

COPING WITH CHANGING CLIMATES IN EARLY ANTIQUITY (3CEA)

Comparative Approaches between Empiricism and Theory

HERVÉ RECULEAU and NADINE MOELLER

Coping with Changing Climates in Early Antiquity: Comparative Approaches between Empiricism and Theory (3CEA) is a collaborative project sponsored by the Humanities Without Walls consortium (www.humanitieswithoutwalls.illinois.edu/) through its competitive research initiative “The Work of the Humanities in a Changing Climate,” which is funded by a grant from the Andrew W. Mellon Foundation and is based at the Illinois Program for Research in the Humanities (www.iprh.illinois.edu/). In January 2018, 3CEA was awarded approximately \$136,000 over the course of three years (2018–20) through the Franke Institute for the Humanities (franke.uchicago.edu/), the consortium’s partner institution at the University of Chicago.

Project members include ten faculty and graduate students from three institutions: Hervé Reculeau (associate professor of Assyriology, University of Chicago, principal investigator), Michele Buzon (professor of anthropology, Purdue University, project coordinator), Jay Crisostomo (assistant professor of Assyriology, University of Michigan, project coordinator), Gary Beckman (George C. Cameron Professor of Ancient Near Eastern Languages and Cultures, University of Michigan), Catherine Kearns (assistant professor in classics, University of Chicago), Timothy Leonard (PhD candidate, University of Michigan), Thalia Lysen (PhD candidate, University of Chicago), Nadine Moeller (associate professor of Egyptian archaeology, University of Chicago), and Émilie Sarrazin (PhD candidate, University of Chicago). Katie Whitmore (PhD 2019, Purdue University) left the project after graduating early in order to take a position as a forensic anthropologist. While Katie plans to finish the work she has started for 3CEA, her position will be taken up until the end of the project by Jenail Marshall (PhD candidate, Purdue University).

3CEA investigates, in a comparative perspective, the social and cultural perceptions of, and experiences with, climate change in the Bronze and Early Iron Ages (third to first millennia BCE) through a multidisciplinary approach that convenes archaeologists, bioarchaeologists, and text specialists to foster interdisciplinary collaboration among the three partner institutions in the Midwest and between faculty and graduate students. The project uses ancient texts, archaeological and paleoenvironmental data (including ancient skeletal remains), and geospatial analysis to address the ways in which societies in the Eastern Mediterranean, Northern Africa, Anatolia, and Mesopotamia were affected by ancient episodes of climate change (see *Annual Report 2017–18* for a detailed presentation of the working groups and research questions). Focusing on social perception of, and reaction to, changes in the local, regional, and global climate(s), the project members have chosen to primarily address one well-documented (and abundantly discussed) episode of rapid climate change (RCC): the “Late Bronze Age crisis” around 1200 BCE, which saw the demise of the Egyptian New Kingdom, Mycenaean Greece, the Hittite Empire, and several city-states in the Eastern Mediterranean. Contrary to most research conducted so far, which took this episode of devolution in social complexity as the endpoint of their analysis, 3CEA integrates this sequence of events within a longer chronological time frame that not only encompasses the three preceding centuries of the

Late Bronze Age (fifteenth to twelfth centuries BCE), but also the two to three following ones that constitute the formative years of the Early Iron Age (twelfth to tenth or ninth centuries BCE, depending on areas). Additionally, the project offers a reassessment of the so-called 4.2ka event that allegedly brought an end to the Akkadian Empire in Mesopotamia and the Old Kingdom in Egypt around 2200 BCE. Research is being conducted within three subprojects on Egypt and Nubia (Buzon, Marshall, Moeller, Sarrazin, Whitmore), Anatolia and the Eastern Mediterranean (Beckman, Kearns, Leonard, and Lysen), and Mesopotamia (Crisostomo and Reculeau, assisted by University of Chicago undergraduate student Seth Markow with sponsoring of the David Hoeft Award for Newly Tenured Faculty from the College).

3CEA held its second annual workshop at Purdue University on September 23–24, 2019, to review and discuss the graduate seminar that was offered during the preceding semester/quarters (see Annual Report 2018–19), assess ongoing research, and prepare the Final Conference that was initially planned at the Oriental Institute and the Franke Institute for the Humanities (www.franke.uchicago.edu/) on September 28–29, 2020. Unfortunately, the unfurling of the coronavirus pandemic in spring 2020 negatively affected the planned collaborations among members from diverse institutions and made it impossible to reasonably expect holding an in-person conference in autumn 2020. The PI and the project coordinators are currently working on a grant extension with the HWW Consortium, with the anticipation that work will resume in academic year 2020–21 and that the conference can be held in September 2021 the way it was initially meant to be.

Michele Buzon (Purdue University), together with Dr. Antonio Simonetti (Notre Dame University), received a grant from the National Science Foundation for the project *Collaborative Research: Assessing the Impact of Holocene Climate Change on Bioavailable Strontium Isotope Ratios* (www.nsf.gov/awardsearch/showAward?AWD_ID=1916719). A logical follow-up to 3CEA, this grant will investigate the impact of climate change on the isotopic signature of bioavailable strontium during the last four thousand years within the Nile River Valley. Detailed investigation of faunal, plant, soil, and human samples will accurately trace any temporal change in the regional distribution of bioavailable strontium driven by a drying climate within the Nile River Valley.
