



# CIFA2021 ONLINE: ANNUAL CONFERENCE

ONLINE 2021

21 - 23 APRIL 2021

## SESSION TITLE

The environment and innovation – zero emissions and the paperless dream

## SESSION ABSTRACT

As a profession we need to plan now for both our future, and that of the planet. The session is bifocal looking to explore the ways in which we can change our behaviours and practices to bring down emissions as well as the applications of technology towards 'paperless' working. More specifically it looks to understand how we can create sustainable solutions. The first half of the session focuses on site recording processes. It examines the experience of practitioners in developing new ways of recording site observations set alongside a review of the value of the information we collect. This is all set against a backdrop of how any such change might impact on the environment either positively or negatively. The second part of the session draws on experience from outside the profession with challenges and solutions from other sectors. It is rounded off with an introduction to the Cifa climate change working party and discussions around how as an "industry" we might aim to achieve zero emissions.

## SESSION PROGRAMME

Time	Presentation
13:30 – 13:40	<b>Session introduction</b> <i>Andy Boucher, Headland Archaeology</i>
13:40 – 14:05	<b>Paperless archaeology at what cost?</b> <i>Stuart Eve and Kelly Madigan, L- P Archaeology</i>
14:05 – 14:30	<b>The evolution of descriptive archaeological recording – and where do we go next?</b> <i>Laura James, University of Winchester</i>
14:30 – 14:55	<b>Sustainable development in the long term</b> <i>Michael Ashley, Codifi</i> <i>Jürgen van Wessel, Headland Archaeology</i>
14:55 – 15:05	<b>Discussion/break</b>

15:05 – 15:30	<b>Assessing climate impact – what can archaeology learn from agriculture?</b> <i>Sarah Wynn, ADAS</i>
15:30 – 15:55	<b>Wilding as a complement to archaeology</b> <i>Jon Davies, RSK Wilding</i> <i>Jennifer Richards, Headland Archaeology</i>
15:55 – 16:15	<b>How ClfA can help set the agenda for sustainable working in the heritage sector</b> <i>Dan Phillips and Matt Pope, ClfA Climate Change Working Party</i>
16:15 – 16:30	<b>Discussion</b>

## SPEAKER ABSTRACTS

### **Paperless archaeology at what cost?**

*Stuart Eve and Kelly Madigan, L- P Archaeology*

L - P : Archaeology have been developing paperless or near paperless recording solutions for the last 20 years, and throughout this paper we will present some of current systems. The move to digital recording was initially in response to a growing need for producing and sharing data quickly across different teams and audiences, but quickly grew into a vital part of our recording workflow. Why write on and store hundreds of pieces of paper, when the same can be achieved by using an iPad? However, the 'dream' of a fully paperless workflow has never quite come true for us. Alongside the digital developments we became increasingly aware of our contribution to climate change. In 2019 we declared a climate emergency and began implementing a 5 step plan to achieve Carbon NetZero in our work and our supply chains. Once we began to run the numbers we discovered a large part of this footprint is caused by the digital equipment we use, the data we share and the ways in which we communicate. Offsetting this impact can only go so far - by striving to make everything digital we are firing up more cloud servers, we are mining more parts of the world for lithium and precious metals and ultimately we may be doing more harm than good... perhaps the 'dream' of paperless archaeology saving the planet is actually a nightmare.

### **The evolution of descriptive archaeological recording – and where do we go next?**

*Laura James, University of Winchester*

A large majority of a field archaeologists' daily work is the fulfilment of one idea: preservation by record. In the past 50 years, great gains have been made the theoretical and methodological aspects of our discipline, but has the quality of our core field record kept up? This paper draws on Laura's recent Masters thesis exploring the origins and modern use of single context recording in British archaeology. While very few organisations follow the single context method exactly, most use forms and guidance heavily inspired by those presented in the MOLAS manual. Some are evolved more than others, with the main variable being the balance between free text and multiple-choice answers in different parts of the forms. How does the design of these forms affect the quality of the resulting records?

