Tuesday's Los Angeles-area earthquake occurred on a fault 'that could eat L.A.'

Rong-Gong Lin II, Los Angeles Times, 3-18-10

The Puente Hills thrust fault, which appeared to be responsible for Tuesday's predawn magnitude 4.4 earthquake that shook much of the Los Angeles area, is capable of generating earthquakes up to magnitude 7.5 - massive shakers larger than any in the modern history of the Los Angeles Basin.

A Times article from 2003 said that the Puente Hills system could touch off a 7.5 temblor directly underneath downtown Los Angeles.

Sue Hough, a seismologist in the Pasadena office of the U.S. Geological Survey, added: "This is the fault that could eat L.A."

Residents who live near the epicenter of Tuesday's quake, centered in Pico Rivera 10 miles southeast of downtown Los Angeles, said some items fell off shelves and tables, but there was no structural damage to homes.

A study published in the journal Science stated: "The bad news is that when the Puente Hills thrust fault ruptures in an earthquake, it tends to do so in a very big way."