Ice Age Partnership – Evaluation Report

National Lottery Heritage Fund Project OH-17-00793

Submitted August 2022

Foreword – by the Ice Age Insights Trustees

In 2016, we inaugurated the charity Ice Age Insights to run a project called Ice Age Journeys. An earlier project studied Late Upper Palaeolithic (LUP) archaeology discovered at Farndon Fields, Nottinghamshire. The LUP covers the period when humans repopulated Britain around 14,000 years ago, at the end of the last ice age. Until then, there is no evidence of human occupation for the previous 18,000 years.

Our new project has further explored the LUP at Farndon and two other sites in the East Midlands, Creswell Crags, Derbyshire, and Bradgate Park, Leicestershire. We have worked in partnership with Creswell Heritage Trust (Executive Director, Paul Baker), Bradgate Park Trust (Director, James Dymond) and the National Civil War Centre Newark Museum (Learning & Participation Manager, Sarah Clarke).

Our key achievements are, firstly, a community archaeological excavation on the river terrace at Bradgate Park. This revealed previously unknown human prehistoric activity, near the proven LUP site at Little Matlock Gorge.

Secondly, with our partners at Creswell and Bradgate Park, we have held numerous educational activities open to the public. The topics included: geographical information systems for archaeology; craft sessions working with flint, antler, bone, hides, and shell; identifying LUP flints; and exploration of the Creswell Crags caves and their earlier animal, human, and Neanderthal occupants with leading experts. Attendees came from across England and Wales, from Torquay to Tyneside and from Swansea to Norwich.

Our partnership has enabled us to generate up-to-date material for the public on our websites. These make accessible new research, alongside our papers in academic journals, conferences, talks and leaflets for the public.

Engagement with children has included flint-knapping and the preparation of LUP activity boxes for schools. We held workshops for Young Archaeologists' Club leaders to provide them with hands-on activities for their 8-16-year-old members.

The Trustees would like to thank Daryl Garton, our honorary secretary and expert archaeologist, for her superb organisation. And, Lynden Cooper, a lithic specialist with unique knowledge of Bradgate Park, together with Dr Angharad Jones, Curator at Creswell Heritage Trust, and her team.

Lastly, only a National Lottery Heritage Fund grant has enabled us to combine activities from the three centres across three counties. The grant has allowed us to promote the importance of partnerships between professionals and the community as regards Ice Age research within the East Midlands.

Dr Ian Ross PhD, FRCP Chair

John Miller

Mrs Sue Cotton FCA

Professor Nick Barton BA, DEA, MA, DPhil, FSA

Trustees for Ice Age Insights Charity number: 1169575

Summary

Our *Ice Age Partnership* project was led by the charity 'Ice Age Insights' working with Bradgate Park Trust and Lynden Cooper, Creswell Heritage Trust and Newark National Civil War Centre. Funded by the National Lottery Heritage Fund, it was a response to opportunities presented by recent discoveries in the Ice Age heritage of the East Midlands, bringing together people involved in research, conservation and promotion of the region's significant sites at Bradgate Park (Leics), Creswell Crags (Derbys) and Farndon Fields, Newark (Notts). Our learning-focused project aimed to foster collaboration between the four partners so as to bring the developing story into wider public awareness. 41 people from the partner organisations were involved in presenting 130 events across the East Midlands between 2018 and 2022 (with Covid-19 break). Participation in these activities enabled up-skilling of staff and volunteers, including 5 who attended NSPCC safeguarding courses.

There were two themes to our project:

Exploring the Crafts of our Ice Age Ancestors' involved talks and workshops giving opportunities to learn about artefacts and enabling volunteers to contribute to the production of replicas for resource boxes for primary-schools. 107 days were volunteered in craft sessions, producing 3 sets of resource boxes, while 815 people (many of them children) engaged in 'have-a-go' crafts at fairs. Over 690 people attended our art-talks or more general presentations.

'Exploring and Mapping our Ice Age Landscape' focused on the wider patterns of movement of people and animals, as well as their responses to the huge changes in climate during the late Ice Age. These sessions involved expert-led presentations about environmental, geological and archaeological sources for understanding changes in the landscape, followed by more practical workshops and fieldwork. Ice Age Insights volunteers built on the feedback and ideas from these sessions, leading the production of an interactive map on the Google Earth platform available on our website. Our programme engaged 165 participants (+80 online), with another 43 conducting fieldwork at Bradgate Park, where we also logged over 1000 casual engagements with the public.

Our period is a specialist area of study, even for archaeologists, so we partnered with the Council for British Archaeology (East Midlands branch) to host a conference titled '*Sites and Skills of the late Ice Age*', attended by 120 delegates.

We took the resource boxes to My Sight (a blind and partially sighted group in Newark) to provide a touch-led session. We also hosted 4 sessions for Reach, a charity that supports adults with learning disabilities based in Mansfield, enabling them to visit Creswell Crags for the first time.

We ran 3 workshops for 63 Young Archaeologists' Club Leaders (mostly volunteers under the Council for British Archaeology banner), who provide archaeology clubs for 8-16 year olds. The sessions aimed to familiarise the Leaders with Ice Age artefacts, technologies and past climate change, and provided ideas for relatively risk-free activities for the clubs.

Our schools programme aimed to engage Key Stage 2 pupils with prehistory and archaeology, both through learning about the Ice Age site most local to them and by handling the replica artefacts made by our craft volunteers. We delivered 34 sessions to primary schools (872 pupils) with another 3 sessions to home-schooled groups, and also gave free family-tickets to targeted schools for activity days at Newark Museum (113 people).

Our evaluation demonstrates a high level of engagement throughout our activities with overwhelmingly positive responses from staff, volunteers and the public. We couldn't have made this happen without a National Lottery Heritage Fund grant, and must thank all Lottery players.

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This report was written for Ice Age Insights (Charity 1169575), for their project 'Ice Age Partnership', generously funded by the National Lottery Heritage Fund (Project OH-17-00793).

The project was managed for Ice Age Insights by Daryl Garton with Emma Collett, with mentoring support provided by Mark Laurie. The survey questions were designed by Emma and Daryl with Sue Cotton. The massive undertaking of database input and analysis of the survey-forms was conducted by Emma. The core text was drafted by Daryl who also formatted the pages. Editorial input, charts and drafts of some sections were provided by Mark. Images are credited to individual photographers. Drafts of some sections were read and commented on by Nick Barton, Sue Cotton, John Miller and Ian Ross (Insights Trustees).

Section 1 Introduction

Project Outline

The key to our project is partnership working of five organisations interested in promoting our Ice Age heritage using the new discoveries and research at Bradgate Park (Leicestershire), Creswell Crags (Derbyshire/Nottinghamshire) and Farndon Fields, near Newark (Nottinghamshire). These sites are all recognized as nationally important and have a range of assets that helped us to glimpse the lives of our highly mobile ancestors who were closely connected to their environment.

Each site provided different opportunities for engaging with heritage. Ice Age Insights led the project building on past experience at Farndon where we successfully tapped into the popularity of archaeology to engage the local community, volunteers and schools with site investigations. Bradgate has multiple heritage and wildlife assets in a large public deer-park with a small visitor centre. The Ice Age site is in an evocative location above a rocky cliff overlooking a river and freely roaming herds of deer; it forms a great backdrop for prehistoric activities. Creswell Crags is the location of Britain's only Ice Age rock art and has a visitor offer incorporating cave tours and a museum and visitor centre.

Partners

Bradgate Park Trust manages the historic deer park which is a Registered Park and a Site of Special Scientific Interest.

Lynden Cooper is a lithics specialist who led the excavations of the Late Upper Palaeolithic campsite in Bradgate Park in 2015-16 (for the University of Leicester Archaeological Services, now independent).

Creswell Heritage Trust manages the world famous crags and caves which are a Registered Park, a Site of Special Scientific Interest and a Scheduled Monument.

Ice Age Insights is a charity leading a community group in a project called Ice Age Journeys, founded in 2015 after a HLF funded-project at Farndon Fields, Newark, Nottinghamshire. We were joined in 2019 by the Learning Team at Newark National Civil War Centre which also holds the prehistoric museum collections for the Newark area.

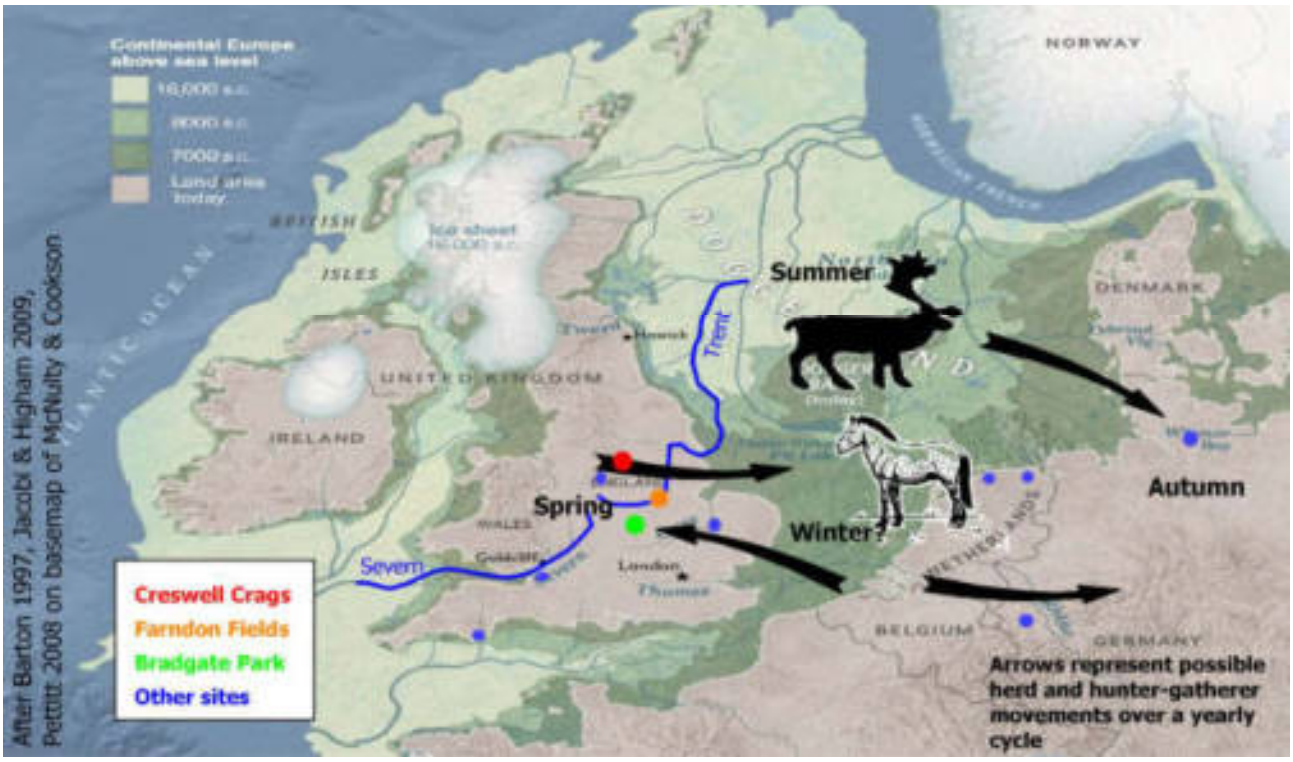
Key project idea

Our project responded to the opportunities presented by recent discoveries in the Ice Age heritage of the East Midlands, bringing together people involved in the research, conservation and promotion of the region's significant sites.

The developing story of our region at the end of the Ice Age had significant potential to engage the general public, education audiences and volunteers. However, new work was required to realise this potential. The evidence provided by the latest finds and research was not yet widely known outside academic circles and our existing interpretation focuses on the individual sites rather than the links between them. The body of scientific research that provides richer context for our heritage is spread across different specialisms and not readily accessible to the public or at generalist level. The archaeology that connects our sites is also not straightforward: the period is

distant; subject specific terminology can be a barrier to access for non-specialists; the finds are small and often fragmentary, and, removed from their original context and use they can be difficult to grasp.

We wanted to address these challenges by drawing key evidence together under the theme of 'How past people responded to climate change', and subsequently added the idea of a journey or walk between the three sites. The movement of people and adaption to climate change are both fundamental to models of human behaviour in our period and, through impacts on rivers and flooding, is directly relevant to where and why some of the archaeological findspots have been preserved. It connects our deep past to contemporary concerns and, in turn, the prism of the past offers perspective and understanding that can contribute to current debates.



A map of the Late Ice Age landscape about 14,500 years ago showing the context of the sites at Creswell Crags, Farndon Fields and Bradgate Park

Our learning-focused project aimed to foster collaboration between the three centres and bring this developing story into wider public awareness. There were two themes:

'Exploring the Crafts of our Ice Age Ancestors'. Craft workshops to learn about objects by producing replica artefacts, including bone and flint tools based on our collections, and clothing based on finds from European comparator sites. These sessions were also an opportunity for volunteers to contribute to project outcomes by producing replicas for primary-schools resource boxes. There were many public lectures, including by a nationally recognised Ice Age Art expert, and numerous object handling and 'have-a-go' craft activities at public events.

'Exploring and Mapping our Ice Age Landscape' focused on the idea of people moving into and through the region's landscape as part of wider pattern of movement following and intercepting migratory animal herds, and responding to changes in climate that impacted on the accessibility of different locations and available resources. These sessions involved expert-led presentations about environmental, geological and archaeological sources for landscape changes followed by more practical workshops.

Approved Outcomes and Key In-Project Changes

Our project was granted funding with the following approved outcomes, originally intended to be delivered between March 2018 and October 2020. Extensions were agreed to October 2021 and then July 2022, because of Covid-19:

- High visibility acknowledgement of the Heritage Lottery Fund on site, online and in all activities. As well as using your project to acknowledge and thank National Lottery players.
- Take proactive measures to be inclusive, remove barriers to access and reach new and diverse audiences through the delivery of this project.
- Develop a range of community accessible activities including workshops and talks on 'Exploring the Ice Age Crafts of our ancestors'.
- Deliver public workshops and presentations around 'Exploring and mapping our Ice Age Landscape'.
- Hold fieldwork sessions conducting landscape mapping at Bradgate Park around 'Exploring and mapping our Ice Age Landscape'.
- Deliver a schools programme and Young Archaeologist Club Leaders workshops.
- Create curriculum supporting resources for schools.
- Hold a conference to showcase resources and share learning.
- Develop the skills and knowledge of key staff and volunteers across the three sites, and engage new volunteers, including local students.
- Foster collaborative working between the three sites.





Images taken with permission by Leanne Hughes (aka Brown Owl) and Daryl Garton

Ice Age art and shell-jewellery activities with Brownies group, Keyworth 2019

NHLF Outcomes	Outcomes For Heritage		Outcomes for People					Outcomes For Communities	
Approved Purposes	Better interpreted and explained	Better Identified and recorded	People will have had an enjoyable experience	People will have learnt about heritage	People will have developed skills	People will have volunteered time	People will have changed their attitudes or behaviour	More people and a wider range of people will have engaged	Your Organisation Will be more resilient
Take proactive measures to be inclusive, remove barriers to access and reach new and diverse audiences through the delivery of this project			✓					✓	
'Exploring the Ice Age crafts of our Ancestors' talks and workshops	✓		✓	✓	✓	✓		✓	
'Exploring and mapping our Ice Age Landscape' talks and workshops	✓		✓	✓	✓	✓	✓	✓	
Fieldwork and landscape mapping		✓	✓	✓	✓	✓	✓	✓	
Develop the skills and knowledge of key staff and volunteers and engage new volunteers, including local students	✓		✓	✓	✓	✓			✓
Deliver a schools programme and Young Archaeologist Club Leaders workshops	✓		✓	✓	✓	✓		✓	
Create curriculum supporting resources for schools	✓		✓	✓		✓			✓
Hold a conference to showcase resources and share learning	✓		✓	✓		✓			
Foster collaborative working between the three sites			✓	✓	✓	✓			✓
High visibility acknowledgement of the Heritage Lottery Fund on site, online and in all activities. As well as using your project to acknowledge and thank National Lottery players.	Overarching out come running through all project activities								

Chart showing which NLHF outcomes were achieved by the activities we conducted for each approved purpose.

Key Changes

Due to changing circumstances, several changes to these outcomes were agreed with our NHLF case officer over the course of the project:

Overall timetable	We had delivered approximately 80% of our activities by early 2020 prior to the Covid-19 pandemic. We then paused (initially, we thought, for a short period, but one that eventually lasted 18 months) and delivered the remainder of the programme between October 2021 and July 2022.
Removing barriers	In response to Covid, we embraced online delivery for some of our lectures and activities, to provide access to participants unable or hesitant about face-to-face engagement; this also expanded our audience for some activities.
Mapping themes	Feedback from our mapping workshops in Newark, confirmed that there was strong interest in both the multi-disciplinary evidence we were presenting and in the digital mapping skills we aimed to develop through our workshops. It also identified the participants interest in using these skills in their own projects. However, our aim to have workshop attendees contribute to our Ice Age evidence map was perhaps too ambitious, due to the complexity of the evidence and the variation in equipment and IT skills participants brought to the sessions. We therefore adjusted our later workshops to accommodate this.
Fieldwork	Our bid identified volunteer participation in fieldwork at two centres – Farndon and Bradgate – but was ultimately focused solely on Bradgate Park due to commercial developments at Farndon, unknown at the time of our grant application in 2017. As a result we lost impetus with our volunteer programme at Newark. The Bradgate fieldwork was also delayed due to changes in circumstances affecting the availability of the lead archaeologist from University of Leicester Archaeological Services, which broke our anticipated link with the University's archaeology summer school. The fieldwork took place post-Covid in September 2021, with Farndon volunteers participating alongside Creswell staff, Bradgate staff and volunteers.
Teachers CPD	Our bid identified CPD sessions for teachers based on interest from our previous project. However, these were curtailed due to Covid-19, so we pivoted resources to an additional session for Young Archaeologist Club leaders building on interest generated by our first workshop.
Schools Learning Programme	Post-covid take up of our schools programme was hesitant and by late February 2022 we had 3 of 10 planned Newark sessions at the National Civil War Centre remaining. Following discussions with the Centre and HLF we contributed free family tickets during the Easter holidays to targeted local schools and arranged sessions for home school groups.

Evaluation Methodology

Our project evaluation has been undertaken by II volunteers and the project manager supported by the partner organisations. We have employed a mixture of approaches:

Project Records

- Activity and participation records: a mixture of firm numbers for booked activities and clicker counts for participation walk-up 'have a go' activities and walk-up engagements at events where we had volunteers available. The latter are likely to be underestimates as often the counters also became engaged with members of the public and may have missed other interactions.

- We have maintained a project log for project activities, including: observations of audiences and interaction; notes of successes, lessons and changes between activities; ad-hoc feedback from participants; press; reflections by the volunteers and staff of the project partners.

- Photographic diary

Requested feedback

We requested feedback through a combination of comment cards and participant questionnaires.

The questionnaires were almost entirely employed to gain a sample of response of our booked activity participants. We also gathered a small sample of 'have a go' walk up activities, although the project log was the main method used for these activities due the logistics of outdoor events and our volunteers mainly being needed to run activities and respond to interest from the public.

The focus of questionnaires was to capture engagement and learning from our activities. We asked participants to tell us what most interested and stood out for them from the sessions and mapped responses to the Arts Council England Inspiring Learning for All framework Generic Learning Outcomes. We also identified specific learning objectives for each strand of activity and asked questions to explore what participants were taking away from the sessions.

https://www.artscouncil.org.uk/advice-and-guidance/inspiring-learning-all-home-page

Additionally we gathered a limited amount of information about participants, their motivations for attending and prior participation in activities with any of the project partners. As we were not targeting specific groups with our booked activities we chose only to gather limited profile data: postcodes were gathered either at booking or in surveys and we also provided an option to indicate age group in three broad ranges (0-24, 24-45, Over 45).

We also provided opportunities for participants to register interest in either volunteering with us or attending future activities and for feedback on the sessions so we could identify any necessary adjustments and follow up actions.

Examples of our surveys are provided as Appendix A.

We gained good feedback from the surveys, although deploying them was not without challenges and we had to evolve our approach over the course of the project and remain flexible:

- It was a challenge to get people to complete them at the end of activities.
- Sometimes the practicalities of outdoor activities, papers and the weather were problematic.
- Response rates were best when we had sufficient volunteers to complete them as interviews during the sessions, but often they needed to focus on other tasks to run the sessions.
- For some activities the quicker, less formal approach of Post-it comments was more appropriate and manageable.
- We reduced the number of questions from our initial surveys and changed the wording of some questions that were confusing or needed better tailoring to the session.

Despite these challenges we obtained survey responses as below:

- 9 prehistoric craft activities and 3 Ice Age Art talks in the Investigating the Crafts of Our Ice Age Ancestors strand, gaining 236 responses. 15 Responses from 2 "Have-A-Go" walk up sessions using a subset of the survey questions are also included in this data.
- 9 sessions from part one of the Exploring and Mapping our Ice Age Landscapes strand, gaining 174 responses.
- 8 fieldwork induction and practical activities from part two of the Exploring and Mapping our Ice Age Landscapes strand, gaining 52 responses.
- 13 school groups and 16 home school groups.
- 2 Young Archaeologist Club leader workshops, gaining responses from 37 participants. A third YAC session was designed as a collaborative session to develop resources and activities around the theme of past climate change.



Ian Ross

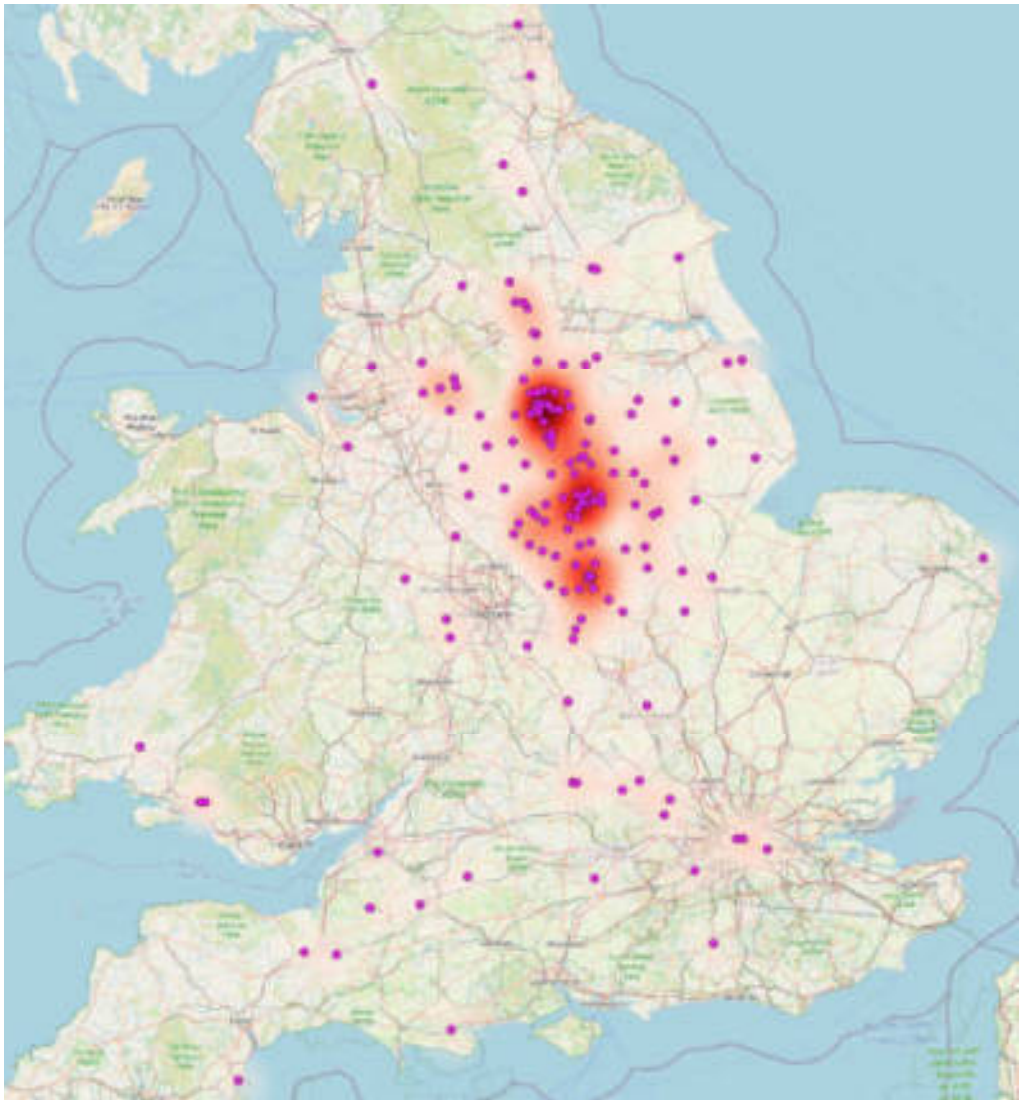
Collecting feedback from a 'walk-up' family, Newark Sconce Park 2018

Section 2 Project Delivery

Overview of Project Outputs

Our project engaged over 4000 people with the archaeological heritage of the East Midlands. 25 volunteers contributed over 600-person-days throughout the project (with 5 individuals providing over 90% of this time), that when costed at NHLF rates, amounts to a contribution of £94,150. In addition, 107-person-days were volunteered in craft sessions which produced the schools resource boxes and another 344-person-days of archaeological fieldwork was conducted at Bradgate Park. 41 people from the partner organisations were involved in presenting, organising, administrating or participating in 130 events across the East Midlands.

Our audiences came from across the region and beyond. Table 1 provides an overview of our project activities and the figure below maps postcode data gathered from participants (514).



Postcodes data plotted using a heatmap visualisation tool which identifies the clusters of activity around our three partnership sites, and showing that about 90% of participants came from the East Midlands.

Map produced by Ian Ross

Our evaluation demonstrates a high level of engagement throughout our activities and overwhelmingly positive responses to the opportunities we provided to get hands-on with archaeology and engage with accessible expertise and information. Learning has been at the heart of our project and survey responses demonstrate that our activities have effectively communicated the key messages we intended about our region's unique and exciting Ice Age heritage.

As organisations we have also learnt a great deal: from working together, from our volunteers and staff, from our network of experts and supporters and through dialogue with our audiences.

