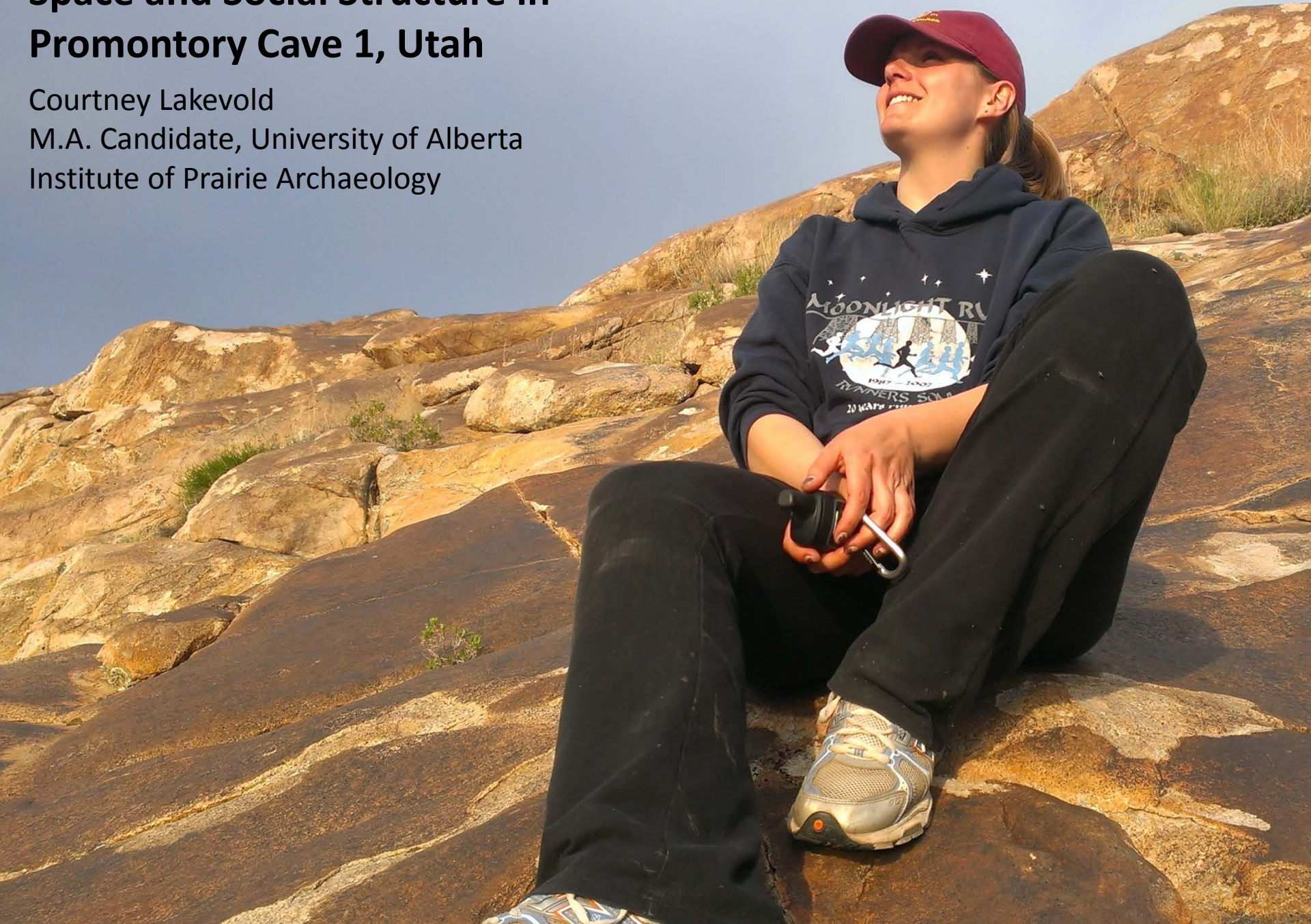
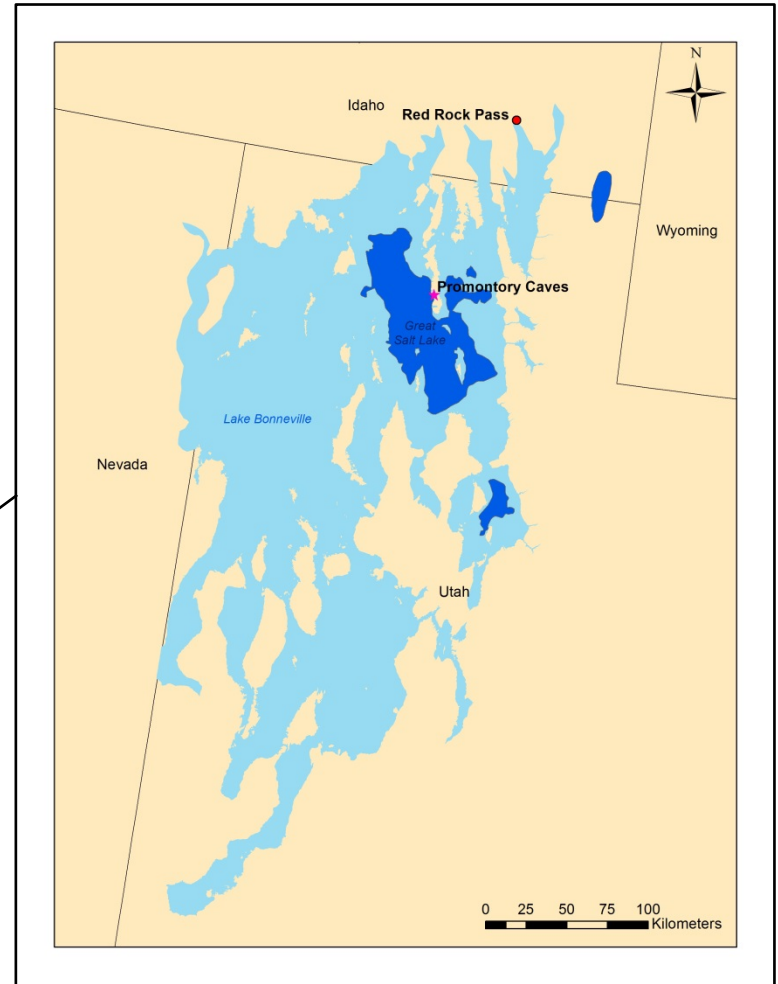
