



CALIFORNIA INSTITUTE OF TECHNOLOGY

SANTA BARBARA HAS ITS

FALTS

BY COLIN CAMPBELL

THE FARMERS' ALMANAC says to watch for earthquakes when the moon runs high. Charlotte King of Salem, Oregon, predicts seismic activity according to the intensity and duration of her migraine headaches. Biologist Marsha Adams sees correlations between solar flares and earthquakes. Stock market prophet Joseph Granville made the front pages with his prediction that a Richter magnitude 8 quake would strike Los Angeles on April 10, 1981. John Gribben and Stephen Plagemann claim in their book *The Jupiter Effect* that the unusual planetary alignment of March 10, 1982, will trigger disastrous quakes in southern California.

"But Granville was wrong, wasn't he?" says Professor Arthur Sylvester, 43, a geologist and earthquake researcher at UCSB. "Granville doesn't understand earthquakes any more than Edgar Cayce or any of the other psychics do. A friend of mine once discovered a one-to-one correlation between cycles of earthquakes and cycles in the stock market. If you believe the psychics, then maybe you should use earthquakes to predict the stock market."

Professor Sylvester's methods are not

designed to thrill the readers of *National Enquirer*. He uses laser beams to measure the slow changes in distance between points on the mainland and points on the Channel Islands, and for the last four years he's been in charge of the radon gas sampling program at UCSB.

"Mark Shapiro of Cal Tech isn't predicting any quakes," says Professor Sylvester, "but he's discovered that radon gas in deep wells along the San Andreas fault bubbled up faster just before the 1979 Imperial Valley quake. Then last fall his radon detectors at Lake Hughes and Lytle Creek again showed increases." Also last fall, Professor Sylvester announced significant increases in radon at the detectors along the Mission Ridge, More Ranch, and Mesa faults in Santa Barbara.

The Santa Barbara Channel is one of the most seismically active zones in California: nearly 500 quakes have struck here since the turn of the century. The city itself rides a crustal block bordered by the Mission Ridge fault to the north and the Mesa fault to the south. The Mesa fault extends west from Stearns Wharf to Haley Street, parallels Highway 101 to Modoc Road, then goes under La

Left: State and Ortega streets, June 29, 1925. A magnitude 6.3 quake kindled earthquake consciousness in local engineers, architects, politicians, and geologists.