Coasts and Waters and our **Scotland's Coasts exhibition** brought unique survey and archive material together to celebrate. We continue to value more traditional forms of engagement such as the **Neolithic Study Group** which brings together leading experts with members of the public to share ideas in the context of the monuments themselves. We also experiment with new ways to further our understanding and enjoyment of the historic environment, this year through collaborating with creative practitioners for our **Interdisciplinary Fieldwork** project.

4.1 SCOTLAND'S COASTS AND WATERS EXHIBITION



A student drawing by Jean Payton Reid, who was at Edinburgh College of Art in the late 1930s. From the Jean Payton Reid Collection. DP266253

While we are always looking for new ways to share our work, exhibitions are still a great way to enable people to engage with what we do. 2020 is Scotland's Year of Coasts and Waters, which has provided an ideal opportunity to create a showcase for some of the material we produce for the National Record of the Historic Environment. In order to help celebrate, we devised an exhibition that drew on its rich holdings of historic collections, archives and survey material.

For thousands of years, in order to survive, people lived mostly on the coast. Even today, well over half the Scottish population live near to the sea. Some 10,000 miles of coast defines our country's outline, influencing how we work, rest and play. These were the broad themes around which we structured our exhibition, as a way of exploring Scotland's relationship to the sea and its impact on everyday life. We also considered the times when we have had to defend our shores as well as the elements that made it possible to set out to sea: navigation, lighthouses, shipbuilding and ports.



An unidentified girl enjoying a seaside holiday near Ayr in the early 1900s. From HES's general collection of photograph albums. DP102633

The breadth of material within the National Record made it possible to tell the story we wanted to, with stunning images taken by HES photographers as part of our survey work, architects' drawings, Edwardian holiday snaps and historic photographs. With the National Record's remit covering the entire span of human interaction with the landscape, we were easily able to illustrate everything from the Neolithic era to the 21st century oil industry, via Vikings, 19th century seaside holiday makers, fishing, castles, lighthouses and shipbuilding. The archives span prehistoric times to the modern day and give visitors an insight into how important the coast has been to life in Scotland.

While it is clear that the coast can be a challenging place, whether for our resilient early settlers or those looking at imaginative solutions for adapting to the changing climate, it is clear that being by the sea is also something that has often brought joy and respite. Little did we know when we concluded the exhibition with a reminder about 'the restorative power of time spent by the sea' how much that would resonate with people as we began to emerge from Covid-19 induced lockdown.

RIGHT

Oil rig platforms in the Cromarty Firth near Invergordon, Highland, 2016. DP238614

BELOW

An 18th century view of Banff, Aberdeenshire, with Duff House to the left. $\underline{SC1436063}$

See for yourself

The exhibition is on display at Shetland Museum and Archive in Lerwick until 25 October 2020. It will begin a tour of select Historic Scotland properties in 2021. Details will be posted on the HES website once confirmed

A digital version can be viewed here

 https://www.historicenvironment.scot/archivesand-research/online-exhibitions/scotlandscoasts-and-waters/

All the images in the exhibition are taken from the National Record of the Historic Environment and can be found through its online catalogue

https://canmore.org.uk/





4.2 KILMARTIN GLEN & SCALAN MILLS, ART AND ARCHAEOLOGY:

EXPLORING INTERDISCIPLINARY FIELDWORK METHODS

Recently we have questioned how we can further expand understanding of the historic environment, by considering and applying methods and techniques from beyond our own expertise. Survey & Recording staff have largely trained in subjects like archaeology, architectural history and surveying, so it has been rewarding for us to collaborate with those from other fields of expertise. As a result of collaborating with creative practitioners, anthropologists and others, we have had the opportunity to critically reflect on how we work and how we might better enable others to engage with Scotland's historic environment.

In spring 2019, our Rapid Archaeological Mapping Programme (RAMP) team carried out fieldwork at Kilmartin Glen, Argyll and Bute, and we invited artist and poet Dr Jim Harold (Visiting Lecturer at Glasgow School of Art) to join our survey team. Jim's responses to the landscape, his observations of what goes on during fieldwork, and how he felt working alongside a group of archaeology survey specialists, led him to produce a series of written pieces. This led to a further collaboration with us, in the form of a co-authored research paper discussing interdisciplinary approaches to archaeological mapping and landscapes. A further collaboration will consider how to exhibit a wall-based version of Jim's poetry at a suitable location.

Around the same time, Glasgow School of Art researchers, independent artists, the local community and Survey & Recording staff came together to understand how the landscape at Scalan Mills near Tomintoul can be enriched by reading it as a site of inscription, a palimpsest of archaeological deposits added over time. Over many years, the interior walls of the two threshing mills on the site, deep in the Braes of Glenlivet, became inscribed with graffiti, which now forms an intense visual surface covered with drawings of wild and domestic animals, weather reports and miscellaneous messages, the earliest being from 1874. The site is now undergoing significant conservation and

Heritage and Creativity

A major outcome in the HES Corporate Plan is that the historic environment inspires a creative and vibrant Scotland. The work at Scalan and at Kilmartin has not only allowed us to develop fresh thinking in the field of contemporary archaeology but has enabled us to deliver on partnership working to increase the use of our historic environment for creative inspiration, activities and events.



Members of the RAMP team with Dr Jim Harold at Kilmartin Glen, Argyll and Bute.

interpretation works, thanks to the efforts of the Tomintoul and Glenlivet Landscape Partnership.

As at Kilmartin Glen, our staff and the artists were interested in how they could work in an interdisciplinary way, combining archaeological fieldwork, site writing, photography, performance and spatial practices to engage with the landscape as an archive itself. The public were invited via local newspaper coverage, and despite it being a cold April day with snow on the hills, 40 people came along to share their memories of this isolated site. Some of the results from the day included plane table surveys and oral history. Memories were recorded and added to the Tomintoul and Glenlivet Landscape Partnership community archive.

