



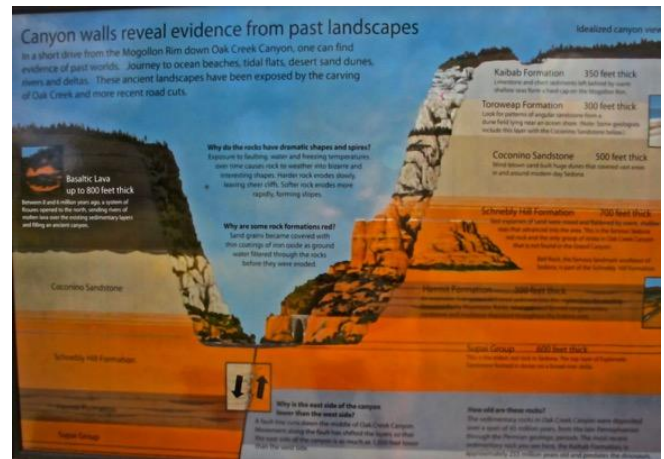
Arizona Rocks 36

Text and photos by Ray Grant

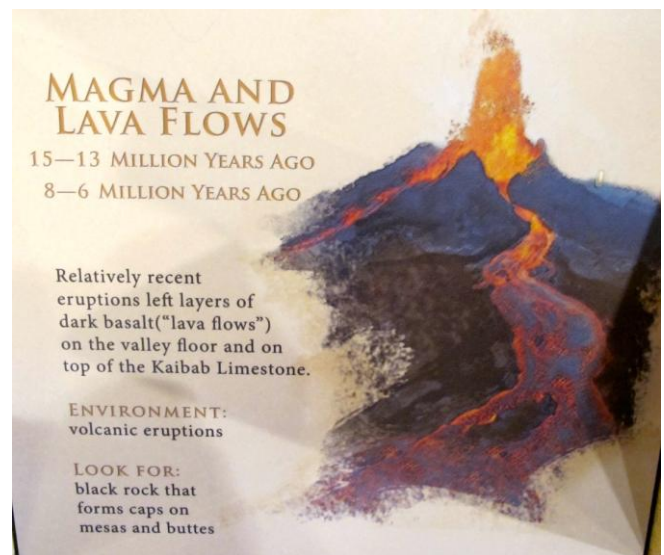
Oak Creek Canyon is a popular Arizona destination in the summer; places like Slide Rock can get very crowded. The geology of the canyon is like that of the upper part of the Grand Canyon with a few differences. The main rocks forming Oak Creek Canyon are the same Paleozoic sedimentary formations present at the top of the Grand Canyon, the Kaibab Limestone, the Toroweap Formation, the Coconino Sandstone, the Hermit Shale, and the Supai Group rocks. On the rim of the canyon at Oak Creek there are basalt lava flows that are 6 to 8 million years old, and there is one additional sedimentary formation the Schnebly Hill Formation. It is between the Coconino Sandstone and the Hermit Shale and represents a coastal area with sand dunes mixed with tidal and shallow marine sediments.

The Red Rock Ranger District Visitor Center that is six miles north of Interstate 17 on route 179 just before the Village of Oak Creek has a very good exhibit about the geology around Sedona. It has descriptions and samples for all the formations. It is well worth a stop if you are in the area. There is also signage about the geology at the Canyon overlook.

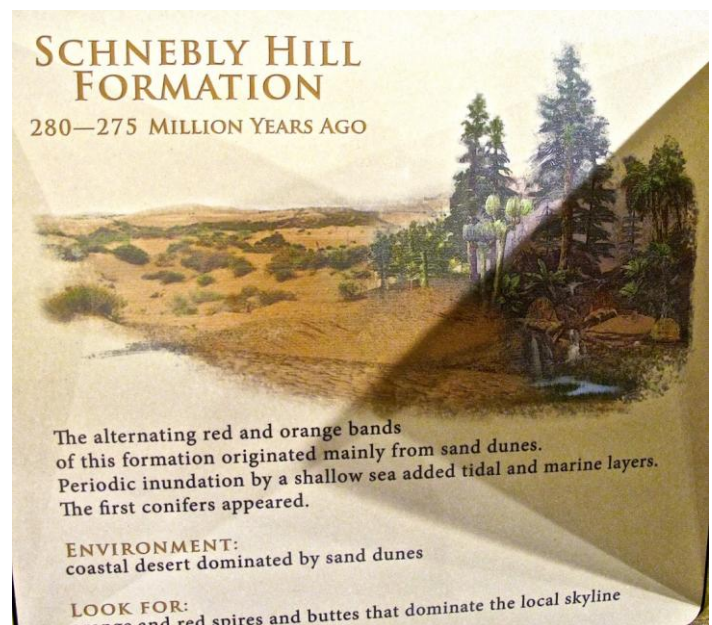
Description of Schnebly Hill Formation
 at Red Rock Visitors Center



