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Defining the Role of Geoarchaeology in Managing Past Industrial Landscapes with Global Heritage Value: A UK Perspective

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Historically, the location of cultural heritage has often been intimately linked to the natural landscape since physiography has played a significant factor in determining the position of sites. Moreover, the distribution and availability of geological resources such as coal, limestone and metal ores has been critical to the development of heavy industries that kindled the 'Industrial Revolution'. Paradoxically, however, many of these advantageous physiographic and geological characteristics, which were essential to past industrial development, also occur in environments where geomorphological and geological processes are most sensitive to climate change, particularly changing flood frequency and magnitude in valley floors. In addition to the changing energy levels of natural geomorphological processes, a common problem has been the release of industrial contaminants, which exacerbate the potential effects of landscape degradation and can also pose a risk to human health.

For over 30 years, empirical research by the geomorphological community in the UK has documented the impact of past industrial processes, focusing on levels of contamination and transfer of sediments within the natural system. In contrast, the archaeological community has largely ignored this important research, instead focusing on the repair and preservation of industrial remains and mining histories. With the threats posed by future climate change and the implementation of more rigorous pollution control via the Water Framework Directive, there is a need for archaeologists to think beyond the environs of any immediate industrial site and to consider the remains within the context of the wider landscape.

Using examples from across the UK, including a number of World Heritage Sites, this paper will explore the contribution that the geoarchaeological community can make towards the wider management of industrial sites in the context of future climate change.