The artists and Survey & Recording staff created a short film about Scalan, which they presented alongside a paper, 'Exploring triangulation: Archaeology, Art and a third space for imagining and speculation' at the Contemporary and Historical Archaeology in Theory conference in London in November. The film then formed one of the exhibits at the Practising Landscape exhibition at the Lighthouse, Glasgow, which opened in late January 2020. This multimedia show brought together the work of fifteen Glasgow School of Art researchers who are part of the group 'Reading Landscapes'.

Glasgow School of Art researchers at Scalan Mills near Tomintoul, Moray.



An extract from Jim Harold's poem inspired by his experiences of field survey at Kilmartin:

looking through

this broken land

in a backwards glance towards signs of a pastoral epoch

a *shieling*

now no more than a few moss-covered rocks

hefted into place

a toe and finger's grip on the land

set across the margins

at the upper edge of what has been prime farmland

a summer pasturage of rough grazing

now overwhelmed

by trees

lost and briefly found



4.3 NEOLITHIC STUDIES GROUP



The Neolithic Studies Group visiting the Torhouse Stone Circle in the Bladnoch Valley, Dumfries and Galloway.

The Neolithic Studies Group comprises academics, professionals and enthusiastic amateur archaeologists from across the UK, all of whom share an interest in this fascinating period of early prehistory. The Group holds two main events each year: a weekend field trip in spring to visit Neolithic sites and monuments and a day conference in autumn where papers are presented on a selected theme. The group relies on its members to come forward with suggestions on areas to visit and themes to address with the proviso that this includes an offer to organise and co-ordinate the field event itself.

Arranging the 2019 spring meeting in south-west Scotland was a logical follow-on from the Group's successful trip to the Waterford area of south-east Ireland the previous year. This not only allowed for a 'compare and contrast' between sites on either side of the Irish Sea, but, for our archaeological survey staff, it also created the perfect opportunity to showcase the results of many different projects, past and present. The trip took place over the weekend of 10–12 May and drew on our own survey work, both on the ground and from the air, as well as on the discoveries made during antiquarian investigations and more recent excavations.

The field trip was based in the picturesque town of Kirkcudbright on the Solway coast and began in customary fashion on the Friday evening with a series of four short introductory talks to set the scene, introduce the area and discuss logistics. For the first time, this was an all-female line-up.

We gave three of the presentations: a chronological overview of the region, providing the context for the sites and monuments included in the itinerary; a talk on the local community involvement in Scotland's Rock Art Project (ScRAP); and the results of geophysical survey at the cropmark cursus and enclosure at Lochbrow. Then Rosemary Stewart, co-organiser of the trip, discussed the geology of south-west Scotland, passing round samples of local chert for everyone to handle. In all 25 people joined the field trip and we were lucky to be able to offer a couple of spare places to local volunteers involved in ScRAP.

Everyone arrived bright-eyed and bushy tailed at the mini-bus pick-up point on the Saturday morning ready to depart westwards for the first full day of site visits. The morning took in the cropmark complex at Dunragit viewed from the top of Droughdool Mote, possibly a Neolithic mound; the two chambered cairns at Mid Gleniron, excavated in the 1960s, which remain important historically for the sequence of construction they revealed; and the cup and ring markings and standing stones at Drumtroddan. After a short stop in Wigtown for lunch, we then visited Torhousekie stone circle with its unusual inner setting of three stones, and the White Cairn, Bargrennan, which gives its name to a dozen or so tombs recognised in this corner of south-west Scotland. On Sunday we headed east, visiting the two visually impressive chambered cairns at Cairnholy, the Twelve Apostles stone circle, the largest in Scotland, and looked across to the Holywood cropmark complex, finishing around 1pm so that everyone could begin their journeys home.

For all who attend them, the spring field trips are an engaging and rewarding experience.

They provide an opportunity to see Neolithic monuments in different areas of the country, and to hear them described from the expert viewpoint. On-site discussions can be lively and entertaining just as much as they are informative, and for ourselves as fieldworkers they are an essential part of continuing professional development.



Kenny Brophy, the NSG Secretary, and Tim Darvill, the NSG Treasurer, standing next to one of the Drumtroddan Standing Stones in Dumfries and Galloway.



Members of the Neolithic Studies Group visiting the Cairnholy II chambered cairn in Kirkmabreck, Dumfries and Galloway.



5.I PRODUCT FORGE: HACKATHON

It's safe to say that most of us in Survey & Recording are happy in our work; we travel all over Scotland to research and record the historic environment and we enjoy sharing that knowledge with others. We don't often get to see the results of our labours but every so often something comes along that really brings home to us the way in which our work is relevant to a modern, vibrant and creative Scotland.

For most of us, that event was our first ever Heritage and History Hackathon. The event was run by Edinburgh-based Product Forge who had previously run hackathon events for Scotland's tourism, transport and health sectors. This time, it was all about finding digital solutions for the problems we face in the heritage sector.

We held the hackathon over the course of a weekend at CodeBase in Stirling, itself an exciting contemporary reuse of the city's 20th century municipal buildings. The point of the event was to explore ways to use Scotland's skill in digital innovation to serve the growing interest in history and heritage. We were invited to be a part of this by the Scottish Graduate School for Arts and Humanities, many of whose students participated. Others came from heritage, tech and creative communities. Throughout the weekend, mentors from HES were available to help, including data specialists, Survey & Recording staff and colleagues from IT, conservation and communications.

It all started on Thursday evening. Participants met, got to know each other and fuelled ideas with a bite to eat. Well-rounded teams then formed, mixing a range of skills in each group. With guidance from heritage sector mentors, we began by choosing a problem to solve. Teams then validated their thinking and tested assumptions during the research stage, which involved examining data from a range of HES sources and even a bit of cold calling. Following the investigation and with more understanding of the sector, it was then time to develop solutions. The teams combined what they'd learned with their technical know-how to come up with ideas. As proposals took shape, teams mapped their

products with a storyboard. This required tech time and so the more technical members of the team got to work creating a functional prototype of the solution. Suddenly, we were on the home straight! As the competition drew towards its conclusion, teams developed a 6-minute presentation.