Table 1

Activity	**Number of sessions**	**Number of participants**
Ice Age Art talks by expert Paul Bahn	3	293
Craft workshops (adults)	16	107
People engaged at fairs and 'Have-a-go' crafts (mainly targeted at children/family groups, includes 1 Brownies & Guides session)	18	815
Mapping sessions	13	165+80 on Zoom
Fieldwork	8	43
Casual engagements with the public during Bradgate Park fieldwork	8	>1000
YAC Leaders	3	63
Schools (18)	34	872
Conference	1	120
My Sight (support group for blind and partially sighted)	1	8
Reach (Learning disability charity)	4	28
Public lectures	21	397+ zoom audiences
Students (various events)		8

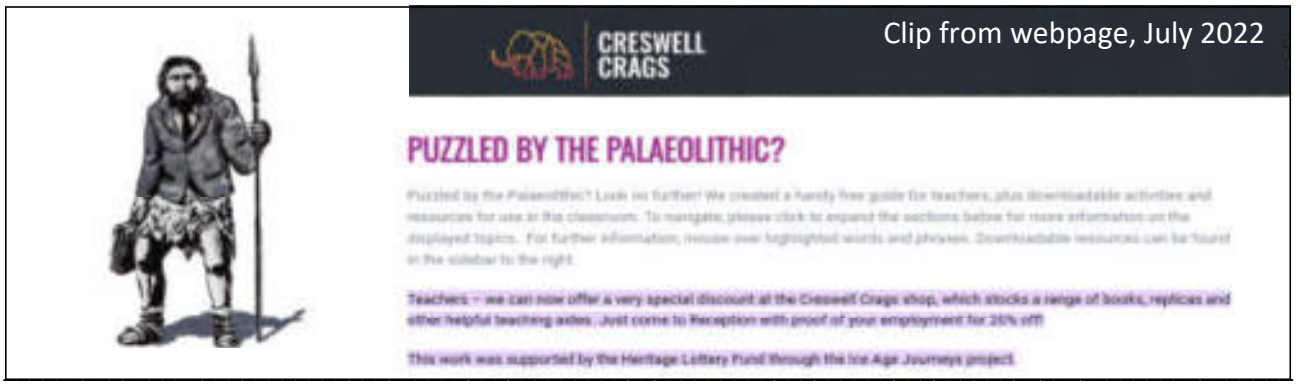


Edward Casebourne, images taken with permission

Heritage Open Days event, Sept 2019 in Newark marketplace

Additionally, the project has produced several outputs that will support audiences to engage with and learn about our Ice Age heritage into the future:

Puzzled By the Palaeolithic?	Curriculum Resources for teachers and learners hosted on the Creswell Crags website. https://www.creswell-crags.org.uk/education/teaching-resources
Learning Resource Boxes	Two resource boxes were made for each centre, themed around 'hunting and crafting' and 'art and expression'. Available for loan.
Ice Age Walks Google Earth Tour	Our web-based journey using Google Earth provides an overview of the three Ice Age sites, Farndon Fields, Creswell Crags and Bradgate Park in the Late Upper Palaeolithic, and explains the links between them and to contemporary sites on the Continent across Doggerland. https://iceagejourneys.org.uk/ or at https://tinyurl.com/Ice-Age-walk
Resources on the Ice Age Journeys Website	We have updated our website with resources created during the project: • Short films about the Bradgate Park fieldwork: https://iceagejourneys.org.uk/bradgate-park/ • Recordings of the presentations from the *Sites and Skills of the Ice Age* conference, hosted with the CBA East Midlands: https://tinyurl.com/IAJ-skills • A short video of craft expert James Dilley flint knapping at one of our events: https://tinyurl.com/IAJ-skills or directly at https://youtu.be/dJTaPVeFBH0 • Presentation by Dr Angharad Jones (Curator of Creswell Crags) on the Ice Age animals of Britain: https://tinyurl.com/Ice-Age-Animals • Presentations on the Council for British Archaeology parish boundaries project: https://tinyurl.com/CBA-boundaries • Presentations on the ritual protection 'witchmarks' at Creswell Crags: https://tinyurl.com/Creswell-marks
Academic papers to fully report our fieldwork results and research to the profession	• Garton, Barton and Bateman (2020) on fieldwork at Farndon Fields in *Mercian Geologist vol 20, part 1,* due to become free at: http://www.emgs.org.uk/files/publications/20(1)_contents.pdf • Baker, Garton and Ross (2021) on periglacial patterned ground revealed in 2018 satellite imagery in *Mercian Geologist vol 20 part 2* • Cooper & Garton, with Baker, Budge, Ross and Tyndall on fieldwork at Bradgate Park in *Transactions of the Leicestershire Archaeological and Historical Society 94* (in press)



Clip from webpage, July 2022

High Visibility Acknowledgement of the Heritage Lottery Fund on site, online and in all activities. As well as using your project to acknowledge and thank National Lottery players.

All our adverts and our events included the National Lottery logo (we continued to use our old Heritage Lottery signs in 2021-22). Whenever we gave talks or presentations, we made it clear that we couldn't have made the event happen without the National Lottery Heritage Fund grant, and thanked all Lottery players. At all the craft sessions in public places, and during the Bradgate fieldwork, we had a large Heritage Lottery Fund banner and the NHLF acknowledgement was also on specially designed leaflets freely handed out to the public (Appendix C). Examples of our project materials can be found in the section above 'Overview of Project Outputs'.

The HLF logo was displayed at all our events











Images by Andrzej Jablonski and Ian Ross

Take proactive measures to be inclusive, remove barriers to access and reach new and diverse audiences through the delivery of this project.

General approach

We designed our project to reach a wide range of audiences in different settings and to engage people through a mix of practical activities and accessible information and expertise. We built our programme around accessible themes – Exploring the Crafts of our Ice Age Ancestors and Exploring and Mapping our Ice Age Landscape – designing our activities to appeal to a range of interests, including crafts, digital mapping and general interest in archaeology, as well as to the specific topic of the Ice Age. We also linked the past to the present, highlighting the theme of past climate change which is a key to understanding the changing environment and resources available to past peoples.

> *'I was amazed that such a huge climate change occurred in just twenty years and the effect that had on the people of that time. It made me think that maybe all the recent talk on the news about preventing climate change should rather be about how to deal with it when it happens as it is clearly something which is likely to occur sooner or later'.*
> Lecture attendee

The NLHF grant enabled us to overcome economic barriers by providing many events free of charge, though, for selected events, small donations were encouraged to support our contribution of match funding for the project. To provide some perspective, flint-knapping sessions are currently being advertised at £75 per person; we asked for a £5 donation.

We took our activities out into public places where anyone could encounter us and engage with heritage spontaneously; for example, Newark marketplace and shopping arcade, Newark Sconce Park and Bradgate Park. We attended events not badged as 'history', notably the Newark Half Marathon (2018 and 2019) where we devised a mini-race with 'prehistoric' shell medals to entertain children whilst waiting for the runners to return (see p. 74), as well as more specialist



Sconce Park, Newark

Ian Ross

events like Heritage Open Days and 'drop-in' Local History Fairs at Mansfield and the University of Nottingham Museum. Whilst our participant questionnaires indicate that the majority of booked participants for our craft and mapping workshops and fieldwork were aged over 45 (86% of 331 responses to this question), our variety of activities and approaches appealed to people of all ages – as captured in our photographs. Our stalls and activities at general events were particularly good at attracting children and families. For example, Sconcefest hosted by Newark & Sherwood District Council, where we were told that our shell-jewellery making was one of the few free activities for children (see also p. 26 of *Exploring Crafts*).



Edward Casebourne



John Miller

Making 'Ice Age' shell-jewellery at public fairs, Sconce Park Newark 2018 and 2019

Enabling people to get hands-on with heritage is key to our approach. We gave 17 public lectures which all included artefact handling, such as the challenge of re-fitting flakes to a knapped core. Most of our craft workshops were held outside, in publicly accessible places, and all had at least one person delegated to talk to curious onlookers. At five of the workshops and at five fairs/ festivals we ran 'have-a-go' activities so that passers-by could participate. This was a highly effective strategy, engaging 815 people at fairs and craft activities and over 1000 people over the course of our fieldwork programme.



Kathryn Murphy, 'Cafe Scientifique' organiser

'It was a really interesting and informative evening, and fit our café format really well. We've had a bit of feedback from some of the audience, and everyone had a great time.'
Lincoln 'Cafe Scientifique' organiser

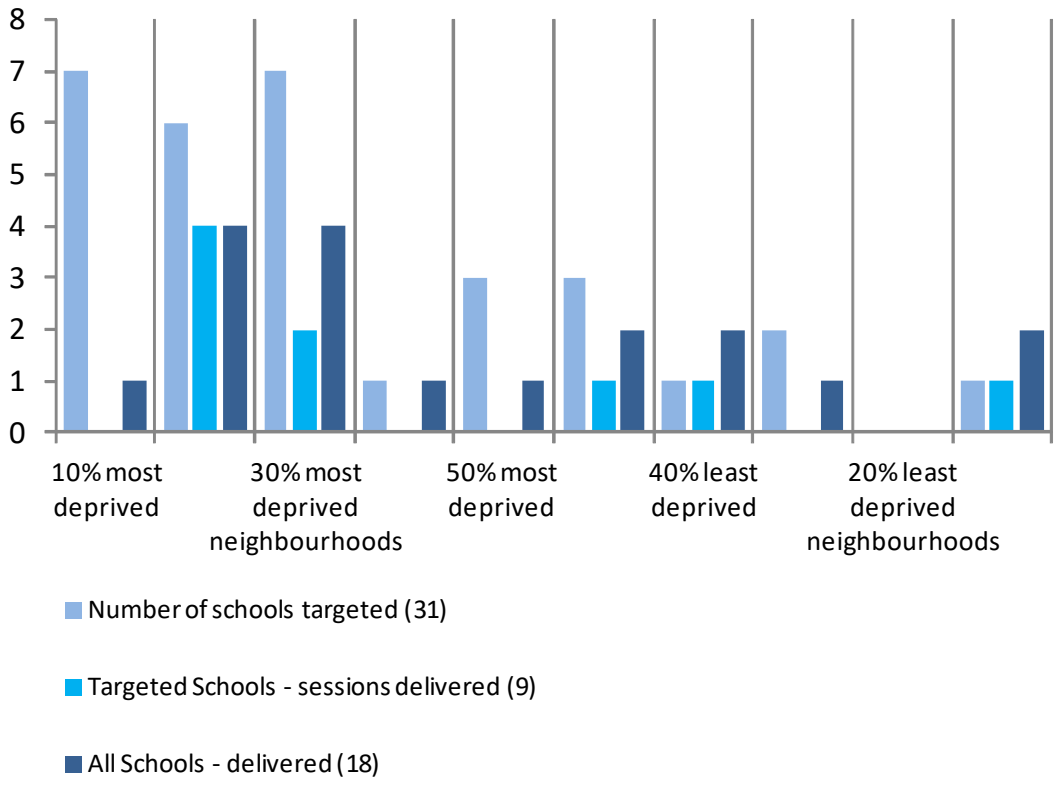
- 40% of responses from our craft, mapping and fieldwork activities surveys were from people who had not participated with any of our organisations previously.
- 43% of survey respondents that shared their reasons for attending our craft, mapping and fieldwork activities said that one of their motivations was to try something new.

Learning Programme

Our project plan identified that each of our sites are located near to areas of deprivation and our learning offer was made initially to schools that mainly draw pupils from wards in the lowest 30% in the Index of Multiple Deprivation Affecting Children. We also sought to engage schools that had not participated with our sites previously. Provision of free sessions, removing a potential barrier to participation, was made possible through the NHLF grant.

Our learning programme was significantly disrupted by the Covid-19 outbreak and lockdown measures. Creswell and Bradgate completed their planned programmes post lockdown, but there was greater hesitancy among schools in the Newark area, which led to adjustments to the programme for Ice Age Insights and its learning delivery partner Newark National Civil War Centre. Here we engaged Home Schoolers – a group for whom there are limited targeted opportunities – and were able to support issuing free family tickets to targeted local schools during the Easter holidays for both museum entry and drop-in activity sessions. Ultimately the project delivered 34 sessions to 18 schools, 3 sessions for home school settings and 113 Museum tickets. 61% (11) of the schools were located in postcode areas falling within 10%-50% of the most deprived area nationally.

Of the 25 schools and home schoolers that responded to our survey, 88% (22) said they had not participated with any of the partner organisations previously.



Deprivation Index of the postcodes for schools targeted and the schools where sessions were delivered. http://dclgapps.communities.gov.uk/imd/iod_index.html

Specialist Groups

We delivered sessions for two specific groups during the project.

Ice Age Journeys volunteers took the learning resource boxes we made to My Sight (a Newark blind and partially sighted group) and used the replica artefacts, which are all made safe for handling by rounding the cutting edges, to provide a touch-led session exploring Ice Age archaeology. The variety and robustness of the objects allowed for detailed examination supported by knowledge shared by our volunteers. We hope to build on the experience and confidence gained through the success of this activity and run similar sessions in the future.



John Miller

A replica rawhide (deerskin) drum was of particular interest to all participants at our My Sight session.



Daryl Garton

Reach clients come face-to-face with a lion's skeleton

Our funding bid identified Reach, a charity in Mansfield that supports adults with learning disabilities, as an organisation that our partnership hoped to work with. NHLF funding enabled us to hold 4 sessions with Reach clients, led by Ian Blakesley, a Heritage Facilitator at Creswell Crags.

Two sessions were at Creswell Crags (where the NHLF grant also paid for the minibus and lunch in the Crags cafe), where, in addition to a tour of the gorge and Robin Hood Cave, there was a craft session with four sets of art activities, each with archaeological images as prompts for the imagination. The art produced was taken back to the Reach centre for display and as memory prompts for further sessions.

The other two sessions were held at their base in Mansfield. The clients used trowels to discover artefacts buried in an 'excavation box', and then made 'Ice Age' jewellery using pre-drilled shells . One client wore hers and another other saved her handiwork as a present for her mother – saying that she was proud to have made it. After lunch, clients and helpers were introduced to two bone skeletons, a lion and a fox. Two teams went to work, articulating and arranging the bones, with plenty of discussion and much amusement – and checking up on the internet with a smart phone. It was an excellent social activity, and it was clear that the helpers enjoyed the challenge as much as the clients.

These sessions showed clear benefits of skill sharing across our partnership, drawing on Ian's experience as a facilitator to draw people into the activities whilst also passing on a huge number of facts in an informative and easy-to-grasp manner. The reaction from the Reach clients and staff was incredibly positive and a great example of the ways archaeology can be used to engage people with heritage and create unique experiences.



John Miller



Daryl Garton

Reach sessions at Creswell Crags and their Mansfield base, 2019



Daryl Garton

Section 3 Public and Volunteer Participation Programme

Exploring Crafts

The Exploring the Ice Age Crafts of our Ancestors strand aimed to engage people with our heritage through artefacts and art created during last the Ice Age. We know from previous projects and events at our sites that hands on activities are one of the most effective and enjoyable ways for people to engage; this project enabled us to offer a wider range of activities in more places, both drawing interest at our sites and taking archaeology out to events and groups so people could access it where they happened to be.

Responses across all activities was incredibly positive and the project exceeded its targets, delivering:

- 16 craft workshops engaging 107 participants (target 12 workshops, 90 people)
- 18 stalls at fairs and "have-a -go" craft sessions engaging 815 people (target 6 events, 120 people).
- 3 Ice Age Art talks with Ice Age flint artefacts and book signings engaging 293 people (target 3 talks, 200 people; venues at Newtown Linford, Newark and the University of Nottingham Lakeside Arts Centre).
- 21 public talks, with artefacts to handle, delivered by the Ice Age Insights team to local groups throughout the region.

Craft Workshops

The craft activities were led by acknowledged experts (David Budge, James Dilley, Ben Elliott, Daryl Garton). The workshops were advertised as an opportunity to learn about and contribute to heritage, with participants taking part on the understanding that they were helping to produce replica artefacts for learning resource boxes, rather than take-home objects. In this way they volunteered time to our project making objects out of flint, bone, antler, shell, deerskin, twine and wood as they learned some of the skills of our Ice Age ancestors.

This was the first time we had tried this kind of approach and feedback during the sessions indicated that, although some would like to have taken their objects home, most participants were enthused by the idea of contributing.

> '*I thoroughly enjoyed the opportunity to make a drum using traditional materials and techniques. I'm happy to know that our end result will be used for educational purposes.'*
>
> *'I found this interesting and rewarding because there is an end product. I also liked the team work and discovering new ideas.'*
> Craft workshop participants

Bar flint, where the skilled knapping of blades were made by our expert – with the final retouching to shape of scrapers and points done by the participants – all the artefacts were made by our volunteers after demonstrations and instruction (Appendix B). In most of the sessions, we had collected raw materials that could be made into artefacts within a single day. However, the skin preparation for the drums entailed six sessions to process the fresh pelts provided by the Bradgate butcher into dried rawhide. This long process took place at Bradgate Park and had a welcome consequence as our regular visits sparked curiosity in the Bradgate Rangers and led to several of them signing up for workshop activities. Bradgate staff also reported that 'the school groups really enjoy the part of the session with the drum.'

Volunteers assembled the replica materials into six Prehistory learning resource boxes now in use at Creswell Crags, Bradgate Park and Newark National Civil War Centre.

An additional legacy from this strand of the project is a short video of craft expert James Dilley flint knapping, which is available on the Ice Age journeys website or directly through YouTube. A longer version, "Caught Knapping", made as a documentary by Michael Finney won a commendation and screening at the 2020 British International Amateur Film Festival.





Bradgate Park: working deer hides (above) and **antler** (below) **with flint tools**

Andrzej Jaablonski

Ice Age Art talks

During the development stage of our project, staff at Creswell Crags identified that there was scope to increase regional awareness of the unique Ice Age art at the site and reach new audiences. Our project aimed to do this through presenting talks from Dr Paul Bahn, one of the team that discovered the carvings.

We selected 3 venues to engage the audiences local to the other partnership sites and engage the widest audience possible: at Newtown Linford village hall, adjacent to Bradgate Park); at a secondary school in Newark, close to Farndon Fields and at the University of Nottingham's Lakeside Arts, a regionally accessible venue with an established audience for of archaeology and art events. The last venue and staff time were a generous donation to the project through the office of Dr. Clare Pickersgill, Keeper of the University Museum, which also holds some of the artefacts excavated at Farndon Fields. At each event Paul Bahn's books were on sale afterwards for signing and Ice Age flints were on display. Feedback suggests that most in the audiences were hearing about the art in detail for the first time, and many commented that they now intended to visit Creswell Crags.

'I can't get enough of anything Paleoanthropological.'

'Surprised by the uniqueness of cave art.'

'It was brought to life by Paul Bahn's obvious passion.'

'Knew very little of Creswell Crags. Will now visit.'

'Surprised that we even had cave art in this country from the Palaeolithic.'

Audience members



Daryl Garton



Andrzej Jaablonski

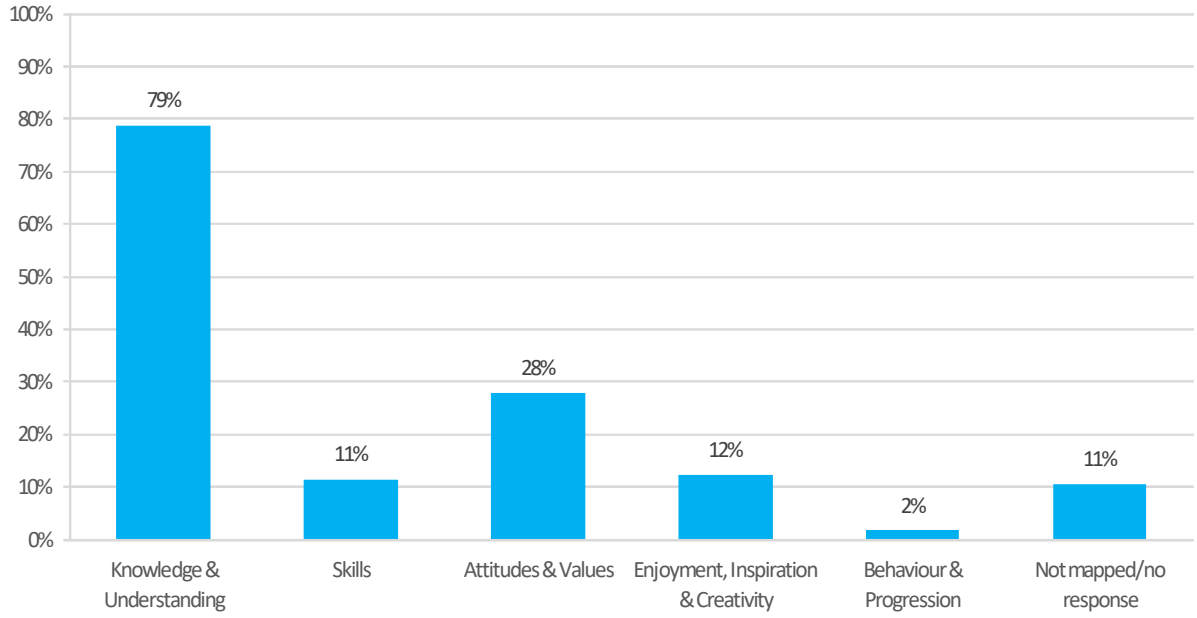


Daryl Garton

Survey Feedback

The survey feedback below is from 7 adult craft workshops, 2 fairs/walk up activities and 3 Ice Age art talks.

Q. What interested or surprised you about the talk today? / What did you discover today in the session that really stood out for you?

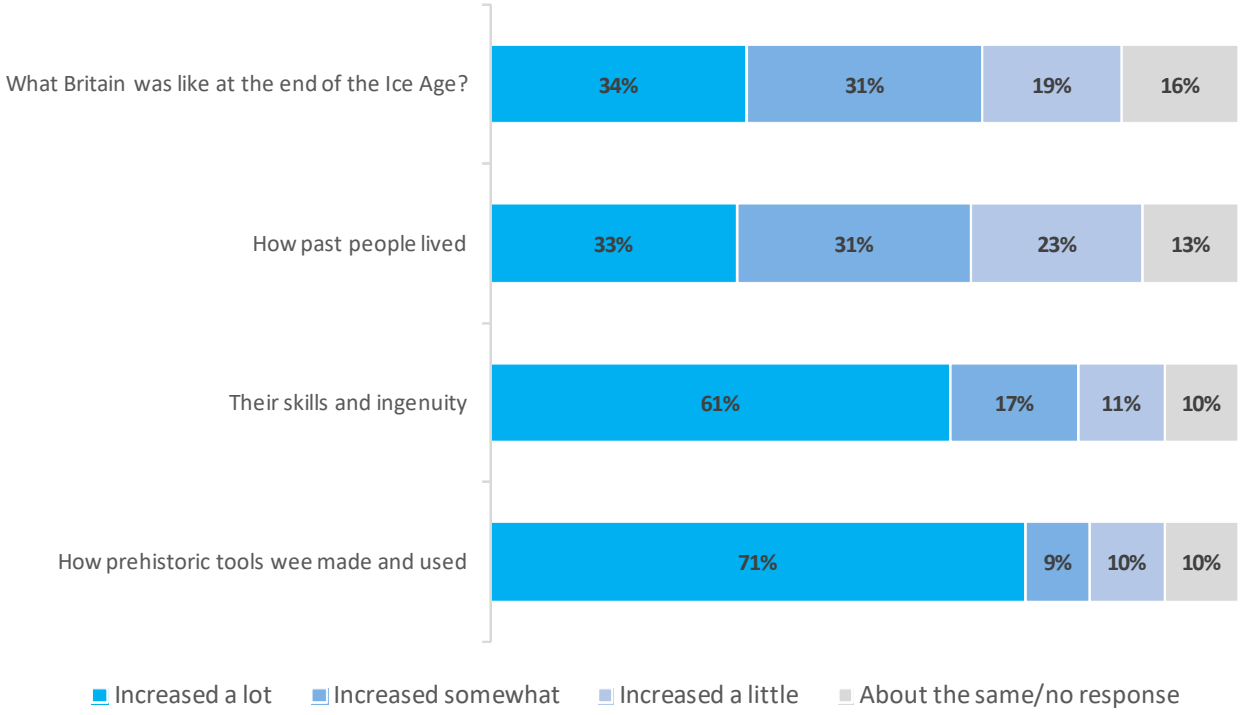


Total = 236, all activities.
Individual responses may be mapped to more than one outcome.



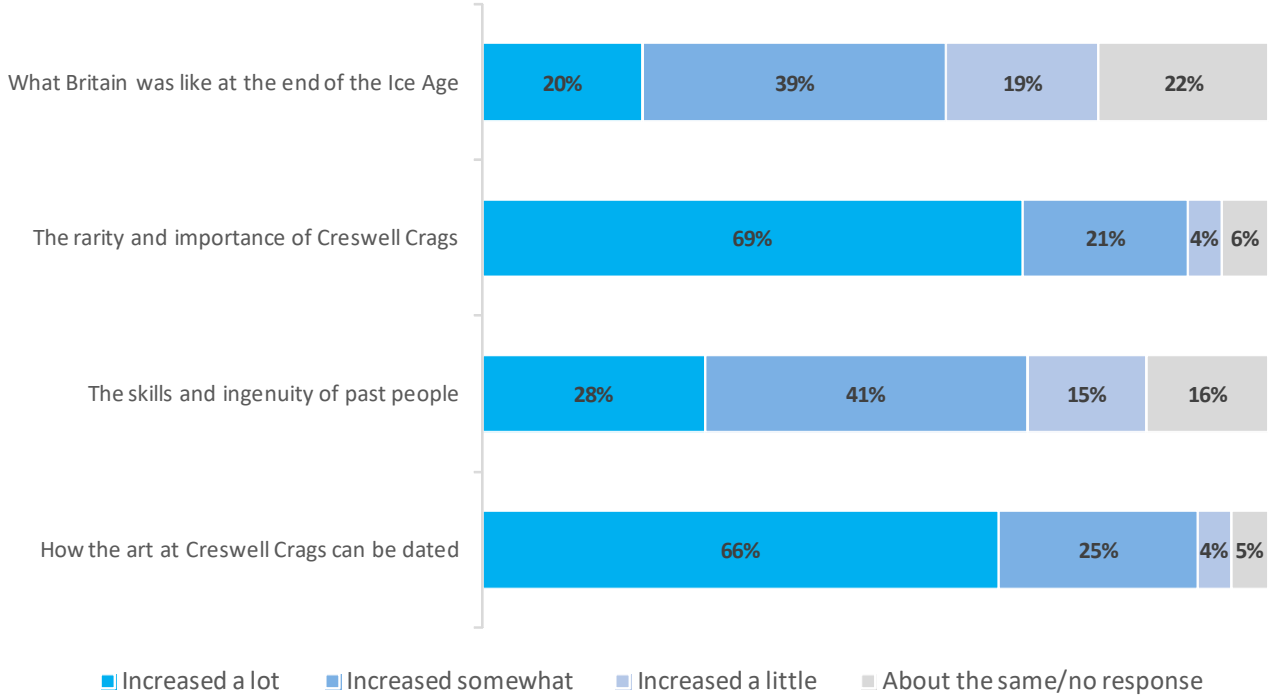
Image taken with permission by Ian Ross

Q. Please tell us how much your knowledge and understanding of the following topics has changed as a result of taking part in this activity?



