**Eagle Cave**

Eagle Cave (41VV167) is a large dry rockshelter with deeply stratified deposits spanning the Early Archaic through late Prehistoric periods. My thesis research focuses on deposits in the northern sector of the shelter sampled during 1983 excavations by UT-Austin and again a half century later by Texas State University in 2014. My goal is to use multiple lines of evidence to evaluate the natural and cultural formation processes that resulted in the complexly stratified, culturally rich deposits present in Eagle Cave.

Our ongoing analysis involves a robust geoarchaeological sampling strategy that included the collection of micromorphological (micromorph) samples from Profile Sections (PS) 3 and 4 in Eagle Cave. This poster highlights the benefits and difficulties of collecting micromorph samples from rockshelter deposits and shows how the analysis of the resulting slabbed samples and thin sections can aid in evaluating site formation processes.

### Field Collection

- Section of profile cut back to expose block of matrix
- Block carefully removed, wrapped in toilet paper, tightly wrapped
- Sample impregnated with polyester resin made from polyester, organics, and artificial as well as post-depositional disturbances of sediments.

### Slabbing

- After completely solidified, sample removed from container and north arrow notched in block
- Outer casing removed using oil-based rock saw to expose intact soil block
- Each side of block is scanned using high resolution
- Block is cut into 1cm slabs for thin section production, curation, and macroscopic analysis

### Micromorphological Sampling and Analysis

Our ongoing analysis involves a multidisciplinary approach to evaluate the formation processes evident in PS 3 and 4. The ongoing analysis of the micromorph slabs and thin sections from this sector of the shelter will help elucidate some of these complex processes and contribute to the overall analysis of formation processes in this sector of the shelter.