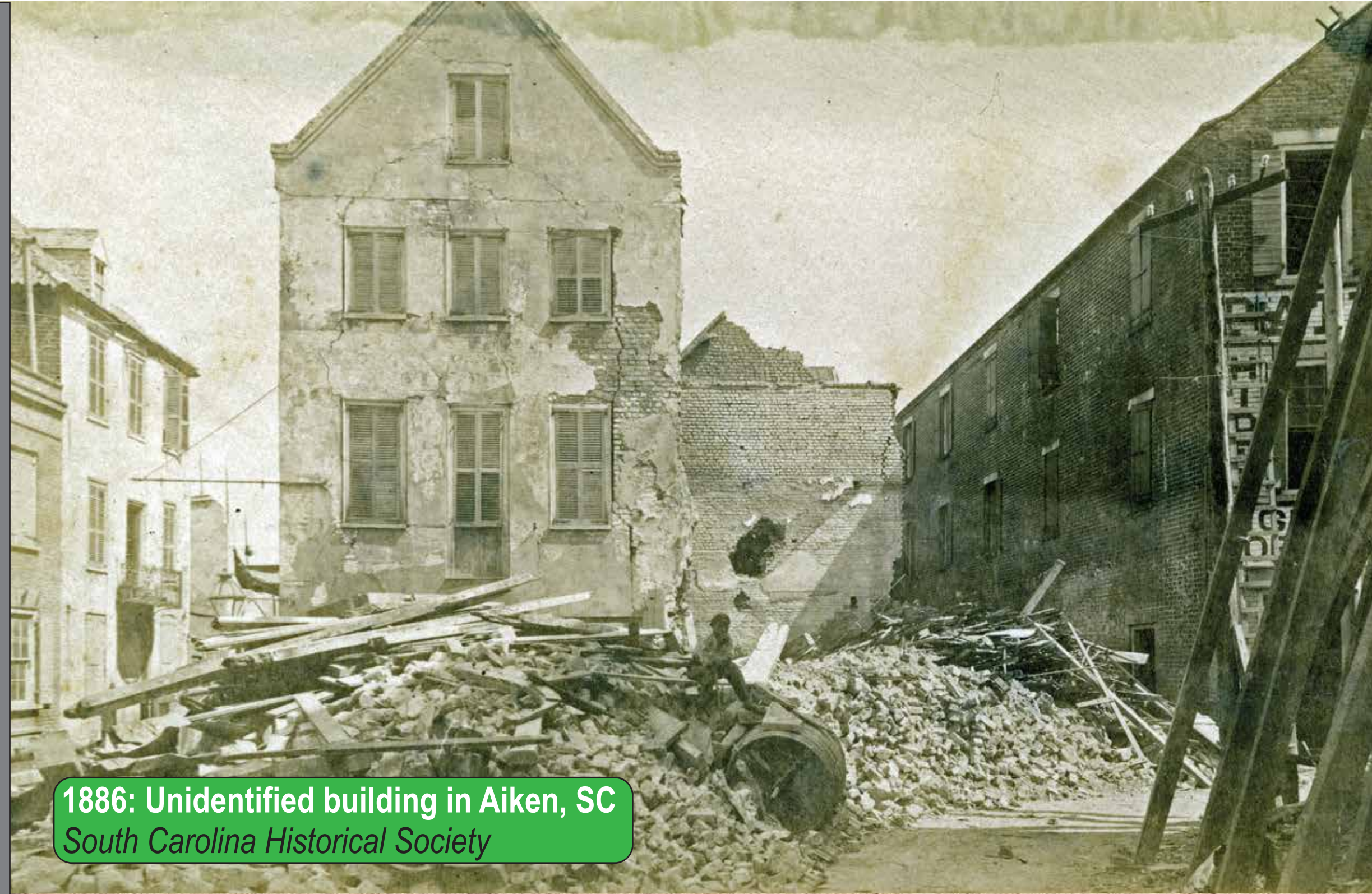


EARTHQUAKES



1886: Unidentified building in Aiken, SC
South Carolina Historical Society



1886: Train wreck during earthquake
South Carolina Historical Society



1886: Afraid of unstable homes during aftershocks, Charlestonians tent camp in Washington Park
South Carolina Historical Society

I think I felt the house shake last night!
Do earthquakes happen in South Carolina?

