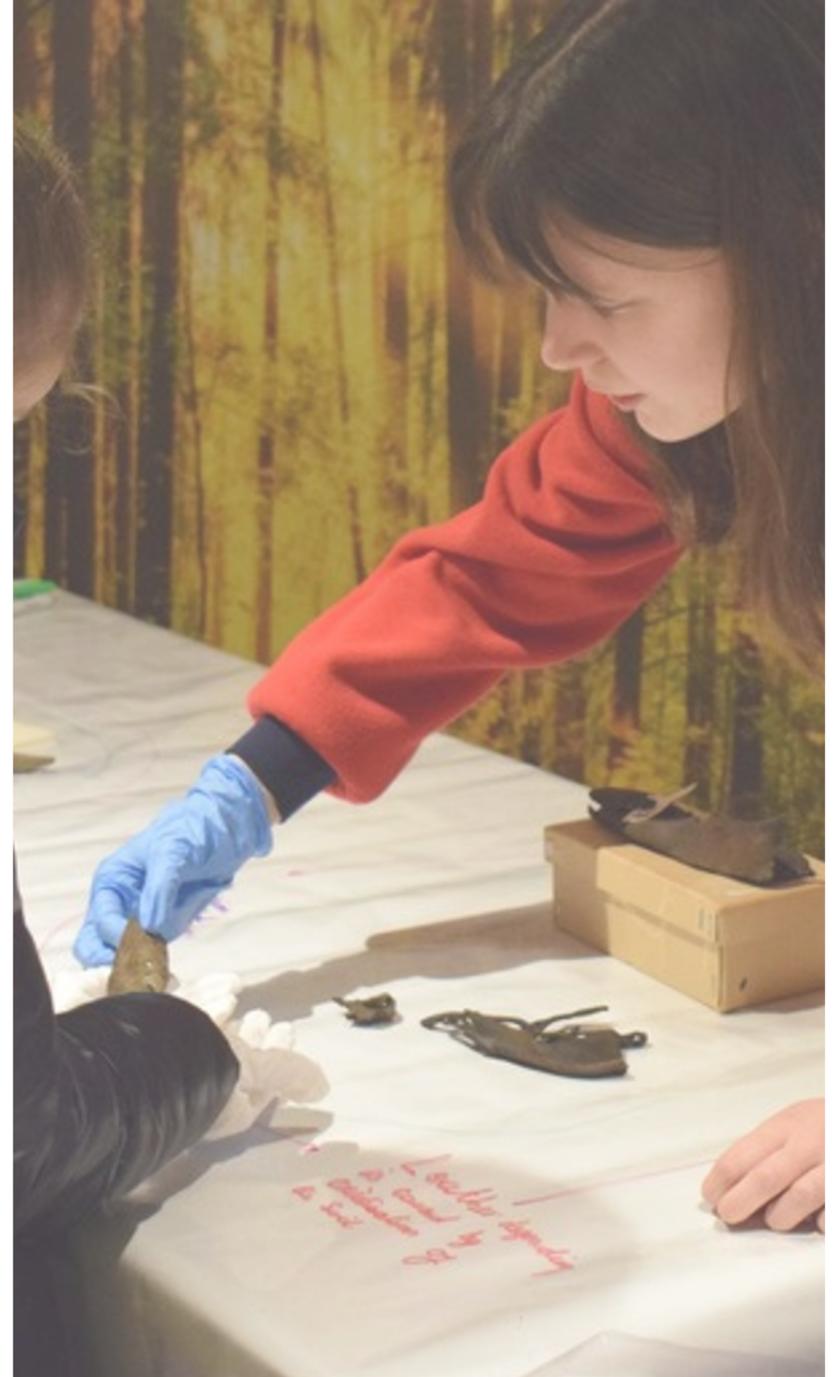


Volunteering and Climate Change in Heritage: A Toolkit

Marta Alberti-Dunn
Sophie Westlake

Published online March 2026



Made possible with

**Heritage
Fund**

**VINDOLANDA
CHARITABLE TRUST**



“You can talk about climate change impacting heritage but until you’ve contextualised it in a place, people don’t have anywhere to hang it”