What is a hackathon?

A hackathon brings together students, entrepreneurs, and members of the tech community, such as developers, designers and data scientists, to develop innovative digital products that solve problems for particular sectors.

The highlights are here: https://www.youtube.com/watch?v=UaxrW5zpu0q



Participants of the Heritage and History Hackathon at CodeBase, Stirling.

Each team went through rounds of pitch practice, getting feedback at each stage. The event closed with each team presenting their ideas and prototypes to a diverse panel of expert judges that included our Director of Heritage, Barbara Cummins. The judges declared a winner for the weekend, an app allowing communities to learn about and record heritage important to them, and it was time to celebrate.

Seeing what was created over just one weekend was inspiring. We had augmented-reality postcards; heritage recording and sharing apps; maps which 'whispered' a neighbourhood's history; a version of Canmore for school students; and a quick way to report damaged monuments. What made the weekend so special was the mix of real-life advice from mentors, the opportunity for us to collaborate with a host of creative minds from different areas of expertise, and seeing a concept through from start to finish.

Competitors in the Heritage and History Hackathon, Stirling, developing their ideas for digital solutions to challenges faced by HES, with Survey & Recording staff providing advice.



5.2 PAST FORWARD: STORIES OF URBAN SCOTLAND

Our award-winning Scotland's Urban Past (SUP) programme of community engagement culminated in 2019 with Past Forward — Stories of Urban Scotland, an innovative touring exhibition celebrating the achievements of the 60 groups with whom we had the pleasure of working.

The five-year programme, led by the Survey & Recording team and generously supported by the National Lottery Heritage Fund (NLHF), provided free training, support and resources to people of all ages to help them discover and share their fascinating stories of Scotland's towns and cities. We used our wide range of resources to help groups realise their projects, be it recording the places that matter to them or celebrating their heritage through creative activity.

A final exhibition drawing together the successes of school groups, established history and archaeology societies, and newcomers to participating in heritage activities, had always been the idea from the outset. However, the realisation proved to be quite a challenge. We decided that the exhibition should tour, to reflect the truly nationwide programme and ideally not just to places like galleries and museums. Questions then arose about how best to showcase all the groups' outputs, which ranged from cardboard cities, puppetry and graphic novels, to survey drawings, photography, oral histories, films and walking trails.

Following a tendering process, we commissioned a team comprising digital experts Soluis Heritage, exhibition designers Lateral North and curatorial experts Lucidity Media, to work with SUP's dedicated team. Over the course of a year the exhibition came to life. Ten projects were selected to each have a portable stand in the exhibition from which film outputs could be projected onto walls. Some of these stands incorporated immersive digital elements: an augmented reality model of Arbroath Abbey, the location of an award-winning geocache trail created by an after-school club, came to life on tablets as did a tour up through the dizzying heights of St John's



One of several immersive experiences encountered by over 2,000 visitors to the Past Forward exhibition during its summer tour of four venues. © Neil Hanna

Read more about Scotland's Urban Past

If you are part of a community group looking for fresh ideas, or if you are interested in finding out more about the Scotland's Urban Past programme, then the book 'Past Forward — Stories of Urban Scotland' will be of interest. It is packed full of ideas to help you, friends, family, workmates or club members explore the history and heritage of your place.

Download it here https://document.scot/archives-and-research/publications/publicationld=b3df2e3e-506f-4f33-a320-aa-fe00ee7452 to get started on your own community group project

Alternatively, get in touch with us at <u>archives@hes</u>

Tower in Ayr, often inaccessible to the public. Soluis reconnected with the very first project's participants, the skateboarders of The Vennie youth club in Livingston, to create a skateboarding skills computer game to stand beside an account of the survey plan that they created of their skatepark back in early 2015. The projects that weren't highlighted on stands were all accessible via a digital map, enabling visitors to learn more, again via digital tablets.

Throughout the summer, Past Forward toured four venues: Summerhall in Edinburgh; the Creative Academy in Inverness; the Scottish Storytelling Centre in Edinburgh; and Southblock artists' studios in Glasgow. The fast pace of the programme meant that we couldn't involve communities in the exhibition's curation but we were able to provide space and opportunities for groups to meet within the four venues to share ideas and develop new activities. Community mapping proved a very popular activity for SUP participants over the years and some of the best ones by Down's Syndrome Scotland, LGBT+ communities and The Welcoming formed a part of the show. The Welcoming's beautiful map of Edinburgh by artist John Quiroga inspired a massive mural at the Summerhall venue where visitors could help in its creation, while the LGBT+ map of Edinburgh's queer memories created interest that led to a special workshop for young people identifying as non-binary at the Scottish Storytelling Centre.

An opening night was hosted at each venue and we enjoyed talks from several contributors including the three most northerly groups based in Lerwick and Kirkwall. A glass was raised to their individual successes and what they had achieved collectively within Scotland's Urban Past!



Exhibition visitors at Edinburgh's Summerhall rise to the gaming challenge gauntlet laid down by The Vennie youth club and Soluis Heritage. © Helen Pugh



Group members from Down's Syndrome Scotland, Glasgow Disability Alliance and St John's Tower in Ayr join with Survey & Recording's Scotland's Urban Past team to celebrate their success at the opening of Past Forward, South Block, Glasgow. © Neil Hanna



From Lerwick to Dumfries: finding out more about 60 project groups that took part in Scotland's Urban Past through interactive technology. © Helen Pugh

5.3 EMPOWERING COMMUNITIES IN THE CAIRNGORMS

TOMINTOUL AND GLENLIVET LANDSCAPE PARTNERSHIP

HES is one of the partners in the Tomintoul and Glenlivet Landscape Partnership, an NLHF-funded project to promote natural and cultural heritage as drivers for economic development and improved social well-being. Within this partnership, volunteers — trained and supported by archaeologists, architectural historians, surveyors and photographers from Survey & Recording — have been busy exploring their local past for themselves.

