

Study: Meteoroid erased small Eros craters

July 21 2005

Astronomers say they have determined a single gigantic meteoroid erased most small craters from 40 percent of the surface of asteroid Eros.

Writing in this week's issue of *Nature*, researchers Peter Thomas of Cornell University and Mark Robinson of Northwestern University said they used data gathered in 2000-01 from the NEAR-Shoemaker spacecraft, which mapped the 20-mile-long asteroid in detail.

They argue that vibrations from the collision shook the asteroid enough to collapse smaller craters. And that, they said, suggests Eros has a relatively homogeneous interior that transmits seismic shocks efficiently.

"This asteroidal Botox calls into question the habit of dating asteroid surfaces through their cratering record," wrote Erik Asphaug, a planetary scientist at the University of California-Santa Cruz, in a related article.

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