



THE ARCHAEOLOGY CENTRE UNIVERSITY OF TORONTO

PRESENTS:

DEBATES IN ARCHAEOLOGY

ARCHAEOLOGICAL
PERSPECTIVES ON
THE ANTHROPOCENE

**FIRST ANNUAL SYMPOSIUM
OCTOBER 4-5, 2019
UNIVERSITY OF TORONTO, TORONTO**



The Archaeology Centre of the University of Toronto Presents:

Debates in Archaeology

Archaeological Perspectives on the Anthropocene

First Annual Symposium, October 4-5 2019

Theme:

Archaeologists have argued that the Anthropocene label is misleading considering that humans have fundamentally altered the Earth throughout the course of the Holocene. They also condemn the colonial and Eurocentric narratives underwriting applications of the trendy concept (see Edgeworth 2014; Morrison 2015; González-Ruibal 2018). Such recent critiques, in conjunction with our present environmental dilemma, invite deep reflection on current theoretical approaches in archaeology. Proponents of the New Materialism have made important contributions in countering anthropocentric perspectives and demonstrating how humans form part of material continua with animals, places, things, matter, and ecosystems. Indeed, archaeologists, ranging from systems theorists and historical ecologists to posthumanists have recognized the agency of plants, climates, geologies, and so forth in shaping the course of history. Nevertheless, interpretations of past worlds in terms of symmetrical ontologies, meshworks, or socationatures, run the risk of diminishing how ideologies, political struggles, and religious movements have radically transformed past environments. A case could even be made that Ingold's romanticized notion of "meshwork," an ecology depoliticized, rings hollow in light of the current climate crisis.

The two keynote speakers and general session participants will "excavate" the Anthropocene to explore a diverse range of subjects related to climate alterations and human-environment relations in both past and present societies. Topics will include: archaeological case-studies of anthropogenic environmental change in the past and their lessons for the present; contemporary archaeologies of Anthropocene environments; archaeological strategies to counter global warming and protect heritage sites from adverse climate events; the presentation of new methods to detect the material traces of human-induced ecological transformations; explorations of culturally specific ideologies of "nature" and environmental destruction in past societies; the development of new theoretical frameworks to reinterpret ecology, materiality, and society in the age of the "Geology of Man."

References Cited

Edgeworth, Matt. 2014 Archaeology of the Anthropocene: Introduction. *Journal of Contemporary Archaeology* 1(1): 73–132.

González-Ruibal, Alfredo. 2018 Beyond the Anthropocene: Defining the Age of Destruction. *Norwegian Archaeological Review* (2018): 1-12.

Morrison, Kathy. 2015 Provincializing the Anthropocene. *Seminar* 673:75-80.

Schedule of Events:

Friday October 4, 2019, 3:00-5:30:

Keynote Lectures: Lash Miller Chemical Labs (LM) 161

(30-40 minute talk per keynote speaker, followed by questions/open discussion).

Kathleen Morrison (Chair, Department of Anthropology, University of Pennsylvania)

Alfredo González-Ruibal (Consejo Superior de Investigaciones Científicas-Spanish National Research Council)

Reception: 5:30-8:00 Prenup Pub (second floor), 191 College St, (416) 506-4040

Saturday, October 5, 10:00-12:00; 2:00-6:00

Conference Talks and Open Discussion Lash Miller Chemical Labs (LM) 161

Each speaker will be allotted 25-30 minutes for their talk, and the remaining hour will be dedicated to questions and open discussion.

--9:50 Welcome and Open remarks

--10:00-11:00: **Andrew Bauer**, Department of Anthropology, Stanford University

--11:00-12:00: **Martin J. Head**, Chair of the International Commission on Quaternary Stratigraphy; Department of Earth Sciences, Brock University, St. Catharines

--12:00-2:00 (lunch)

--2:00-3:00 **Michael O'Rourke**, Prince of Wales Northern Heritage Centre, Yellowknife,

--3:00-4:00 **Julien Riel-Salvatore**, Department of Anthropology, University of Montreal,

--4:00-5:00 **J.P. King**, The Department of Discard Culture, Toronto

--5:00-6:00 **Open discussion**



The Archaeology Centre

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Debates in Archaeology
Archaeological Perspectives on the Anthropocene
First Annual Symposium, October 4-5 2019

CONFERENCE ABSTRACTS

Title:

The Anthropocene and Other Stories: from India to the Globe

Kathleen D. Morrison, Department of Anthropology, University of Pennsylvania

Abstract:

In the debate over the Anthropocene, both structure and content matter. In this talk I consider the power of entrenched environmental narratives and outline efforts to evaluate them, first on a more local scale, using archaeological, historical, and paleoenvironmental data from India and using examples from environmental science, public education, and archaeology. Upscaling local and even continent-scale studies requires new strategies; I close by discussing the work of the international scientific working group LandCover6k, which is aggregating, commensurating, and analyzing land use and land cover data from history, archaeology, and paleoecology in order to both improve climate models and facilitate rethinking of our intellectual frameworks for understanding the impacts of our species on the earth. Here, too, in the world of climate modeling, we can see the power of taken-for-granted environmental narratives guiding basic empirical assumptions, a process with significant implications for model outcomes.

Title:

Temporalities of the Anthropocene

Alfredo González-Ruibal (Consejo Superior de Investigaciones Científicas-Spanish National Research Council)

Abstract:

One of the concerns of scientists studying the new geological epoch known as the Anthropocene is time or, more precisely, chronological boundaries. In fact, establishing Global Boundary Stratotype Sections and Points (GSSP) is one of the main tasks of geologists striving to define the Geologic Time Scale. In the case of the Anthropocene, proposals for dating the stratigraphic boundary go from as far back as the Middle Pleistocene to the 1960s, although most researchers agree in some point during the last two hundred or so years. Although the relevance of GSSP is unquestionable, it is underpinned by a concept of time that, seen from the point of view of the social sciences, seems somewhat limited. In this paper, instead of proposing yet another “golden spike” from the point of view of archaeology, I would like to explore briefly the multiple temporalities of the Anthropocene as they are materialized in the archaeological record. Things and landscapes cannot be reduced to specific moment, but rather blend a variety of times, each of them revealing something of the nature of the Anthropocene. I will illustrate the heterochrony of

our geological epoch through a variety of examples, from the battlefields of the First World War to the dumps of rural Spain in the late twentieth century.

Title:

Debating the Anthropocene and Pre-Anthropocene—An Archaeological Critique and the Politics of Climate Change

Andrew Bauer, Department of Anthropology, Stanford University

Abstract:

In this presentation I will suggest that, despite common statements to the contrary, the Anthropocene narrative—in its basic temporal division—entrenches (rather than disrupts) a modernist conception of Nature and constrains political responses to climate change. The archaeological challenge to defining an Anthropocene is not where to formally divide geological time in long-term perspective, as many archaeologists have proposed, but instead to demonstrate how diachronous material entanglements articulate with social relationships and environmental histories at multiple temporal and spatial scales. In doing the latter, archaeology holds potential to reframe modernist environmentalisms that have been unable to generate more inclusive publics to address the intensifying threats of climate change.

Title:

The Anthropocene: A Geological Perspective

Martin J. Head Chair of the International Commission on Quaternary Stratigraphy
Department of Earth Sciences, Brock University

Abstract:

The presently informal term “Anthropocene” arose within the Earth Systems community: it was launched as a concept by Paul Crutzen, a Nobel laureate and atmospheric chemist, in the year 2000. The term was formally proposed later that year by Crutzen & Stoermer as a formal chronostratigraphic (geological) unit at series/epoch rank explicitly to succeed the Holocene. This generated interest within the geological community, and in 2009 the Anthropocene Working Group (AWG) was established by the International Subcommission on Quaternary Stratigraphy (SQS) to explore the potential of the Anthropocene as a formal subdivision of geologic time. The Anthropocene represents a unique overlap of geological, historical and instrumental time, allowing stratigraphic signals to be dated with unparalleled precision. Using an Earth Systems approach to analyze a range of global anthropogenic indicators through historical time, AWG members identified the ‘Great Acceleration’ of the mid-20th century as the most promising interval in which to define its inception. This interval is represented by distinctive stratigraphic signals that reflect pronounced increases in rates of erosion and sedimentation, chemical perturbations to the cycles of carbon, nitrogen, phosphorus and other elements, production of novel materials, changes to global climate and sea level, and biotic changes that include unprecedented levels of species invasions globally. Many of these changes have left indelible stratigraphic traces including artificial radionuclides, changes to carbon and nitrogen isotope patterns, fly ash particles, and biological remains. Plutonium-239 fallout is a