Each year one of the heralds of winter is the radio announcement that 'the snowgates are closed on the A939 Tomintoul to Cock Bridge'. But how many of us know where these places actually are? Tomintoul is tucked away in Strathavon on the northern edge of the Cairngorms. Neighbouring Glenlivet feels even more out-of-the-way; driving into it, you can understand why back in the 1720s the Catholic Church felt safe enough to build here a clandestine seminary, where the sons of the local gentry were trained for the priesthood. The seminary closed in 1799, but the house remains,

an evocation of the harsh discipline of religious life 250 years ago. At the lower end of the glen, where the Livet meets the River Avon, stands a reminder of a different past, Drumin Castle. Built by the infamous 'Wolf of Badenoch' in the 14th century, it is perched above the two rivers, guarding the route over mountain passes from Aberdeenshire into Moray.

Both castle and seminary are dramatic and well-known monuments, but Glenlivet and Strathavon have a much more extensive history, now being revealed by local volunteers, with help from HES. We have helped them to understand and record the history within the landscape and encouraged them to upload the results of their work to Canmore. This approach to community engagement, in which we play an enabling rather than a leading role, gently pushing rather than expertly pulling, was developed in the Scotland's Rural Past project a decade ago and underpins most engagement within Survey & Recording.







The overgrown footings of a prehistoric roundhouse in Strathavon, Moray, discovered by the community heritage group.

And it works — local volunteers, not previously involved in their heritage at all, are now making a real contribution to the National Record of the Historic Environment.

Thus, on the moorland fringes of the area, the footings of about twenty prehistoric roundhouses have been discovered and mapped, while numerous farmsteads, long reduced to ruins, have been surveyed and photographed, their associated fields traced both on old estate maps and on the ground. Industrial remains from the Victorian era have also been surveyed, including a distillery now reduced to grassy earthworks and the surviving buildings of a manganese mine. The most interesting work, perhaps, has been a re-survey of Deskie Castle, an earthwork which may have been the seat of the Lordship of Strathavon in the 13th century. Here, volunteers have established that the earthworks around the castle, previously assumed to be additional defences, are more likely to have been retting ponds, used for steeping flax as part of the linen-manufacturing process.

Meanwhile, in Tomintoul itself, other volunteers are engaged in making a record of the street frontages of all the buildings in the village. The street plan has hardly changed since it was laid out in the 1770s, and many buildings probably date back to the early 19th century. In our archives we have a collection of photographs taken in the 1970s, and a group are now reshooting the same views, to show how much (or how little) has changed in the past 50 years, creating at the same time a valuable archive for future generations.



Volunteers examine the remains of a Victorian waterwheel at Knock, Strathavon, Moray.



6.1 USING CANMORE DATA

When you work with lots of information, as we do in the Data Management team, it can be hard to see the wood for the trees. We can often be found making corrections to some of our 330,000 individual records, errors having been highlighted by eagle-eyed colleagues or members of the public. However, important though this is, we also need to be mindful of the bigger picture; all these individual database entries, along with attached pieces of information, digital archive and links to other sources, add up to an amazing resource — the National Record of the Historic Environment.

This year, we have been involved with various data upgrade projects aimed at making our information about historic places even more useful for everyone. For example, we are working to increase the number of records that have a meaningful 'period' attached to them as well as a classification from the Scottish Thesaurus of Monument Types. This will provide answers to the questions 'what is this?' and 'how old is it?' for each site record. Satisfying though this is, focusing on individual records in this way can also be daunting because it highlights the scale of what is still be done to make sure all our records meet the same standards.

What is the Scottish Thesaurus of Monument Types?

When someone looks at one of our site records, they should be able to see what type of site it is. We use a standardised list of terms for sites, each of which has a short 'scope note' which is a simple, jargon-free description of the type of building or archaeological monument. This helps users understand more about a structure or site and to find other ones listed in our records

To balance this, we thought we would look at another vital role of the Data Management team, which involves getting our data out to whoever wants to use it. We provide information in many formats: online through Canmore or PastMap; bespoke downloads of data ready to be used in map applications; extracts of specialist text

from our database; and even printed reports. Providing this data on demand can mean working to tight deadlines, especially where planning and management is concerned, and so it is good to take a step back, look at the bigger picture and ask, 'how is our data being used in the wider world?'

To give a flavour of this, here is a selection of case studies from our wide range of users who benefit from our data in many different ways:



A photographic copy of an 1821 aquatint showing Nelson's Tower standing on Cluny Hill, Forres, Moray. <u>SC1352461</u>

Professor Leif Isaksen, Exeter University:

'Canmore is an ideal jumping-off point for conducting research on almost any topic in Scottish archaeology. I find it useful for drawing together information from a wide range of sources so that it can then be evaluated more carefully. While heterogenous and historical source material means that the data has to be treated with great care, the short summaries, referencing, classification scheme, easy CSV file export function and stable URIs have allowed me to quickly get a broad sense of the nature and distribution a given class of material or site in order to determine what additional research is necessary. This has been especially useful for the study of Cluny Hill hillfort by helping to situate it in relation to contemporary phenomena in Moray and north-east areas that have seen less synthetic research than other parts of Scotland.'



Linda Shetabi with participants of the Heritage and History Hackathon at CodeBase, Stirling.