VINDOLANDA
CHARITABLE TRUST



Contents

1. Introduction- who?	1
a. Introduction- why and what?	2
2. How to use the toolkit	3
Part 1	
1. Our project: Magna case study	4
a. Who are the Magna volunteers?	5
2. Methodology- assumptions	6
a. Methodology- flowchart	7
3. Examples of results	11
4. Further reading	12
Part 2	
1. Tip 1: Provide experience	13
2. Tip 2: Share information	16
3. Tip 3: Convey urgency	18
4. Tip 4: Training	20
5. Conclusion	22
6. Acknowledgments.....	23



1. Introduction- who?

This toolkit was developed by Dr Marta Alberti-Dunn and Sophie Westlake, with the help and active participation of a team of more than 30 Vindolanda Trust volunteers and staff members, through a process of data collection, analysis and action guided by Participatory Action Research methods. While all volunteers participated enthusiastically in the project, special thanks go to Tina Aram, Chris Barker, Lorna Barford, Ann Hetherington, John Pearson, John Wineland, and Siobhan White.



Marta is the Deputy Director of excavations at the Vindolanda Trust. She is interested in ancient and modern identities, and the way they are expressed. She holds a PhD from Newcastle University, focusing on volunteer participation to archaeological heritage practices on Hadrian's Wall.



Sophie is the Activity and Diversity Officer for the Vindolanda Trust. She is interested in accessibility, sensory engagement, and community heritage projects. She holds an MA from Newcastle University exploring embodiment in digital spaces of UK heritage sites. Sophie is also a voluntary representative of GEM and Hadrian's Wall Learning & Engagement Forum.

VINDOLANDA
CHARITABLE TRUST



a. Introduction- why and what?

This toolkit was developed in response to feedback from our volunteer community at The Vindolanda Trust. The community wanted to explore the role that volunteers play in communicating to visitors the effects of climate change on archaeological heritage. The desired outcome was a set of **Actions**, or **Tips**, which volunteers and heritage managers can implement to better support one another in this task. We hope that this toolkit will be useful to other heritage organisations. In particular we expect our results and methods to be applicable on Hadrian's Wall, and on the wider Frontiers of the Roman Empire World Heritage Site.

It is becoming increasingly apparent that heritage sites are, to different extents and for different reasons, vulnerable to the impacts of climate change. Many heritage sites rely on and work with a diverse and supportive community of volunteers. Whether volunteers are delivering guided tours, digitising collections, or participating in the research, the questions the community is asking are the same.

How can volunteers feel confident and empowered to share ongoing research with the public?

Can climate change in heritage become a more integral part of volunteer roles? If so, how?

VINDOLANDA
CHARITABLE TRUST

2. How to use the toolkit

This toolkit is divided in two parts. **Part 1** describes the Volunteering For Climate Change Case study, and gives you some tips, and some further reading you could do to apply our methodology to **your** heritage site. Our findings can be generalised, but the ways **you (as a volunteer or as a heritage manager) feel about your site is personal and more valuable conclusions can be reached by repeating our experiment.** By applying our methods to your site or sites, you can reach your own conclusions, which might or might not align with ours. You will also gain new skills, and enhance the bond between heritage professionals and volunteers.

Part 2 describes **our** (the Vindolanda Trust) results, and gives you tips to apply **our conclusions** to the management of your site and volunteers. These tips work best if your organisation:

- a. Manages a tangible and at least partially open to the public archaeological site, with or without active excavations.
- b. Encourages volunteer participation in a range of fields. The Vindolanda Trust has ticketed access and two museums. Our conclusions might apply differently to free-to-access sites, who attract different types of volunteers.
- c. Has a clear management structure. Whether your organisation is managed by paid professionals or volunteers, our conclusions work best when there is a clear decision-making chain, as well as people responsible for implementing change, in consultation and collaboration with research participants.



