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Landscapes of Interaction: Understanding Social Landscapes through Quantitative Models of Artifact Distributions

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in variations of gravity models. Meanwhile, if the GIS-based approaches allow the high-quality simulation of landscape, pathways etc., precise estimation of the values related to demography remains a problem that extends well-known issues of demographic archaeology. This paper concerns the general methodological issues of demographic development implemented into spatio-demographic studies. These are as follows. In which cases should population estimates be considered *per se* or require additional mathematical 'filtering'? What is the relation between spatio-demographic variables and relative chronology? Are there any cases of the so-called demographic constants in population density and how may they be explained?

Landscapes of interaction: understanding social landscapes through quantitative models of artefact distributions

James R. Allison

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Exchange of material goods is one of the most basic forms of human interactions. By tracing the distribution of ceramics, stone tools, and other materials archaeologists are often able to make inferences about the nature of interactions, and about the economic and social relationships of the people involved. These artefact distributions are a fundamental feature of social landscapes, with the potential to reveal much about the structure of social life. But artefact distributions are often complex and difficult to describe, especially at large spatial scales, and they often require some form of abstraction to make them comprehensible. Archaeologists have therefore used a variety of quantitative models to describe and explain spatial distributions, but the relationships between specific abstract models and the underlying social relationships responsible for creating the artefact distributions are often unclear. This paper examines the relationship between models and data using databases from the North American Southwest. More specifically, I apply different abstract models, including fall-off curves, gravity models, and network models, to the distributions of several different Native American ceramic types manufactured between A.D. 1200 and 1500. Previous studies by the Southwest Social Networks Project, whose data I use, have led to well-founded (but still debatable) conclusions about the nature of social relations involved in the manufacture and exchange of these types. Applying different models to these distributions will allow comparison of the usefulness of the different methods in revealing different aspects of the social interactions responsible for the underlying artefact distributions as well as for the organization of settlements across the landscape of the North American Southwest.

The impacts on culture and landscape – conservation and development of stonework under the interaction between Kinmen and mainland China

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Kinmen is a small island next to Xiamen and Quanzhou, Mainland China. The excellent stone used in traditional building mainly came from the mainland, while the others were quarried around the settlement. However, with the beginning of the Cold War across the Taiwan Strait in 1949, these traditional resources of stone were forbidden to be imported to Kinmen. Only minor repairs could be made to buildings due to lack of building resources,