Elizabeth L. Martin* (emartin7@utk.edu), 800 Longview Rd. Apt. 216, Knoxville, TN 37919, and Charles Collins. A Model for the Peopling of the Americas Using Logistic-Diffusion Simulations. Preliminary report.

A database containing information on the distribution of projectile points (arrowheads) for nearly all counties in the contiguous United States, provinces in Canada, parts of Mexico, and Alaska was analyzed. This data was used to produce a model for the spread of humans over North America. The model was built using a Logistic-Diffusion process on clusters of sites, each with a system of neighboring clusters, and captures the qualitative dynamics of the system. The coefficients of the diffusion matrix are of specific interest as these values produce the possible paths of migration. Preliminary results are very promising. (Received September 25, 2006)