Total = 70, workshops and walk-up activities

Q. Please tell us how much your knowledge and understanding of the following topics has changed as a result of the talk by Paul Bahn?



Total = 166, Ice Age art talks

Q. Was this workshop a useful way to learn about archaeological facts and evidence? Please tell us how?

94% said 'Yes'

'Hands on learning is excellent for retention.'

'I learnt about the material properties of flint and how it can be used.'

'Flint knapping is harder than it looks.'

'I'm now better equipt to describe the process to children'

'People back then were so innovative and fashionable too. And oh, the joy of achievement!'

'The joining up of real activity, not just academic learning was great. Learning by doing helps the lesson stick'

'Feeling and participating in the actual process of flint knapping makes the history so much more real'

'Great way to learn about our very early history'

'Have a sense of how skilled you had to be to survive in the Ice Age'

'I have found and handled hundreds of flints. The workship taught me far more'

'Hands on session, excellent tutor'

'I'm glad I live in the age of technology. Life must have been very hard'

'Will help with school education programme'

Total = 65, workshops and 1 walk up activity (61/65 responses = yes; 4 surveys gave no answer to this question; none answered 'no')







Images by Andrzej Jablonski

Images taken with permission by Ian Ross

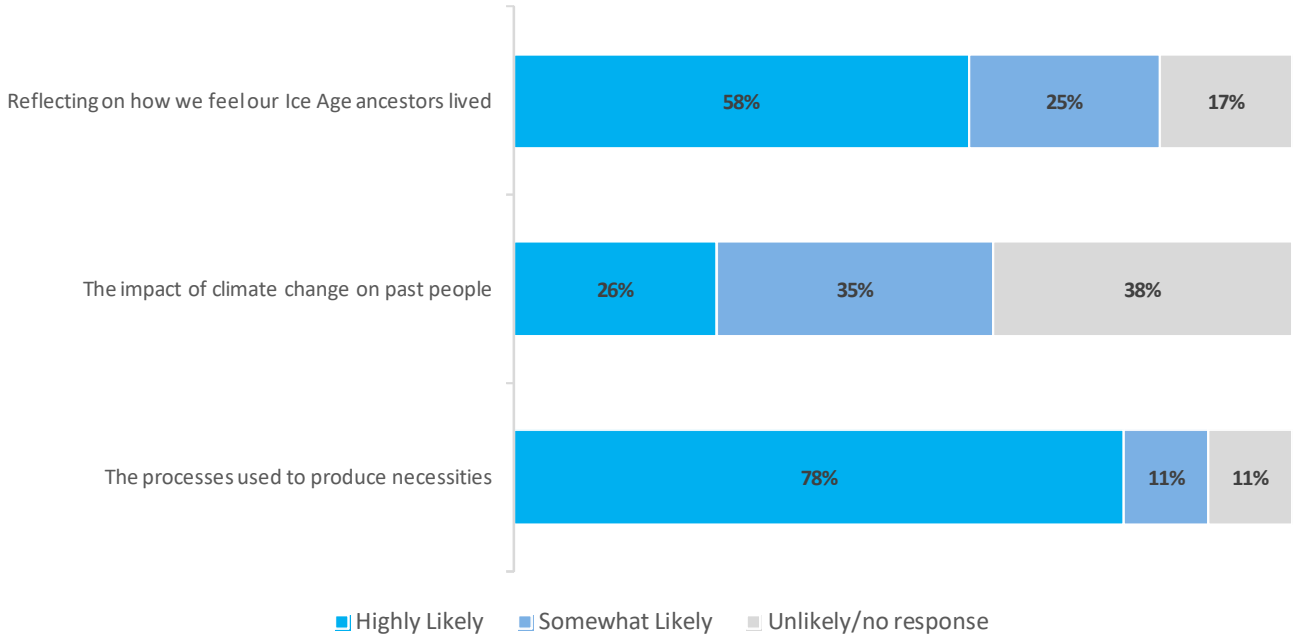






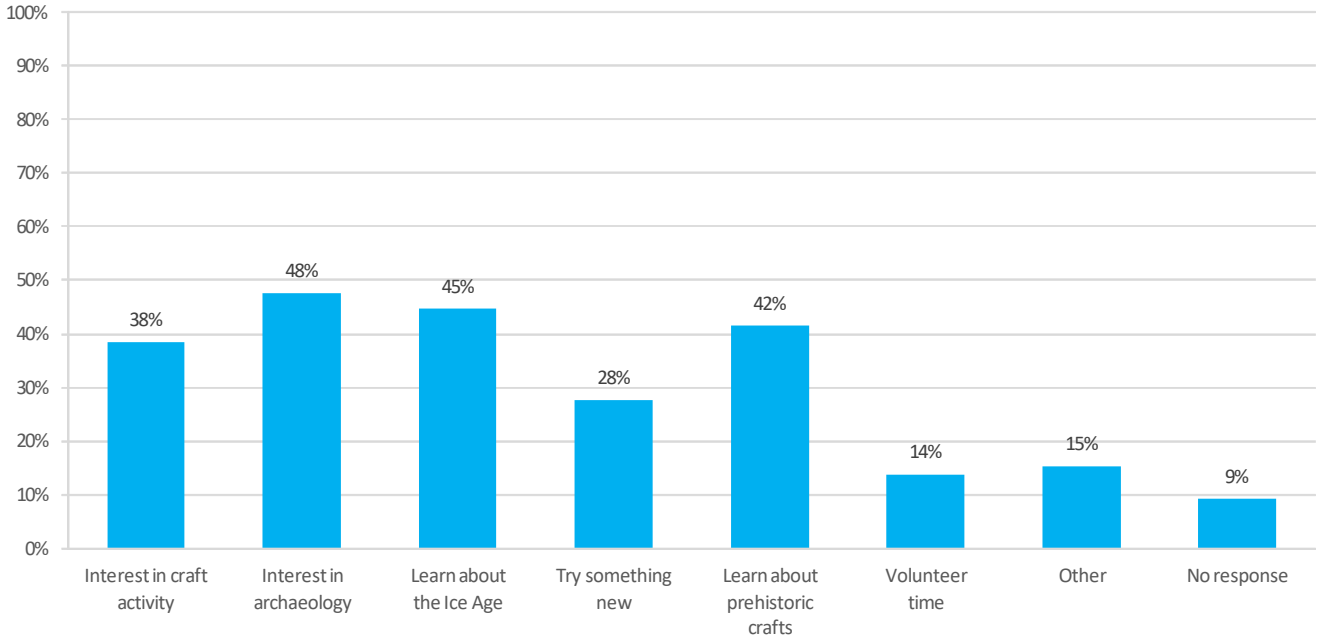
Word cloud of the main key words provided by participant feedback

Q. Which aspects of the activity would you be most likely to talk about to family/friends?



Total = 65, workshops and 1 walk up activity

Q. What were your reasons for coming today?



Total = 65, workshops and 1 walk up activity. Respondents were asked to select all that apply.

'Other' responses

'Education programme resource development'

'Gain info on the use + creation of tools in upper paleolithic era for use with explore education 'Stone Age' session at Bradgate Park'

'Help with ID in fieldwalking'

'Im a volunteer who helps with Bradgate Park school visits'

'Studying archaeology'

'To meet people with common interest'

.

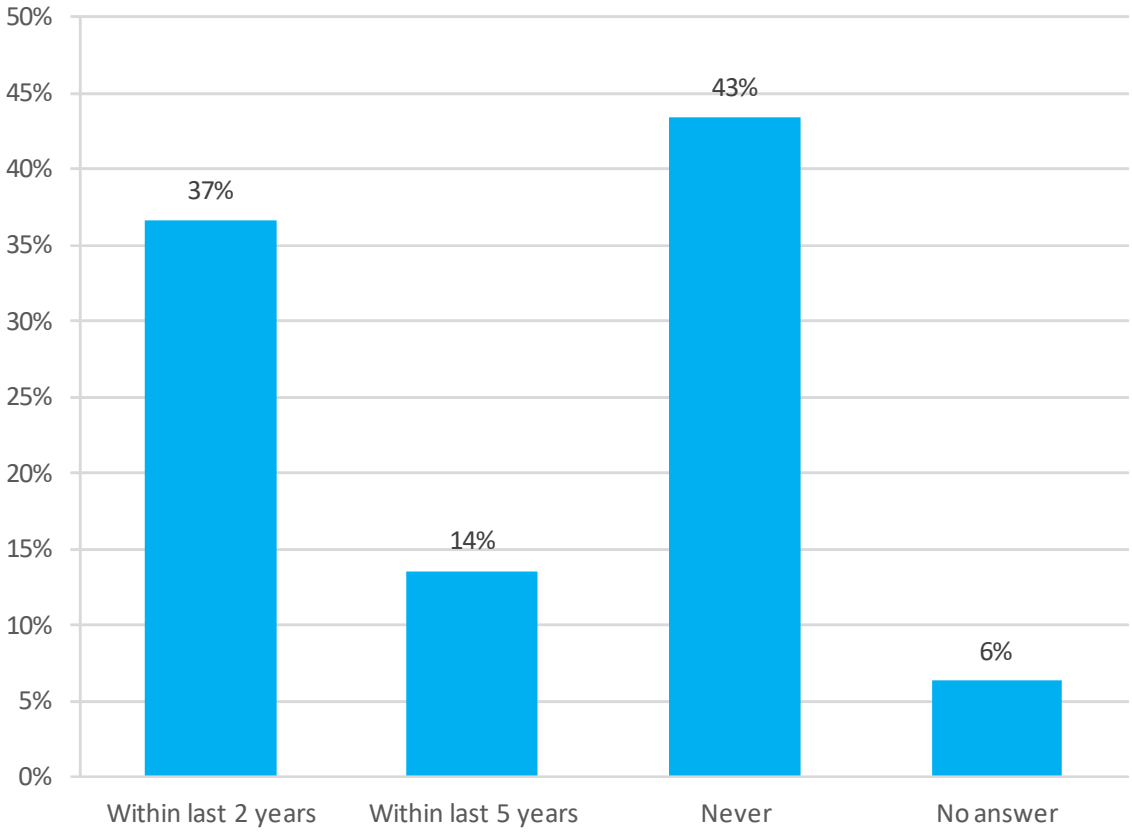
'To teach children flint knapping'

'Very interesting presentation that underpins the practical'

'Visiting park'

'We intend to use these techniques with children at Bradgate Park'

Q. Please tell us if you have participated with us before and when?



Total = 221 responses, talks, workshops and 1 walk up activity.



Andrzej Jaablonski







Sconcefest, Newark, July 2019
Free drop in session to make 'Ice Age' jewellery with shells and twine

All images taken with permission by Edward Casebourne

Section 3 Public and Volunteer Participation Programme

Exploring and Mapping our Ice Age Landscape: Talks and Workshops

The aim of the *Exploring and Mapping our Ice Age Landscape* strand of the project was to bring together environmental, geological and archaeological evidence of landscape changes relating to the sites and period. We initially planned to hold 4 sessions at each centre combining presentations by experts followed by practical workshops in which participants would have the opportunity to learn electronic mapping skills (QGIS) and processing of LiDAR survey data (QGIS and LiDAR are both freely available; QGIS enables overlaying of map resources, LiDAR is topographic data available through the Environment Agency). They would also contribute to creating a map resource that would bring together the evidence together that demonstrates the links between the three sites and explain the wider evidence-base for our regional Ice Age story.

Feedback from the four initial workshops at Newark was positive but mixed. There was strong interest in both the multi-disciplinary evidence we were presenting and in the digital mapping skills we aimed to develop. However, in our dialogue with participants and evaluation we undertook in the two later sessions (Table 2 below), it was apparent that our aim to bring the two together and have workshop attendees help create our Ice Age evidence map was too ambitious, mainly due the wide range of IT-skills. We concluded that it could only be achieved with much smaller groups and one to one support which we did not have the capacity to run. Some participants were also attending with their own local heritage projects in mind and keen to have space to discuss and learn skills to use for these.

Questions	Respondent 1	Respondent 2	Respondent 3	Respondent 4	Respondent 5&6 (sat together)	Respondent 7
1. What has interested you most about the sessions?	*Complexity and interaction of archaeology and geology. How many questions remain despite all the research done*	*Introduction to electronic GIS*	*Highlight has been the talks, answered a lot of my questions*	*The context for the methodologies. Networking. The presentations have all been of good quality and well organised.*	*Overall context and make-up of Trent Valley. How landscape determined how people lived. Linking of archaeological sites.*	*The new discoveries in the 'my backyard'.*
2. What attracted you to register initially?	*Background history and aspects of Trent & Idle valleys*	*Geology and geomorphology relevant to our own archaeology*	*Chance to find out about QGIS and Ice Age Journeys*	*Interested in the subject, but the topic area previously unknown to me.*	*Related to interests. One heard via email distribution, other by word-of-mouth. Both like the mix presentations & workshops.*	*Interested to learn more.*
3. Will you use the IT you've learnt for your own project?	*Enthusiastic, yes*	*Yes, with Lincoln Archaeology Group*	*For CBA boundaries project, for markers/court leet etc*	*Would like to use in future, but struggled with the software. Most useful are the notes.*	*Would like to but QGIS difficult. MapTiler better. Notes helpful.*	*I find using the QGIS software suite very difficult and the guidance offered as to how to perform the tasks we're set assumes that I have knowledge and skills that I just don't possess.*

Table 2 Responses to questions posed to participants during a mid-session break at Newark sessions 3 and 4.

We therefore adjusted our later talks and workshops to accommodate this. At Bradgate, we covered QGIS and LiDAR in outline, with our sessions providing more in depth opportunities for volunteers to learn about the prehistoric archaeology of the park and deer resource. When discussing the program with Creswell, they wanted to broaden the scope of our events, so we included two East Midland wide projects (a 'Roadshow' featuring the Portable Antiquities Scheme and the Council for British Archaeology run Parish Boundary Mapping project), as well as two specific Creswell-focused events led by their staff ('ritual protection' marks and Ice Age animals). Three of the Creswell sessions were post-Covid and after we had gained experience using online delivery, enabling us to reach an additional 80 people.

Overall, our adjusted programme engaged 165 participants (+80 online) at 14 sessions (target 12 sessions and 75 participants).



IT workshop at Newark



Ice Age Animals at Creswell

Daryl Garton

The feedback from these talks was wholly positive, with 'enjoyable' mentioned many times. Two comments captured the pace of change in our topic:

> *'how ideas change as more research is undertaken. What we knew or understood yesterday is out of date tomorrow'*
> *'surprised at how complicated and controversial to sort out the history'*
> Workshop participants

Another, from Fee Worton (Bradgate Lifelong Learning Officer), commented on the multi-disciplinary nature of our topic:

> *'We have a number of staff tasked with volunteer event management, aimed at specific and quite separate volunteer interest groups. The subject matter from these sessions bridged that separation, and also appealed to a broader audience. There has been nothing but positive feedback from our volunteers. Their increased knowledge has boosted confidence resulting in enhanced public engagement.'*

LiDAR presentation at Bradgate Park



Andrzej Jablonski

Despite the changes to our original plan, the Newark sessions explored the full range of evidence we had intended. Expert speakers led participants through Heritage Environment Records, Ice Landscapes, Geoarchaeology, the impact of the river Trent and the aftermath of the late glacial ice advances which created a lake from the Humber estuary to Farndon. Discussions with workshop participants also provided valuable input that informed the creation of the Ice Age Walks Google Earth resource that was ultimately produced by volunteers from the Ice Age Insights team.

The session on the '*The archaeology and geology of the late glacial landscape'* led by Leanne Hughes (British Geological Survey) and the Ice Age Insights team pulled together the research material for the evidence map. Participants were introduced to some of the 3D tools used by the British Geological Survey to unravel landscape development from the present day back into the Ice Age. Leanne then overlaid the record of superficial deposits on topography derived from airborne LiDAR and showed us a 'fly-through' of the landscape. Daryl Garton described the evidence for the hunter-gatherers which populated these landscapes, and Ian Ross considered the potential routes from Farndon Fields to the contemporary sites at Creswell Crags and Bradgate Park.

This was followed by a workshop session to create a storyboard for a fly-through of the late glacial landscape of our hunter-gatherers to identify themes, images and ideas. Participants were positively engaged by the insights and possibilities presented by the data and generated a large volume of suggestions (more than we could take forward within this project). A further session in the BGS 3D Geovisionary suite demonstrated the presentation possibilities inherent in the data, although it was beyond the resources of this project to utilise the video outputs the BGS technology can produce.

Ice Age Insights volunteers built on the feedback and ideas from these sessions and led the production of our *Ice Age Walks* interactive map on the Google Earth platform, which is available through our website.



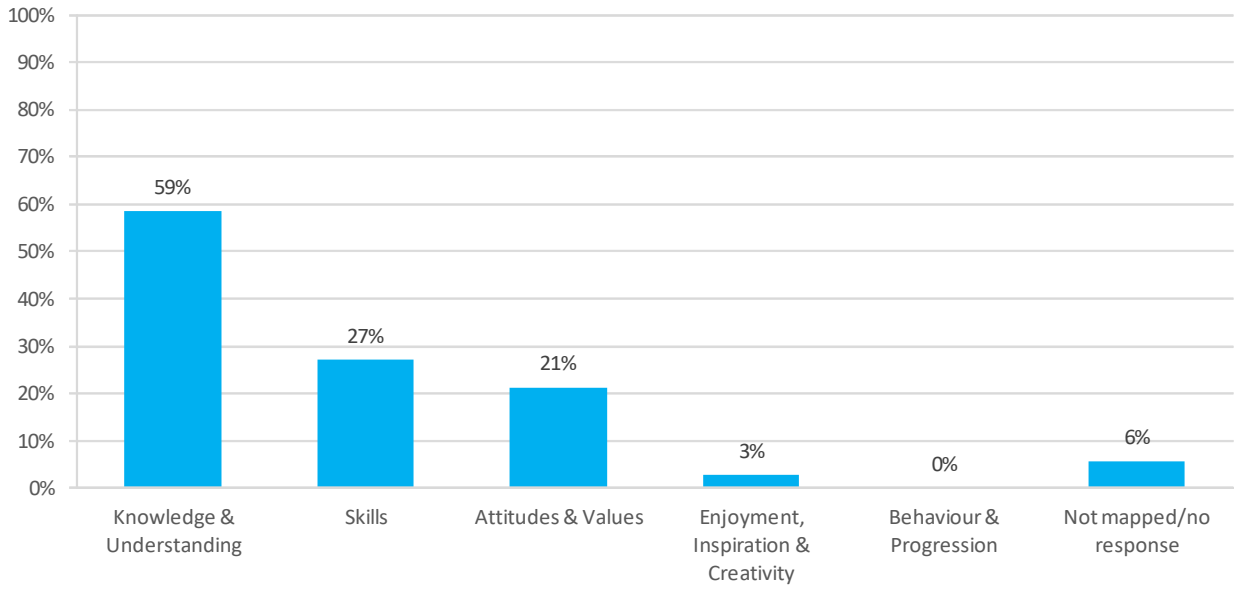
Clip from web page, July 2022

Survey Feedback

The survey feedback below is from 4 talks and 3 workshops at Newark and 2 talks and workshops at Bradgate. For the latter we used a shorter survey focused on learning and prior participation so feedback from those surveys appears only in those charts (as noted in the labels below).

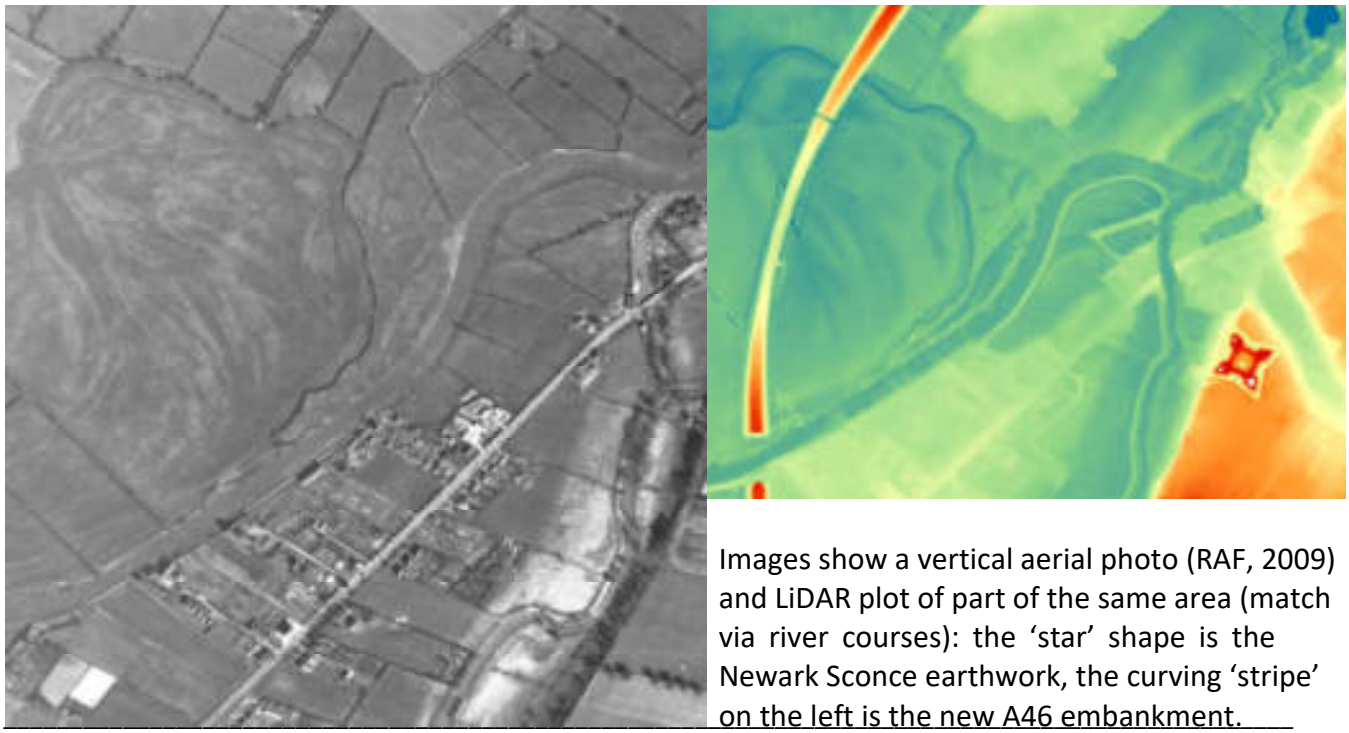
Q. What interested or surprised you about the talk today? / What did you discover today in the session that really stood out for you?

Free text responses were mapped to the Arts Council England Inspiring Learning for All Framework, Generic Learning Outcomes



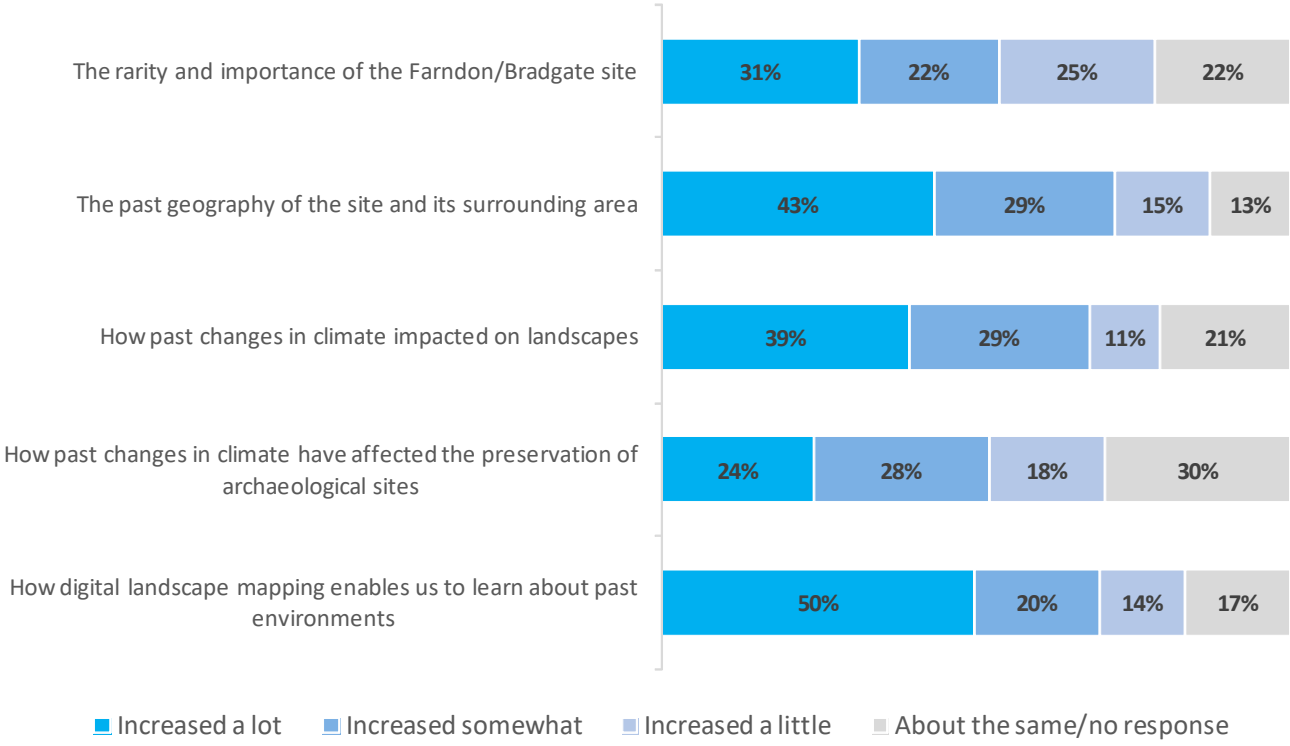
Total = 174 responses, all activities at Bradgate and Newark
Individual responses may be mapped to more than one outcome.

