



**Geology Alumni**

## 19<sup>th</sup> ANNUAL SDSU GEOLOGY ALUMNI FIELD TRIP

A WEEKEND ON THE SAN ANDREAS FAULT IN THE MECCA HILLS, CA---  
SOUTHERN CALIFORNIA TECTONICS SINCE 2 Ga

MARCH 4, 5, & 6, 2005

This year's field trip/campout will be in Painted Canyon in the Mecca Hills, about 20 miles southeast of Palm Springs, on the east side of the Coachella Valley. The hills are close to the northeast shore of the Salton Sea and 5 miles east of the small farming town of Mecca. All Alumni, Students, Friends of the Dept., interested parties, etc., are welcome to attend. Even dogs are allowed! ☺

The Mecca Hills are a transpressional ridge caused by the main strand and several smaller strands of the San Andreas Fault Zone (SAFZ). On Saturday we will hike up Painted Canyon to see the oldest rocks in southern California, the 2 Ga Chuckwalla Complex, the equivalent of the Vishnu Schist and Zoroaster Granite in the bottom of the Grand Canyon, and the western limit of the pre-Pangea supercontinent of Rodinia. The schists and gneisses in the gorge testify to the tens of kilometers of unroofing of an ancient, pre-Cambrian mountain range. Then we will examine outcrops of the Orocopia Schist, a K to early Tertiary seafloor quite possibly subducted beneath the pre-Cambrian basement. These schists, when logically connected to the similar Pelona schists east and north of Los Angeles, but on the other side of the SAFZ, formed the first evidence for hundreds of kilometers of right lateral slip on this now famous fault. On Sunday we will see spectacular views of the folding and brecciation of the Neogene sedimentary rocks adjacent to the main strand and of the fault gouge itself, as well as the cataclasis of the basement rocks. Both days will begin with an hour discussion of handouts at 9 am!

Some of us will drive out to the campsite, at the upper end of Painted Cyn. Rd., on Friday afternoon to claim the best campsites for our group. The Mecca Hills are a National Wilderness, but, because of the international importance of the geology, camping and cars are allowed out to about 20 feet off Painted Cyn. Rd., a well maintained dirt road. There are NO facilities in the canyon—so bring water, food, TP & a shovel, and firewood. Be prepared for hot/cold/rainy/windy weather. Plan on a trip of about 180 miles/3 hours each way if you live in San Diego, a little less if you live in north county. GPS coordinates of the campsite: N33-37'-08.2" W115-59'-58.7". We will camp at the same spot both Friday and Saturday nights. Cell phone coverage is sporadic. Communications frequencies that will be monitored for assistance are: Family Radio Service (FRS) channel 11 (no tones) and 2 Meter Amateur Radio frequency 146.520 Simplex.

**Directions to the camp** For those living in north county, take I-15/215 to I-10E, go east to Indio, take 86S south about 20 miles to Mecca (Hwy. 111/195). The road curves around thru signals and across train tracks, so just keep going to Mecca! There's a small shopping mall with a gas station (it's cheaper though at the Arco station about a mile to the west (?)) and a grocery store (Eddie's) with good deli-style Mexican food. Continue driving south two blocks past the mall and follow the sharp 90 degree turn to the east on Hwy. 195/ 66<sup>th</sup> St.. At 5 miles east of Mecca you will cross over the All American Canal and drop down on the desert floor just 0.1 miles shy of Painted Cyn. Rd. on your left (see big sign that says "Mecca Hills Wilderness Area—trail open next 5 miles" ) Follow that singular, non-branching dirt road until you come to our campsites !:). We will flag and put an SDSU Geology notice on the big sign.

For those living near or south of I-8, take I-8 east thru Jacumba and Ocotillo. Take the Forrester Rd. turnoff, 22 miles E of Ocotillo, and go north on it (it's also S-30) until you reach Westmorland after 19

miles of driving north. Turn left onto the main street (Hwy 86/78) with gas stations on both sides. This road soon becomes a freeway that follows the south and then west side (somewhere along here leave 86 and take 86S!) of the Salton Sea. At 51 miles from Westmoreland, turn off 86S onto the 111S-Mecca-195 exit. The Arco AM/PM station has inexpensive gas! Continue/Take 111S to 66<sup>th</sup> St. Just keep following the signs to Mecca—it's only 1.5 miles from the Mecca exit off 86S. See above to get from Mecca to our campsite! ☺

For more info, call Joe Corones (858) 492-5034 (day), (858) 484-3582 (eve)  
Or Monte Marshall (619) 795-9871 or [mmarshall@geology.sdsu.edu](mailto:mmarshall@geology.sdsu.edu)