Sand Canyon Geology and Archeology

Leaders – Chris Heine and Jim Corken
Date – Tuesday, August 13, 2024
Time – 7:00 am – 3:00 pm

Sand Canyon is located about an hour west of Durango. This field trip will include a hike through Lower Jurassic and Upper Cretaceous formations in the Southwest corner of Colorado, 12 miles west of Cortez. We will see 3-major Aeolian (ancient dune sands) packages within the Jurassic: the Navajo SS, the Entrada SS, and the Junction Creek member of the Morrison Fm. The Entrada is a major arch and alcove former in Sand Canyon as well as in Arches National Park. In addition to the outstanding geology, the hiking trail gets very close to a few well-preserved archaeological ruins.

The area is at an elevation of around 6000 feet. In August it will likely be hot with afternoon temperatures around 90 degrees or so. For this reason, the trip will start early in the morning to avoid the hottest parts of the day. Broad brimmed hats, sunglasses, sun protective clothing, decent hiking shoes and lots of water are highly recommended. The trail for the most part is flat with a few mild slopes to contend with. The trail is considered ‘easy’.

Additional side trips may be made to a nearby winery and archeological museum.

Photos by Chris Heine
Geologic Formations Exposed in Canyons of the Ancients National Monument

River channel sandstones, floodplain siltstones and shales, marsh coals. Used for building stone, groundstone tools and flaked lithic tools.

River channel sandstones, floodplain siltstones and shales. Used for flaked lithic tools.

Floodplain and lacustrine siltstones and shales. Minor river sandstones. Abundant volcanic ash. Used for groundstone and flaked lithic tools.

River channel sandstones and overbank siltstone and shale. Used for groundstone and flaked lithic tools.

Sandstone deposited as sand dunes in an arid desert. No archeological use.

Tidal flat siltstone and evaporites. No archeological use.

Sandstone deposited as sand dunes in an arid desert. Alcoves shelter cliff dwellings.

Sandstone deposited as sand dunes in arid desert. No archeological use in Sand Canyon, but alcoves shelter cliff dwellings in Utah and Arizona.