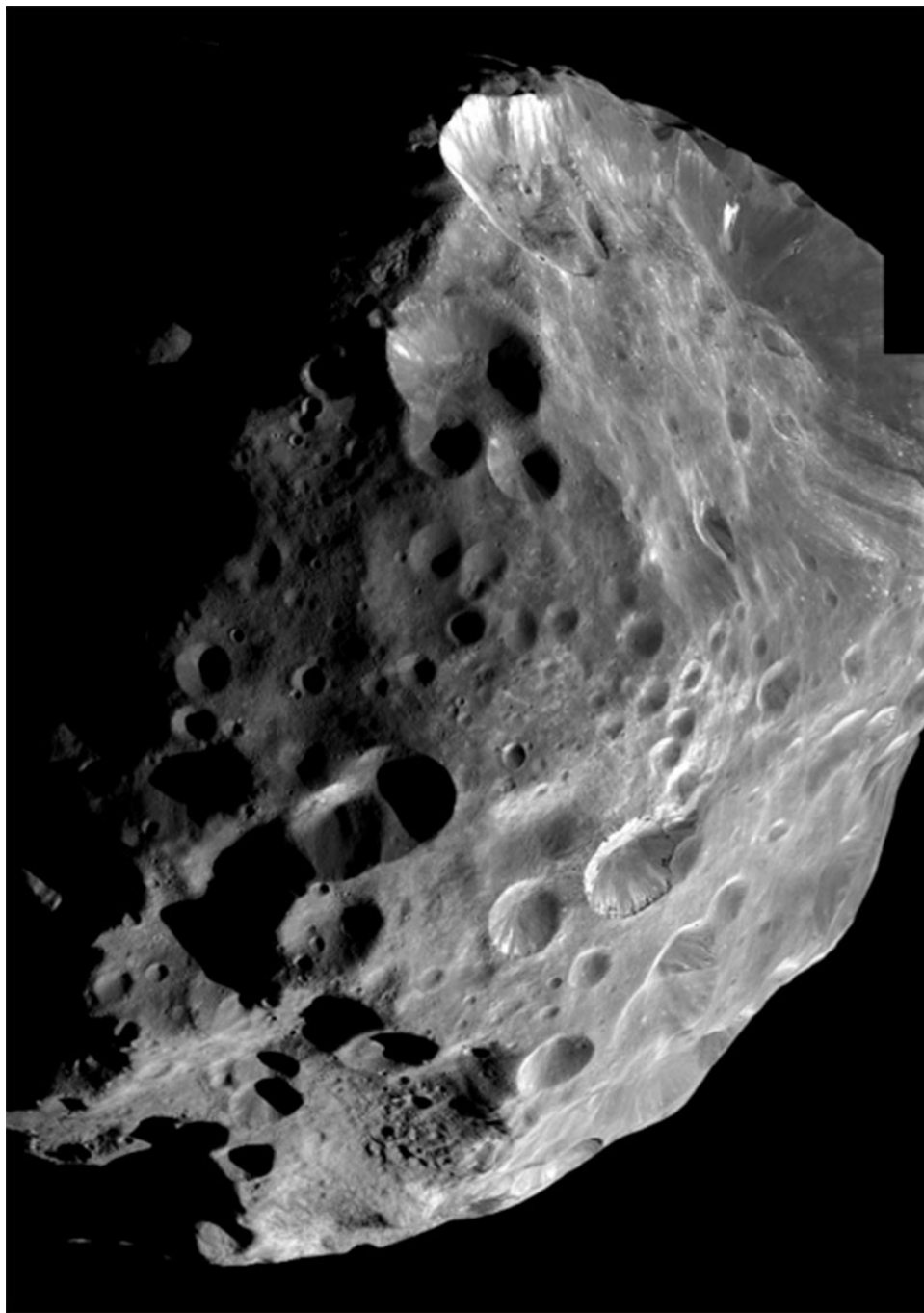


9.19: The Centaurs- Are they Asteroids or Comets?

In the past few years, astronomers were closely observing asteroids that had characteristics of comets, and comets, which seemed more like asteroids. Astronomers determined they had found a new group of objects: the Centaurs. These objects are named after the mythological beings that were a mixture of human and horse. **Centaurs** behave with characteristics of both asteroids and comets; the formerly clean line between comets and asteroids was gone.

It is thought that perhaps 44,000 centaurs exist. Most centaurs have been found between Jupiter and Neptune, crossing the orbit or orbits of one of the Gas Giants. Several varying characteristics have been observed with identified centaurs being studied. What has been found so far is water ice on their surfaces, exhibiting comet-like tails, and the fundamental make-up of asteroids and not comets. There may be some relation between the centaurs and the Kuiper Belt Objects.

Probably the most notable centaur is **Chiron** ; an approximately 110-kilometer-wide object that displays characteristics of both an asteroid and the nucleus of Halley's Comet. Saturn's moon Phoebe might be a captured centaur. No confirmed centaur has been photographed up close.



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