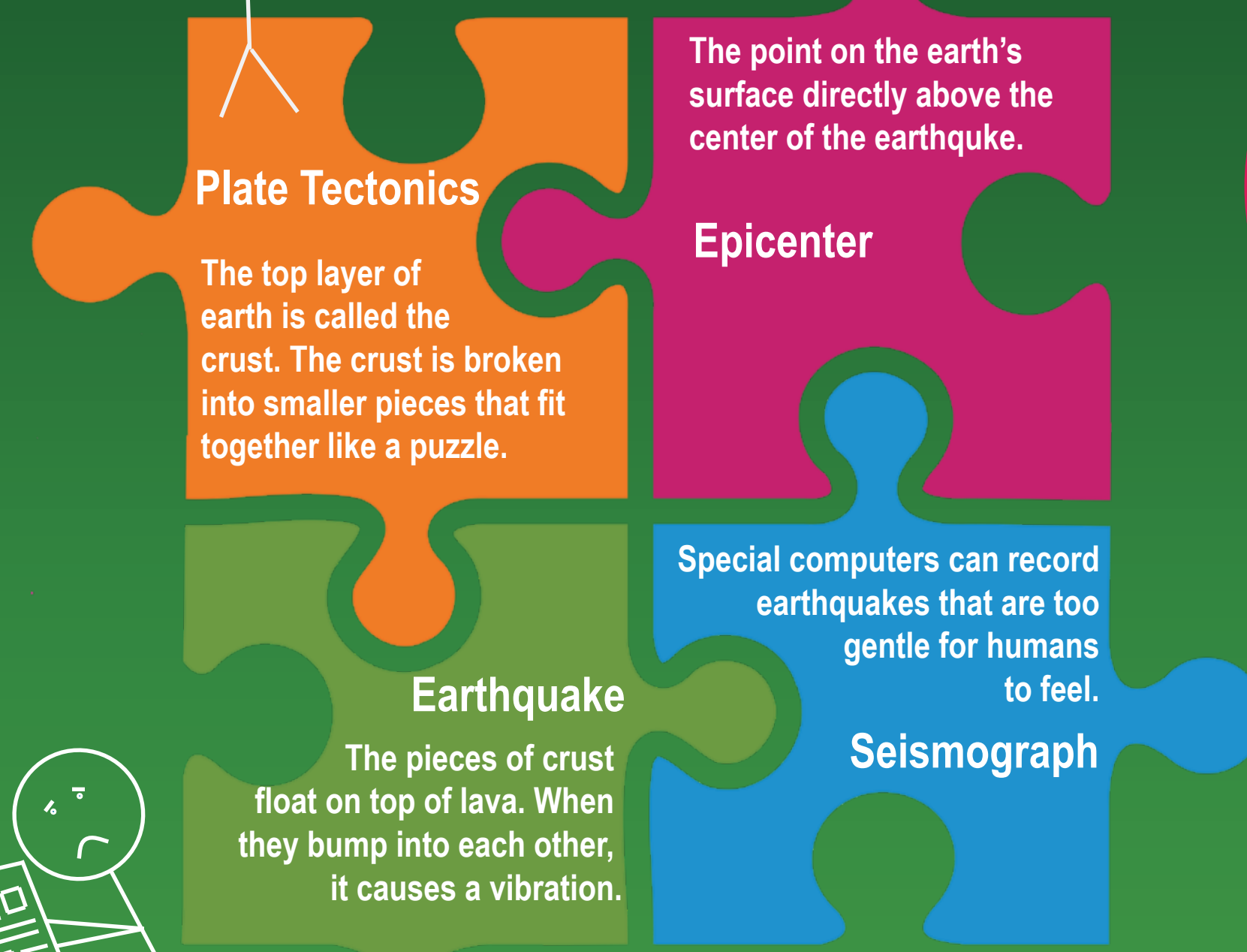


South Carolina is one of the most seismically active states east of the Mississippi River!

Most of the South Carolina earthquakes occur in Summerville or Charleston.

1698
Carolina colonists report feeling their first earthquake.

There are two types of tectonic earthquakes:
Intraplate and **Interplate**



August 31, 1886 9:51pm

- Disaster:** Earthquake
- Epicenter:** Middleton Place in Summerville
- Duration:** 35-70 seconds, unusually long time
- Cause:** movement at the junction of 2 intraplate faults
- Range:** 2 million square miles Felt in Cuba and Canada

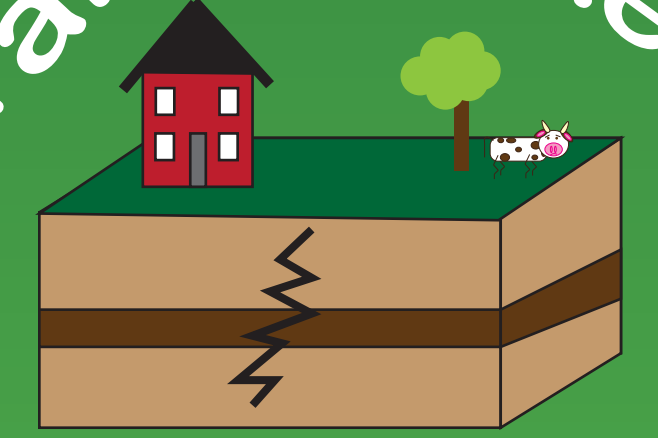
Notes:

South Carolinians felt the aftershocks for weeks, with 53 of them registering at 3.3 or higher. Seismotologists think the aftershocks continued until 1893.

