

Brown Bag Series:

Testing the Field-Processing Model at the Modena Obsidian Quarry in the North American Great Basin

Speaker: Dr. Michael J. Shott

Host Department: Museum of Anthropological Archaeology

Date: 09/25/2014

Time: 12:00 PM - 1:00 PM

Location: room 2009, Ruthven Museums Building

Description:

The Field-processing Model (FPM) inversely relates extent of resource processing at procurement sites to subsequent travel distance. Typically applied to food-getting, its recent extension to stone tools is part of a larger trend to broaden the scope and strengthen the theoretical foundation of inference from lithic data. This trend guided the FPM's application at the Modena obsidian quarry in the Great Basin, which follows earlier analyses by comparing the technological characteristics of debris assemblages and the proportion by reduction stage of biface preforms between quarry and outlying sites. It also uses two further ratio-scale methods, slope of the regression line of cumulative-count of flakes upon flake size, which increases with reduction, and slope of the regression of preform weight upon the first principal-component of linear dimensions, which declines with reduction. Results support the FPM and corroborate previous studies that document early-stage reduction at quarries versus later-stage reduction across the landscape. The essential next step in testing the FPM requires data on pattern and extent of biface reduction as a continuous function of distance from source. As useful as are existing measures and approaches, the newly defined ratio-scale measures used here can particularly expedite testing of the FPM in its continuous terms.