Linda Shetabi is a Heritage Policy Researcher and Lecturer, teaching Urban Heritage Management:

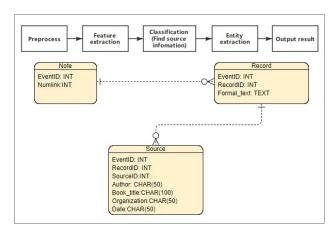
'I find that PastMap's GIS data map https:// pastmap.org.uk/map provides an excellent overview of heritage assets and their contextual settings. At one glance, it displays the richness and complexity of urban heritage management in revealing the setting of heritage assets and their relationship to other heritage assets, nearby buildings, infrastructure, amenities and natural features, as well as their geographical location in terms of conservation, protected or designated areas and councils and wards. Once that context is understood, then students can click on individual assets to view more detailed information through links to HES portal http://portal.historicenvironment.scot/, Canmore https://canmore.org.uk/, West Of Scotland Archaeology Service http://www. wosas.net/ or City Councils' Conservation Area Appraisals. Each of these links opens in a new browser window. This allows the students to gain desktop knowledge on individual assets while maintaining sight of the larger context, helping them have a more holistic view on urban heritage management within an ever changing, dynamic urban environment.'

Jill Harden works for the RSPB as an archaeologist: 'The RSPB manages numerous nature reserves that vary in size from tens to thousands of hectares. Historic environment features abound at these sites, from coast to mountain tops. To ensure the organisation cares for its cultural as well as natural heritage, the RSPB's archaeologist uses information from Canmore on a daily basis. It's a great resource that is fundamental to our work. And it's made stronger whenever new data or enhanced entries are shared with HES and then added via PastMap for all to see.'



A wildlife shot of three chicks in their nest, from the Historic Scotland Photographic Library. $\underline{\text{SC2077533}}$

Mo Zhu is an MSC student at EPCC, Edinburgh University's supercomputing centre. The purpose of his project — From Text to Structured Data — is to extract discrete blocks of information originating from different sources in free text and to restructure them into an 'event' structure, and categorising them to present the information in a new way.



Showing the overall workflow of the project and the relational database used to store three levels of output data: 'Note' stores all the records of a historic site, 'Record' contains relative source information and 'Source' contains authors, book names, dates etc.

The History Girls are researchers who explore Scotland's history, heritage and built environment through a gender-critical lens, with a dash of fun and hilarity thrown in for good measure:

'Online archives and databases like Canmore are invaluable research tools. A lot of our work involves making connections between people and the built environment, objects, and places, so being able to digitally and remotely track down everything we need from photographs to architectural plans makes our lives a lot easier!'

Home page of the History Girls website: https://thehistorygirlsscotland.com/.



Ian Scrivener-Lindley is the Historic Environment Record Officer at Highland Council:

'Data received from HES is used to enhance Historic Environment Records (HERs), the primary tool used by local authority archaeologists to provide advice on planning applications. It allows additional information to be added to the HERs that wouldn't otherwise be submitted directly, such as the most recent designation decisions and the results of work by HES Survey & Recording teams. It is important that we receive all this data from HES so that we have as complete a picture as possible to inform planning recommendations and policy making.'

Map layers

Monuments

Events

Scheduled Monuments

Conservation Areas

Designed Landscapes

Historic Battlefields

Historic Marine Protected Areas

Map feature of the Highland Historic Environment Record website: https://her.highland.gov.uk/map.

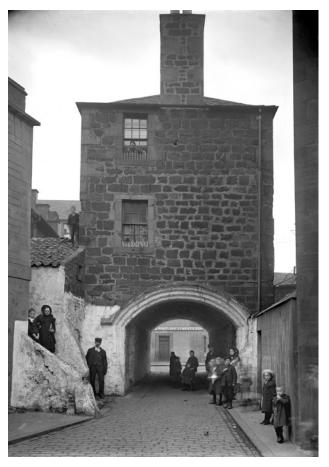
Andy Arthur is an Edinburgh-based twitter user:

'I am not a historian by training or qualification
(I never got beyond Standard Grade at school),
but I have become increasingly keen on local
history in the last five or so years. I have a
particular interest in Edinburgh, with a focus on
Leith and the surrounding area, as that's where I
live and spend a lot of time.

'The way I approach a subject is like picking at a loose fleck of paint. I start picking at the edges of something I've seen or read about, and then keep picking until something interesting is revealed. I don't usually follow any particular plan of research, I just follow the bit of the story I find interesting and try and tell that to others. For me, Canmore is the go-to starting point to begin picking at a place or structure and its history. From here I can almost always glean the basic history, architectural details and, if I'm lucky, photos and drawings. From there I

