On November 28, the Harvard Initiative for the Science of the Human Past and the Harvard University Center for the Environment (HUCE) co-sponsored a day-long workshop on “Climate Change and Human Response in the History of Western Eurasia, AD 1-1600.” Convened and chaired by Michael McCormick, Goelet professor of medieval history, the workshop brought together scholars from all sides of the traditional divisions between the humanities, social and natural sciences. The goal was to review recent progress and explore the potential to further combine historical and archaeological records with high-resolution palaeoclimate proxy data to better understand the development of climate across this broad period and region—and ultimately, climate’s influence on human society.

The workshop was preceded a day earlier by a lecture entitled “Climate and Cultural Change in Western Eurasia: Progress and Challenges from Millennium-Length Tree-Ring Records,” delivered by Edward R. Cook, Ewing research professor at the Tree-Ring Laboratory, Lamont-Doherty Earth Observatory of Columbia University. Cook, who co-founded the lab in 1975, has contributed his expertise in dendroclimatology to provide an environmental backdrop to major cultural changes in the Americas and Eurasia. For example, he identified the role of climate variability in the eventual decline of Angkor, the capital of the Khmer Empire in Cambodia, via the twin stressors of alternating multi-decadal drought and markedly intense monsoon years in the fourteenth and fifteenth centuries. He documented these stresses through a hydroclimatic reconstruction based on seven and half centuries of data from nearby Vietnamese tree-rings.

Cook’s lecture provided a striking preface to the workshop by introducing ongoing developments in the field of dendroclimatology, particularly the creation of millennia-length tree-ring chronologies and associated climate reconstructions for regions previously lacking proxy-based historic climate data. He reviewed recent successes in synchronizing marked climate fluctuations with episodes of major cultural change that have been documented in the historical and archaeological record. At the same time he stressed that such efforts must be contextualized by recognizing uncertainties in climate reconstructions, and by acknowledging the complex relationship between humans and their environment. For example, proxy data also document instances of severe multi-decade-long droughts without any clear corresponding societal stress.

These considerations were carried into the workshop the following day. Among the participants in the workshop, there was a general understanding that attempts at uncovering simple, direct associations between climate change and social outcomes can be confounded by complex and potentially idiosyncratic societal responses.

The workshop considered at length the methodological challenges inherent in linking social and cultural responses to changes in climate, since climate can operate on a wide range of spatial and temporal scales. HUCE director Daniel P. Schrag remarked upon the unsuitability of globally or hemispherically-averaged climate reconstructions as input into such studies. He stressed the need for regional reconstructions of climate, in which changes are often more dramatic and apparent, and which are likely to be more relevant to individual historic societies and their networks of trade and communication.

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