Sign at the Oak Creek Canyon overlook with a geological cross-section.



Description of basalt on Canyon rim at the Red Rock Visitors Center



WHY ARE THE ROCKS RED?

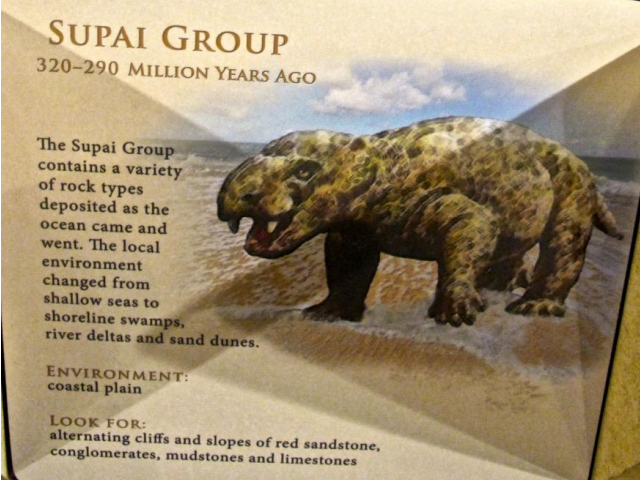
The short answer: Rust.

Sedona's red rocks contain hematite, a reddish form of iron oxide similar to rust. Water carrying dissolved iron oxide deposited the hematite as it seeped through porous layers of sandstone. The sandstone originated in ancient dunes.

The grayish or buff-colored rocks are limestone that formed (mostly from shells) on the floor of a prehistoric ocean.



Why the Sedona is Red Rock Country at the Red Rock Visitors Center

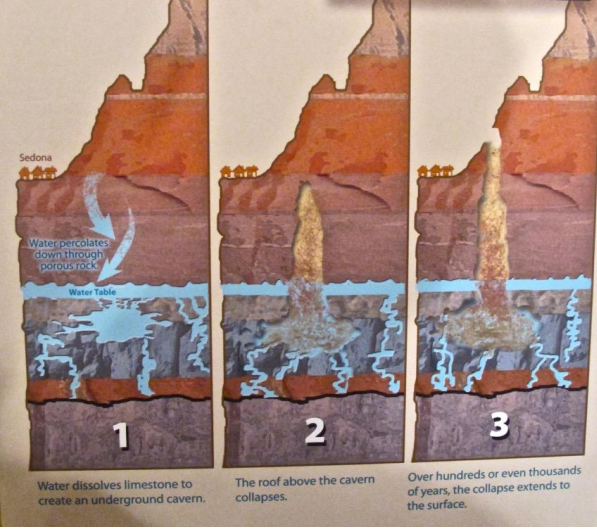
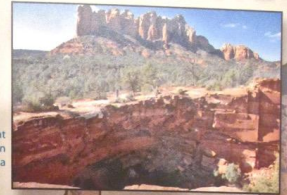


Example of exhibits for each of the formations at the Red Rock Visitors Center

THAT SINKING FEELING

Water moving through porous rock of the Redwall Limestone layer, hundreds of feet below the Hermit Formation on which Sedona is built, is the force that creates sinkholes.

Sinkhole at Devil's Kitchen near Sedona



The Red Wall Limestone is just under the Supai Group, but is only seen one place in the very bottom of the Canyon. There are caves in the Redwall where ever it is found.



Oak Creek Canyon