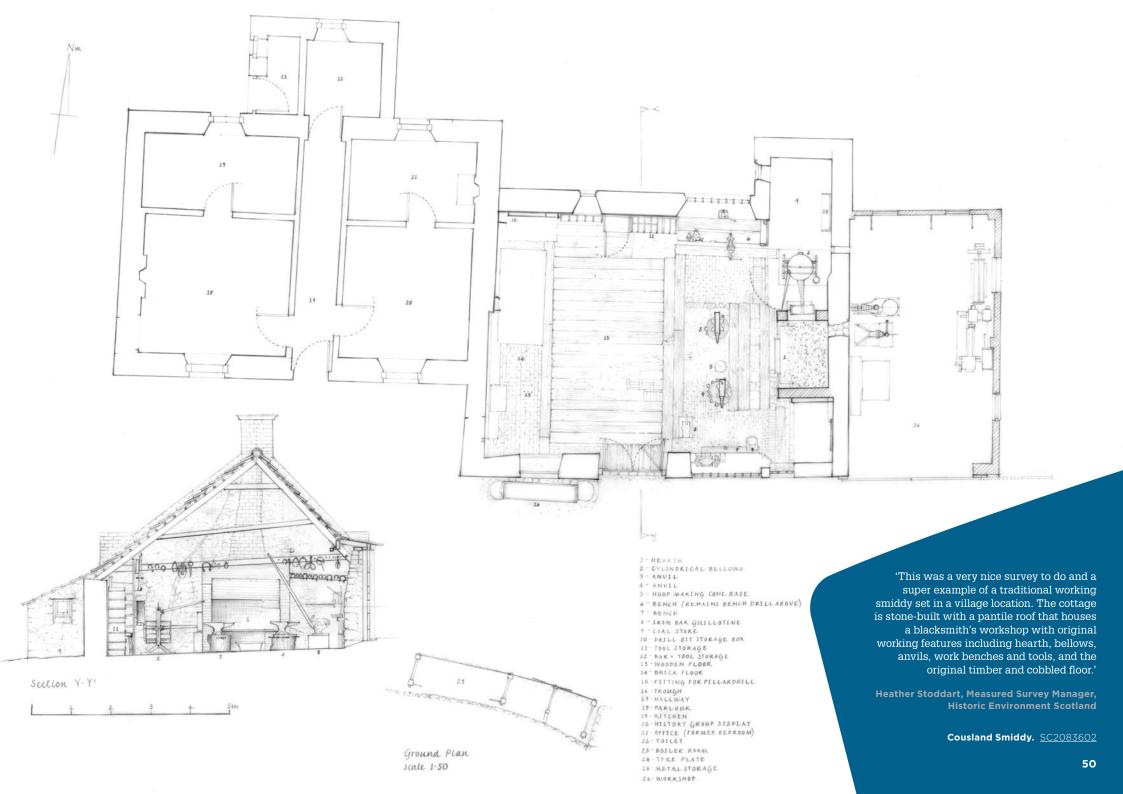
can delve into all the other publicly accessible resources such as the NLS online Maps, Scran, the National Galleries, the Books of the Old Edinburgh Club etc. and try and pull facts, images, people and situations together into a story.

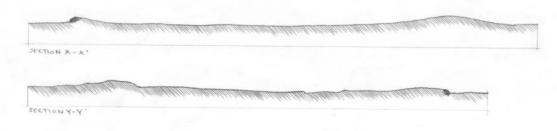
'I don't have a favourite image as such but I do have a favourite subject, which is Leith Citadel. For me it's a really enigmatic structure and as far as I can tell we know relatively little about how it actually looked. The photo below shows beyond the remaining fragments of the structure itself, the people and how they lived. We can see some four generations, posing proudly for the photograph, the cheeky young lad who has sneaked into the frame on the pantile roof, the domestic details of curtains in the windows, little picket fences on the cills and even a pot plant. These all tell a story far beyond that of the 17th century military archway at the centre.'

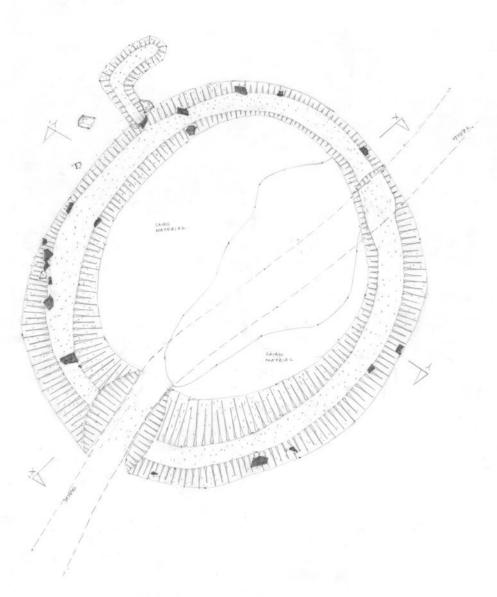


The Citadel Arch, Dock Street, Edinburgh, c.1912, from the Francis M Chrystal Collection. It has since been demolished. <u>SC621194</u>





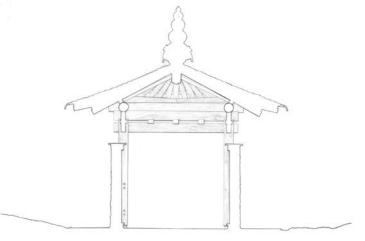




'This ring-cairn is heavily overgrown with broom and gorse on the east running around to the south-west, which made it hard to capture the detail in that sector. It is interesting how the bank is so much thicker and higher on the south-west — the direction in which the sun sets on midwinter's day.'

Adam Welfare, Archaeology Project Manager, Historic Environment Scotland

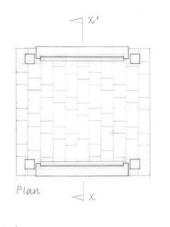
Mains of Altries Ring Cairn. SC1920124

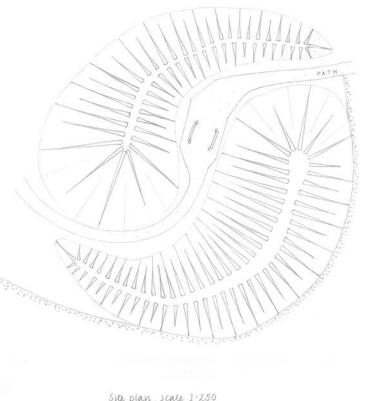


Section X-X'