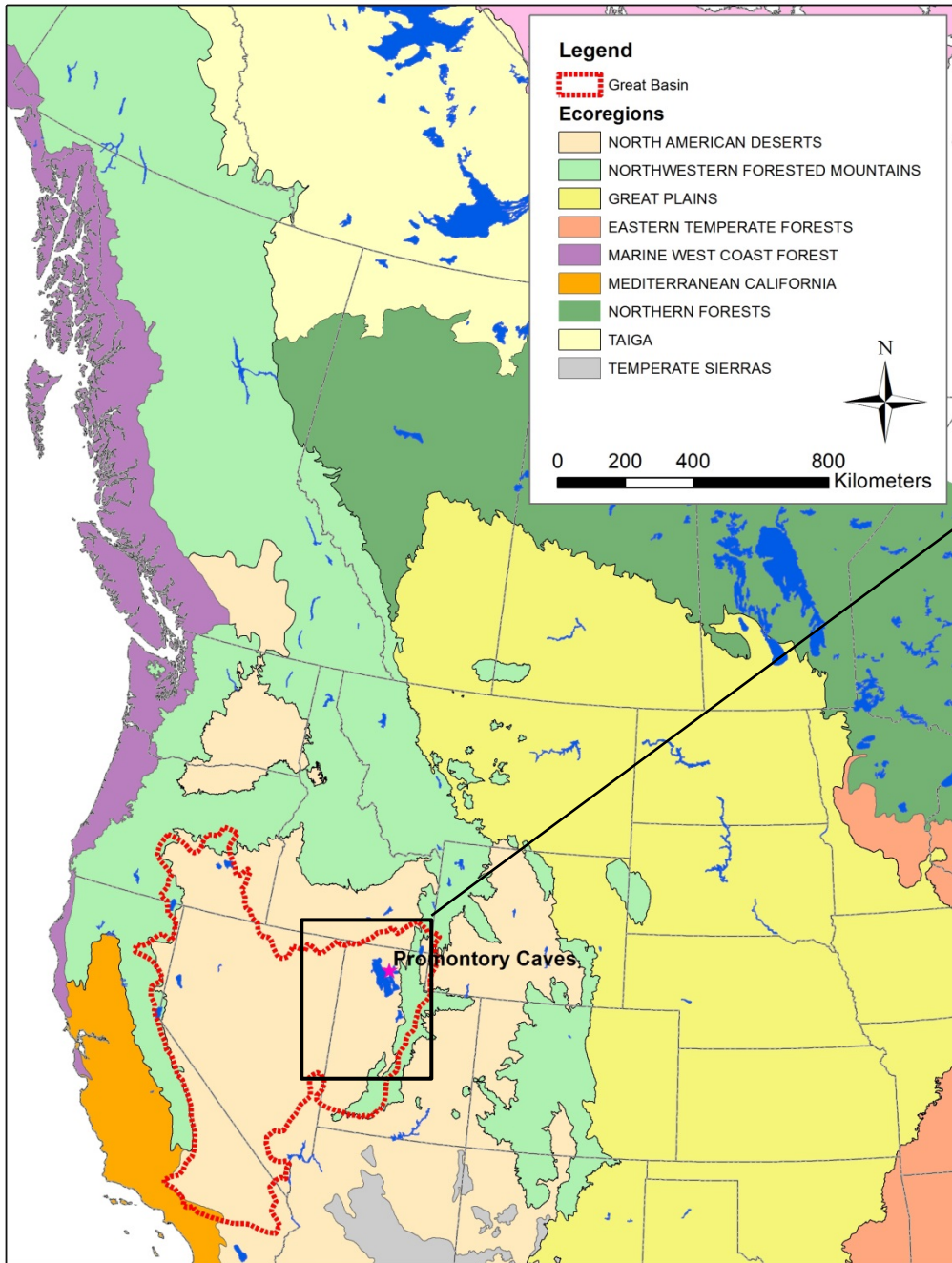


