

No Worries of Major Quake in Midwest -- Scientist

Andrew Stern, Reuters, 10-21-10

CHICAGO -- The New Madrid seismic zone will not produce a major earthquake in the U.S. Midwest for hundreds, if not thousands, of years, according to a geologist and author of a new book on the topic, "Disaster Deferred."

The book's publication comes nearly 200 years after three major earthquakes in 1811 and 1812 shook the region, famously reversing the flow of the Mississippi River (temporarily) and ringing church bells on the East Coast (partially true).

Northwestern University Geologist Seth Stein said in an interview that he and his colleagues had studied the New Madrid fault zone and it appeared to be gradually going dormant. The fault zone straddles the Mississippi River from Memphis, Tennessee, to the southern tip of Illinois.

"It looks like we've caught the New Madrid fault shutting down. That was really a surprise," Stein said in a telephone interview.

The frequent small quakes in the Midwest are actually aftershocks from the past quakes, Stein said, adding there is no evidence the Earth is storing up energy for a major shaker.

In the past two decades, seismologists have developed a better understanding of fault zones within continents and how they differ from the active faults where the Earth's tectonic plates meet, as with California's San Andreas fault.

"We started looking at faults around the world. Faults are active for a short time geologically, then inactive for a long time," he said. "North America is full of old faults. Most of them don't do very much."

Even the 1811 and 1812 earthquakes that were often listed as 8.0 on the Richter scale or higher, more likely measured 7.0 or 7.1 and did little damage to nearby St. Louis or Nashville, Geologist Stein said.

The U.S. Geological Survey lists both quakes as magnitude 7.7.

The temblors did ring church bells in Charleston, South Carolina, but not in Boston, Stein said. No one is thought to have died.

New Madrid also triggered quakes around 1450 and 1900.

In early December 1990, the media descended on the town of New Madrid, Missouri, after an independent New Mexico climatologist, Iben Browning, predicted an earthquake. Nothing happened and Browning died a few months later.

"These urban legends keep cropping up, and we're coming up on the 200th anniversary, and people like disaster stories," Stein said. "Enjoy the bicentennial."

Stein's book is "Disaster Deferred: How New Science is Changing Ideas About Earthquakes in the Midwest," published by Columbia University Press.