promising primary marker, with a global signal inception ~1952. The rank of series/epoch suitably recognizes that the natural variability of the Holocene Series/Epoch has been exceeded, and that changes reflect the Earth's response to human impacts rather than simply the impacts themselves. The AWG is currently identifying those regions and environments most favorable for studying and ultimately selecting a global reference section (a Global Boundary Stratotype Section and Point, or GSSP) to define the base of the Anthropocene in the stratigraphic record. As a requirement, like any other division of the geological time scale, the geological Anthropocene would be defined with an isochronous base. This contrasts with many traces of anthropogenic change extending at least to the Late Pleistocene which are however markedly diachronous. Like calendar ages versus named historical periods, the geological Anthropocene would provide a useful reference plane against which to chart the progressive impacts of humans on our planet.

Title:

A View from the Canary Cage: Limitations of the Anthropocene in Conceptualizing Arctic Climate Change Impacts and Responses.

Dr. Michael O'Rourke, Prince of Wales Northern Heritage Centre, Yellowknife

Abstract:

The Arctic is warming by as much as two to three times the global annual average, a situation which has led some to view the region as a kind of 'coal miner's canary' in forecasting global climate change impacts. Anthropogenic climate change is commonly implicated as a component of the Anthropocene, a proposed epoch of geological time which demarcates a period of significant human impacts on the planet. The Anthropocene concept has been heartily critiqued, however, due to the debatable 'event of first instance' as well as the fundamental Eurocentrism of the concept overall. This talk will further such critiques from an Arctic perspective, illustrating the incommensurability of the Anthropocene concept with relational worldviews, and thereby its limited utility in Arctic cultural landscape management policy and practice.

Title:

Pieces of the Anthropocene: Towards an Archaeology of the Ends of the World

Dr. Julien Riel-Salvatore, Université de Montréal

Abstract:

This paper addresses two entangled questions: How does the notion of the Anthropocene influence archaeological practice in the 21st Century and how does archaeology as a field interface with a better, critical understanding of that controversial epoch/concept? After situating these questions in competing definitions of the Anthropocene, I discuss what various archaeologists have considered to be archaeological 'golden spikes' and/or antecedents of the Anthropocene and highlight how denatured ecologies have been a recurrent theme in archaeological research. This raises the question of the scale at which our observations are made and at which past human behavior manifested itself. Drawing on the notion of 'Eearth' coined by Bill McKibben, I argue that archaeological data indicate that our species has manufactured, encountered and survived multiple Eearths over the course of its history, demonstrating

tremendous resilience in the process. This offers a productive bridge to recent ethnographic discussion of recurrent, situated or patchy Anthropocenes as a heuristic to frame productive analyses of long-term human-environment interactions. I conclude with an overview of several case studies currently being studied at the Laboratoire d'archéologie de l'Anthropocène at Université de Montréal to provide an example of how this perspective usefully links the Pleistocene to today and to highlight the particular challenges posed and faced by an archaeology of the Anthropocene.

Title:

Narrating the Anthropocene: How to Tell The Human Story

J.P. King The Department of Discard Culture, Toronto

Abstract:

Telling the story of the Anthropocene requires imagination. In an age of crisis fatigue and complex problems, apocalyptic prognoses and unfathomable statistics are stacking up like old news. We need artists, storytellers, and creative collaborations that transcend disciplines to provide a sensuous link to the materiality that has defined human activity on earth.

So, who is telling the story of the Anthropocene and is it being told effectively? The media has mistakenly framed "energy and emissions" as the faceless enemy of climate change, when in truth we are witnessing the cumulative impact of *Homo Faber*, "Man the Maker", who has actively shaped his environment for millennia. Damaged landscapes, disappearing species, and more recently, bewildering system changes like extreme weather, are the symptoms of a global human civilization out of balance with the natural world. Thus, to better understand the Anthropocene and its effects we must ask: what have humans permanently *added* and *subtracted* from the gross natural system?

Drawing upon his own visual research into contemporary material waste, JP King will survey creative responses to changing environments. In doing so, he will explore the polarities of empty aestheticization, as in the case of "ruin porn", and overly didactic offerings, which shame audiences through moral judgement. In a series of successful examples, which include sensory ethnography, documentary photography, sound and music, and speculative fiction, King argues that for creative media to be an effective communication tool in the Anthropocene it must walk the line between entertainment and education, shifting away from anthropocentric perspectives and toward the thingliness of things.