Space and Social Structure in Promontory Cave 1, Utah

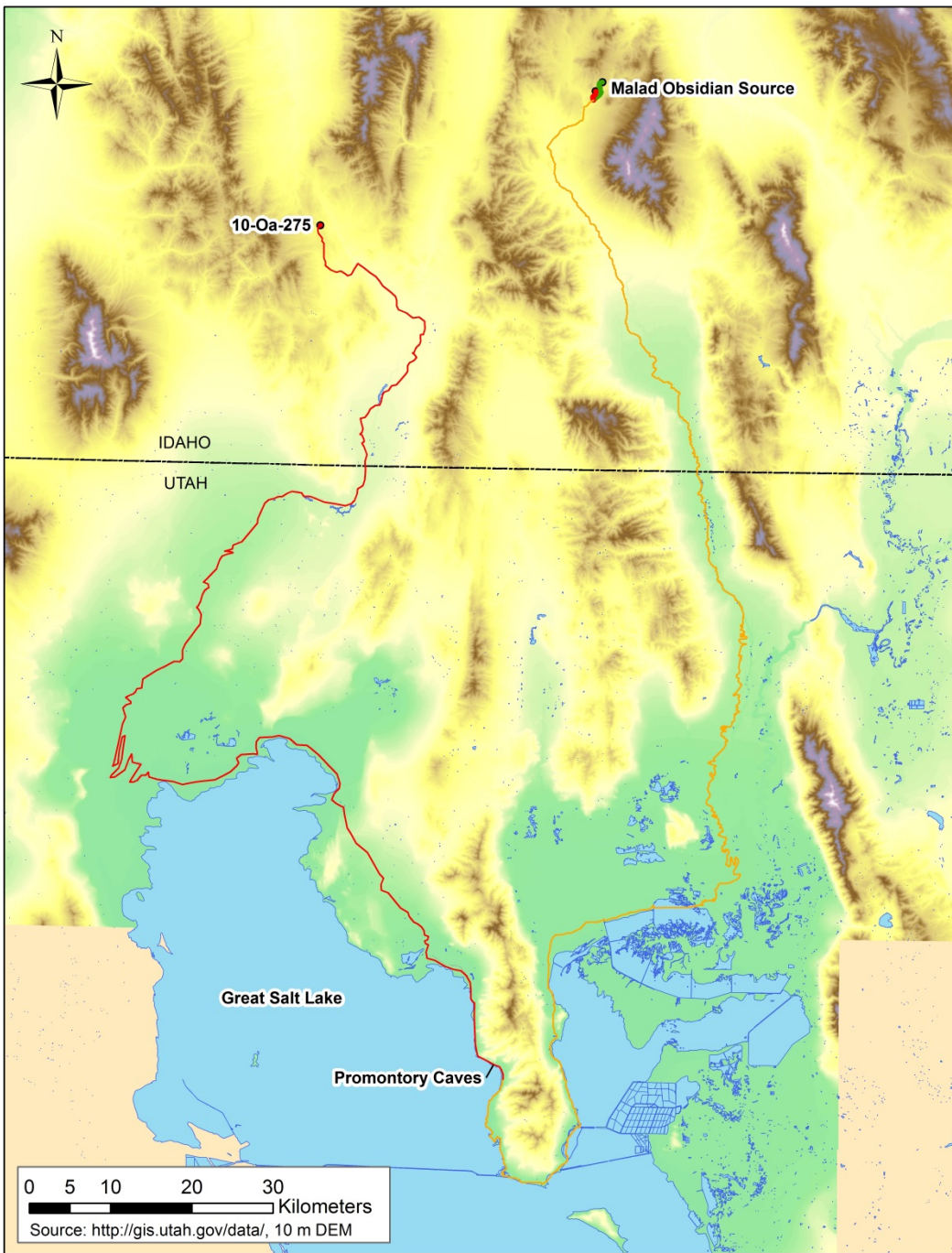
Courtney Lakevold

M.A. Candidate, University of Alberta
Institute of Prairie Archaeology





Cave 1 was formed by wave action during the high stand of pluvial Lake Bonneville ~17-20,000 years ago



Least Cost Path

