



## Earthquake Researchers Hit the Road

Early last year preparations were under way for an Earthquake Research Affiliates field trip along the eastern flank of the Sierra Nevada to inspect evidences of recent seismic activity and geological events. But the February 9 earthquake in San Fernando Valley wiped out those plans about as thoroughly as it shook Sylmar. It wasn't until last month that the expedition finally took place.

The Earthquake Research Affiliates represent organizations whose financial support assists earthquake research at Caltech. For 15 years officers and engineers from these companies have been participating in and learning from on-campus symposia and outdoor excursions. With Robert Sharp, professor of geology, and Clarence Allen, professor of geology and geophysics, as tour guides, this year's group—about 50 in all—boarded a bus in Reno, Nevada, for the two-day trip along the base of one of the world's most impressive fault-block mountain ranges.

A heavy cloud bank over the range, plus intermittent rain, sleet, snow, and fog, turned the first day into a series of character-building forays from inside the bus into the elements. Compensations included the chance to look at the area between the Genoa fault scarp near Carson City, Nevada, and the Garlock fault northeast of Los Angeles through the eyes of Allen and Sharp. This section of Nevada and southern California accounts for 90 percent of the significant seismic activity in the United States.

Allen and Sharp pointed out and discussed the broad structure of the Sierra Nevada and of the White and Inyo mountain ranges; glacial features of the eastern



Sierra; evidences of recent volcanic activity in Mono Basin and Owens Valley; the fault structure of the Sierran escarpment and geologic features of the great 1872 Owens Valley earthquake. And mixed in with this geology was some of the human history of the area: Mark Twain anecdotes about the Washoe Lake Basin and Slide Mountain; the story of Sandy Bowers, one of the Comstock Lode's first millionaires and his wilderness mansion; a history of the Comstock Lode, Virginia City, Gold Hill, and Sutro's Tunnel; the saga of Convict Lake where four escaped prisoners from Carson City were cornered by a posse; nearby Mt. Morrison, which was named for a slain member of the posse; and an entertaining survey of the Alabama Hills near Lone Pine—an area dubbed "Movie Flats," because it has served as a scenic backdrop for many movies.

As the photographs on these pages attest, the trip was also an aesthetic experience.