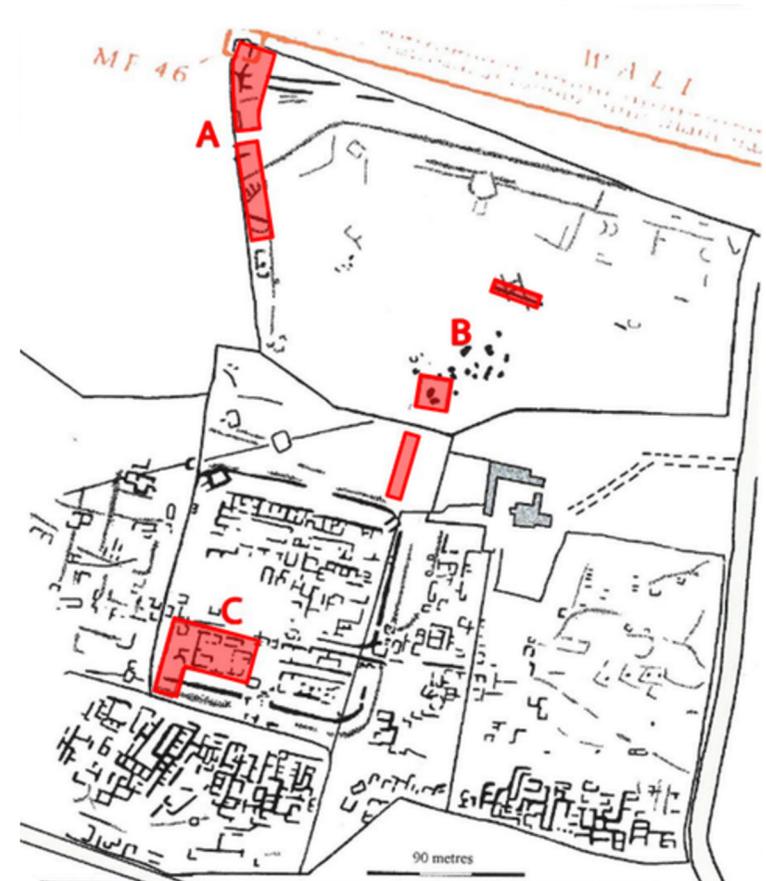
Part 1

VINDOLANDA
CHARITABLE TRUST



1. Our Project- The Magna Case study

The Magna Project is a *National Lottery Heritage Fund* funded five-year excavation and research project, which aims to explore the effects of climate change on buried archaeology at the site of Roman Magna, on Hadrian's Wall. The project's findings will inform a more evidence-based management plan for the site. The new site management plan will not only look at how to best preserve the archaeology in the care of the Vindolanda Trust, but also how to communicate the risks that climate change poses to the archaeology at our sites, and on the Frontiers of the Roman Empire.



VINDOLANDA
CHARITABLE TRUST

a. Who are the Magna volunteers?

The comprehensive volunteering program which is embedded in the Magna project will, by the project's completion in 2027, have offered more than 1,000 volunteering opportunities. Volunteers have been involved so far in:

- Excavation
- Post-excavation work
- Environmental processing
- Guided tours
- Assistance in activities and outreach
- Social research



One of the project's goals is to develop a land management plan for the Roman site of Magna, ensuring the protection of its buried archaeology for the future. This includes addressing the fact that current excavations will not be consolidated (i.e. preserved and displayed above ground). Therefore, we need to find effective ways to communicate our research to the public. This is a matter of key importance not only for us, but for the wider Hadrian's Wall community.

2. Methodology- Assumptions

For our method to work for you, you need to tick the following boxes:

- ✔ You want to investigate the role your volunteers play in conveying climate change related messages to your audiences.
- ✔ You want your volunteers to be actively involved in the process of investigating.
- ✔ You have an in-house lead who is able to coordinate the project, including emailing volunteers, chairing sessions and timekeeping. We found that a pre-established rapport with volunteers helps to facilitate meaningful conversations. We would therefore advise against 'bought-in' project management.
- ✔ You have access to an idea sharing platform and to a storage accessible by everyone. We suggest a combination of for video conference software (e.g. Zoom) and Padlet (for ideas sharing). Whatever software you choose, make sure it is free for the user and easy to handle. You can also choose to deliver this project in person, with paper support and focus groups. However, we have found that online delivery helps facilitate attendance- the volunteers are free of the socially constructed behaviours that a museum environment engenders.
- ✔ You have time. From inception to toolkit creation, this project took circa one year. Participation, multivocal dialogue and knowledge co-production take time.

a. Methodology-flowchart

1

Pick your own research question

OR

Establish a preliminary meeting with your participants. Set the clear goal of formulating a research question together.

