

Investigating the Role of Climate in European History

Carole Crumley

THEME: Thresholds and regime shifts in social-ecological systems

PANEL (97/98): Regime Shifts in Human and Earth History: Case Studies

Title of Presentation:

Investigating the Role of Climate in European History

Abstract of Presentation:

The IHOPE European core project offers a strategy for synthesis, analysis and modeling of the mutual relationships between European societies and their environments, by investigating the long-term dynamics that laid the foundations of contemporary Europe. The theoretical approach combines complex adaptive systems, resilience, and historical ecology to facilitate the dynamic integration of environment, society, economy and politics into a single framework.

Between 1000 BCE and 1000 CE European societies, their ecosystems, and the climate were mutually transformed. The long co-evolution of humans with plant and animal communities in Europe has been well studied except for this period, when archaeological and historical research rarely incorporates shifting environmental conditions. Did human industrial and land use practices shape climate as early as the first millennium BCE? The nature and intensity of practices varied across spatial and chronological scales and cultural milieux. Many resilient land use strategies emerged during this period and characterize parts of Europe today. This formative period of European development, when new but not always successful strategies were instituted during periods of significant environmental change, has cautionary lessons for its future.

Europe's rich archaeological and historiographic record, combined with well-studied biophysical features of the region, offers a remarkable laboratory. While data have been collected by individual researchers and projects, the task remains to form networks and frameworks for collaboration across Europe and throughout the long time frame. Collaborative efforts will begin in three focus regions; leaders in their respective fields will oversee the task of synthesis. Data identification and collation, protocols for data sharing, security for intellectual property, and other legal, ethical, and practical issues will be addressed in workshops. Position papers from the workshops will be web-posted for comment and revision. This project is a major step toward establishing a global historical ecology.