- GIS analysis that predicts pathways to Promontory Cave from the north, using known Promontory sites and raw material sources as origin points

Promontory Point

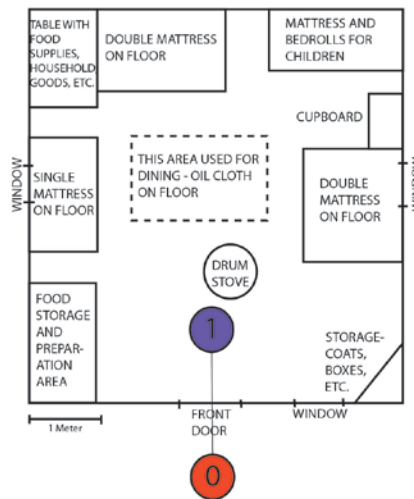
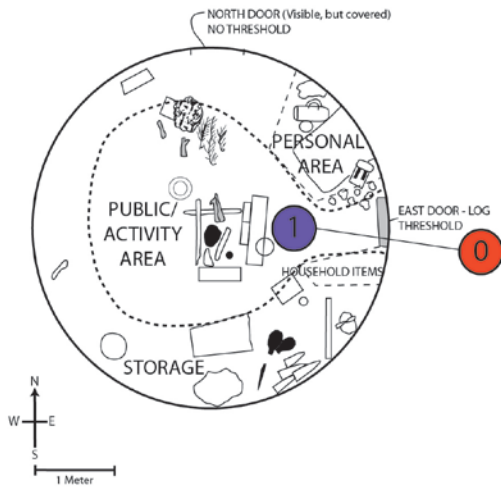


Great Salt Lake



Main entrance, looking into Cave 1

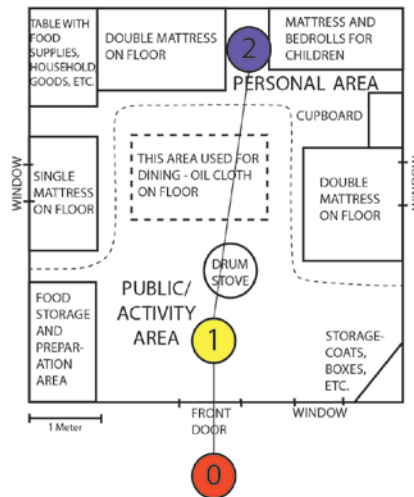
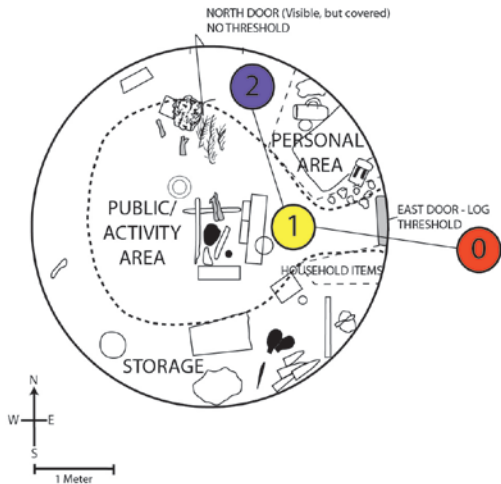