East elevation





Site plan, scale 1:250

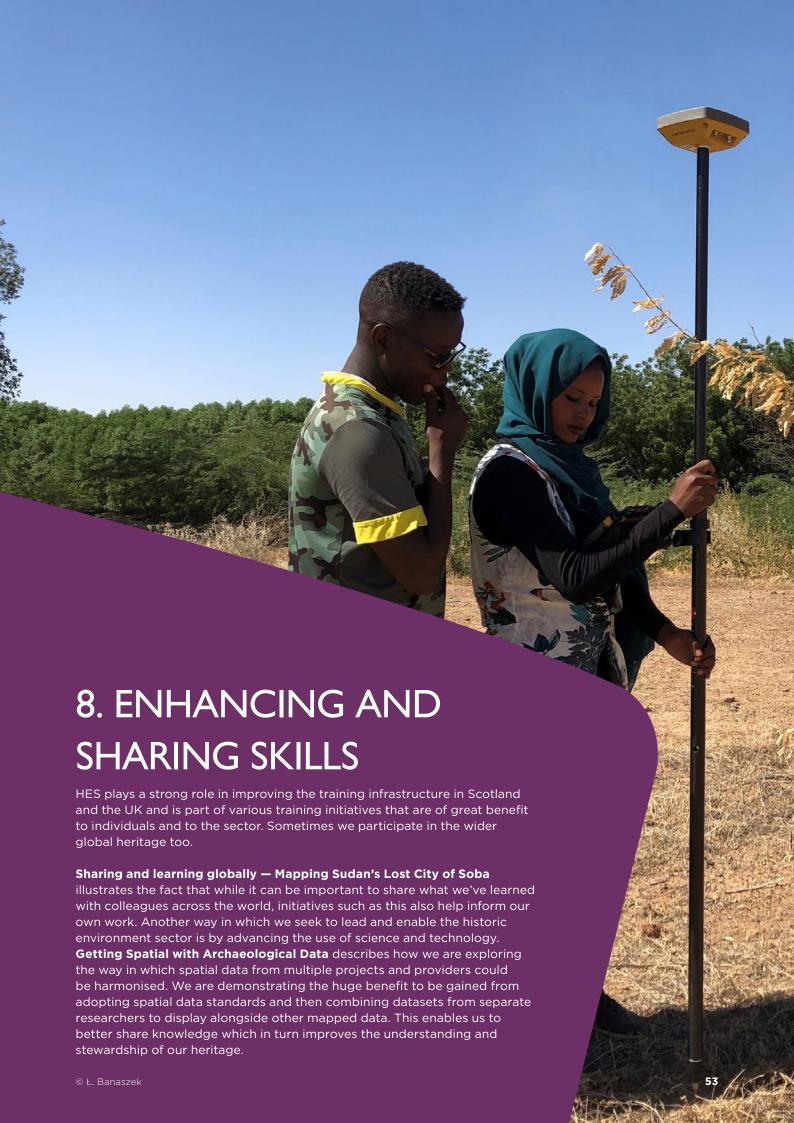


Embossed motif detail on roof structures scale 1:5

'As the only Korean War Memorial in Scotland, this was a fascinating site to survey. The memorial is a landscaped garden, in the centre of which lies a pagoda built in the traditional Korean style and set amongst two grass mounds in the shape of Ying and Yang. Its thoughtful design offers a peaceful environment to any visitors.

Vijaya Pieterson, Survey & Graphics Officer **Historic Environment Scotland**

Korean War Memorial. SC1887963



8.1 MAPPING SUDAN'S LOST CITY OF SOBA



The team of participants from Poland, Sudan and Scotland. © M. Drzewiecki

Sharing expertise and knowledge is invariably rewarding. Seeing how other people do things and working alongside others is a great way to learn and make new contacts, something that is as true here in Scotland as it is in the wider world. HES, in support of the Scottish Government's international ambition, works to understand, protect and celebrate our global heritage. In November 2019 and January 2020, Łukasz Banaszek, our Remote Sensing Mapping Manager, joined participants from Poland, Sudan and Scotland in an international project that has helped map the lost African city of Soba. Not only is it important to share what we've learned with colleagues across the world, but it also helps inform our own work. Building international networks in this way is also increasingly important in the face of global threats, such as climate change, that require a co-ordinated international response.

Sudan has an incredibly rich history. In the medieval period the northern and central parts of the country, together with southern Egypt, were known as Nubia. The city of Soba, studded with verdant gardens, churches and monasteries, was the royal centre and capital of the Kingdom of Alwa (Alodia). In the early 1500s the city was destroyed and then abandoned, since when the site has suffered from robbing for building material, the suburban encroachment of modern Khartoum, extensive cultivation along the Blue Nile valley, and large-scale infrastructural projects. Soba originally extended over an estimated area of 275 hectares but only 1% of this has been subject to detailed archaeological investigation. An ongoing project, undertaken by international partners, aims to improve our understanding of the site through archaeological, geophysical, and anthropological surveys and research, with the aim of supporting the improved protection of the site in the future.

Exploring medieval Soba requires a range of archaeological methods and skills. Łukasz teamed up with a group of Sudanese students and graduates to help develop their ability in using high-accuracy Global Navigation Satellite System

(GNSS) devices and archaeological mapping. He also drew on his expertise in spatial data management to ensure that the survey data was integrated in a geographic information system (GIS) environment. This was used to document agricultural expansion within the protected site and prevent further land conversion.

Other members of the team undertook geophysical surveys and targeted excavation, while cultural anthropologists interviewed local residents to discuss relations between the past and the present. Beyond sharing his skills, Łukasz' participation in this integrated, multi-disciplinary project also represents a learning opportunity for HES. His experiences in Sudan will undoubtedly help us think through how we develop integrated, multi-disciplinary survey at HES as we start to bring geophysics into our archaeological survey practices in 2020.

The project at Soba is funded by the National Science Centre, Poland (UMO-2018/29/B/HS3/02533).

RIGHT

Students from al-Neelain University, Khartoum, surveying and marking out a grid for geophysical survey using a satellite survey system. © Ł. Banaszek

BELOW

An aerial view of the excavations as the sun rises; taken with an Unmanned Aerial Vehicle (UAV). It's possible to see the encroaching cultivation in the middle foreground. The suburbs of Khartoum are on the horizon. © M. Drzewiecki



Robert Ryndziewicz from the Institute of Archaeology and Ethnology, Polish Academy of Sciences, explains the principles of a magnetic survey to students from al-Neelain University, Khartoum. © Ł. Banaszek





8.2 GETTING SPATIAL WITH ARCHAEOLOGICAL DATA

Our Place in Time recognises the need to 'ensure that decision making is informed, and that sound evidence-based information is available at all levels of decision making'. Canmore is a world-leading resource, describing and documenting our historic environment, but are we realising the potential of the spatial (and other) data that archaeologists collect? In 2019, a Royal Society of Edinburgh-funded workshop series brought together experts from across Europe to explore this challenge.