Project materials, 2018



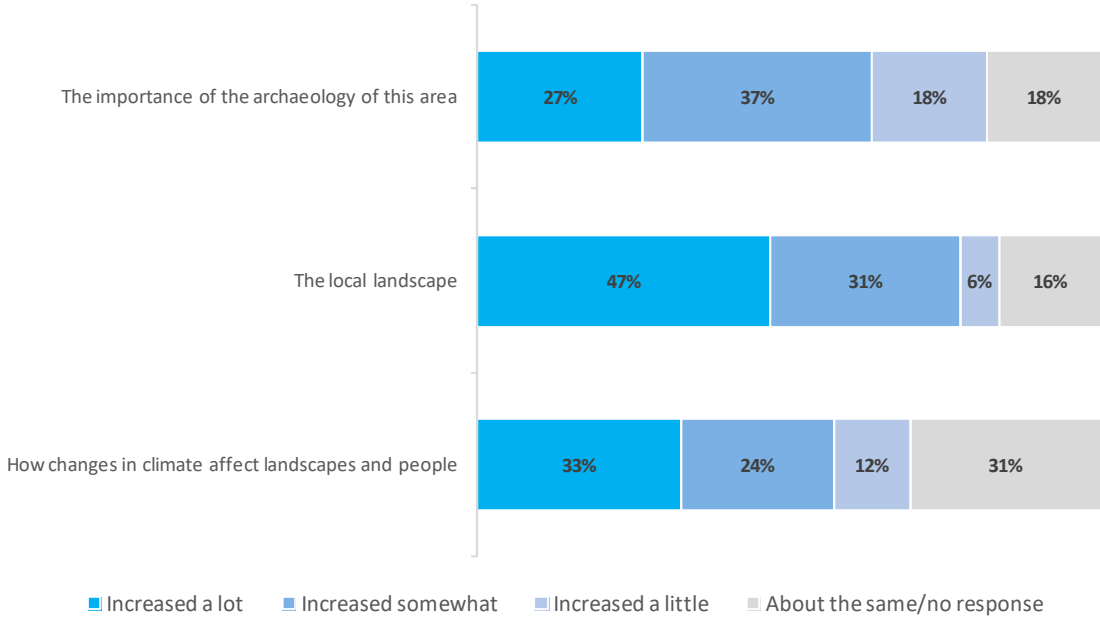
Images show a vertical aerial photo (RAF, 2009) and LiDAR plot of part of the same area (match via river courses): the 'star' shape is the Newark Sconce earthwork, the curving 'stripe' on the left is the new A46 embankment.

Q. Please tell us how much your knowledge and understanding of the following topics has changed as a result of the talk?



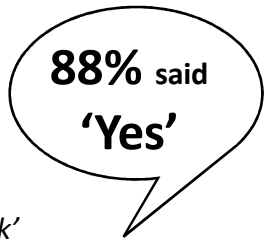
Total = 125, Newark talks and Bradgate sessions

Q. Has taking part in this activity changed the way you think about the following topics? (workshops)



Total = 49, Newark workshops

Q. Was this workshop useful as a way to learn about archaeological facts and evidence? If so, how?



'Overall info on area. QGIS difficult but good introduction'

'Very interesting but impossible to follow'

'Sharing what might be achieved in next sessions. Enjoyed map work'

'It links modern technology to understanding spatial patterns'

'Extended my knowledge of lidar'

'Introduced a new facet of research'

'Shows a way of seeing features not immediately apparent on the ground'

'Hugely useful tool for plotting results'

'Has potential if you are familiar with the program'

'It enabled the comparison of maps of different ages to be correlated'

'As part of geopysics techniques to compare different sources essentially'

'Hands on with help available'

'References to read further'

'To continue with Parish boundary project'

'It drew my attention to the importance of gravel islands and early settlement'

'Setting context, hearing others questions, learning from speakers'

'Discovering how landscapes form and change over time. Therefore helping to guide where to look for archaeological remains. Also giving an idea of how maps can help'

'Enhanced my research capacity'

'No' Reasons

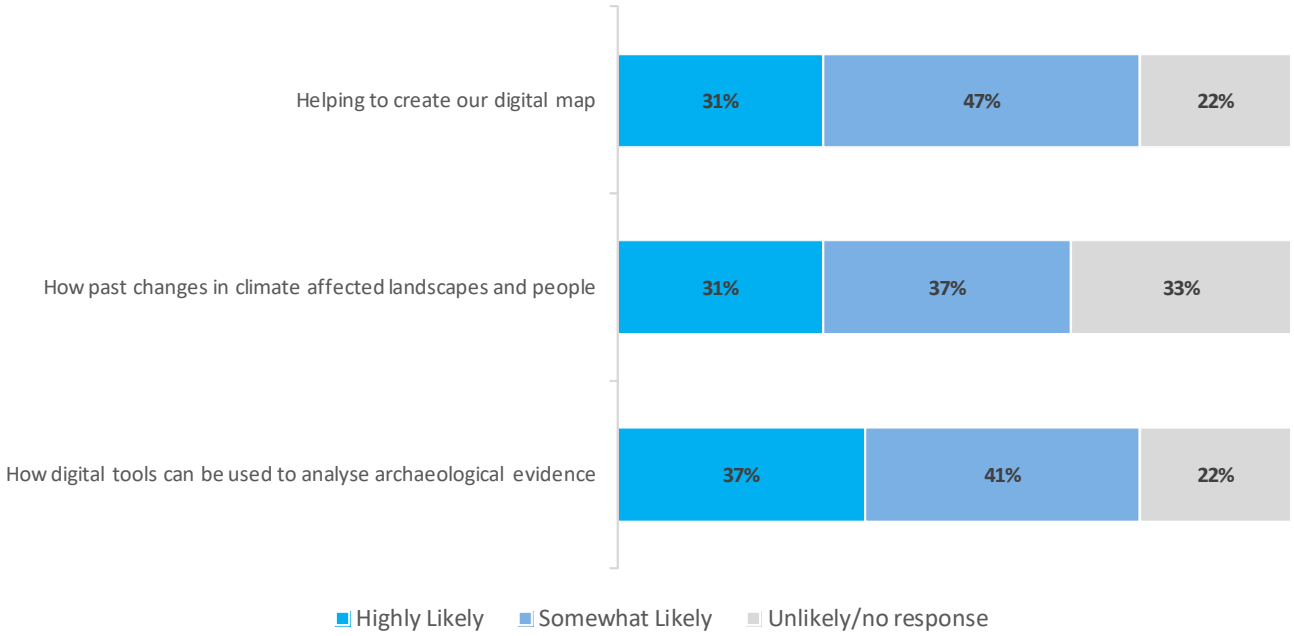
'A lot of background chatter - difficult to hear the group talk'

'As I was unable to load the programme onto my machine felt unable to really participate'

'Not yet'

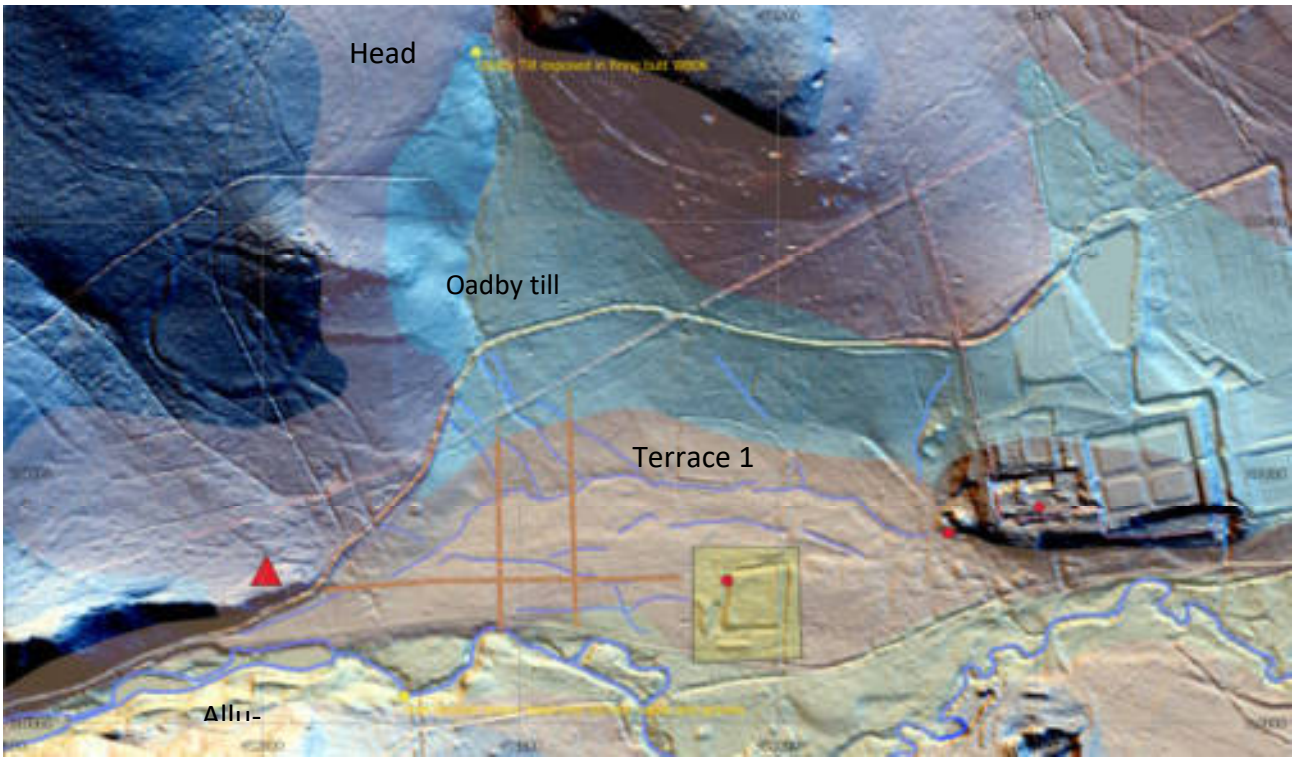
Total = 49, Newark workshops (43/49 responses = yes; 3 surveys gave no answer to this question; 3 answered 'no')

Q. Which aspects of the session would you be most likely to talk to family and friends about?



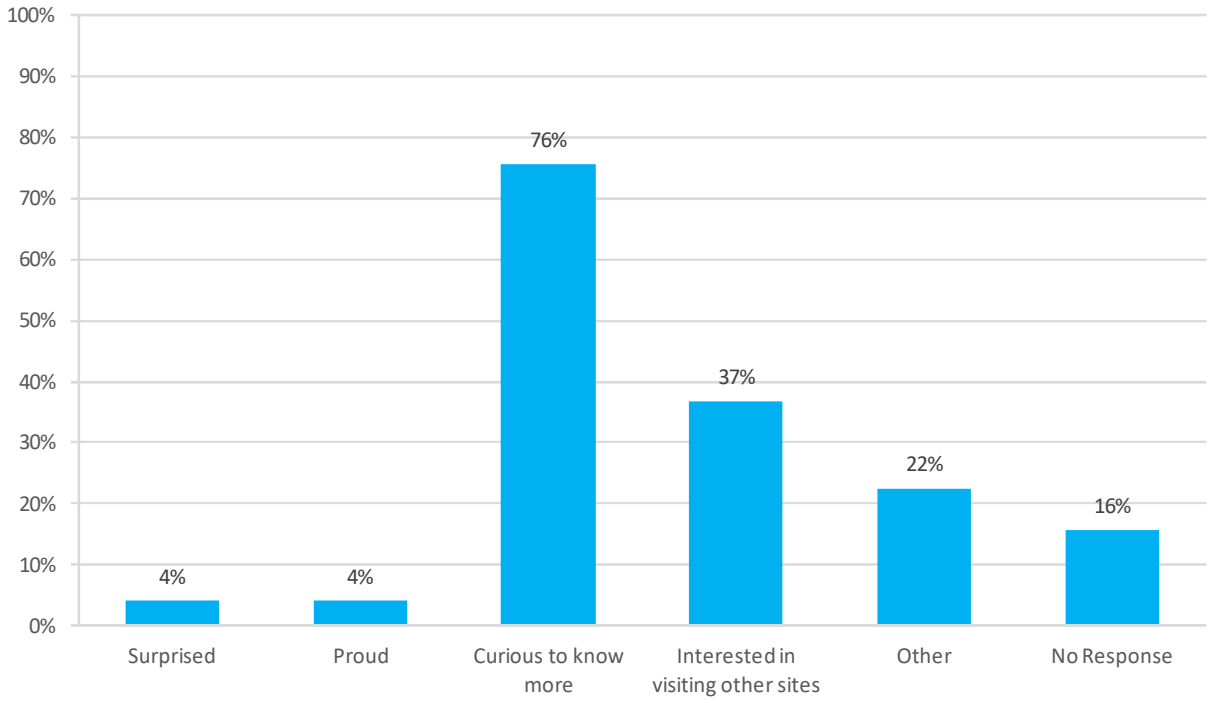
Total = 49, Newark workshops

Project materials, 2021



Our Bradgate Park survey area: British Geological Survey digimap of superficial deposits over LiDAR (processed with Relief Visualisation Toolbox multi-hillshade, x5 vertical interval)

Q. After learning about archaeology today were you...? (Surprised, Proud, Curious to know more, Interested in visiting other sites, Other - describe).



Total = 49, Newark workshops. Respondents were invited to select all that apply.

'Other' responses:

'Need to work on this at home'

'Better interpreting Farndon Fields site'

'Going a bit slower and explaining more carefully would help'

'Want to explore at home how to develop parish boundary study in my own locality in Bottesford'

'Better able to study my own area'

'Difficult to follow jargon, unless it makes sense'

'Want to apply this technique to the vale of Belvoir and adjacent areas'

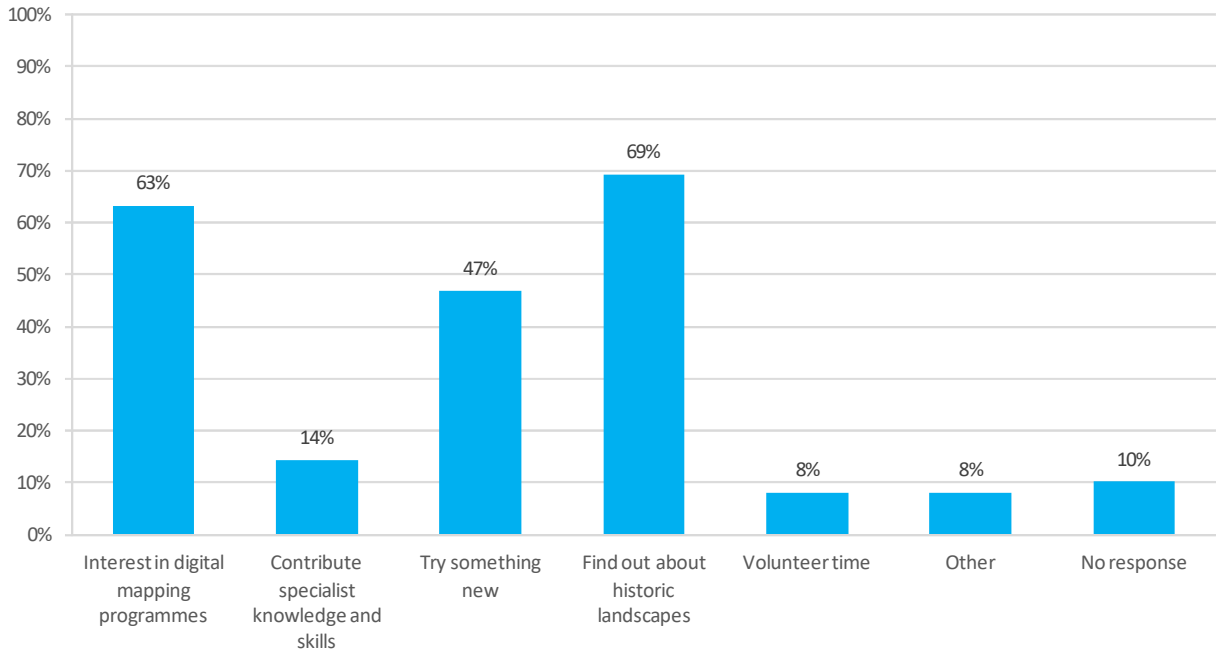
'Interested in applying the learning to the area in which I live'

'No prior knowledge. A new field of learning'

'Impressed by how much work people put in to gather and analyse complicated and detailed information. Also to find out more about how important geology is to archaeology'

'Enhanced my research capacity'

Q. What were your reasons for coming today?



Total = 49, Newark workshops. Respondents were asked to select all that apply.

'Other' responses

'Ability to study boundary changes in respect of enclosures and medieval landscapes'

'To be able to study my own area'

'It alerts me to the possibility of digital mapping and makes me realise I must buy a new laptop. I need to work at what we have covered. Revision!'

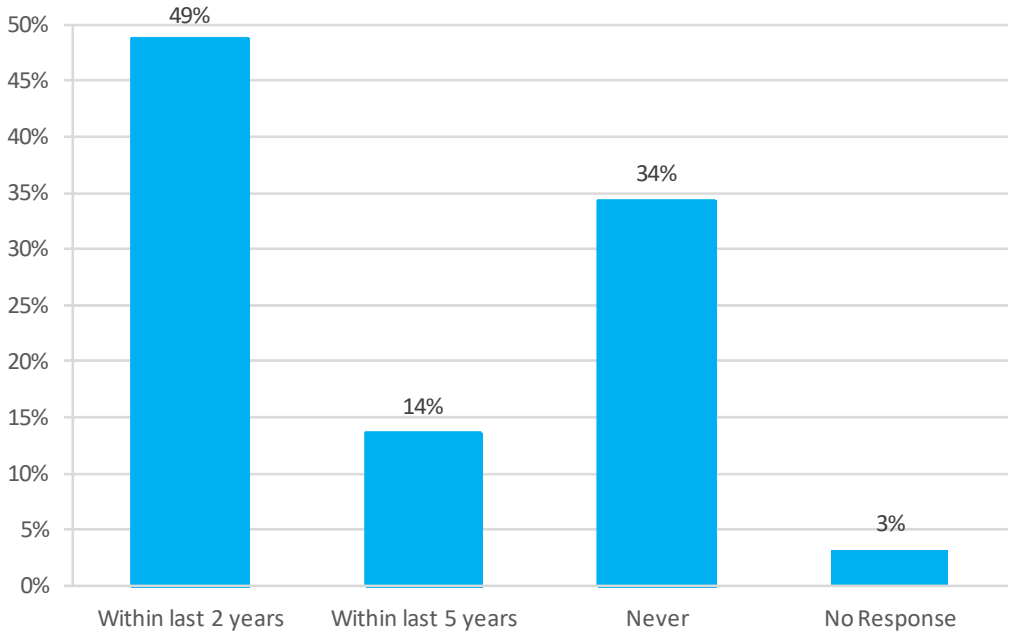
'The QGIS training is a wonderful opportunity to break the ice with GIS techniques'



John Miller

Mapping sessions at Newark, autumn 2018

Q. Please tell us if you have participated with us before and when



Total = 125, Newark talks and Bradgate sessions.



Daryl Garton

Mapping sessions at Newark (2018) and Creswell (2022)



Ian Ross

Section 3 Public and Volunteer Participation Programme

Exploring and Mapping the Landscape - Fieldwork at Bradgate Park

The fieldwork objective was to start to understand the prehistoric archaeology of the River Lin floodplain; it was led by Lynden Cooper (free-lance consultant) and Daryl Garton (Farndon, Ice Age Journeys team). As the Park is a Site of Special Scientific Interest, permission was required from Natural England and Historic England was also notified and gave their support. The digging team was made up of Bradgate volunteers (50%) and volunteers from Farndon and the Leicestershire Fieldworkers groups. Each day, a different ranger from Bradgate Park staff also participated and, in the first week, two staff members from Creswell Crags joined the team. Andrzej Jablonski, a long-time volunteer photographer in the Park, documented the work and progress achieved each day and provided the photographs for this section of the report.

Over the course of the programme 43 participants gave 344 days of time over 8 sessions (target 10 sessions and 30 participants). This consisted of 1 introductory session, 2 sets 3-day excavations by 2 teams and 1 follow-up session.

Aims and Outcomes

The project was successful in recovering prehistoric flint and starting to map the geological deposits (with some surprising findings). It also recovered some late Iron Age/Romano-British sherds, which alongside other recent discoveries, suggest an extensive, previously unknown, Romano-British settlement. This has resulted in the heritage being better identified and recorded and will contribute both to its management and improved interpretation to park visitors.

A full archaeological report has been submitted for publication in the Transactions of Leicestershire Archaeological and History Society. The introductory sessions for volunteers and a video of the fieldwork are freely available on the Ice Age Journeys website, forming part of our growing resource archive for the Ice Age. We also hope it will provide inspiration for other fieldwork projects that aim to involve volunteers and engage the public.

https://iceagejourneys.org.uk/bradgate-park/

Fieldwork in Bradgate Park, September 2021



Andrzej Jablonski

Public Engagement and Media

The fieldwork was conducted close to the main throughfare through the park used by walkers, so we expected a high interest from casual visitors. We produced a specially designed leaflet summarising the investigations of Ice Age activities in the Park for passers by (Appendix C), and ensured we had volunteer guides available. We were in the early days of post-Covid Lockdown (Sept 2021), so we didn't provide artefacts for casual visitors to handle, though some were available to see if they were asked for. Our excavation design - digging small, widely spaced test-pits - meant that we did not need to fence off the site when we were working, which enabled visitors to directly interact with the excavators. This open access encouraged more people and a wider range of people to have engaged with the heritage of the Park and over the 6-day session our three guides clicked over a thousand engagements.

Our activities also attracted local press and media attention, including a piece from the BBC which featured quotes from an interview with Lynden and used an image of Andrzej's.

https://www.bbc.co.uk/news/uk-england-leicestershire-58653988



Andrzej Jablonski

Fieldwork in Bradgate Park, September 2021

Participant Responses and Survey Feedback

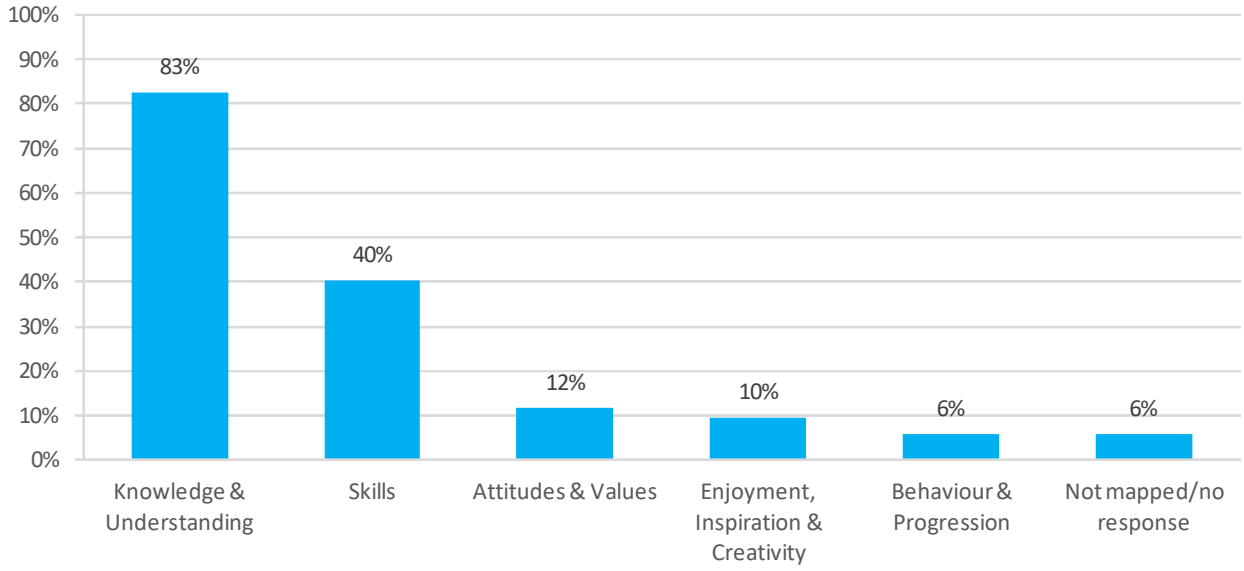
There was undoubtedly a happy 'buzz' at the end of each session of excavation with both the excitement of new discoveries and the engagement of so many park visitors. These email comments from volunteers, relayed after the end of the excavations, captured the enjoyment we perceived:

> *'Many thanks to you for organising a wonderful dig and great group of people'*
>
> *'It was a good few days at Bradgate and I enjoyed working with the others'*
>
> *'Can I take this opportunity to thank you for giving me the opportunity to join the dig this week. It was a fantastic few days and I didn't want them to end. I learned so much, loved being in that landscape and the newer thoughts I could link in my head and I met some wonderful people too. Thank you – and big respect for all you do'*
>
> *'Many thanks to yourself and your team for all your efforts organising a really interesting few days'*

The survey feedback below was gathered at the induction talks (20 responses) and on completion of the excavation sessions (32 responses).

Q. What interested or surprised you about the session? / What did you discover about the topic that really stood out for you?

Free text responses mapped to ILFA Generic Learning Outcomes



Total = 52, all activities. Individual responses may be mapped to more than one outcome.

