

South West Peatland Partnership

Peatland Restoration and the Historic Environment: An integrated approach to archaeology-rich landscapes

Joanna Higgins, Madeline Davey

Overview

Peatland landscapes with high density or sensitive archaeological sites can pose a particular challenge for peatland restoration. A collaborative approach between peatland practitioners and historic environment professionals from project inception has the potential to enable mutually beneficial solutions for both nature and heritage, through a better understanding of landscape history and development, adaptation and refinement of restoration techniques, and new approaches to mitigation.

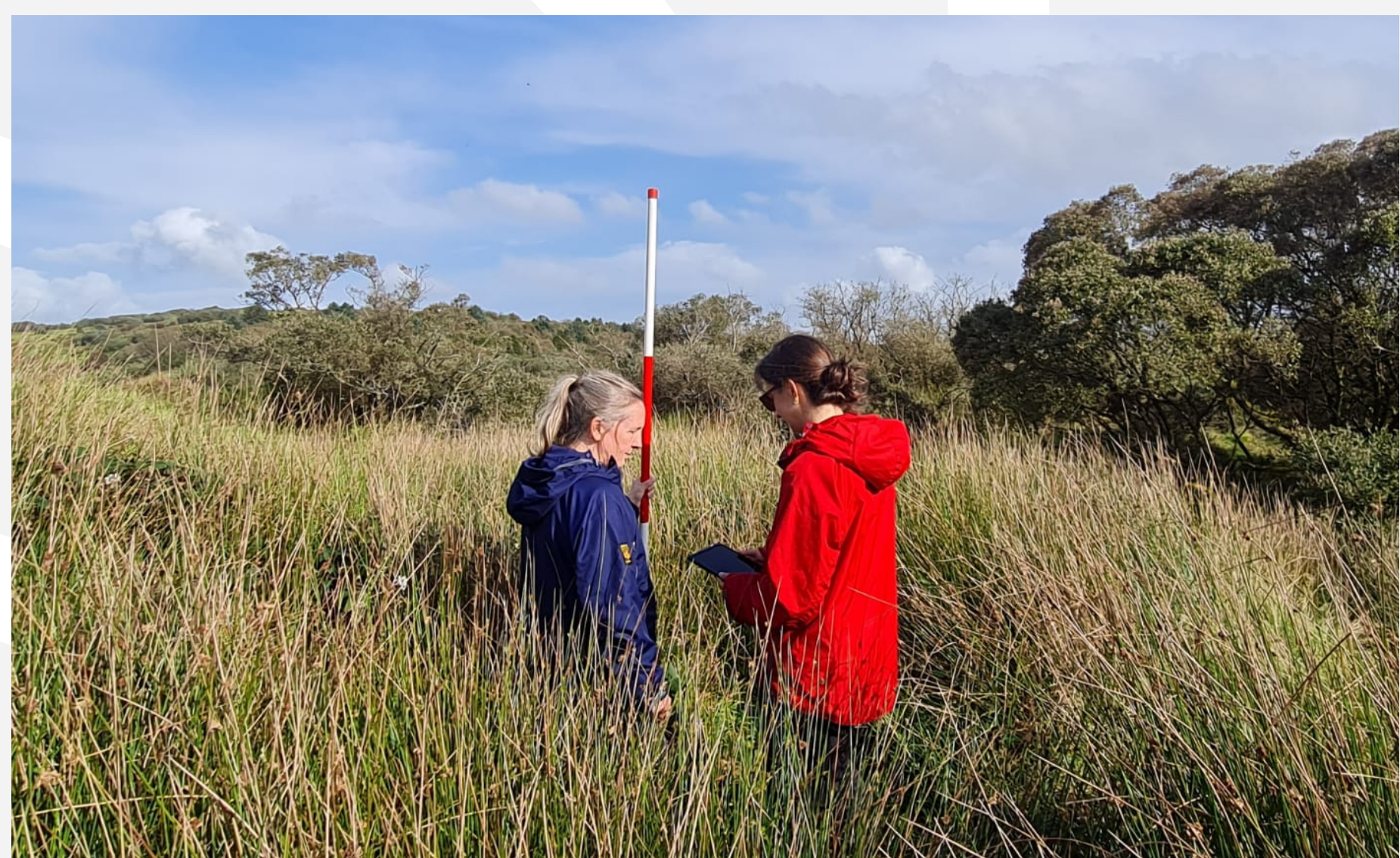


Figure 2: Project Officer & Historic Environment Officer on a pre-restoration site visit, Bodmin Moor

Potential impacts of restoration on the historic environment

In landscapes with a relatively low density of known archaeological features, use of exclusion zones and monitoring of groundworks have proved an effective method for safeguarding the historic environment during peatland restoration works, with re-wetting works providing long-lasting benefits for future preservation of archaeological sites and deposits. However, in areas of high density archaeology where avoidance is more challenging, alternative methods and mitigation are required to avoid potential impacts to:

- historic drainage channels or features such as leats, canalised streams, or peat cuttings that require blocking as part of restoration works.
- previously unknown or buried archaeological deposits.
- visibility and access to archaeological sites due to re-wetting, preventing future recording and interpretation.

How SWPP addresses challenges

1. Early stage collaboration

Reciprocal working between Project Officers and Historic Environment Officers from project inception enables:

- assessment of known and potential archaeological resources, and a detailed landscape history, to inform peatland restoration planning.
- pre-restoration investigation and recording of archaeological features and incorporation of results into practical restoration works plans.
- palaeoenvironmental investigations, providing a deeper understanding of past land use and ecology and changes in hydrology.

