



Towards Understanding Patterns of Climate Change in Past Centuries

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We review recent work aimed at establishing the nature of, and factors underlying, patterns of large-scale climate variability in past centuries. Evidence is compared from (1) recent proxy-based reconstructions of climate indices and spatial patterns of past surface temperature variability, (2) ensemble experiments in which proxy evidence is assimilated into coupled ocean-atmosphere model simulations to constrain the observed realization of internal variability, and (3) ensemble coupled model simulations of the response to changes in natural external radiative forcing. Implications for the roles of internal variability, external forcing, and specific climate modes such as ENSO and the NAO will be discussed.