2

Design your activities. We asked our volunteers to share and discuss their ideas on different topics. Set up each question as a separate activity.

OR

Ask your research team to design the activities together. Which way would they feel best answers the research question? Is it words? Images?

Here are some examples of activities:

1. What are the effects of climate change on heritage?
Write down what you think are the effects of climate change on heritage in the context of your site or collection.

2. Who are you communicating with?
Write down which audiences you think we are talking to about climate change.

3. How do we communicate?
In this activity, explore with the best way that volunteers can communicate climate change and its effects on heritage to various audiences.

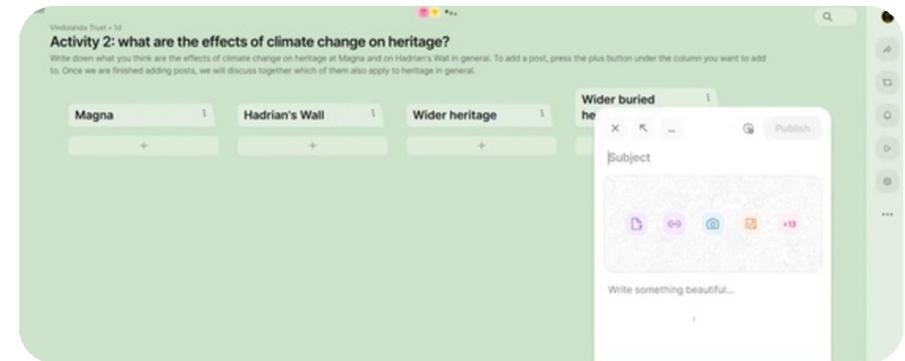
a. Methodology-flowchart

3

Invite your participants to a day of data collection. Be clear on expectations, timing and breaks. Data collection can be tiring. If online, we suggest not exceeding the 2:30h meeting with a scheduled break. If you have international or remote volunteers, make sure the time works for as many people as possible. Ask for informed consent to participation, including recording voice and video.

4

Hold your data collection workshop. Be clear regarding how much time will be allocated to each activity, and make sure the activities remain accessible and editable for some time after the workshop. If conducting this meeting online, remember to enable recording and transcription. As people share ideas during the activities, encourage them to discuss and expand. Do this by asking clarifications on what was written, or for people's opinions on someone else's words. Be comfortable with signposting ways to comment and interact that do not overextend the conversation. Our suggestion is to have a cut off point in time for each activity.



a. Methodology-flowchart

5

Save and export any digital idea sharing output you might have produced i.e. Padlet. If you have decided to go analogue, make sure you photograph your whiteboards and all their contents are clearly visible. Transcribe the contents of your data collection workshop. You can use the transcription from online meetings, but make sure to double check it. Add page numbers and line numbers to your transcript for ease of reference - the line numbers should start from 1 at the beginning of each new page. Anonymize your participants assigning participant numbers.

6

Start coding your data. This can be done by the lead researcher or by a small research team composed of a subset of volunteers who have taken part to the data collection. We advise that a maximum of six volunteers should be involved in further data analysis and coding.

For guidance on collaborative coding, see further reading.

a. Methodology-flowchart

7

Keep your research team in the loop. Check in at regular intervals with the coding team, establishing deadlines for when certain segments of data should be coded. Create a shared code-book: this is a working document that defines what codes have been identified in your data, and what to use each code for. The example in this page shows:

1. Long definitions/recurring topics in the data from the transcript and Padlets.
2. One-word codes.
3. Instances in which the data appeared in the transcript, in the format '*page number. line number*'

Look at funding from fossil fuel industry to enhance their green credentials	FOSSIL	6.28-31	Emotions are important- don't be afraid to make true if shocking statements	EMOTIONAL	8.11-16
Climate change is having a visual impact on all sites. Highlight this visual impact and make it clear for volunteers to pass on the message	VISUAL	7, 12-14; 7. 25-28 8.24-26, 9.17-18, 12.36-39, 16.23	The message is never so clear as when you experience it yourself. Try and get the visitors to experience the effects of climate change at the site you are volunteering at.	EXPERIENCE	7.25-26, 7. 27-28, 16.1 8-19, 16.3 6-38, 17.5-6

3. Examples of results

Having coded your data, you should be able to identify trends and codes which are most frequently mentioned. Our research found shared themes in the data at three different levels:

✓ At **Magna**, volunteers found that **VISUAL INPUTS** played a key role in being able to deliver the message of climate change to visitors.

