Identifying and Mitigating the Impacts of Climate Change on Heritage Assets from Site to Catchment-Scale: Developing Landscape Analysis Toolkits within Geoarchaeological Frameworks. An example from the Trent catchment, UK

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In the UK, the devastating floods of the last few years, both summer and winter, have bought sharply into focus the changing nature of weather patterns, as well as the challenges of future flood risk management under such extreme scenarios. Inevitably, when such disasters happen, focus is often placed on individual localities or groups of built assets, as well as the development of solutions that consider contemporary and modelled future geomorphological processes. Whilst the impact of these major floods on heritage assets has gained some prominence in the media, often due to failure of historic bridges, the majority of the damage to the Historic Record goes unrecognised, since its impact is on (invisible) subsurface remains.

As well as being directly affected by these flood events, identifying the character of heritage assets within river catchments has the potential to inform landscape managers of past climatic and environmental changes and human response to key geomorphic processes and events. Particularly in industrial landscapes, it also has the potential to identify the legacy of past pollution that can have significant impacts on ecosystems and future geomorphic thresholds.

Clearly, whilst the historic environment record has the potential to greatly inform environmental managers, it is important that those responsible for providing such information (i.e. the archaeological community), take a holistic approach to examining landscapes within clearly identified research frameworks that provide equal weight to individual sites and more expansive terrain units. This paper provides an example of such a framework developed through a number of Historic England funded initiatives in the Trent catchment, UK, which have helped to develop toolkits to characterise geoarchaeological resources, consider their potential for informing environmental managers about past landscape change and therefore offer the potential to shape policy and societal response to future events.