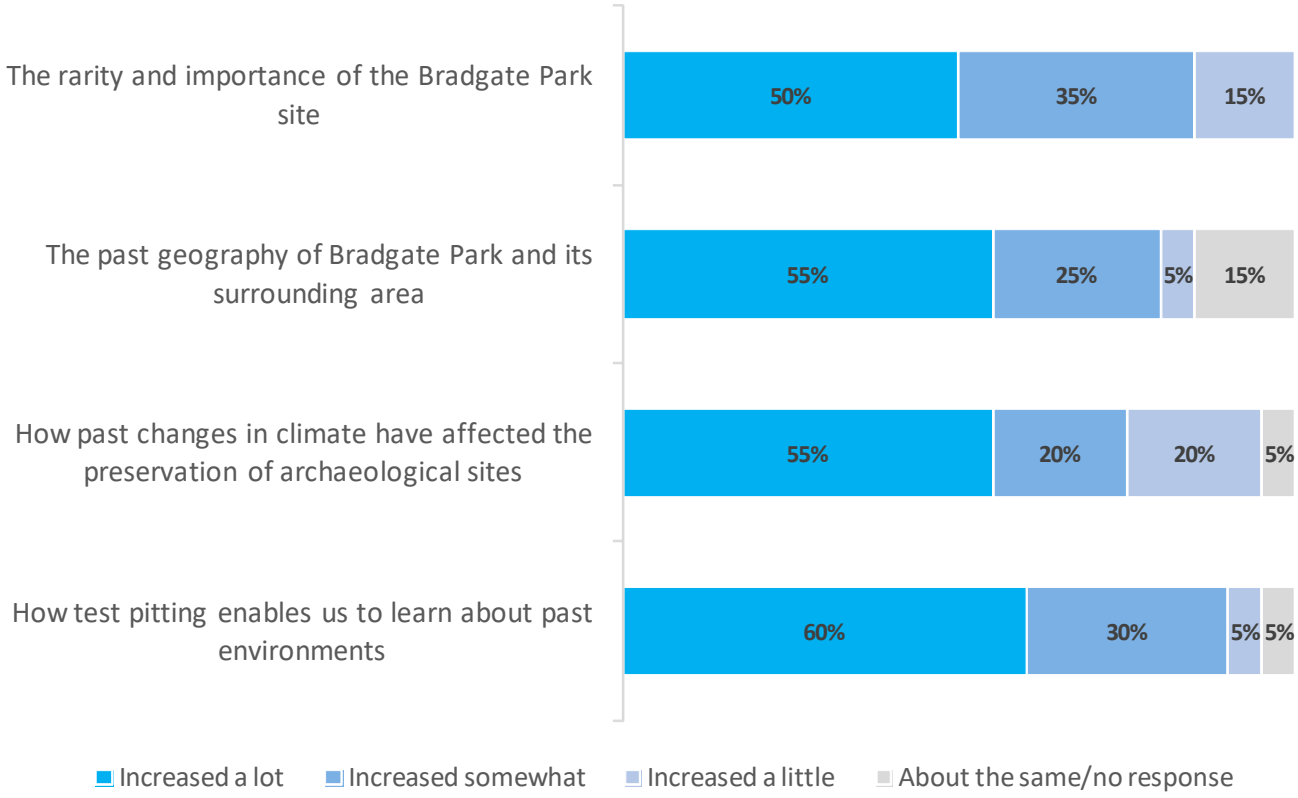
Fieldwork in Bradgate Park, September 2021



Andrzej Jablonski

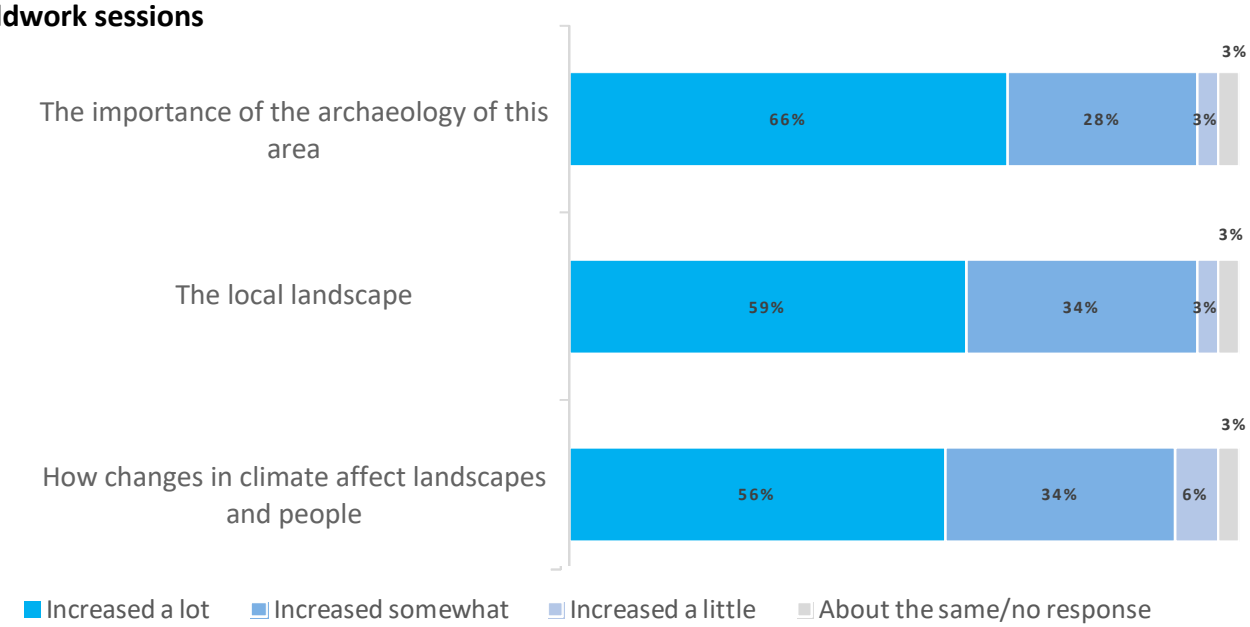
Induction session

Q. Please tell us how much your knowledge and understanding of the following topics has changed as a result of the session?



Total = 20 responses

Fieldwork sessions



Total = 32 responses

Was this fieldwork useful as a way to learn about archaeological facts and evidence? If so, how?



Andrzej Jablonski

97% said 'Yes'

'Practical activity reinforces theory'

'Good range of skills'

'Practical equals learning for me'

'Hands on. Yes better understanding of what is involved'

'It is good to be working on a site that is not common in the UK'

'Importance of preparation/planning and Precise information to complete correctly'

'More understanding of geology in relation to Archaeology'

'How to conduct a test pit excavation'

'Learnt about how digs are carried out and about flint tools'

'Fascinating to learn about this period in history because of having access to archaeologists'

'Listening to others with directly relevant experience'

'Yes especially with the experts and experienced archaeologists digging alongside us'

'Makes you think of how the people lived'

'More about geology, strata etc in relation to finds etc'

'Great hands on experience- gives a feel for how archaeology works'

'Absolutely. Organisers very good at explaining and keeping us appraised of findings'

'Learnt about archaeological methodology'

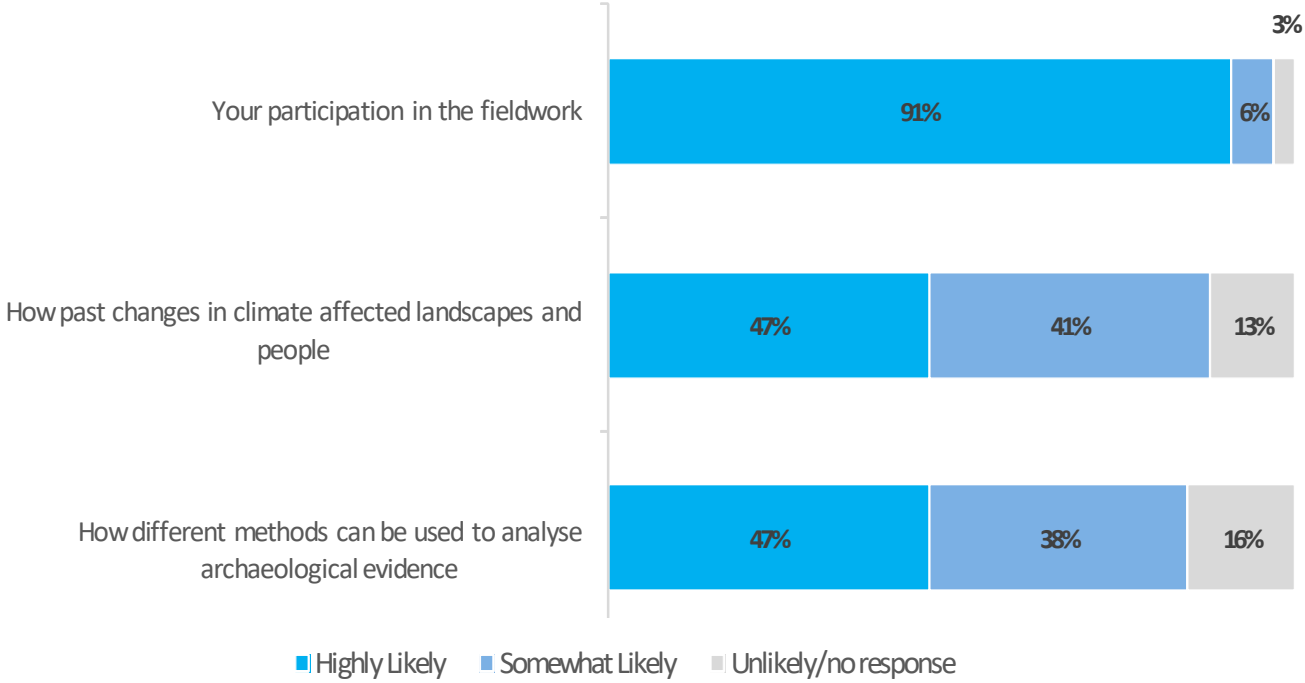
'Found the fieldwork very interesting, facts and evidence'

'Practical participation is a better way of learning'

'Beginning to understand how different levels are laid down and what this can tell us'

Total = 32 responses, fieldwork sessions

Q. Which aspects of the session would you be most likely to talk to family and friends about?



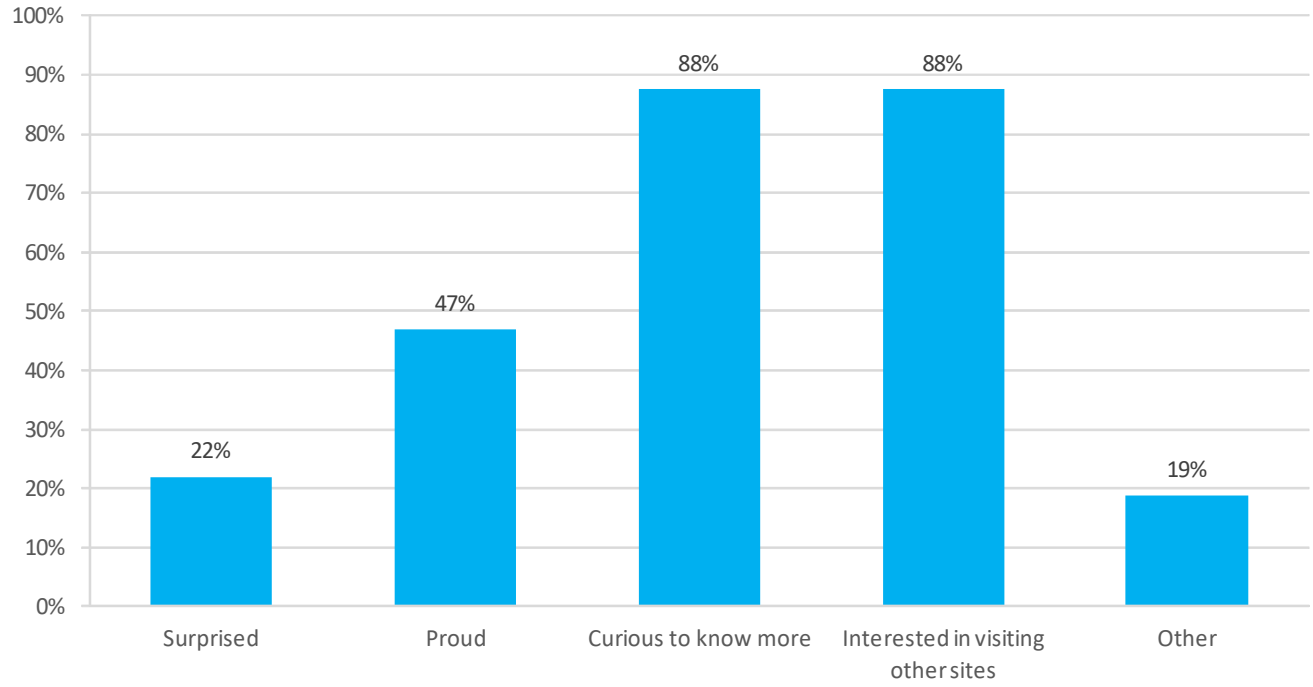
Total = 32 responses, fieldwork sessions

Fieldwork in Bradgate Park, September 2021



Andrzej Jablonski

Q. After participating in the fieldwork were you...? (Surprised, Proud, Curious to know more, Interested in visiting other sites, Other - describe)



Total = 32, fieldwork sessions. Respondents were asked to select all that apply.

6 respondents circled 'Other'

'Pleased to develop and share knowledge'

'Realised how much fun I'd had'

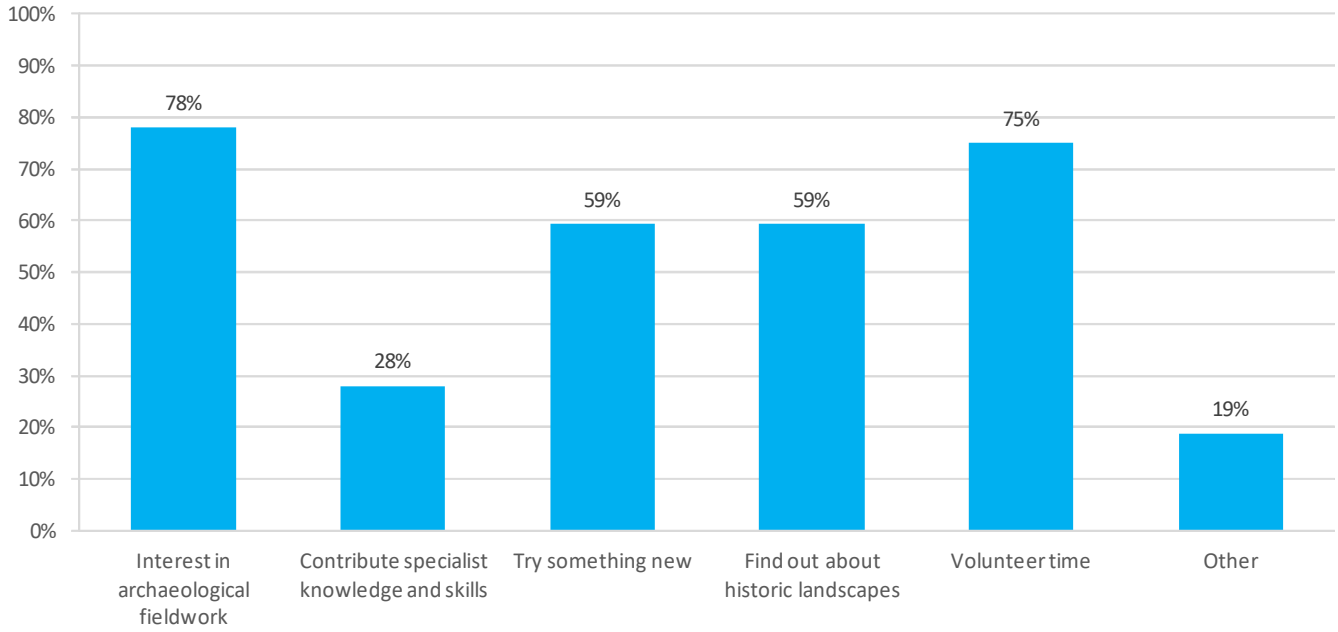
'Appreciation of what is involved'

'Wanting to be more involved with digging rather than simply processing/analysis etc'

'Eager to get more involved! When is the next dig?!'

'Not aware of how developed stone age people were'

Q. What were your reasons for coming today?



Total = 32, fieldwork sessions. Respondents were asked to select all that apply.

Other responses (6)

'Very interested in how the archaeological fieldwork is carried out, whats included and how the info is put together'

I' love fossils and dinosaurs as well as paleolithic and I want to know more about earth's history'

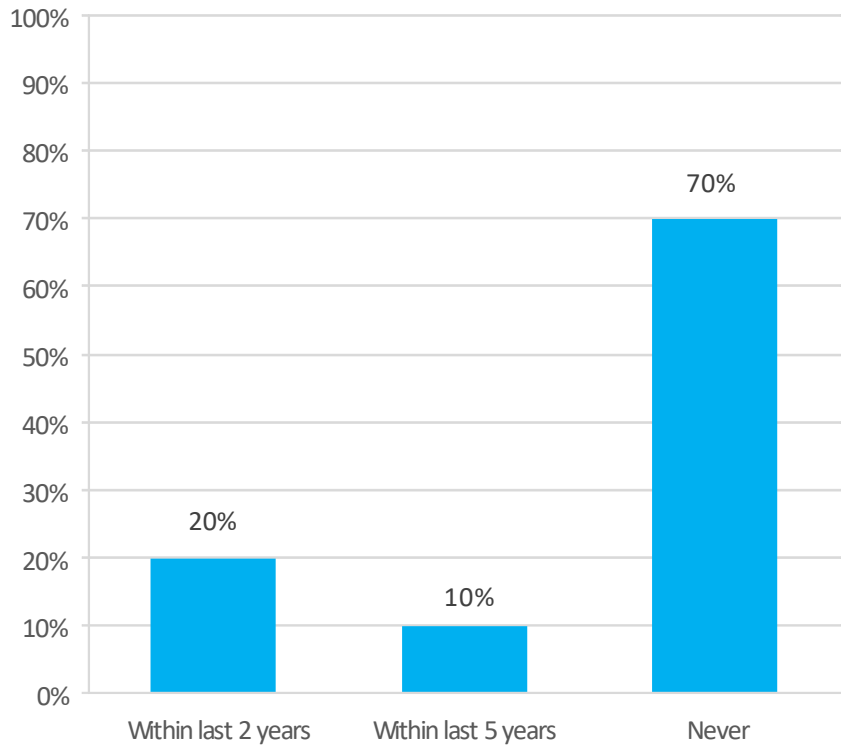
'Social aspects as well as the archaeology especially after lockdowns etc'

'I am a professional archaeologist with an interest in upper paleolithic archaeology. I have worked mostly abroad and wanted to experience research closer to home'

'I have general interest in recent and prehistoric history'

'Expand my knowledge of life in the upper p. and how this helps to tell the story of Ice Age Journeys'

Q. Please tell us if you have participated with us before and when



Total = 20, induction sessions

We suspect that this data collected at the induction is not entirely correct. Covid-restrictions had recently been lifted, and because of room capacity the participants were restricted to volunteers known to Bradgate from other sessions of volunteering, but mostly not one that had previously involved them with hands on archaeology. We believe there was a misreading of the question. (None of the respondents ticked that they had previously participated with Creswell or Ice Age Journeys.)

Fieldwork in Bradgate Park, September 2021



Andrzej Jablonski

Reflections on the Participation Programme

The project succeeded in engaging more people and a wider range of people with the Ice Age Heritage of the East Midlands. It was not always possible to deliver activities in the way conceived in the original project plan, but our partnership and people proved to be flexible and creative in making adjustments and adept at identifying opportunities to deliver outcomes in ways we had not originally envisaged.

Engagement targets were met or exceeded across the programme and 42% of our survey respondents had never previously participated in events hosted by any of our partners (Bradgate/ Creswell/Ice Age Journeys).

The core questions of the surveys were intended to work together to evaluate the effectiveness of our activities in enabling people to engage with and learn about the Ice Age heritage of the three sites. Responses indicate that we have been successful:

- It was possible to map almost all the free-text responses to the questions asking what people discovered, or what stood out for them about the activities, to one or more of the ILFA generic learning outcomes. We might have expected more of the responses to map to the Enjoyment, Inspiration, Creativity outcome. We believe this to be partly down to the way in which the question was framed and that responses to a separate, more direct question would have reflected the enjoyment we observed.
- 93% of respondents to the question *Was this workshop [activity] useful as a way to learn about archaeological facts and evidence?* answered 'Yes'.
- Feedback also indicates that our activities were effective in communicating the specific learning outcomes we identified for our programme, with most responses indicating that for each outcome learning had changed the way people think or increased their knowledge and understanding.
- Feedback from the questions *Which aspects of the session would you be most likely to talk to family and friends about?* and *After participating in the fieldwork were you: Surprised, Proud, Curious to know more, Interested in visiting other sites, Other?* provide some interesting insight into participant take-aways for the sessions. However, this data was hard to gather consistently, particularly as we adapted the questions to reflect the changes to delivery of the Exploring and Mapping workshops.

As this was not a formal learning programme and resources were limited, we recognise there are limits to the conclusions we can draw from the survey data alone:

- Response rates varied across sessions and it was not possible to survey all sessions.
- We were pleased with responses indicating that activities at one site generated interest in visiting the others, but it was beyond project resources to track whether visits actually took place. (Tracking follow up visits had been considered during project planning but had been rejected as too big a logistical task to undertake effectively).

- Surveys produce a different kind of feedback to that which we gained from talking directly to participants and they were also impractical for the walk-up 'Have-a-go' activities. If we were to undertake a similar project in the future we would consider narrowing the question bank.

Taken alongside the conversations we had with participants during activities, we are confident that the overall picture reflects a successful programme that participants with varying levels of prior knowledge and motivations found accessible and engaging.



Daryl Garton

A member of the public having a go at a flint 'jigsaw'– re-ftting knapped flakes to a core.

Lessons

We will take some lessons from changes we had to make to the Exploring and Mapping workshops: there is definitely potential in the original participation model we had planned and strong interest in map based data, but it needed to be more tailored for the very wide range of IT skills in the audience we attracted; we thought that familiarity with their own IT equipment would benefit participants but the variability in capacity was also a barrier.

Our bid identified volunteer participation in fieldwork at two centres: Farndon and Bradgate. The Farndon fieldwork hit an issue because although permission to excavate had been granted, it was withdrawn because of new commercial developments, unknown at the time of writing the bid in 2017. To remedy this, we looked at participating with some fieldwork proposed by University of Sheffield at Creswell, but this fieldwork didn't materialize (and is now a possibility for 2023). The Bradgate fieldwork, although ultimately successful, also had issues, mainly due to changes in circumstances affecting the availability of the lead archaeologist. Whilst it is difficult to see how we could have anticipated any of these factors at the bid stage, delays in archaeological fieldwork programmes are very common, so the need for flexibility, particularly over extended timescales where change is almost certain, is clearly paramount.

Section 4 Learning Programme

Create Curriculum Resources

Drawing on the expertise and resources across the project partnership, we created the following curriculum resources:

Jen Horseman, Learning & Engagement Officer at Creswell, developed some free-to-use activities to download and wrote a number of sections under the headline 'Puzzled by the Palaeolithic' that are freely available on the Crags web page, contributing to helping hard-pressed teachers explain our Ice Age heritage.
https://www.creswell-crags.org.uk/education/teaching-resources

For each centre, two resource boxes were made: 'hunting and crafting' and 'art and expression'. They are designed to travel easily, but some compromises had to be made, particularly the length of the darts, and whilst some flints had their edges rounded to make them safe to handle, others had to be contained within sealed boxes. A small number of the replica artefacts were bought, but most were made by our volunteers during the crafts sessions under the guidance of a specialist (see Section 2 for details). These boxes, along with cards explaining artefacts and concepts, were used for the school outreach sessions for this project and continue to be available for loan and use onsite.

Resource boxes delivered to Creswell Heritage Trust, October 2019







Section 4 Learning Programme

Deliver sessions to schools

Summary

The schools programme aimed to engage Key Stage 2 pupils with prehistory and archaeology through the site most local to them, using the resources outlined above as a common basis from which sessions specific to Creswell Crags, Farndon Fields or Bradgate Park were developed. For each partner the project provided the opportunity to develop their learning provision:

Creswell, where school visits well established and often fully booked, delivered the programme as outreach in schools.

For Bradgate it was an opportunity to develop its onsite learning offer to include prehistory sessions.

For Ice Age Insights, the programme was originally conceived to boost capacity by employing a freelance learning facilitator to deliver sessions based on Farndon Fields, supported by volunteers. However, thinking and opportunities changed and it evolved into a partnership to develop prehistory sessions with the learning team at Newark National Civil War Centre, where material from Farndon is included in the *Story of Newark* displays.

The project target was to engage 900 pupils through 10 sessions at each of the three centres and to provide CPD sessions to teachers. Each site is located near to areas identified in government indices of deprivation and sessions were initially offered to schools that mainly draw pupils from wards in the lowest 30% in the Index of Multiple Deprivation Affecting Children (chart in Section 2 Project Delivery - Proactive Measures p. 14). Provision of free sessions, removing a potential barrier to participation, was made possible through the NHLF grant.

The year 3 teacher at Lovers Lane, Newark (located within a neighbourhood classified as '30% most deprived') told us:

> *'Their families are usually unable to pay for school trips, so our free session in school was a huge help.'*

Work identifying the ten target schools for each location was undertaken concurrently with the development of the resource boxes and curriculum resources, with the intention of delivering the programme in during the 2019-2020 academic year. Learning facilitators from the partnership took part in a shared training and familiarisation day to prepare for delivering and supporting the programme. Take up during autumn and winter was slow and unfortunately only a portion of the programme had been delivered prior to the disruption caused by Covid 19 from March 2020. With hands-on learning being at the heart of our approach, it was not possible or desirable to quickly adapt sessions to online delivery and a pause to the programme was agreed; it was resumed in March 2022 with some adjustments. All changes were discussed and agreed with the project NHLF officer as the situation evolved.

Adjustments and Programme Outcomes

The Teacher CPD programme had been intended for Spring 2020. After due consideration of the pressing issues facing teachers post-lockdown and ongoing uncertainty, we decided that it would not be appropriate to commence a recruitment campaign for the CPD. Resources intended for this were redirected to an additional workshop with Young Archaeologists' Club leaders, building on the positive response to an earlier session. This was rescheduled twice - eventually taking place in October 2021 and is described in *Part 3 below*.

The schools programme was eventually recommenced in March 2022 and the Creswell and Bradgate sessions completed. At both these centres the lead for the schools programme had changed: the new staff were familiarized with the resource boxes as the focus for these sessions (Creswell internally, Bradgate by Ice Age Insights). Take up from schools for the sessions at Newark National Civil War Centre was slower, perhaps because Covid-19 cases remained high in the area. Also, the most popular sessions at NNCWC are naturally focused on the civil war and take up of sessions and outreach resources related to other areas of the curriculum is generally much less. Despite considerable effort to advertise the sessions and the success of the sessions that were delivered, it was clear that some alternative approaches were needed.