On an active excavation site, showing the impact of climate change meant :

- comparing the condition of Roman shoes from Magna with earlier findings from excavations at Vindolanda.
- having a chance to show people bugs and leaf imprints- all data that could be lost if action is not taken and the gradual loss of anaerobic environments continues.

✓ On **Hadrian's Wall**, volunteers expressed the wish for a clear, accessible and unitarian **GREEN POLICY**. This, it was suggested, could be as simple as a collective assessment of the impact climate change is having on each site, paired with actions being taken to mitigate such impact, and ideas for the future.

✓ When thinking about **World Heritage Sites** (of which the Wall is part), volunteers found that **EXPERIENCE** was key to making the impact of climate change on heritage clear to the visitors. This could mean including consequences of climate change that can be touched and felt, in both guided tours and volunteer experiences. Ultimately, participants found that volunteering, even in the short-term, was the best way to really get to know a site and the way climate change affected it.



Further reading

Alberti-Dunn, M. et al. (2025) "For the love of archaeology? Exploring Motivations to volunteer at Vindolanda" in Collins, R. And Symonds, M. (Eds) *Hadrian's Wall: New Insights on Frontier Culture. Britannia Monograph Series n.38*, London: Society for the Promotion of Roman Studies, pp.193-203

Kindon, S., Pain, R. and Kesby, M. (2007) *Participatory Action Research. Origins, approaches and methods, Participatory Action Research Approaches and Methods. Connecting people, participation and place*. New York: Routledge.

McGhee, F.L. (2012) 'Participatory Action Research and Archaeology', in *The Oxford Handbook of Public Archaeology*. Oxford University Press: Oxford Handbooks in Archaeology, pp. 213–229. Available at: <https://doi.org/10.1093/oxfordhb/9780199237821.013.0012>

McIntyre, A. (2008) *Participatory Action Research*. London: Sage Publications.

Naganathan, G. et al. (2022) 'Collaborative Zoom Coding—A Novel Approach to Qualitative Analysis', *International journal of qualitative methods* 21, pp. 1-8. Available at: <https://doi.org/10.1177/16094069221075862>.

Siegle, D. (2020) 'I Have an Idea I Need to Share: Using Technology to Enhance Brainstorming': *Gifted child today*, 43(3), pp. 205–211. Available at: <https://doi.org/10.1177/1076217520919967>.





Part 2

VINDOLANDA
CHARITABLE TRUST



1. Provide experiences

Experiencing the consequences of climate change, rather than just hearing or reading about them, is one of the most effective ways for volunteers to understand this phenomenon. Sharing in these experiences with visitors is a vital communication method for volunteers. Having experienced first hand the impact of climate change, volunteers can confidently use their own stories and words, as well as tangible props, such as archaeological finds, to illustrate this.



Child's sock excavated at Vindolanda. One of only two complete items of clothing excavated on site.

Example

Roman Vindolanda is famous, amongst other reasons, for its collection of archaeological textiles. While textiles were frequently found in the 1970's and 80's, they became increasingly rare as the soil preservation conditions were more and more affected by climate change. The last textile to be recovered from the Vindolanda excavations was found in 2019. No textile have been found in anaerobic contexts since then.

Are there any objects in your collections that you would not find, if you were to start excavating today?

VINDOLANDA
CHARITABLE TRUST

Example

Volunteer excavators at the Vindolanda Trust have increasingly been experiencing excavating 'ghost holes'. These, pictured to the right, are rectangular or cylindrical air tunnels or pockets. These pockets are formed when posts made of organic materials (generally wood) disintegrate due to changes in the soil preservation condition. Such disintegration happens so quickly that soil does not fill the space where the post used to be. 'Ghost holes' increase oxygen penetration in previously anaerobic environments, meaning preservation of organic materials is endangered.