Space Syntax Analysis

- Looking at dwellings of western North American hunter-gatherer groups and Cave 1 from a space syntax perspective, for comparison

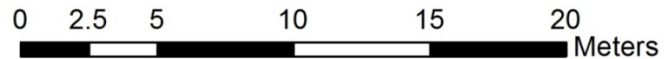
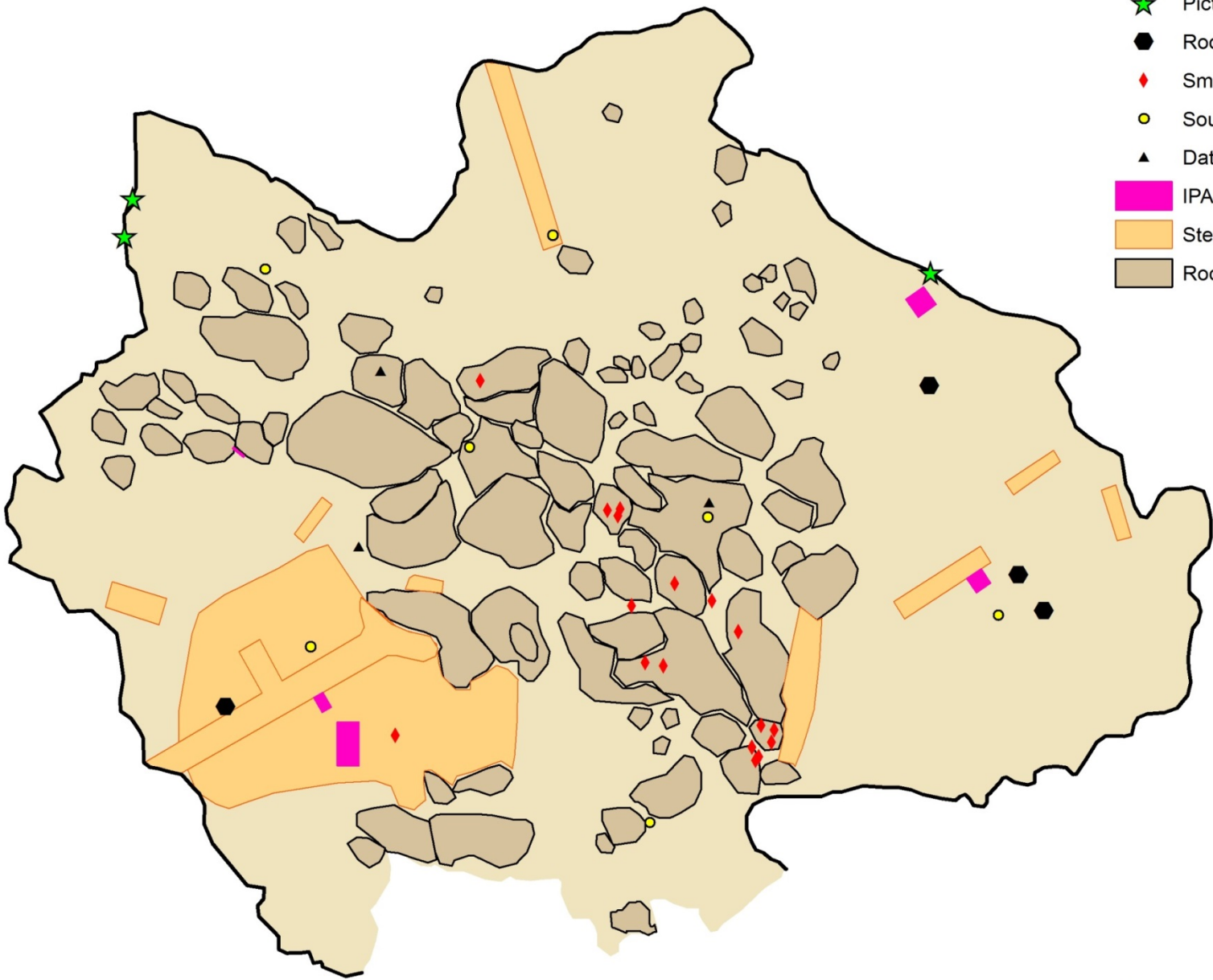
Space syntax analysis on Athapaskan conical lodges and cabins based on physical barriers. (Floorplans from Janes 1983)