NNCWC engaged home educator groups – a group for whom specific activity provision by venues is often limited – who attended three sessions held at the museum in March 2022. Three Saturday drop-in sessions for families over the Easter 2022 school holiday were also provided, with free tickets distributed via local schools. A facilitator was on hand to interpret the displays by Ice Age Insights and support participation in free Ice Age themed activities, including making cave art. The story of the art at Creswell Crags was incorporated into the interpretation of the people who worked the flint tools discovered at Farndon Fields, which additionally raised awareness of Creswell Crags in the Newark area.

The revised programme delivered the following engagement:

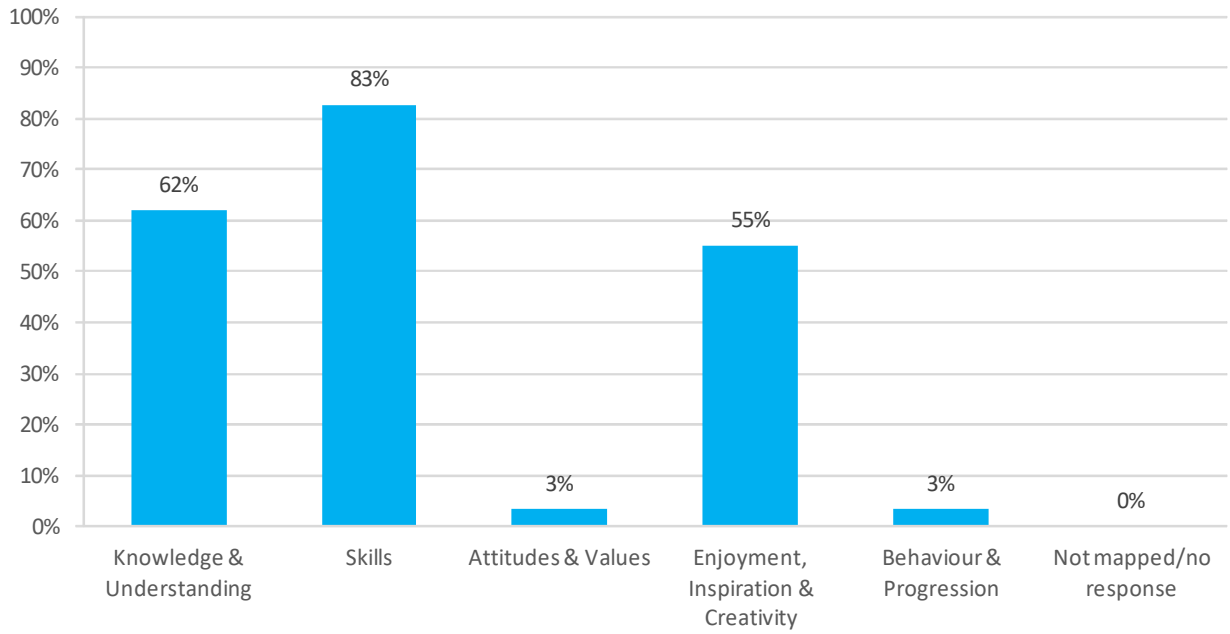
- 872 pupils from 18 schools engaged in 34 sessions
- 3 home school sessions were well attended. Unfortunately, exact numbers of participants and groups were not recorded, but 16 evaluation surveys were received and the sessions regarded as successful by NNCWC (see Reflections section below).
- 31 schools had an initial offer of a free session; this was taken up by 9 schools, the other sessions being delivered to 9 schools that had contacted the centres direct. 11 of these schools were located in postcode areas falling within 10%-50% of the most deprived areas nationally. (chart in Section 2 Project Delivery - Proactive Measures p. 14)
- 47 adults and 66 children attended the NNCWC drop-in sessions.

Survey Feedback

The survey feedback below is from 13 school sessions (11 Creswell, 1 Bradgate, 1 NNCWC) and 16 home school settings. One consequence of the staff changes at Bradgate was that only one pre-Covid evaluation form could be found, and unfortunately the forms for the later sessions were sent by email and were not returned despite follow-up.

Q. Which aspects most stood out for your class?

Free text responses mapped to ILFA Generic Learning Outcomes



Total = 29. Responses may be mapped to more than one outcome.

Newark Museum, Easter activities 2022

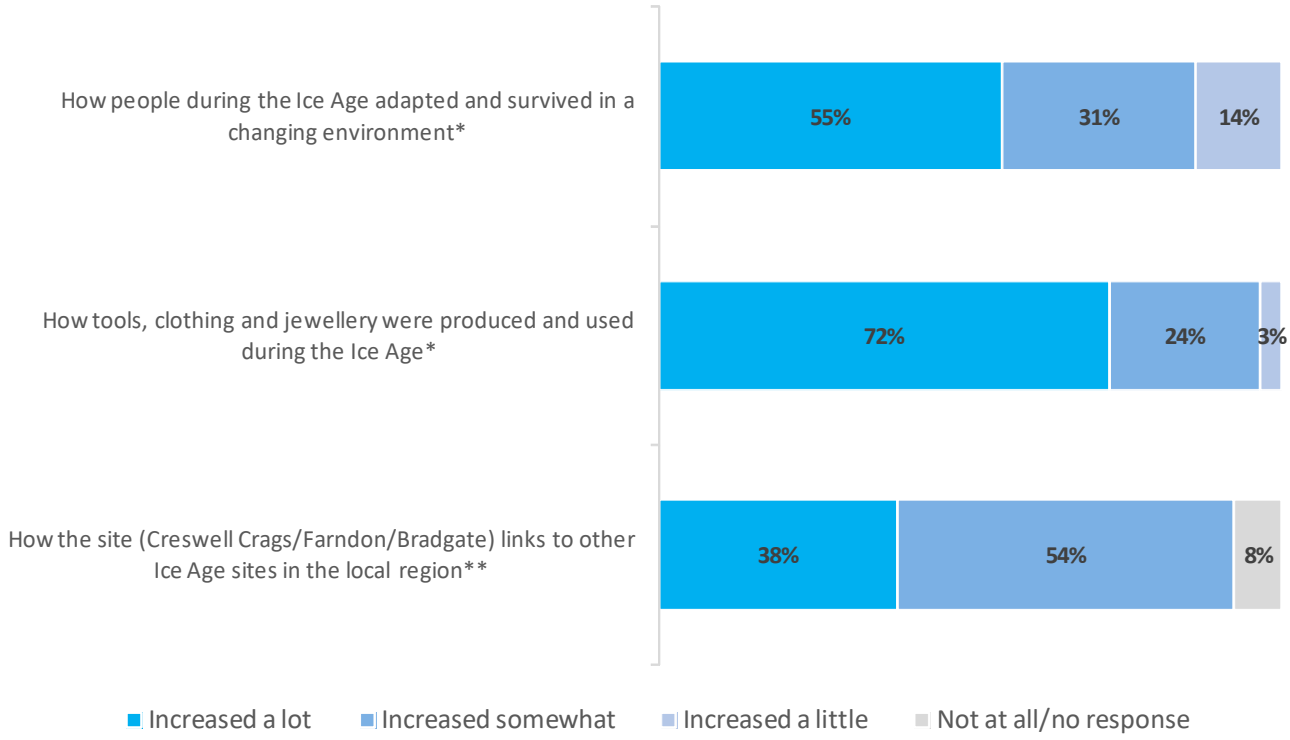






Images taken with permission by John Miller

Q. How has the children's knowledge and understanding of the following topics increased?



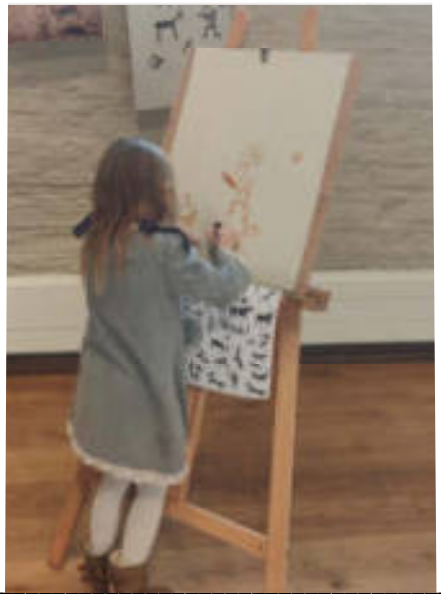
* Total = 29 responses

** Total = 13 responses, schools only (this question was not relevant to the home school sessions)

Newark Museum, Easter activities 2022









Images taken with permission by Emma Collett

Q. Was handling replica artefacts helpful for the class as a way of learning about the KS2 Stone Age to Iron Age topic??
If yes, please tell us how?



'Physical learning always helps learning'

'SEN-Sensory-helpful being able to handle things'

'Seeing objects brings the subject to life more'

'It brought to life and gave greater understanding of ice age life'

'Bringing it to life, making it real'

'Contact with the items gave them a real feeling for the substance and surfaces'

'Tactile learning is valuable as well as visual'

'It brought the ice age to life and it was a positive sensory experience'

'Having replicas of past objects, as we hadn't studied this'

'Being able to handle the objects brings it to life more for the children'

'Much better than pictures'

'We have spoken about some of the artefacts, really meaningful for them to handle what we've learned about'

'Yes, children liked physical objects'

'Children enjoyed looking closely'

'Much more engaged'

'It allowed the children to imagine what it was like to live in the Stone Age'

'It's a great experience for our children who have never seen these types of things before to get to finally see these items'

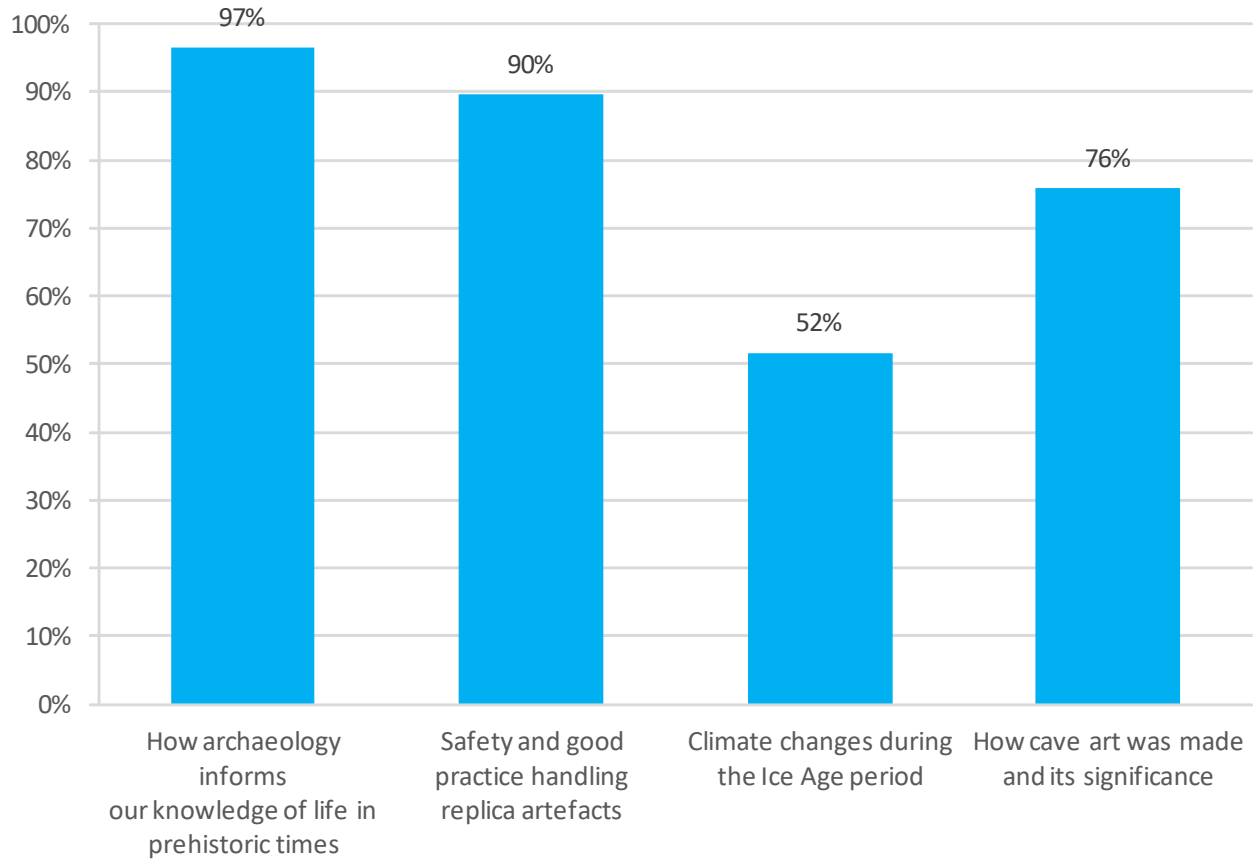
'Yes, it enabled them to really appreciate what these tools felt like, looked like and how they could be used'

'It gave the children the opportunity to handle flint and other artefacts that had been discussed in class'

'By seeing and hamdling the artefacts, they got a better understanding of how people in the Stone Age lived'

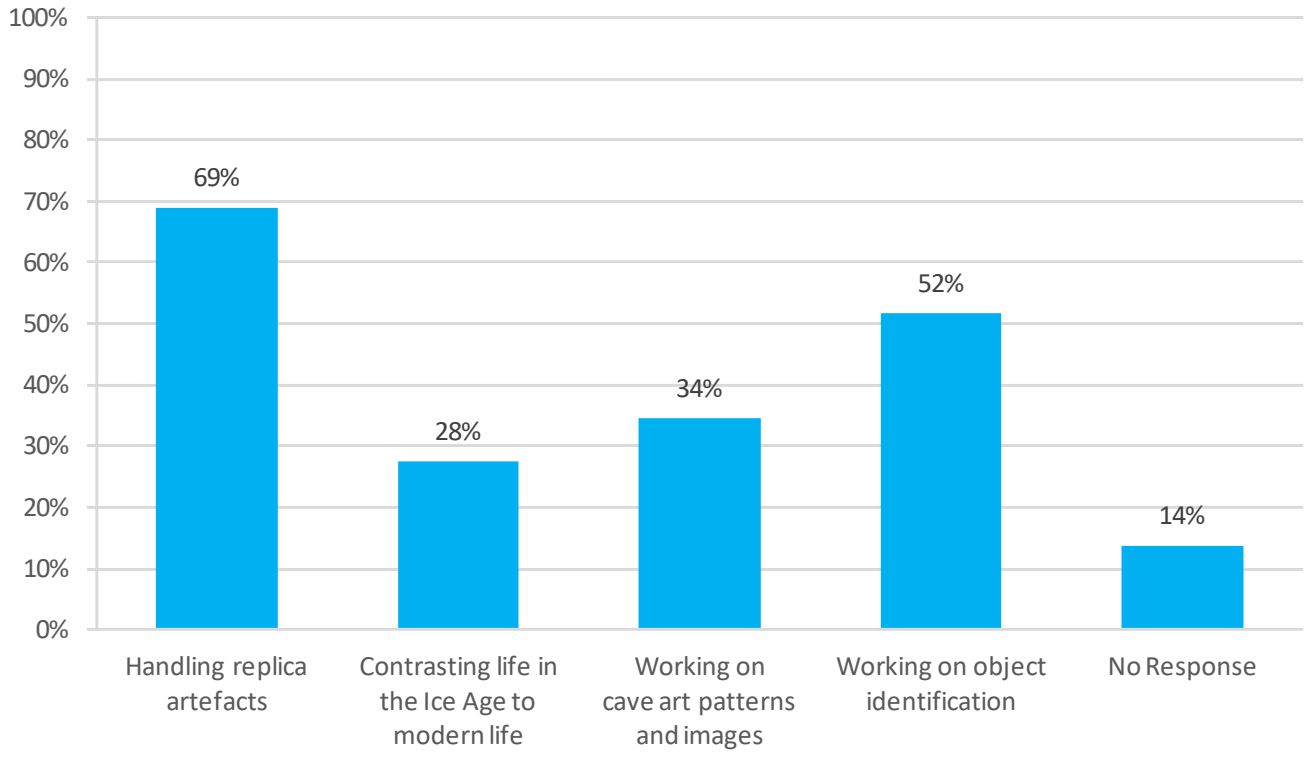
Total = 29

Q. Did the session give the children an awareness of the following topics?



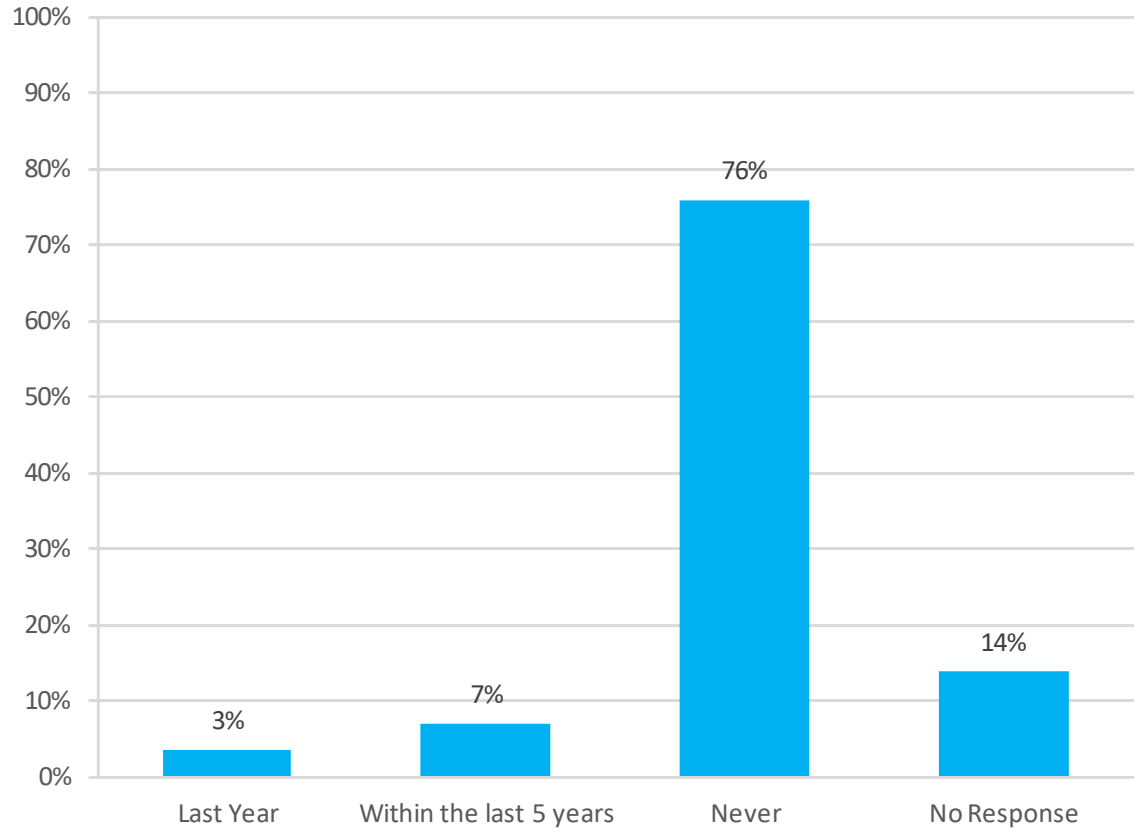
Total = 29

Q. Which aspects of the session most engaged the class??



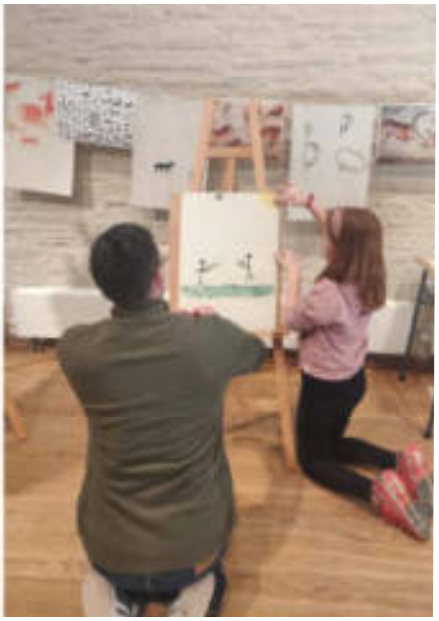
Total = 29. Respondents were asked to select all that apply.

Q. Please tell us if you have taken part in one of our sessions before?



Total = 29.
The "never taken part before" group is made up of 9 home school responses and 13 schools

Newark Museum, Easter activities 2022







Images taken with permission by Emma Collett

Section 4 Learning Programme

Deliver YAC Workshops

Young Archaeologists' Club (YAC) Leaders are volunteers or, more rarely, staff in museums and heritage sites, working under the Council for British Archaeology (CBA) banner, providing archaeology clubs for 8-16 year olds. There are 74 YAC clubs nationwide; currently only two are in the East Midlands (Nottingham and Leicestershire).

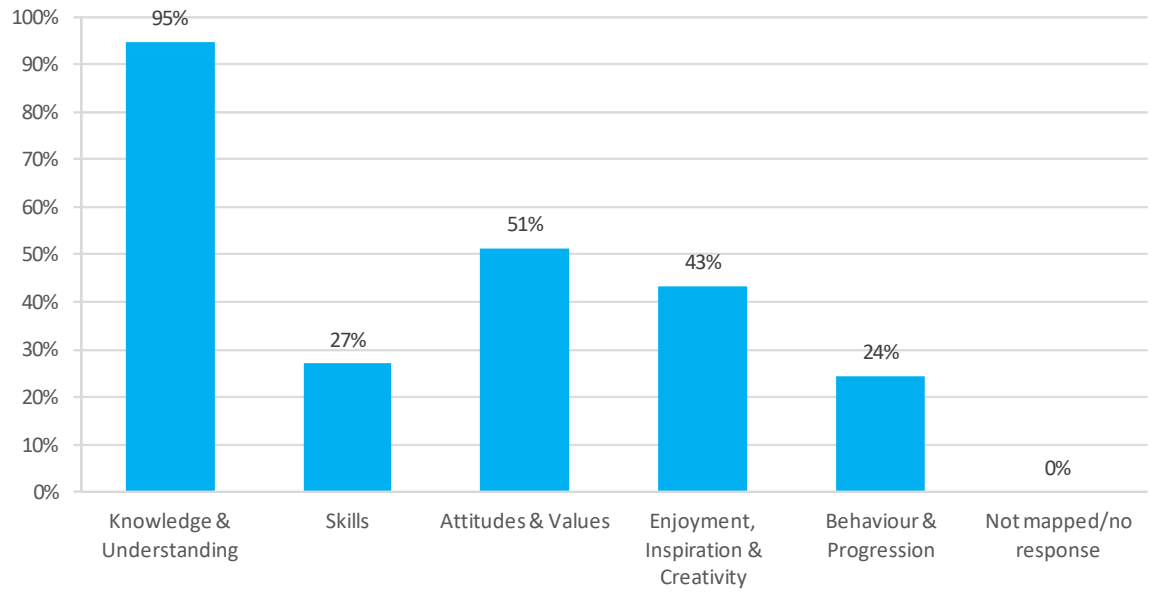
Our workshop programme was originally planned as a weekend but on advice from YAC was adapted to two separate events (hosted at Creswell September 2019 and May 2022) so as not to clash with their other funded projects, which raised the cost a little. A flint knapping session was also added at the suggestion of Creswell. The programme had the dual purpose of familiarising delegates with Ice Age artefacts and technologies, and providing ideas for relatively risk-free activities for the clubs (output in Appendix D).

A third session, hosted at Newark NCWC, was added following the curtailment of our school teacher CPD programme, which was aimed at collaboratively devising activity sheets for YAC sessions about past climate change. All three events were advertised through YAC Head Office at York by Joanne Kirton (Engagement and Delivery Manager). Travel was subsidised by £20 per head and free parking and refreshments were also provided by the project. Leaders attended from a wide area encompassing Torquay, Carmarthen, Norwich, Manchester and Leeds, with 3 attendees from the East Midlands.

Survey Feedback

The survey feedback below is from the 2 Creswell workshops.