In what ways has climate change visibly affected your site?



Evidence of where a wooden post once stood in the excavations at Vindolanda.

VINDOLANDA
CHARITABLE TRUST

How can you embed experience into voluntary roles?

Audit current voluntary roles within your organisation and reflect on how each role can integrate climate change advocacy in their daily practices. Understanding where climate change intersects with your existing volunteering roles, before creating dedicated ones, enables you to draw people's attention to how they gather information on climate change in their voluntary experience.

- Consider the role your organisation plays in the wider climate crisis. [Resources from Climate Museum UK](#) can help you to identify where heritage and culture intersect with the climate crisis. From this, you will gain a holistic and deeper understanding of where you can provide experience of climate change for volunteers within your organisation.
- Proactively embed the effects of climate change you have identified into your organisation into volunteer experience. At The Vindolanda Trust, excavation volunteers are able to get hands on with excavating the site, and through this can see where climate change is impacting soil preservation, and therefore the threat of this on organic artefacts.

"But it didn't really stick with me until you know I got there, and I started to see how things were drying out, I could see it myself on the surface, and then I knew the monitoring was there and I could see how things sunk, you know, things were sinking."

"But if they're actually seeing something and then a real life person there, you know, at the place that we've been talking about, ohh, it is real. It's not something else made-up. It's not a story. They can see it."

VINDOLANDA
CHARITABLE TRUST



2. Share Information

Heritage managers need to prioritise **shared information** across sites, so volunteers feel they are part of a cohesive sector. If volunteers understand why decisions are being made, they can become advocates for them and explain them to the visitors.

Heritage managers are still perceived as leaders. The onus of putting into place volunteer support systems, such as cohesive thinking and sharing of information, still falls to them. Volunteers are confident and willing to share information on leaders' behalf, but they want to feel supported when communicating climate change to visitors.



Excavation volunteers at Magna looking at piezometre data.

Example

As part of the Magna project, the Vindolanda Trust arranged a climate conference. This was a one day event, where volunteers and research leaders were invited to present and share information regarding the impact of climate change on the site.

How can your organisation bring volunteers and leaders closer ?

VINDOLANDA
CHARITABLE TRUST

How to share information across multiple organisations?

Strong communication between volunteers, heritage managers and organisations allows volunteers to feel confidence and have a support system when understanding and explaining the impact of climate change on heritage. There is a recognition that volunteers do not exist in isolation. Many Vindolanda Trust volunteers also participate in volunteering elsewhere on the Wall. The messaging can therefore become stronger when information is shared and championed on a wider scale.

- Research multi-organisation forums within your region, speciality, or World Heritage Site. Identify where heritage managers and/or volunteers are working to share best practice.
- Set up a volunteering and climate change networking group or forum with other organisations. Recognise where there is a cross-over of volunteers, and how shared information could support roles across organisations.

“I think Vindolanda is an amazing example for other nonprofit organisations, particularly those in climate change, so if you can outreach to other climate change organisations and show them how you use volunteers, obviously they're not going to be digging, it's not heritage programmes, but the point is there's lots of dedicated people out there on climate change that that will want to participate.”

“More worldwide cooperation and more digital visibility of this cooperation.”

3. Convey Urgency

It is important to **convey the urgency** of learning from archaeological material before it is gone. Changing climate impacts not only soil preservation conditions, affecting buried heritage; castles are subject to weathering, riverine and maritime erosion pose risks to coastal sites. It is important to have practical examples to contextualise abstract notions of climate change.

Links between climate change and buried archaeology, and heritage more broadly, are not always at the forefront of people's minds - for both visitors and volunteers. However, our research shows that for volunteers, emotions play a crucial role in connecting with climate change and with people who are visiting the site. Statements that are truthful can be startling, as the emotional link between heritage and climate change has a profound impact on everyone.



Roman leather shoe with visible hobnails excavated at Magna in 2025.

VINDOLANDA
CHARITABLE TRUST

How to work with your collection?