The severe damage ranged from Charleston to Savannah, and west to Aiken County where two dams broke. A 3 foot wave pushed water up the Cooper River, destroying rice fields. Charleston suffered \$5 million in damage and 83 lost lives.

As far away as Kentucky and Ohio, residents reported downed chimneys and New Yorkers reported rocking lighthouses and water flooding city sewers.

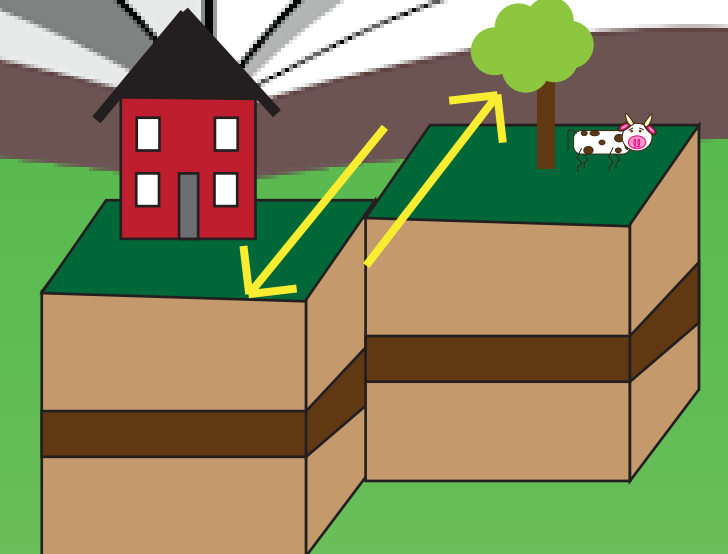
Intraplate Earthquakes



As the plates, or pieces of crust, move over the curvature of the earth, they bounce around and bend. All the movement and collisions can cause cracks and fractures in the plates. When these weak spots break, they cause an intraplate earthquake. South Carolina experiences this uncommon type of earthquake.

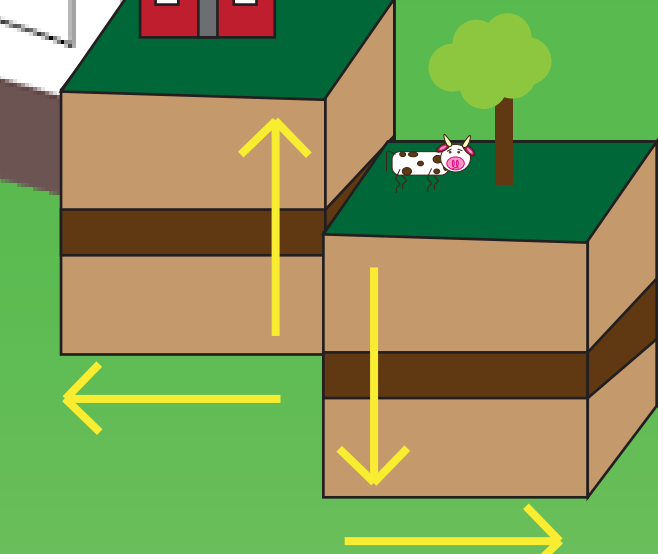
Only 5% of earthquakes are Intraplate.

Interplate Earthquakes



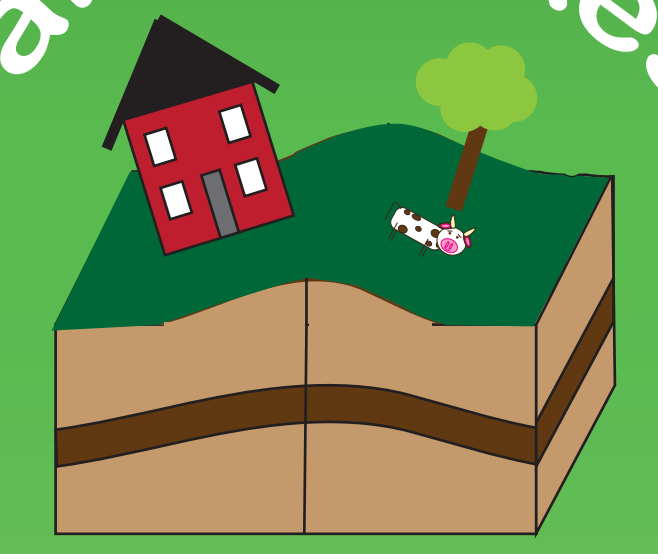
Transform/ Strike-Slip

Two plates slide beside one another, moving in opposite directions. The plates may catch on one another causing a jolt.



Divergent/Tension

Two plates move away from each other, creating a break. The plates may leave a gap between them, or they may slide down beside the other plate.



Convergent/Compression

Two plates move towards one another. The plates may push each other up, creating a mountain or ridge. One plate may push the other plate up, and slide beneath it.

Tie Rods
These long bolts create stability and provide protection against future earthquakes in older buildings that lack strong cross beams.

Are you prepared?
Visit www.scemd.org for more information on earthquakes