Q. What did you discover today in the session that really stood out for you?
Free text responses were mapped to the Arts Council England Inspiring Learning for All Framework, Generic Learning Outcomes



Total = 37 responses
Individual responses may be mapped to more than one outcome

Q. Were the activities useful as a way of learning about archaeological facts and evidence? Please tell us how?

100% said 'Yes'

'Learning the basics of flint knapping'

'Simplified complex ideas, fun'

'Hands on learning helps you understand how people lived'

'Loads of really great ideas to take back to my YAC group plus reminded me of lots of things I have done elsewhere that I could use with YAC'

'Cave art showing how long the area had been inhabited. We read about it, good to see the evidence'

'Lots of ideas of cheap and cheerful idea for museums'

'I learnt a lot about Creswell and got ideas I can pass on'

'Great to see all the aspects of knapping flint, not just the finished product. Really knowledgeable talks'

'Informative and importantly health and safety friendly'

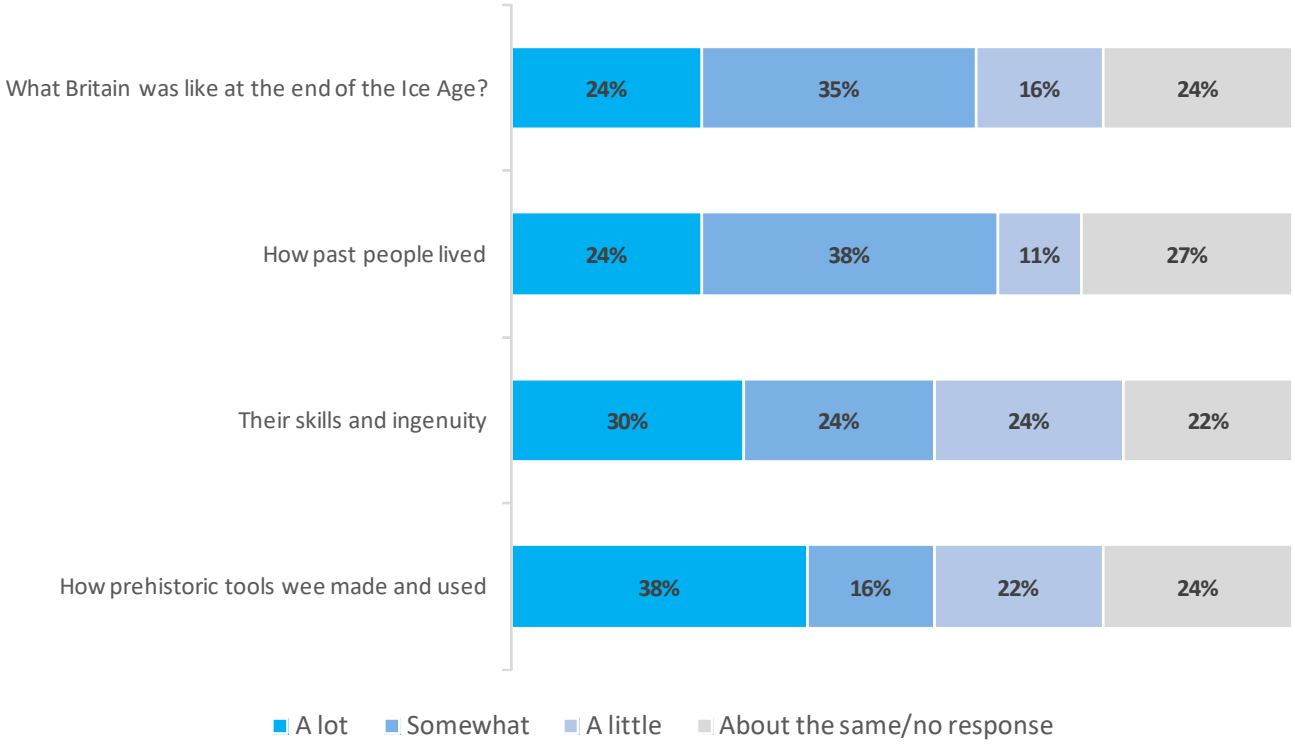
'A variety of activities which are good for different age ranges as well as a good insight and fun way of learning for leaders'

'Hands on flint knapping and useful ideas for sessions on our own'



Daryl Garton

Q. Has taking part in this activity changed the way you think about?



Total = 37 responses

There is a high representation of 'a little' and 'about the same' in the charts above. 22 respondents (59%) ticked these boxes to all 4 sub-questions, demonstrating that we were talking to an informed audience. This knowledgeable group, in response to our questions about the way of learning and suggestions for future improvements, included the following responses:

> *'Loads of really great ideas to take back to my YAC group plus reminded me of lots of things I have done elsewhere that I could use with YAC'*
>
> *'Lots of ideas of cheap and cheerful idea for museums. Nothing, well run and varied'*
>
> *'I learnt a lot about Creswell and got ideas I can pass on. No' [improvements suggested]*
>
> *'Ideas for activities with kids. Maintain hands on elements - learn more by actual doing'*
>
> *'Always good to have hands on creative activities to use with the kids. Loved having lots of different activities and a range of different speakers - good mix of practical and theory. Thanks'*
>
> *'More useful for how to present to children. Great for thinking about how to present this period of prehistory to children'*

We think that two responses from this group (one via email sent later) summed it up:

> *'Very good session. Nice to have a refresher of what I already know'*
>
> *'Our leaders from Greater Manchester YAC found it so inspiring and we will definitely be taking the ideas, skills and knowledge learned into our YAC sessions'*



Jo Kirton



Ian Ross

YAC Leaders at Creswell Crags, May 2022 (above)
and September 2019 (below)



Jo Kirton

Climate Change Workshop

The aim of the Newark workshop (October 2021 after two postponements because of Covid) was to try to devise some activity sheets for YAC sessions about past climate change that would engage youngsters with practical activities and also have relevance to the issues of climate change today.

https://www.yac-uk.org/news/yac-leader-training-day--climate-and-environment-in-the-ice-age

The morning session comprised four presentations covering a survey of online resources (circulated to participants afterwards), the principles of climate change, examples of impact from plants and animals, and representing complex climate data using visual cues such as coloured stripes.

In the afternoon there was an open group discussion during which participants were asked prioritise two elements that they wished to see produced from the day. Other than a request for an image database, the results can be divided into three broad themes: timelines, games and picture resources (Table 3, below).

The discussions in this session were incredibly creative and useful in identifying ideas and themes. However, the original idea of co-creating activity sheets proved to be far too ambitious for one session and, in retrospect, we realised that would be more effectively led by learning specialists supported by archaeologists and geologists. The output from the workshop provides a useful starting point, which we hope will be taken forward in the future (see quote from Jo Kirton at the end of the 'Reflections' section).

Participants were encouraged to provide some feedback on the day via post-it notes (18 responses):

> *'Fantastic day. Food for thought. Excellent speakers. Enjoyable debate'*
>
> *'Lovely how the many different skill sets in the group give rise to such a variety of ideas and concepts to work with'*
>
> *'Really useful to bring together geology and climate ideas together with archaeology. Really got me thinking'*
>
> *'The course is great but is a huge concept and each would need to be geared towards a specific age/broken down gently'*
>
> *'Thought provoking and interesting + step on way to develop sessions but not at actual session material yet'*
>
> *'Session really really interesting but very complex ideas – need to break out simple child focus sessions for YAC'*
>
> *'Very interesting workshop, lots of good ideas. What YAC Leaders need are resources...'*
>
> *'It was <u>lovely</u> to finally meet people outside of my own YAC group!*

The last comment, whilst not specific to the subject discussed, gives an insight into the value of such National Lottery supported activities for this amazing group of YAC leaders.

Table 3 YAC leaders 'wish list', October 2021

Timelines	*Games*	*Picture resources*
Doggerland - simple child level overview, before and after	game exploring climate change impacts and effects upon 'US'	Doggerland archaeology and people who lived there
migrations and diversity	game based on climatic events	Learning sheet on plant fossils etc to reconstruct an environment
Ice Age time lines	Dungeon & Dragon style game with events like volcanoes/ glaciers etc and pollen and trees as resources	resource cards matching pollen to tree to environment and beetle to environment for use in picture pairing games
timeline style game	Climate change game introducing environmental and climate change factors to influence life style, agriculture and technology and population migration – 'not much to ask!'	dendrochronology showing how events can be changed; dendro pictures to show climate events; change trees/wood with climate over time
pictures to show how archaeologists use dating	Series on human ingenuity/ adaption Four examples of climatic events given (ice age/flooding of Channel/volcanic eruption/hard winter): how did the people adapt/change – create a plan	impact of climate change on archaeological record - technology needles etc

young archaeologists' club

YAC Leader Training Day – Climate and Environment in the Ice Age





Daryl Garton

Reflections on the Learning Programme

Despite the disruption to the learning programme and the adaptations we needed to make, feedback and survey evaluation from both components indicates it successfully met the project objective to create new learning opportunities for our region's unique Ice Age heritage.

Our schools sessions were designed provide different kinds of learning opportunity and feedback from teachers indicates a spread of outcomes across Knowledge and Understanding, Skills and Enjoyment, Inspiration and Creativity, as well as good responses to the specific learning outcomes for the sessions. It would have been preferable to have gained more survey feedback from the Bradgate and Newark sessions, and we learnt the lesson that we had to ask teachers to complete the form in person on the day. However, the outcomes evident in the returns we did get are consistent with the positive response from teachers and pupils in other sessions.

Teacher after a school-session at Bradgate Park wrote:

> *'Thank you so much for the trip. The children absolutely loved it – it was a very informative day and the children learned so much. The volunteers were very knowledgeable and enthusiastic. We will definitely be coming again next year.'*

Several factors were key, including:

- NHLF support that enabled development of programmes and the removal of charging as a barrier to engagement as we launched new activities.

- Despite our best efforts, in the areas of highest deprivation the response to our offer of free sessions for schools was low, though ultimately 61% (11) of schools were located in postcode areas falling within 10%-50% of the most deprived areas nationally. Although a significant step, in this case removing session charges was clearly not the only factor in addressing barriers to opportunity.

- The adaptability and creativity of all the staff and volunteers who have contributed to delivering the work.

- Bringing together resources, skills and experience from each project partner to create distinctive resources and activities that share a common basis and are adaptable to each organisation and the relevant archaeological site. The NHLF funding has enabled us to move forward together in ways that we would not have done as individual organisations.

In addition to the learning outcomes for participants, the programme has also delivered positive results for each organisation: Bradgate Park received a Sandford Award for its learning offer, with the Stone Age session featuring significantly in the assessment (see quote from Carolyn Holmes in Section 5, page 71).

https://www.heritageeducationtrust.org/award-holder/bradgate-park-trust

Sarah Lee, (Learning Manager, Creswell Crags), wrote:

> *'As an educational charity, it is an objective of Creswell Heritage Trust to engage as many children and adults as possible in learning about the Ice Age and the important role Creswell Crags plays in our understanding of this time. To this end, Creswell Crags offers a range of school visit activity days on site, but sadly not all local schools are able to visit, due to both financial constraints and capacity issues; due to the size and nature of the site, the number of school groups who are able to experience these activity days is limited to up to two groups per day, or a maximum of around 100 children. The opportunity to deliver Ice Age Partnership outreach sessions to local schools therefore became a perfect way of reaching classes who we could not accommodate on site. The fact that the sessions were free of charge to the school meant that we were able to engage with schools who could not afford to bring their children on a visit to Creswell Crags, and therefore allowed us to reach an audience we would not have been able to otherwise. The resources produced by the Ice Age Partnership to facilitate learning during these outreach sessions were of the highest quality, ensuring that the children who took part in the outreach sessions had an excellent experience. These sessions also allowed us to spread the word about Creswell Crags as a local attraction, hopefully encouraging children, parents and teachers who may not have previously heard of our site to visit in the future.'*

Sarah Clarke (Learning & Participation Manager, Newark NCWC) told us that the Ice Age Partnership project has been beneficial for the National Civil War Centre and our learners in a number of ways.

> *'Although our museum collection includes artefacts from the Stone Age, we had previously only delivered 'Stone Age to Iron Age' sessions to one school a year. Since receiving the Ice Age Journeys resource packs and accessing the training, we have delivered 6 sessions on the Ice Age. Unfortunately the COVID-19 pandemic caused a hiatus in activity, but we are confident that this session will be popular with schools going forward. The replica items developed by the Farndon team are invaluable in this session.*
>
> *One surprising development has been the interest from home educating families. The museum rarely has requests from home educators, but the provision of this workshop offered free of charge has captured the attention of groups of families. We altered the KS2 Ice Age Journeys session which had been designed for Year 3/4 children so that it could be accessed by families with children ranging from 3 to 15. Three of these sessions have been delivered in March 2022, with excellent constructive feedback offered. Market research carried out during these sessions has led us to devise a regular programme of sessions for home educating families for later in 2022.'*

Building the partnership with Newark NCWC's learning team has been a key outcome for Ice Age Insights. Our previous project at Farndon Fields successfully engaged local schools. However, scaling up to generate interest in the broader Newark area for this project was challenging as a small, voluntary organisation. The partnership and support model that evolved during the project was an effective way for Ice Age Insights to make best use of the learning team's expertise and experience and one we hope to take forward. If we were to undertake future learning projects independently, we would target efforts on engaging more classes from a smaller set of schools.

We were also pleased with the take up and positive responses to the YAC leaders workshops, particularly as the participants came with a range of prior knowledge and experience in our subject area. One idea, which was raised several times during the Newark climate change workshop, was a 'Dungeons & Dragons' type game; at one stage Jen Horseman (ex-Creswell) was working on such an idea, but it got squeezed due to other work pressures and couldn't be pursued. Hence, we were delighted when, after this workshop, Jo Kirton, YAC (Engagement and Delivery Manager) wrote:

> *'I like the ideas you have suggested. We have a new Kickstarter hopefully starting with us towards the end of the year, so I might look at asking them to create a resource pack that utilises the activities and resources created by IAJ's and build on some of the other requests for support.'*

We do hope this happens.



Ian Ross

YAC Leaders learning how to use a spear-thrower, Creswell Crags 2022

Section 5 Sharing, Developing, Collaborating

Hold a conference to showcase resources and share learning

Our period is a specialist area of study, even for archaeologists, so the conference was a key part of our strategy to share learning and bring together evidence and insight from different areas of study and interpretation. To maximise our reach and accessibility, we partnered with the East Midlands branch of the Council for British Archaeology (CBA) to host the event. The CBA is an independent charity that gives archaeology a national voice and aims to safeguard it for future generations, with a central campaign mission of 'archaeology for all'. Each year, the East Midlands group organises two day-conferences and a field-trips, which are open to all.

The *Sites and Skills of the Ice Age* conference took place on November 23rd 2019 and was attended by 120 people who heard speakers from Bradgate, Creswell and Ice Age Journeys in addition to those from the Universities of Oxford, Sheffield and Newcastle. The presentations were filmed and form a freely accessible archive on the Ice Age Journeys website. 16 volunteers from Ice Age Journeys, Bradgate Park and CBA East Midlands were involved in running and recording the day. https://iceagejourneys.org.uk/ice-age-journeys-reconstructed/

We tracked the reach of the conference using postcode data; as expected for a regional event, participants mainly came from the East Midlands, but there were also a good number from outside the region and a CBA organiser also commented that:

> *'There is a wider spread (of postcodes) than we usually see*'

We believe this reflects the unique contribution the three East Midlands sites make to understanding this period and the scarcity of events covering this period. The feedback we gathered through talking to the speakers and audience, and with a post-it comments board, demonstrated that the conference met the outcomes that people have learnt about heritage and heritage is better interpreted and explained. One of the speakers commented:

> *'I learned a lot and it was really inspiring to see all the great work going on'*

and a professional from the audience:

> *'I learned a great deal from it. I just wish that now I know what I know, we could do it all over again*.'

Comments from the delegates were overwhelmingly positive, with only one negative comment which related to comfort at venue.

> *'It was fascinating to learn about the links between the sites in the East Midlands, the skills of the hunter gatherers and their way of life'*
>
> '*Excellent & inspiring talks. A day well spent'*
>
> *'Excellent variety of talks! Great to have an overview of some of the outstanding questions'*
>
> *'Very educational. Masses of research shared with professionals and public'*
>
> '*Talks really interesting, enjoyed them universally.*
>
> *'Fascinating to hear relevance of geology and landscape'*
>
> '*Superb talks. Dire seating'*

2019 conference programme

Council for British Archaeology
East Midlands



Sites and skills of the late Ice Age

Saturday 23rd November 2019, 10.30am-5.30pm, Newark Academy, London Road, Newark, Notts NG24 3AL

A meeting hosted by CBA East Midlands and Ice Age Journeys to celebrate the National Lottery supported partnership of Bradgate Park, Creswell Crags and Ice Age Journeys. Our partnership is exploring the links between the major late Ice Age sites of the East Midlands and learning about the skills of those hunter-gatherers in order to promote our ancient heritage to local and regional communities.

9.45-10.25	Registration and coffee/tea		
10.30	Welcome	Marilyn Palmer	CBA EM Chairman
10.35-11.05	Recent discoveries in the British Late Glacial Palaeolithic	Nick Barton	University Oxford
11.10-35	Does the concept of "Lake Humber" have any relevance for understanding the Late Ice Age environment of the lower Trent valley?	Colin Baker	Ice Age Journeys
11.35-45	short break		
11.45-12.10	Ice Age Journeys - mapping Farndon Fields in its landscape	Ian Ross	Ice Age Journeys
12.15-40	All About the Ice Age (by Jennifer age 7 ½) - or Teaching the Palaeolithic	Jennifer Horseman	Creswell Crags
12.45-1.45	Buffet lunch		
1.50-2.00	Learning essential skills for an Ice Age Journey	Daryl Garton	Ice Age Journeys
2.05-2.35	Making a point: bone and antler toolkits in Late Glacial Britain	Ben Elliott	University Newcastle
2.40-3.15	Caught knapping: flint-knapping video	James Dilley	Ancientcraft
3.15-3.50	Tea/coffee		
3.50-4.25	Bradgate Park: a strategic hunting location	Lynden Cooper	University Leicester Archaeological Services
4.30-4.55	Prospecting for the Palaeolithic: a field strategy for Creswell Crags and the Limestone Heritage Area	Kevin Kuykendall	University Sheffield
5.00-5.20	Final remarks	Alison Roberts	Ashmolean Museum, Oxford

HERITAGE FUND

Develop the skills and knowledge of key staff and volunteers across the three sites, and engage new volunteers, including local students

Developing Skills and Knowledge

The project provided a mixture of development opportunities for staff and volunteers, including external training, internal training sharing areas of expertise between the partners and developing skills and knowledge through co-delivery of the programme and participating in activities. As the delivery partner and centre for the Farndon schools learning offer, Newark National Civil War Centre also participated in training and development. The extended period of our project has resulted in the staff at Bradgate and Creswell changing almost totally; this has broken continuity and, post-Covid, some additional training and familiarization has been conducted.

Staff from all three centres undertook NSPCC safeguarding courses as a step towards making our organisations more resilient: two people took Leaders courses (Creswell and Newark) and 3 people took introductory courses (Bradgate). Jennifer Horseman, Creswell Crags Learning Officer, wrote:

> *'This short course with the NSPCC was particularly useful in my role within the Learning Department of Creswell Crags, as we work extensively with children and young people. Despite the hiatus with our physical learning sessions during the COVID-19 pandemic, I was able to put the safeguarding training to use. I was responsible for the development of Creswell Crags' livestreamed learning sessions on the British Stone Age and Evolutionary Theory. Alongside the physical setup of the greenscreen environment and designing the session content, I created the risk assessments/mitigation for these sessions and wrote Creswell Crags' guidance for safeguarding/child protection in digital environments. The NSPCC training via the Ice Age Partnership project proved invaluable in this work, which will continue to be used across the team at Creswell Crags.'*

The feedback from Bradgate Park Volunteer Administrator, Learning and Engagement Manager, and person who delivers their Young Ranger programme wrote:

> *'The training gave us a better understanding of our duty as an organisation to raise concerns about children who may be at risk and enabled us to build confidence in recognising and responding to those signs of abuse. Going forward, we can now approach school sessions, family events, and young ranger activity with a much clearer understanding of safeguarding processes, and this will enable us to create a safe environment for children to learn and have fun at Bradgate.'*

Jennifer Horseman led development of the resource boxes and training in their use in schools, which was attended by staff and volunteers from Newark (5 attendees and 2 volunteers) and Bradgate (4 attendees). Additionally, the Bradgate team were invited to see the Newark NCWC exhibition and hear about their teaching materials (the Bradgate Tudor Mansion is only some 100 years earlier than the Civil War).

> '*The afternoon session was excellent, well thought out and planned, comparing present day items with those from the Ice Age.'*
> Bradgate Park team

'*There was a lot of healthy discussion and the verbal feedback from everyone that attended was that they found the sessions very useful.*'
Ice Age Insights volunteer



Resource box training, Newark 2019

John Miller

At the request of the NNCWC, the Ice Age Insights team gave an informal presentation covering the archaeology at Farndon and the lifestyle of Ice Age hunters to five staff members who used their learning to create a unique session for schools linked to the specific discoveries at the Farndon site. Sarah Clarke, Learning and Participation Manager, NNCWC wrote:

'We have been developing our school session since you visited, and we're a lot happier with our new ideas. Thank you for all your input. The session begins with children in role as archaeologists, 'fieldwalking' in the school hall and labelling their finds. The key find is a scatter pattern (fake flint chips glued to brown fabric) which forms the hook for the session. We'll then build up a picture of the person who made this pattern by exploring their belongings and finding out how Ice Age people lived, worked, ate, dressed and celebrated.'

Six Bradgate and two Creswell staff were involved in the fieldwork in Bradgate Park. Only one person had any previous archaeological experience, so, for almost all, this was an opportunity to try archaeological excavation for the first time and learn new skills. Twenty Bradgate volunteers also participated in the fieldwork alongside more experienced volunteers from Farndon and the Leicestershire Fieldworkers groups (14). For more experienced excavators, the geology at Bradgate was different to that of previous projects and provided an opportunity to extend their skills and knowledge.

The revised Exploring and Mapping talks and workshops programme delivered at Bradgate also received a positive response from the volunteers who attended. Fee Worton (Bradgate Lifelong Learning Officer) commented:

'*We have a number of staff tasked with volunteer event management, aimed at specific and quite separate volunteer interest groups. The subject matter from these sessions bridged that separation, and also appealed to a broader audience. There has been nothing but positive feedback from our volunteers. Their increased knowledge has boosted confidence resulting in enhanced public engagement.'*

Engaging students

8 students participated in the project: 2 as work-placements, 4 at university and 2 in gap year; 4 participated in the craft sessions, 1 in the mapping and 3 in the fieldwork.

At the time of the grant application our target was to engage 12 students and we had hoped to implement this through links with the University of Leicester Summer Training School via the lead archaeologist for the Bradgate fieldwork and through a strong link we had with an archaeology student who was due to start a masters course at York in 2018. In the event, by the time our activities were underway, both those circumstances had changed, which impacted significantly on recruitment. We undertook advertising of our activities to students at Derby, Nottingham and Nottingham Trent Universities through staff contacts, which resulted in 1 student participating in the craft sessions. We believe there were several reasons for the limited uptake: the timing of our activities (spring and summer) overlapped exam and holiday periods, travel to the sites was potentially a barrier and there were of course other opportunities available to students within their universities.



Andrzej Jablonski

Students, professionals and volunteers participated in the fieldwork

Engaging new volunteers

Although we had not set targets for new volunteer recruitment, Ice Age Insights planned to use this project to offer opportunities to our core of active volunteers, generate renewed engagement with volunteers who had taken part in our previous fieldwork project and recruit new volunteers. In practice there were challenges to achieving this. Due to GDPR, we had to rebuild our volunteer/participation database from scratch, which involved a significant amount of 'catch-up' that we were not expecting. There was less volunteer uptake than we had anticipated and we think delays to our communications and the time-gap between activities, during which volunteers may have found other causes to support, were possible reasons for this.

Another factor was being unable to undertake the Farndon fieldwork due to commercial developments, unknown at the time of writing the bid in 2017. Without this hook of a regular activity through which to build interest recruiting new volunteers was challenging.

More successful was the model of our craft workshops, which were advertised to participants as an opportunity both to learn and contribute, through the objects they created, to the project learning resource boxes. We received a positive response to this micro-volunteering model of participation and the time participants gave was a significant contribution to our project (see Table 1). We did, as we had hoped, receive interest from several participants in more regular volunteering, but the length of time between activities and then disruption caused by Covid-19 meant that ultimately this did not come to fruition: it is a model we would consider in future.

Foster collaborative working between the three sites

Joint Statement from the project partners

Our NLHF-funded Ice Age Partnership has been all about our very different organisations working together to make the new discoveries in our Ice Age heritage better known by all. Since the start of our project in 2018 we believe we have made significant steps in realising the benefits of a coordinated approach to our region's Ice Age Archaeology. We have all gained from sharing the different skills, expertise and experience that exist across the partnership: the legacy of resources and experience of working with new content is providing a strong foundation for future work at each centre.

Part of our new content is in bringing together recent discoveries of Ice Age archaeology at our different centres. These links have been explored in our project 'mapping' sessions and the results interpreted in our web Google Earth journey, making our connections readily available to all. https://tinyurl.com/Ice-Age-walk

During such a wide-ranging project, there have been many benefits, but, for different reasons, we have selected these highlights:

- The opportunity to participate for the first time in archaeological fieldwork for both the Bradgate Rangers and volunteers and Creswell staff, led by Ice Age Insights and Lynden Cooper
- Farndon volunteers sharing their knowledge of flint-working so that excavation finds were identified as they were discovered
- Creating Ice Age learning resource boxes for each organisation, drawing on resources and skills from each of our organisations: the initial idea for themes and contents from Creswell's experienced learning team; offcut bones antlers and hides from Bradgate venison and practical support from the ranger team; co-ordination and knowledge provided by the Ice Age Insights team to bring together the craft experts and activities that created the resource box replicas
- Reaching audiences previously unaware of the Creswell cave art through Paul Bahn's fascinating account of discovery
- Engaging audiences in new ways: from the hundreds of people who stopped to talk to volunteers during the fieldwork in Bradgate Park, to the tailored sessions for adults with learning difficulties working with Reach and a blind and partially sighted group in Newark.

Working together over such distances has had many challenges, particularly with the Covid break and staff changes, but overall it has been a highly enjoyable learning experience and has given us all enhanced skill-sets to continue to share new insights with our visitors and volunteers.

Lynden Cooper
Archaeologist

James Dymond
Director

Dr Angharad Jones
Curator

Dr Ian Ross
Chairman

CRESWELL CRAGS

Ice Age Journeys

As the lead partner and project co-ordinators Ice Age Insights has been at the heart of activities throughout. Our trustees and volunteers would additionally like to highlight the following feedback and examples that reflect the range of benefits that the regional collaboration enabled by the NHLF grant has brought tour organisations and our heritage.

Members of the Ice Age Insights team made 7 visits over the winter-spring 2018-19 to work with Bradgate volunteers to process deer hides using prehistoric technology. Carolyn Holmes (Bradgate Development Manager) commented:

> *'these sessions had been instrumental in the clear 'slow burn' of interest in the Rangers. It was the sustained (if sporadic) activity that had precipitated this interest and resulted in Ranger staff unexpectedly keen to sign up for craft events, particularly knapping & deer-hide working. I think that this is because staff had seen you working, had been intrigued, and this had led them to want to find out and be involved more. I also think this led directly to staff becoming more integrated with the University of Leicester Field School excavations in late spring 2019. In addition, Bradgate won a Sandford Award: the team were judged on the stone age session and we talked about our work with you lots....'*



Andrzej Jablonski

Bradgate Visitor Centre and Ranger staff (both in green on right) participate in a knapping session

Our partnership with Newark National Civil War Centre has also developed. Prior to the Ice Age Partnership project, members of the Farndon team had volunteered at the Museum and advised on the artefacts for the 'Newark through the Ages' section of the displays, but had not worked closely with the Learning team, whose focus was, of course, the Civil War. Our project has provided an opportunity to deepen our relationship and support the NNCWC team as they apply their expertise in delivering schools sessions in a new subject area. This has also provided Ice Age

Insights with a new outlet through which to advance its objective to communicate and educate the public in prehistory and archaeology.

