Nelson is an archaeologist with research addressing a range of social-ecological issues for prehistoric small-scale farmers in the US Southwest (600-1500 CE). Her field research has focused primarily on the Classic to Postclassic transformation from village to hamlet and back to village settlement during the 11th through 15th centuries in the Mimbres region of southwest New Mexico. Climate change, resource depletion, infrastructure developments, and social diversity are all examined in the context of these changes.

Nelson currently leads an interdisciplinary team of archaeologists, ecologists, and mathematical modelers in a broad scale and cross-case examination of long-term patterns of vulnerability and transformation in the prehistoric US Southwest and northern Mexico. This team collaborates with the Resilience Alliance (www.resalliance.org) to assess the contribution of insights from these long-term archaeological cases to contemporary issues of vulnerability and resilience in social-ecological systems. Nelson is a Professor within the School of Human Evolution and Social Change at Arizona State University and Vice Dean of Barrett Honors College at ASU.