



ABSTRACTS (listed alphabetically by first author surname)

Education and Climate Change – Some systemic connections

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Unlike most papers on education and ecology, this one is not concerned with the content of education but its organisation as a system and hence its purpose or finality. The central contention of the paper, which takes English education and training (or 'learning') as a case in point, is that in a new market-state formation the pursuit of short-term goals is tied to the global free-market economy over which any attempt at democratic control has been relinquished. At a time when humanity worldwide faces increasing change in the ecology that sustains it, this is considered to be 'ecocidally insane' and the opposite of any sort of learning from experience to alter behaviour in the future. The re-regulated new global market is seen in conclusion as a crisis response to the end of the previous Keynesian welfare nation state formation. As such, it is argued to be unsustainable in any sense.

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Old places, new stories

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The Council for British Archaeology is exploring with the archaeological community how we can adapt our work and our approaches to accommodate the pressing challenges of climate change for our historic environment. This paper will look at the important contribution that archaeology can make to the national debate about climate change, by involving people and revealing the ways in which we have always adapted and transformed our relationship with the environment. Can archaeology as a discipline tell a new and richer 'story' of climate change, and involve people in it, in ways that make a genuine social contribution to coming to terms with the changes that are happening? There are opportunities here for creativity, to shape new historic landscapes and new understanding. Community projects working to record and understand places that are changing rapidly are an important and positive part of the process

of coming terms, for example, with the pace of coastal erosion and the need to recover an historical narrative or memorialise physical losses for local people. Work done by local groups acting as stewards, monitoring and caring for historic sites as they become increasingly vulnerable, play a valuable role in raising local awareness of the effects of climate change and the need for everyone to act.

Climate Chaos/History Chaos: identifying an ethical role for the humanities in climate change debates.

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In this paper I argue that the humanities will deserve far greater centrality in debates and discourses around global warming than has hitherto been the case, but only if they can renew their sense of ethical vocation. Recent articles, books and documentaries – including Al Gore’s *An Inconvenient Truth* (2006) – have drawn primarily upon the verdicts of environmental scientists in order to alert us, quite rightly, to the potentially catastrophic implications of global warming. Consequently, the potential contributions of the humanities have tended to be viewed as strictly secondary adornments (maybe pretty, perhaps witty, but hardly essential) to such primarily scientific discourses. Drawing upon the work of radical historians such as Martin Davies and Theodore Roszak, I argue that – in order to address the most fundamental issues at stake in environmental debates – the current prioritization of scientific dissensions over and above the humanities may ultimately need to be radically reassessed.

Frozen Fictions: Popular Understanding of Climate Change in Seventeenth Century Britain

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In the seventeenth century, Britain experienced a peak of the climatic change period known as the Little Ice Age, with extensive crop failures, famine, loss of life, abandonment of land, migration of population and social unrest. Simultaneously, Britain experienced an acute heightening of expectations of the end of the world: in parliament, from the pulpit, in literature, in science, apocalypticism was the prevailing overarching interpretative framework, and consistently invoked to justify political action. In this context, the absence in popular culture of this apocalyptic interpretative framework in relation to the weather and nature is in surprising contrast to the consistent prevalence of apocalyptic tropes in political and religious discourse. Instead, popular references to the weather as God's judgement or as signs of the times were sporadic. This paper – drawing from cultural studies and history of science – explores the early modern nexus between popular culture, climate change and early scientific methods of prediction and forecasting, a nexus that has become crucial today.

Human response to storm surges in the later Middle Ages – some evidence from the tidal Thames

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The coasts of the southern North Sea were repeatedly hit by severe storm surges in the later middle ages. Their frequency appears to have increased during the centuries of transition from a relatively warm to a relatively cold climatic regime in north-western Europe. This paper will review the evidence of current research into the impact of storm surges upon the lands bordering the tidal river Thames and the Thames Estuary during the fourteenth and fifteenth centuries. In particular it will examine the case study of the flooding of marshlands at Barking in Essex, where long-term loss of reclaimed agricultural land appears to have occurred. The complex interaction of social, economic and environmental factors in determining the response to flooding events will be stressed.