Sarah Clarke, Learning and Participation Manager, NCWC commented:

> *'The Learning and Participation Team at NCWC have accessed training in experimental archaeology skills, Ice Age subject knowledge, climate change workshop development, and safeguarding leadership. This has upskilled the whole team so that we are better able to deliver sessions on this subject. Working collaboratively with Ice Age Insights has developed confidence in our subject knowledge, as well as building a close working relationship with a team of experts whom we hope to draw on further in future. The NLHF funding has enabled the museum to learn from experts in the field, inspiring new session development and giving us a grounding in experimental archaeology that was previously unavailable to us.'*

One of the key project objectives was to realise the potential of the latest discoveries and research at our sites and for our period to engage people with the developing story of our region at the end of the Ice Age. Our activities throughout the project have successfully delivered on this and the following examples also reflect how our collaborative project is also embedding that objective within our organisations.

In addition to providing crucial logistical support, refreshments and media coverage for the Bradgate Park excavations, Bradgate staff participated in the excavations with one member joining the excavation team each day. The fieldwork gave extended opportunities for informal conversations with the Park Rangers and highlighted some impacts from this work. As a result, one Ranger commented that they had incorporated the newly discovered evidence into their archaeology walk conducted for visitors and had asked for images which they could laminate as part of their 'show and tell'.

Simon Norton, Heritage Facilitator at Creswell, relayed some thoughtful comments about the links between the sites:

> *'I found it very interesting to link the three sites in thinking about the journeys of the people moving around them. Seeing the maps interpreted with the waterways was particularly interesting for me. The data on migratory distances in the American research added to an idea of possible distances travelled and overlaid on the possible journey / distances between our three sites has added to my own understanding of those migrations, of both people and animals. I think it seems safe to say that Bradgate / Farndon / Creswell was part of what I have come to think of as a 'circuit' and the talk certainly added to that idea for me. We can safely say that Creswell was the tip of that - the curiosity for me lies in how far in the other direction that might have stretched.*
>
> *The biggest impact the talk has had is that I have found the above to slot really well and very naturally into my tours and I've talked about this ever since the meeting. It's clear that this makes an impression on people and you can see them thinking over these journeys and distances in their mind as they imagine what this might entail.*
>
> *The interpretation of why the camp was situated where it was at Bradgate due to the natural features of the landscape was probably the thing that lit up my imagination the most and has become a most enduring image. That has also helped me to picture how hunting at Creswell may have worked and that can only add to thinking just how ideal that location was.'*

Section 6 Legacy

The Ice Age Partnership has engaged with a huge number of adults and children – focused within our region and with visitors from outside – which has resulted in overwhelmingly positive feedback as captured in the pages above.

We have increased the skill sets of numerous groups of people in the arenas of crafts, IT, archaeological excavation and science, our local heritage, safeguarding skills, with some other benefits in 'learning by doing' in the management of events.

The tangible legacy of this project is the resource boxes (which will continue to be used for schools and are available for loan), and our web sites that will continue to be available until at least 2027.

Our fieldwork in Bradgate Park, whilst being very enjoyable for all participants, has also enabled the Bradgate volunteers to build their experience and incorporate their new knowledge into guided walks – so our heritage is now better interpreted and explained to their visiting public. In addition to our contribution to the identification and recording of the Ice Age remains in the Park, we have also confirmed extensive Roman activity; even in this apparently well-researched landscape there is much left to learn.

Our web-based journey using the Google Earth platform provides a new overview of the links between our three Ice Age sites and across Doggerland. This is matched by the intangible links, and probably the most lasting legacy, formed by our cross-centre working: all staff are now more aware of the resources and expertise that can help in interpreting our deep Ice Age heritage.

Ice Age Insights hopes to continue to work with both Creswell Heritage Trust (participating in their Arts Council '*imagine a settlement*' project) and Bradgate Park (planning further investigations targeting the Ice Age landscape). By working together we can produce positive heritage outputs with real community involvement.



Bradgate Park briefing, September 2021





Newark half-marathon August 2019

Ice Age Journeys flint-race (similar to 'egg & spoon') for the youngsters who win 'Ice Age' shell medals









Images taken with permission by Edward Casebourne

Acknowledgements

Over 150 people contributed to our Ice Age Partnership project; we thank every single one for helping to achieve our goals and make our project an enjoyable learning experience.

Bradgate Park Trust: Mat Bateman, Amy Beaumont, Gillian Bolton, Amy Chambers, Laurie Cox, James Dymond, Nicole Garrett, Lisa Hamblin, Cara Hewitt, Carolyn Holmes, Matt Smith, Peter Tyldesley, Ellie Weston, Fee Worton

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Ice Age Insights: Nick Barton, Sue Cotton, Daryl Garton, John Miller, Ian Ross

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Volunteers (for 3 or more days): Pauline Beswick, Roger Beaverstock, Liz Biscombe, Liz Bristowe, Penny Broomhead, Russell Brown, Sheila Brunt, Edward Casebourne, Steve Cockett, Alison Collins, Chris Coombs, Graham Coombs, Mike Currie, Paul Dickinson, Robb Doyle, Colin Glover, Alison Graham, Doug Hagan, Lisa Hamblin, Tara Harris, Emma Hardie, Naomi Hayward, Steve Humphrey, Lianne Holden, Christine Iliffe, Andrzej Jablonski, Louise Jankovic, Iain Jones, Stephen Kent, Robin Matthewman, Tom O'Connor, Ann Oldroyd, Ray Peacock, Bill Pointer, Sue Pontefract, Jim Priest, Oskar Rudczenko, Terry Simms, Steve Talbott, David Varey, Rob Walker, Jane Ward, Terry Ward, Sue Woodward, Tony Woodward, Neil Worrall alongside a similar number of micro-volunteers.

A Appendix – examples of Evaluation Forms



A Heritage Lottery Fund sponsored partnership project between Ice Age Journeys, Creswell Crags, the University of Leicester Archaeological Services and Bradgate Park Trust.

Exploring and Mapping our Ice Age Landscape: Part 1. Presentation Feedback

We would be grateful if you could fill in this short survey. We will compile and analyse information from the surveys and use them in reports to funders and partner organisations. Thank you for taking part.

1. What interested or surprised you about the session?

2. Please tell us how much your knowledge and understanding of the following topics has changed as a result of the talk?

	Increased a lot	Increased somewhat	Increased a little	About the same
The rarity and importance of the Farndon Fields site?	☐	☐	☐	☐
The past geography of Farndon and its surrounding area?	☐	☐	☐	☐
How past changes in climate impacted on Landscapes?	☐	☐	☐	☐
How past changes in climate have affected the preservation of archaeological sites?	☐	☐	☐	☐
How digital landscape mapping enables us to learn about past environments?	☐	☐	☐	☐

3. How did you find out about this talk?

4. Please can you tell us if you have participated with any of us before and when.

	In the last two years	In the last five years	Never
Bradgate Park/ULAS	☐	☐	☐
Creswell Crags	☐	☐	☐
IAJ/Farndon Fields	☐	☐	☐

A National Lottery Heritage Fund sponsored partnership project between Ice Age Journeys, Creswell Crags, the University of Leicester Archaeological Services and Bradgate Park Trust.

Craft Workshops - Participant Survey

We would be grateful if you could take the time to fill in this short survey. The more feedback we receive, the more likely it is we will be able to run workshops like this in the future. We will compile and analyse information from surveys and use the results in reports to funders and partner organisations. Individual responses will be kept anonymous. Thank you for taking part.

1. What did you discover today in the session that really stood out for you?

2. Was this activity useful as a way of learning about archaeological facts and evidence?

Yes / No (please circle)

If so please tell us how?

3. Please tell us if you participated with any of us before and when?

	In the last two years	In the last five years	Never
Bradgate Park/ULAS	?	?	?
Creswell Crags	?	?	?
Ice Age Journeys/Farndon Fields	?	?	?

4. Has taking part in this activity changed the way you think about...

	A lot	Somewhat	A little	About the same
What Britain was like at the end of the Ice Age?	?	?	?	?
How past people lived?	?	?	?	?
Their skills and ingenuity?	?	?	?	?
How prehistoric tools were made and used?	?	?	?	?

If so please share your thoughts with us

PTO

Continued

5. Which aspects of the activity would you be most likely to talk about to family/friends?

	Highly Likely	Somewhat likely	Unlikely
Reflecting on how we feel our Ice Age ancestors lived?.	?	?	?
The impact of climate change on past people?	?	?	?
The processes used to produce necessities?	?	?	?

6. What were your reasons for coming to the session today? (Please circle all that apply)

General interest in doing a craft activity?	General interest in archaeology?	To learn about the Ice Age?	To try something new?	To volunteer time?	To Learn about prehistoric crafts? Other? (Please specify below)

7. Is there anything we could improve when running similar activities in the future?

8. Would you be interested in attending our other events or volunteering with us? (Please circle)

Attending	**Volunteering**
Yes	Yes
No	No
Already signed up	Already Signed up

If 'yes' please fill out separate mailing form and/or volunteer form.

9. What is your age group?

0-24 ? 24-45 ? Over 45 ?

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Young Archaeologists' Club Leaders workshop - Participant Survey

We would be grateful if you could take the time to fill in this short survey. The more feedback we receive, the more likely it is we will be able to run workshops like this in the future. Individual responses will be kept anonymous. Thank-you for taking part.

1. What did you discover today in the sessions that really stood out for you?

2. Were the activities useful as a way of learning about archaeological facts and evidence?
   Yes / No (please circle) Please tell us how?

3. Has taking part in this activity changed the way you think about...

	A lot	Somewhat	A little	About the same
What Britain was like at the end of the Ice Age?	?	?	?	?
How past people lived?	?	?	?	?
Their skills and ingenuity?	?	?	?	?
How prehistoric tools were made and used?	?	?	?	?

4. Is there anything we could improve when running a similar workshop in the future? Please share your thoughts with us...

5. What is your age group?

   0-24 ? 24-45 ? Over 45 ?

KS2 Stone Age session for schools

We would be grateful if you could take the time to fill in this short survey. The more feedback we receive, the more likely it is we will be able to run workshops like this in the future. We will compile and analyse information from surveys and use the results in reports to funders and partner organisations. Individual responses will be kept anonymous. Thank you for taking part.

1. Which aspects of the session most stood out for your class?

2. Was handling replica artefacts helpful for the class as a way of learning about the KS2 Stone Age to Iron Age topic?

Yes / No (please circle)

If so please tell us how.

3. Did the session give the children an awareness of

How archaeology informs our knowledge of life in prehistoric times?	Safety and good practice handling replica artefacts?	Climate changes during the Ice Age period?	How cave art was made and its significance?	Other? (Please describe below)

4. How has the children's knowledge and understanding of the following topics increased..

	Increased a lot	Increased somewhat	Increased a little	Not at all
How the caves at Creswell Crags link to other Ice Age sites in the local region?	?	?	?	?
How people during the Ice Age adapted and survived in a changing environment?	?	?	?	?
How tools, clothing and jewellery were produced and used during the Ice Age?	?	?	?	?

PTO

Continued

5. Which aspects of the session most engaged the class?

Object handling of replica artefacts?	A talk from a subject specialist?	Contrasting life in the Ice Age to modern life?	Working on cave art patterns and images?	Working on object identification?	Other? (Please specify below)

6. Was there anything about the session that could have been improved?

7. Have you taken part in one of our sessions before?

Last year ? Within the last five years ? Never ?

8. What is your school postcode? ……..

9. What is your class year group? **……**

10. How many children are in the class?.....

B Appendix – how we used flint in the craft workshops

Flint-knapping in the Ice Age is of a particularly high standard and it takes years of practice: in this instance, our long blades were knapped by our expert knapper (James Dilley), who then showed us how to shape them into particular forms – and this easier task was accomplished by most (not all) of our volunteers, though inevitably there were many breakages and 'seconds' that didn't make the grade for the resource boxes. All participants said that they had enjoyed their experience, and universally commented that although James had made it look easy, they now appreciated that flint-knapping was hard and needed lots of practice.

The flint 'waste' from the knapping was saved up for use in the bone and antler working led by Ben Elliott. Shaping of these materials requires sharp edges to grind or cut, and although hard on the fingers and wrists, all volunteers were able to produce some effect on these hard, resistant, materials and created a set of replica barbed antler points. Bone is much easier to work, and we achieved several flute and whistle replicas using hollow bird bones; Sarah, a flautist from Newark, could even play a tune!

Flint 'waste' was also used to pierce holes in shells prior to stringing them for jewellery. Once shown how, most people from about age 7 upwards, can, with care and appropriate gloves and safety specs, create a hole in a shell, and even the younger ones (with some parental help) can then string onto twine. It was this activity that we rolled out for the 'have-a-go' sessions (parents having first signed a consent form). For the younger children, even the simple task of cutting twine with a stone (i.e. flint) was exciting, and learning how to tie a knot (to keep the shells separate) was also a good trick.

Flint 'waste' was also used to cut and trim the deer skins we processed. This activity was not led by an expert, but by us volunteers learning as we went. It was inspired by a drum at Bradgate made from a deer hide; although archaeological examples of drums are extremely rare (they don't preserve), they were important in the lives and rituals of recent reindeer hunters/herders who provide one model of how our Ice Age ancestors lived, so we googled how to process the skins, then had a go. It is a long and messy process, scraping off any fat and membrane with flints, soaking in wood-ash solution, then de-hairing; eventually, after 6 sessions, we had four rawhides which we then made into drums.



Ian Ross

James holding an ultra-sharp blade that he had just knapped from the core in his right hand

C Appendix – leaflet summarizing the Ice Age story of Bradgate Park

We produced a specially designed Z-fold leaflet, summarizing the investigations of Ice Age activities in the Park, to hand out to passers by.



When & Where?

During a warming phase at the end of the last Ice Age, the British peninsula was colonized by small groups of Upper Palaeolithic hunter-gatherers, heading northwards into new lands after a 10,000-year deep freeze. Cave sites in the south-west of England have the first signs of visits about 14,850 years ago, and shortly afterwards we have evidence of hunters from caves at Creswell Crags and riverside camps at Farndon Fields, Newark. In 2015, archaeologists excavated an open-air 'Creswellian' site at the mouth of Little Matlock Gorge in Bradgate Park, where the remains of a well-preserved seasonal campsite were found.



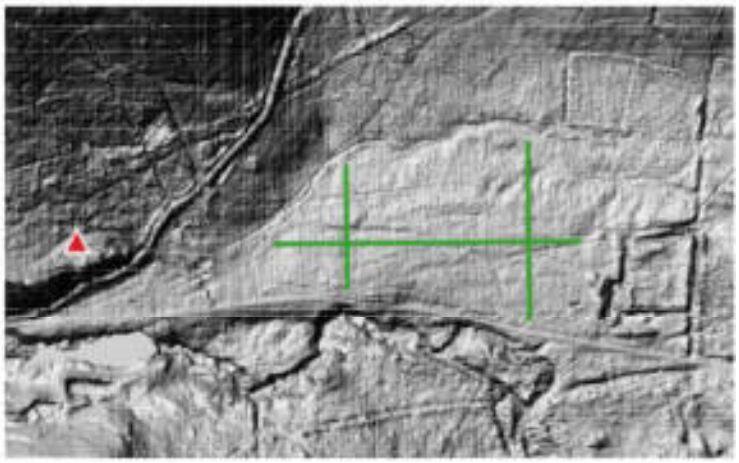




GPS (Global Positioning System, using satellite technology) was used to record the precise spot of each flint (marked by white tag).

What were people doing at Little Matlock Gorge?

Thousands of worked flints represent the debris of occupation, dropped after use around a hearth. Forensic analysis of the remains demonstrates several activities, including 'tooling up' for the hunt by preparing flint projectile points, repairing broken equipment and processing animal resources. Flint scrapers were used to clean and prepare hides and pelts, while antler and bone were worked with flint borers and burins (*i.e.* chisels).



Vertical image of the topography created from LiDAR data made available by Defra. The red triangle locates the hunters' camp at the east end of Little Matlock Gorge. The green lines mark where test-pits will be excavated in 2021.



HERITAGE FUND

Ice Age Journeys

'Tracking down Ice Age hunters at Bradgate Park' is a collaborative venture between Bradgate Park Trust (Charity 521476) and Ice Age Insights (Charity 1169575) and generously supported by the National Lottery Heritage Fund. Thanks to Natural England for permission to excavate on this Site of Special Scientific Interest. Images by Lynden Cooper, Daryl Garton, Andrzej Jablonski and Ian Ross.

Creating a replica Ice Age toolkit

A grant from the National Lottery allowed us to bring in specialist tool-makers. We learnt some of their skills in making replicas for resource boxes for schools. Flint was knapped to make blades and flakes - their sharp cutting edges were then used to craft tools from bone and antler.





Knapping flint blades using an antler punch.



Using flint flakes to carve grooves in antler - the first stage in making barbed points.

Needle made from cannon (leg) bone of deer and willow bark twine looped around stick.







The first antler barbed points made in Bradgate Park for over 14,000 years!

D Appendix – activity sheets created for use by YAC Leaders

Hand Stencil Activity

Background



Ice Age hand stencils from the French cave of Gargas. Image credit: Heinrich Wendel. The Wendel Collection, Neanderthal Museum.

The most common themes in Palaeolithic cave art are abstract symbols, animals and human hand prints. These prints can be either negative (stencil) or positive (print) and are commonplace during the Upper Palaeolithic in Europe, as well as in other regions. The oldest known hand stencil has been dated to 37,900 BCE and is from the Indonesian island of Sulawesi.

Because hands can very a lot from person to person, the stencils have allowed archaeologists to identify different individuals who were creating the art. Some believe it is possible to tell men and women apart using the ratios of the index finger to ring finger length. You can also tell their handedness as right-handed people tend to make left-handed stencils (there were more right handed people in the Ice Age, just like today).

Many of the hand stencils found in Europe are also missing digits, or parts of digits. Although some of this effect might be people bending their fingers out of the way, there are some that miss parts which are hard to bend independently. It is possible that these fingers had been lost in accidents or from frostbite – or even deliberately amputated.

Resources

Non-toxic powder paint in earthen colours (red ochre, yellow ochre and black work best) and water

Stiff bristled toothbrushes or gardening water spray bottles

Craft paper/brown paper (non-shiny)

Health and Safety

Take care to supervise and prevent paint from going into eyes as it can spray unpredictably. Old clothes are highly recommended! Hands should be washed after the activity.

Activity Instructions

Make up the powder paint to a thin consistency. You can explain while making it that Ice Age people would use powder paint as well, using pigments found in nature – ground up charcoal, red ochre (haematite) or yellow ochre (limonite).

Hold your hand against the paper and splatter the paint to create a handprint.

When the handprint panel is finished, challenge the group to find their own handprints again, or each others. How many handprints are right or left handed? Does this match with the truth of who made them? Can you tell the difference between an adult print and a child, or different ages of child?

Soap Knapping Activity

Background

Ice Age people are often known as "cavemen", but this name is very misleading. Caves preserve archaeological remains very well, but we know that open-air campsites were also used whilst people were on the move. Two campsites from the end of the Upper Palaeolithic have been found in the region around Creswell Crags – one at Farndon Fields, outside Newark, and one at Bradgate Park in Leicestershire.



A reconstruction of a tent at the open-air Ice Age campsite at Pincevent, in France. Most of the information at this site came from flint scatters.

Because open-air sites are not as protected as caves and the soil tends to be more acidic, bones don't preserve well. These sites are usually identified from clusters of flint fragments called "scatters". Particularly well-preserved scatters can be studied in detail. Sometimes, different people flintknapping (maybe even teachers and students) can be identified by refitting (putting the flints back together in the reverse sequence that flakes were struck)!

Resources

Bars of soap in different colours

Plastic clay shaping tools

Tarpaulin/cover mats

Sticks and red/yellow/orange tissue paper (OPTIONAL)

Health and Safety

This activity may not be suitable for people with skin conditions or allergies. Be sure that the cutting tools are being used safely as they may cause injury. Hands should be washed after activity.

Activity Instructions

Carving "stone tools" from bars of soap leaves behind a pattern of flakes just like a real flintknapper would. By using different coloured soaps, the group can see what kind of traces might be left behind for an archaeologist.

Place the tarpaulin and have the children kneel in different places. You could construct a faux "campfire" from sticks and tissue paper in the centre that they are sitting around. Get the children to peel off flakes of soap as they carve a stone tool (a handaxe is an easy form to choose). Let the flakes fall naturally around the as they work. When everyone is finished, get them to carefully stand up and look at the campsite. Can you tell where everyone had been sitting? Where do the different "flakes" fall – did any go further than you expected? How might an archaeologist work out that several knappers were in a group?

You could also walk someone through the flakes (you will get soap on your shoes so be careful!) to show what might happen if the site didn't get protected and covered right away. A wandering animal would have a similar effect. What does this disturbance do to the pattern of flakes?

Pleistocene Poop Activity

Background

The study of past life is called *palaeontology*, and many of thing things palaeontologists study are fossils. Fossils can also be very informative in archaeology – whether they are human fossils, or animals that can tell us about the environment or ways in which people were living.

True Form Fossils	*Mold/Cast Fossils*	*Trace Fossil*
This kind of fossil is made when the body/tissues of the living thing are preserved, often turning to stone (petrified).	A mold is a "negative impression" where the body/shape of the living thing shows in material which covered it as it fossilized. A cast is a "positive impression" where the space of the body is filled in with new material.	This kind of fossil is not made from the living thing itself, but from signs of its behaviour, like nests, footprints or poo.

Most of the fossils at Creswell Crags are true form – the actual bones of animals that lived and died here. Coprolites (literally meaning "poo stones") are a kind of trace fossil we have at Creswell Crags. Ours are from the Ice Age and were left by hyenas. Hyenas eat large amounts of bone as part of their diet, which increases the chances of the bone becoming fossilized as it is filled with the mineral calcium.

Resources

Plasticene in a variety of "poop" shades – light brown, dark brown, black, white

Dried grass seeds/stems (OPTIONAL)

Dried edible berry seeds or fragments of nut shell (OPTIONAL)

Small boiled, well cleaned bones e.g. chicken (OPTIONAL)

Health and Safety

Plasticine can occasionally cause allergies with some children. Some of the additional items (seeds, berries, nuts, bones, stems etc) may be allergens for some individuals. If using bones, ensure any bone fragments are well-cleaned and smooth, without jagged edges or chances to break. Hands should be washed after activity.

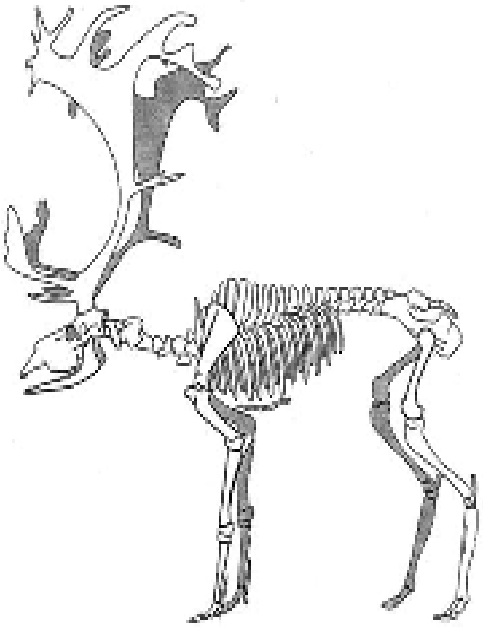
Activity Instructions

Get the group to design their best poop. We have some guides to help you! Carnivore poo tends to be darker and have bone fragments, herbivore poo is light and might have seeds or grass inside. Bone eaters like hyenas and dogs can have quite white poo.

Once you've made your fresh poo, challenge the others in the group to identify it. Which ones would make the best coprolite? What would you be able to tell from the fossils if you found them?

Big Bone Jigsaw

Background



It's incredibly rare for archaeologists or palaeontologists to find whole skeletons, especially if they are still "articulated" (in the right position). Experts at identifying bone can work out what bone it is, and what animal it was from, from even very small fragments.

Animal bones (zooarchaeology) can give us a lot of clues about human lifestyles. For example, they might tell us what the climate or environment was like – things like woolly mammoth were adapted for the cold, so we know that humans living at the same time must have had to find ways of surviving that environment as well. Hunted animals often end up with cutmarks, or sometimes even weapons stuck in the bone, so this tells us about human diets and about their hunting techniques and butchery methods. Later on, archaeologists might be able to see which animals were domesticated and which were not, whether some people in the past had different diets from others, or even how animals were used by people for things like traction or as pets.

Resources

Big Bone Jigsaw PDF

A3 Paper

Printer

Scissors

Floor space

Laminator (if reusing or using outdoors)

Health and Safety

Be careful not to slip on the jigsaw as you're building it on the floor.

Activity Instructions

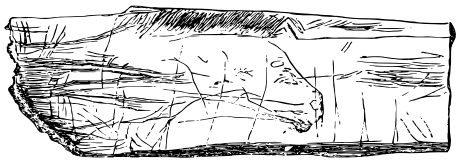
Can you construct and identify a large animal skeleton from the different pieces? See if the group can piece things together – you will need a few metres square of floor space to construct your picture. When it's finished, try to figure out what kind of animal it is.

If ancient humans had hunted these creatures, which parts of the body do you think they would use, and what for? How would this show up on the bones?

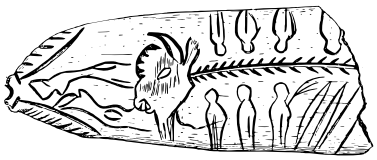
Soap Carving and Printing

Background

Cave paintings are the most famous kind of Ice Age art, but Ice Age people used a whole variety of techniques just like modern artists do. Sculptures made of clay, ivory, antler, stone and bone have been found from several sites, as well as fingerpainting, drawing and engraving/carving. The oldest art in Britain falls into that last category – the carvings at Creswell Crags are around 13,000 years old.



An Ice Age engraving of a horse from Robin Hood Cave at Creswell Crags. The engraving was coloured with traces of red ochre.



An Ice Age engraving of a butchered bison from Raymonden in France.

Resources

Bars of soap

Plastic clay shaping tools/wooden kebab skewers

Pencils

Poster paint in earthen colours

Paper

Health and Safety

This activity may not be suitable for people with skin conditions or allergies. Supervise to ensure sharper carving tools do not cause injury. Hands should be washed after activity.

Activity Instructions

Get your group to think about their inspiration for the art. Ice Age animals are a great idea, or perhaps they'd like to make some abstract designs. Sketch out the designs on paper first! Using a pencil, copy the design onto the surface of the soap. It's a good idea to carve very lightly to begin with and only deepen the carving when you're happy!

Many Ice Age engravings were also painted with pigments like red ochre. A fun way of experimenting with this idea is to use the soap carvings to do printing. Painting the soap and pressing against paper will give a negative print of the carving you just made!