Department of Anthropology
Colloquium Speaker Series, Spring 2019
Thursday, March 7, 2019 @ 2:00-4:00pm
Carolyn and Kem Gardner Commons (GC), Room 5490

Ben Davies, PhD.
Postdoctoral Research Associate, University of Utah
“Home is where the hearth is? Assessing late Holocene settlement dynamics in an arid Australian landscape”

Abstract:
Archaeological interpretation depends on the formation of patterns in the material record, but patterns are not always discernible as the outcomes of a single set of processes. In Australia’s desert regions, late Holocene deposits have been interpreted as intermittent occupations by bands of mobile foragers or the result of a growing, semi-resident population of complex hunter-gatherers. In recent years, archaeologists have focused on the temporal distribution of radiocarbon dates that show trends and gaps consistent with these different interpretations of occupation duration and intensity. Drawing on the concept of the palimpsest, this study uses spatial simulation to evaluate the ability of coupled behavioral and sedimentary processes to form these patterns in a surface record of heat-retainer hearths. Initial results suggest that explanations invoking population dynamics or geomorphic processes have the capacity to produce qualitatively similar outcomes. Simulations are then reconfigured to evaluate a second proxy: luminescence dates obtained from heated stones that are less susceptible to erosion than the charcoal used for radiocarbon dating. The results of the modeling exercises are discussed in relation to patterning observed in the archaeological landscape at Rutherfords Creek, New South Wales, and are used to argue that the record is consistent with neither intermittent occupation or appreciable population growth, but instead indicates regular visitation by groups performing a consistent set of activities during the period of interest. This study demonstrates the importance of taking a formational perspective in settlement pattern studies, and how simulations can be used as both ‘tools to think with’ and as mechanisms for developing archaeological tests of theoretical ideas.