2. Adaptive restoration techniques

In addition to the use of low pressure machinery and employing exclusion zones, methods may need to be adapted to further minimise ground disturbance. Use of alternative techniques and materials may include:

- hand construction of wooden blocks within channels and ditches considered archaeological features to minimise ground disturbance.
- use of stone dams within sensitive archaeological sites where ground disturbance is undesirable, such as tin streamworking sites, or where peat is shallow or scarce (Figure 3.)
- use of alternative materials to peat to seal wooden blocks where necessary.



Figure 3: stone dam created to minimise impact on buried archaeology during restoration works. Credit: Dr Martin Gillard, SWPP

Figure 1: UAV photogrammetric survey commissioned by SWPP, Bodmin Moor, Cornwall. Credit: Aerial-Cam

3. Effective mitigation

Monitoring of groundworks during restoration works by watching brief is likely to be an essential mitigation strategy in archaeologically sensitive landscapes. However, this does not address potential loss of visibility of sites and features due to re-wetting and additional measures should be considered such as pre-restoration measured archaeological survey of upstanding earthwork features likely to be indirectly impacted by changes in hydrology. This can also help inform the location of blocking and bunding works on the site, minimizing the effect on historic features.

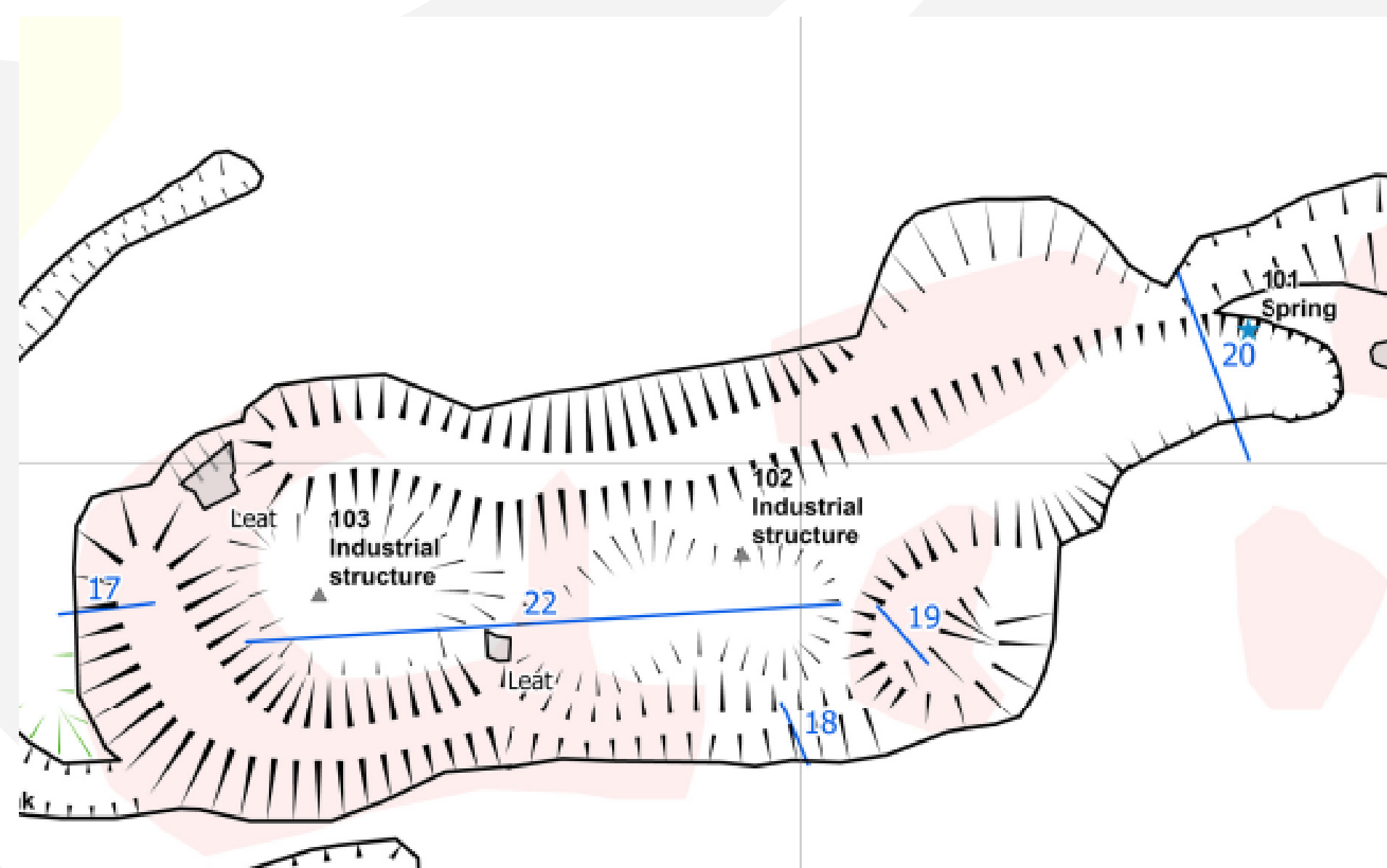


Figure 4: an extract of a survey of previously unrecorded industrial features commissioned ahead of SWPP works. West Penwith, Cornwall. Credit: Wessex Archaeology

For larger landscape features, pre-restoration photogrammetry or LiDAR survey may be more appropriate. For example, the SWPP commissioned a detailed UAV photogrammetric survey at Priddacombe, Bodmin Moor, Cornwall, (Figure 1) providing a permanent record of the form and distribution of extensive peat cuttings prior to blocking works, which can be used for future study.

Importance of sensitive restoration

- Safeguarding the continued preservation of palaeoenvironmental evidence and other organic remains preserved in the peat.
- Stabilisation of archaeological sites through removal of erosive factors such as fast-flowing water, scrubland and intensive stock grazing.
- Highlighting hidden archaeological sites for the benefit of local communities and academic research, as well as future preservation.