Field recording is now a widely democratised skill – vital in terms of building understanding and giving ownership to even the most inexperienced archaeologists. This does however result in greater variance in the records produced by each individual archaeologist. No-one will be surprised that more experienced archaeologists tend to write more concise notes – this has benefits and disbenefits for those compiling the record but represents a significant variable to contend with. Should we be aiming for a more consistent record overall, or is the nature of an individual record an important part of the character of an archaeological record?

The answer will be found in the balance, and in this moment we have a unique opportunity to recalibrate and re-find this balance. The current industry focus on reconstructing our approach to training and support, combined with the potential of paperless recording to offer an adaptive, assisted experience is providing a chance to rethink the basics of site recording.

### **Sustainable development in the long term**

*Michael Ashley, Codifi and Jürgen van Wessel, Headland Archaeology*

This paper considers innovation projects in the context of sustainability, using the development of paperless recording in archaeology as a case study. It poses three key questions to consider when developing new tools or processes: Does our innovation/workflow positively impact climate change? Does our innovation/workflow reduce emissions? Is our innovation/workflow sustainable, and practicable?

We will look at the severe impacts of climate change in California, where wildfires claimed over 10,000 structures, 4 million acres of land, and 33 lives in 2020. Real time, digital information systems for heritage are needed to help protect irreplaceable cultural resources on the ground.

We'll address the trade-offs and benefits of digital vs paper in terms of supply chain, carbon footprint, decision making and implications for the relevance of our work practices for the sustainability of human knowledge at local and global scales.

Finally, we consider the how the nature of a development project, in terms of scale, organisation and viability, is key to minimising environmental impact. Paperless recording is a complex problem to solve properly, and requires funding, support and demand. Headland and Codifi have been tackling some of the toughest problems, which has been made possible by assembling the right team, targeting the right projects and maintaining a firm focus on the long-term viability of our system.

### **Assessing climate impact – what can archaeology learn from agriculture?**

*Sarah Wynn, ADAS*

The UK agriculture sector has seen an increasing focus on the climate impact associated with activities on farm, given the sector represents about 10% of UK GHG emissions the pressure to reduce is high. We have well established approaches to assessing emissions and a reasonable understanding of the implications of land use change and management changes on carbon

sequestration. There are potentially lessons to be learnt from the approach that agriculture has taken to assessing emissions for the archaeology sector. This talk discusses the similarities and differences between the sectors, and starts to raise some of the questions that the sector will need to consider in assessing their emissions – such as how important are emissions from the disturbance of soil, especially where trenches are dug on permanent pasture.

### **Wilding as a complement to archaeology**

*Jon Davies, RSK Wilding*

*Jennifer Richards, Headland Archaeology*

In this talk we will explore the opportunities for rewilding to work with archaeology whilst at the same time having benefits for biodiversity, carbon sequestration and other natural capital. From simply leaving an area to rewild as part of its preservation in situ to actively introducing a more naturalistic landscape either to improve the setting of a heritage feature or, on a larger scale, to enhance historic landscapes, the low intervention ethos of rewilding certainly seems to have something to offer to our discipline. Given the potential for rewilding and associated habitat creation to also contribute to Biodiversity Net Gain, the option might also exist for the protective planting around archaeological remains to provide developers with additional value from the land through both biodiversity and carbon offsetting.

### **How ClfA can help set the agenda for sustainable working in the heritage sector**

*Dan Phillips and Matt Pope, ClfA Climate Change Working Party*

The final paper of the session will draw together the overall themes and focus on how ClfA can catalyse the process of moving our industry towards a more environmentally sustainable future. The Climate Change Working Party was established in early 2020 with a remit to inform ClfA's response to the climate crisis. The group's remit is to provide advice for members on how they can reduce their carbon emissions; encourage members to share their own ideas; to seek expertise and examples from outside the profession; and to support ClfA members and ROs to meet the expectations set out in the Institute's Environmental protection policy. It will ask ClfA to consider, through its advocacy work, where the institute has a remit to influence others through policy, client engagement and sharing experiences.

This paper will present the work of the group over the past year and stimulate discussion on how it can continue to provide a positive influence at this critical time.