Every year, archaeologists create a wealth of data about Scotland's heritage. Each geophysical survey, excavation or analysis of airborne laser scanning data gathers information that relates to a specific area of land and adds to our understanding of the past. Once the preserve of a few state-sponsored organisations and universities, there is now a thriving commercial archaeology sector. At the same time, through projects like Scotland's Rural Past, community archaeology groups are also increasingly active in recording our heritage. The growth in archaeological fieldwork over

the last 20 years coincided with a technological revolution; this democratised the collection and processing of data as well as the way we publish our heritage.

We should easily be able to gather and combine spatial data from separate researchers to display alongside other mapped data in a Geographic Information System (GIS) through our web browsers and share directly with users via web services. However, despite the enormous potential of spatial data, established working practices in archaeology are inefficient, which leads to information loss and duplication of effort.

We need to challenge established practices of fossilising spatial data in project reports and as items in an archive. We also need to harmonise spatial data from multiple projects and providers to release trapped knowledge to improve understanding and stewardship of our heritage. An example of this approach is shown here, where applying consistent classification to the features observed during our airborne mapping programme

Challenge	Problem	Solution
Approach	Project focus on fieldwork and research — loss of the bigger picture	Develop thematically consistent datasets, collating data from multiple projects and providers
Discovery	Where preserved, the data is not easily found or accessed	Spatial data should be viewed as part of a landscape in a map context and should act as an aid to finding related material in archives
Format	Spatial datasets created digitally are often reduced to illustrations in a report, limiting reuse in a digital environment	Adopt appropriate formats following Tim Berners-Lee's Five-Star Open Data model
Reuse (licensing)	Terms for reusing data are either restrictive, unclear or absent	Adopt Open Data licences by default (manage by exception)
Interoperability (standards)	The lack of consistent and appropriate data standards blocks harmonisation across separate pieces of similar data	Data should reference formal, accessible, shared terminologies
Infrastructure	The tools to collate and share data from different sources are missing	Provide a stable platform to collate and publish spatial data from multiple contributors

enables data from multiple sites to be combined and displayed in a single layer in Canmore against aerial imagery provided through the Public Sector Geospatial Agreement. Equivalent standards need to be developed and adopted to pool data from other research techniques.

By adopting spatial data standards, we can also ensure that data from many different projects and providers can be combined with ease and presented to the public to enrich their understanding of the past. For example, Canmore provides lengthy commentaries on the Antonine Wall and Roman fort at Balmuildy. Early 20th century excavations (1912-14) established the layout of the fort while an extensive campaign of geophysical survey by Richard Jones, University of Glasgow, in the 2000s revealed evidence of an annexe on its east side. Bringing together spatial data from these and other sources, including our own airborne mapping, in a GIS helps our understanding of the fort and informs the stewardship of part of a World Heritage Site.

RIGHT

Using a differential GPS to accurately map the archaeology of East Lomond Hill, Fife.

BELOW

At Balmuildy, Glasgow, where a stretch of the Antonine Wall and Roman fort overlooks the River Kelvin.

© Bluesky International Limited & Getmapping PLC, 2009.

What is spatial data?

For many people a dot or a marker on a map is sufficient for their needs. It is useful for navigation, marking the location of a chosen destination or nearby points of interest. Point data is also useful for generalised distribution maps showing the locations of sites or find spots but at larger scales the limitations are quickly exposed. To fully understand and protect our heritage we need to map the extent of sites or protected areas, the size and shape of archaeological investigations and detailed discoveries and link them to a series of attributes that describe and present the mapped objects. Details might include the name, classification, age, size and legal status of mapped features with hyperlinks to additional online resources.





9. LOOKING TO THE FUTURE

Survey & Recording staff have, once again, played a key role in delivering Scotland's Historic Environment Strategy, *Our Place in Time*, and our work has also helped HES to achieve many of the outcomes expressed in *Heritage For All*, our new 2019–22 Corporate Plan. We know from the feedback we have received that our programme for recording Scotland's historic environment, as outlined in this report, has inspired communities to become more involved in finding out about and celebrating the places that matter to them. The data that we've gathered from our activities has enabled professionals to look after, protect and manage the nation's historic environment.

We had an equally full and varied plan lined up for the twelve months starting April 2020 but, as for so many others, the Covid-19 pandemic has paused our ambitions and as a result our achievements a year from now will differ from our original intentions. Fieldwork, both on the ground and in the air, is an essential part of our investigations, but this was rendered impossible over the spring and the summer. At the time of publishing this report in September 2020, some fieldwork had recommenced with archaeological recording at Whiteadder, spanning the Scottish Borders and East Lothian. We hope that the second half of our 2020–21 year will offer an increasing number of opportunities to start working again across Scotland.

Despite the disruption, desk-based work has nevertheless continued. Our current trainee has been busy researching South Asian places of worship in Scotland and we have recruited two PhD candidates: one, in conjunction with the University of Edinburgh, will work on the post-1975 architecture programme outlined earlier in this Roundup, while the other, a collaboration between HES and the Departments of Archaeology and Computer Science at the University of Glasgow, will work on a project that aims to develop approaches to integrate automation-led detection of archaeological remains into workflows for archaeological prospection and landscape archaeology.

We are aiming to complete our Rapid Archaeological Mapping Programme (RAMP), we've analysed and catalogued the results of our project documenting the defence structures of Cromarty, and we will have completed our first round of managing HES's Commemorative Plaque Scheme by the end of March 2021. The need for digital resources has become more important than ever as our users have adapted to spending more time at home and so we have also been putting more thought into how we might further improve our data services to meet their needs in the future, and a major 'HES Heritage Hub' project is in the pipeline.







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