The impact of climate change on archaeological resources in river catchments

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With reference to General Circulation Models (GCMs) this paper illustrates the potential impact of future climate change on the archaeological resource of river in catchments in Britain. Using selected examples based on empirical data from the Trent Valley and Vale of York, this paper quantifies the potential threat posed to archaeological remains and highlights an area of the environmental record often neglected by policy makers and planners, as well as the wider academic community. In addition to the direct effects of climate change, this study demonstrates that many of the policies and initiatives advocated to alleviate future impacts could be detrimental to the wider buried archaeological landscape. Our conclusions have generic implications for other catchments across the globe.

The Rhetoric and Iconography of Climate Change

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Climate change science is intimately connected to social change on a political and policy level, and to ethical issues on a personal and global level. As such, the public understanding of this

science is crucial. With this in mind, we intend to examine the representations of climate change in the media (focussing primarily on print media, but covering also televisual and filmic representations), and in cultural production, that help to shape a public perception of this topical concern. Our analysis will comprise two threads: a study of the dominant iconographies of climate change; and the exploration of the rhetoric of climate change, with particular attention paid to the role of metaphor. The first of these will examine the context and impact of such omnipresent images as the polar bear, the iceberg, the 'hockey-stick graph', and seek to explain their implications for the public conception of climate change. The problems for a visually metonymic image of the 'eventless' and gradual process of climate change is clear; but how is it that certain images have come to embody our visual understanding of climate change? The second strand will focus on metaphorical representations of climate change and the required human response. Here climate change is frequently explicitly contextualised as the latest potentially apocalyptic disaster, and thus associated with nuclear warfare, or warfare more generally. But this explicit connection also becomes implicit in the metaphors of, for example, climate refugees, or the necessity of a 'blitz mentality' in response to climate change. The effect of such metaphors, and their historical antecedents, will be analysed.

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The costly delay: lessons of the ozone problem for tackling global warming

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Since the 1980s it is becoming increasingly clear that human activity is changing the Earth's climate. However, political action to deal with the problem has been slow and cautious. The main argument for this course of action is that it would be too costly to deal with the problem quickly. This caution on the political side of the climate puzzle might be our undoing. This presentation will point out that we already have experienced a global environmental threat in the form of a thinning of the ozone layer. It will consider what lessons can be learned from the way that the international community has dealt with this problem. It will suggest that the response was too slow to prevent the formation of the famous hole and what this will tell us about the way humanity handles the more complex problem of global warming.

When 2 becomes 3; defining safe limits in the climate change debate.

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As calls for cuts in greenhouse gas emissions grow, so too does the rate at which we are releasing these gases into the atmosphere. This apparently contradictory situation has in part been rationalised by assuming that we are still some way off breaching a dangerous limit to warming. This dangerous limit concept has been treated normatively, and as such has remained largely unexamined from outside the scientific community. This paper, through a review of the relevant policy and scientific literature, seeks to address this neglect. Such an examination is deemed necessary because the consensus about what constitutes a dangerous limit is being challenged, and attempts made to revise the current 2 degree centigrade of warming limit upwards to 3 degrees. Analysis of data from the literature review is situated within a framework of critical sociology, in particular work which has sought to explain the role of science and technology in the ordering of human affairs. The conclusion is made that the 'dangerous limits' paradigm is currently more ideology than science, and forms part of a hegemonic discourse intended to legitimate and reproduce industrial society.

Global perspectives on mass fatalities in medieval London

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Ice core evidence suggests that the largest volcanic eruption of the last millennium occurred in 1258 somewhere in the tropics. According to palaeoclimate models this would have led to a significant summer cooling, possibly on a global scale, due to the stratospheric spread of a blanket of volcanic particles. Contemporary English sources noted a cool period from February to June 1258 and a very cold winter in 1260-1261, a pattern that may reflect the aftermath of strong tropical volcanic activity. Severe summer and autumn rains led to crop failures throughout north-west Europe. In England this caused rising grain prices and famine, and increased rates of migration from the countryside to London. A great pestilence struck the city in the spring of 1259. Mass burial pits in the medieval cemetery of St Mary Spital in East London may have been dug as a reaction to increased rates of mortality. Stratigraphic analysis and radiocarbon dating established a peak in mass burial in the mid 13th century. Whilst famine and disease were no strangers to urban populations throughout the medieval period, it may be that the suffering in the late 1250's was part of a global scenario that originated from volcanic activity.