

## C03-O06

### **CULTURE AND ARCTIC CLIMATE CHANGE: INTEGRATING LONG-TERM PERSPECTIVES FROM ARCHAEOLOGY AND THE ENVIRONMENTAL SCIENCES**

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Observational evidence indicates that the Arctic is undergoing significant climate change; records show increasing atmospheric and ocean temperatures, ocean freshening, rising sea levels, melting permafrost and decline of sea and land ice. However, it is also clear that this kind of major climate change is not a new phenomenon in the Arctic system. For many millennia, human groups have settled the entire circumpolar region, and depended on the highly-dynamic Arctic environment for their basic livelihoods and to support complex social networks and elaborate cultural life. Arctic Geosciences therefore have a central role to play in reconstructing these long-term human-environment relationships. This paper presents the results of an inter-disciplinary initiative led by IASC's Polar Archaeology Network (PAN) to investigate and refine current understandings of the complex relationship between the dynamic Arctic environment and these long-term human cultural responses, both in terms of fragility and also resilience. The primary goal is to examine the Arctic environment during the Holocene, the past 12 000 years, which is marked by distinct warm and cool periods, and also by a series of major shifts in human settlement, behavioral patterns and technology across the different areas of the circumpolar Arctic.