Emotional connections to material culture, such as the collection of Roman shoes at the Vindolanda Trust, contextualise the urgency of the climate crisis. These objects allow us to connect to communities in the past. An archaeological world where these shoes are not found, and the voices they represent are not heard, is very different from the world we live in now. By acknowledging how information from perishable sources builds the world we live in, we can begin to build strong advocacy for the impact of climate change on tangible heritage.

- Your collection is your strongest asset and will be something your volunteers and visitors connect to emotionally. Identify threats to the objects in your collection. For example, if excavation only began at Vindolanda in 2026, it is possible that no textiles or tablets would have survived to be on display. This shocking, but true statement, helps to communicate urgency.
- Work with your volunteers to create a 'factsheet' with key statements and relevant data. This helps them build confidence when communicating the impact of climate change on archaeology to visitors.

“That brought the urgency that we need to try to learn, you know, if we can't stop it completely, then we need to try to recover what we can while we can before it's gone.”

“And I genuinely think that, OK, we're aware we know what's happening, but if the next generation and the generations after them aren't aware, then we are kind of shouting into the wind really.”

VINDOLANDA
CHARITABLE TRUST



4. Training

Our research was clear in pointing out that volunteers want Heritage Managers to lead in developing resources and delivering training that will support them when communicating the impacts of climate change on buried archaeology.

Providing training for volunteers as a group ensures the delivery of a confident and consistent message. Having the opportunity for a shared learning experience develops the relationship between volunteers and, crucially, increases confidence in a shared message agreed upon as a group.

Broadly, this research shows that volunteers within the heritage sector are concerned about climate change and recognise that it is having an impact on the sector. They see their role as the ‘messenger’, with Heritage Managers holding responsibility to inspire confidence through the provision of information and resources.



Ecolens Training session with Magna Volunteers.

What training could you do?

Training provides the opportunity to develop each volunteer's personal experiences into shared learning and action. All the tips in this toolkit point towards acting to increase awareness as well as identifying existing resources and tangible experience.

Structured training, led by Heritage Managers using interactive and participatory methods, gives volunteers the opportunity to undertake collective and impactful action, which they can be owners of, while still being guided by research leaders.

- The Vindolanda Trust organised Eco Lens on Things training delivered by Climate Museum UK members Justine Boussard (Amateur Ancestor Project founder) and Bridget McKenzie (CMUK and Culture Declares Emergency co-founder) to better understand the role heritage sites and their collections have in the climate crisis. This led to important conversations within our volunteer community about how we can support volunteers to embed climate change advocacy into their roles.
- It is important to recognise this requires dedicated staff members and time to support training opportunities. The Vindolanda Trust was proactive in asking for feedback from volunteers, and from this was able to get in specialists to work with volunteers to understand climate research. Making this research accessible to your volunteers helps them to care more about it and communicate more effectively.

"It is important volunteers are equipped with the facts to deliver a consistent message to the visitors."

"We need to have that kind of guidelines are set"

VINDOLANDA
CHARITABLE TRUST

In conclusion

1. If you have the time, resources and capacity, **repeat our experiment.** Use the methods outlined in Part 1 of this toolkit to explore the impact and role of volunteers in communicating climate change to visitors within your organisations.
2. **Provide experiences for your volunteers.** Through first hand experience of the impact of climate change, volunteers gain stories and props to convey the message to others.
3. **Share information.** Ensure you have access to specialists who can explain climate research and answer volunteer questions. Work with other organisations in your area to create a consistent message.
4. **Convey urgency.** Heritage managers and volunteers have a chance to make a positive impact on the levels of information on climate change and heritage available to the general public. Connect facts and emotion to enhance that impact.
5. **Provide training.** Volunteers look at you for guidance and confidence. They wish to 'own' the information, but still need help finding the right words and facts. Create a factsheet with them, to help them gain such confidence.



Excavation volunteer at Magna.

VINDOLANDA
CHARITABLE TRUST

Acknowledgements

The Vindolanda Trust would like to acknowledge the contribution of the following people and organisations:

National Lottery Heritage Fund

Climate Museum UK

Teesside University

The Amateur Ancestor Project

The Vindolanda Trust volunteers



VINDOLANDA
CHARITABLE TRUST