Mediating a Landscape of Risk: A Comparative Case Study of the Ancient U.S. Southwest and the North Atlantic

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Abstract

Marginal environments can present major risks to food shortfall to prehistoric small-scale societies, which often create social and environmental strategies to mitigate those risks. Archaeological examples from these marginal environments can provide insight into ingenious food procurement strategies that resulted in success over the long-term for prehistoric populations and thus can inform agriculture and policy-making strategies in these environments today. One piece of understanding the vulnerability to failing to produce enough food is defining the risk factors that may limit food procurement on a given landscape. Both the U.S. Southwest and North Atlantic are considered marginal environments, although for different reasons – the U.S. Southwest due to rain shortfall and the North Atlantic due to cold and storminess. These divergent risk factors to food shortfall provide an excellent opportunity to compare how people in the past may have attempted to mediate that risk. Multiple complex socioecological variables need to be considered when defining how prehistoric communities in the Southwestern United States and the North Atlantic mediated this risk of food insecurity. Using large spatial archaeological, historical, and ecological datasets in a GIS database, ecological risk factors are mapped and defined for each case study to understand how often different patches of the landscape may fail to produce food across space and time. Focusing on two of our case studies – the Zuni region in New Mexico and Iceland in the North Atlantic- this speed talk in the session titled Archaeological Studies of the Long-Term Resilience of Food Supplies to Climatic Shocks in Arid North America and the North Atlantic will present how to model the ecological variables that may limit access to food in these regions and define risk landscapes in both the U.S. Southwest and the North Atlantic. By creating this ecological and social "risk landscape," we can then begin to address the social strategies, such as storage or reliance on social networks, which were employed across the U.S. Southwest and the North Atlantic when faced with food shortfall.

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