Space syntax analysis on Athapaskan conical lodges and cabins based on physical and social barriers. (Floorplans from Janes 1983)

LEGEND

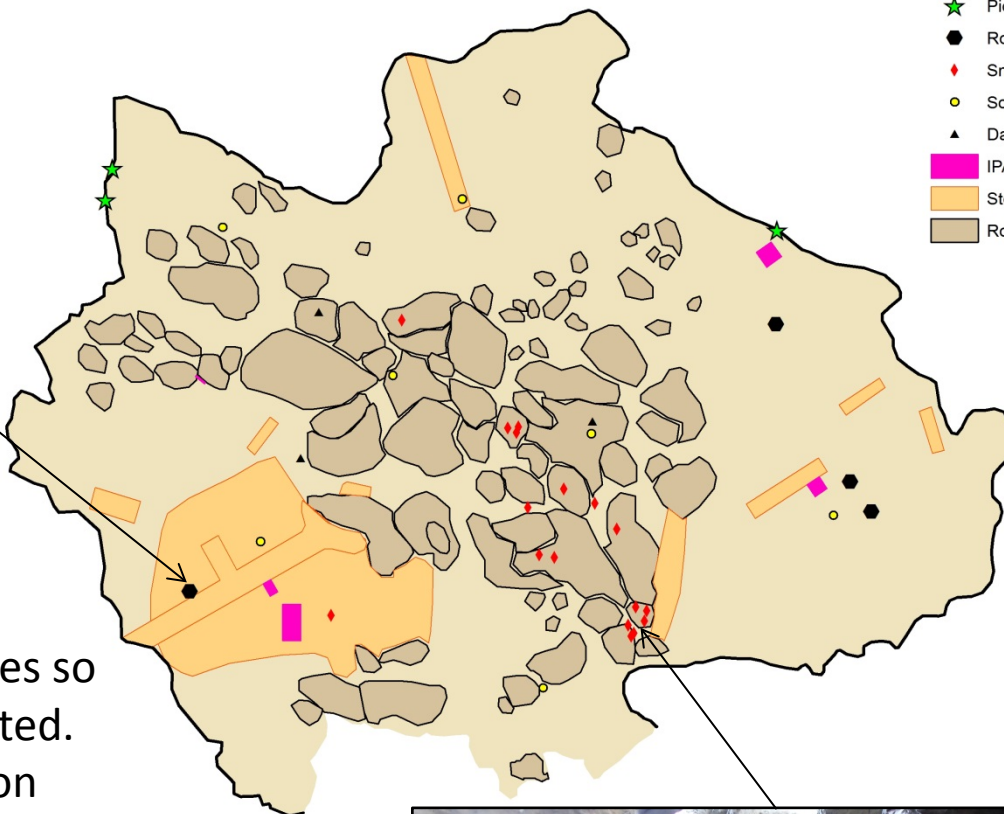
- ★ Pictograph
- Roof Samples
- ◆ Smooth Spots
- Sound Targets
- ▲ Datum
- IPA/BYU Excavation
- Steward Excavation
- Rockfall



*base map from Steward 1937

LEGEND

- ★ Pictograph
- Roof Samples
- ◆ Smooth Spots
- Sound Targets
- ▲ Datum
- IPA/BYU Excavation
- ▭ Steward Excavation
- Rockfall



- The roof is stained black in places so samples were collected and tested. These samples are high in carbon content, potentially indicating areas where smoke from fires may have been rising.
- Smooth spots are present on the rocks along several main routes through the cave. These were identified and mapped, potentially showing how people moved through, into, and out of the cave





Excavating a moccasin
in Trench B area



3D laser scanning Promontory Cave I by M2 Technical Services Inc.

3D Modeling of Promontory Cave 1 using point cloud data

