

- **The Moon is slightly asymmetrical in bulk form, possibly as a consequence of its evolution under Earth's gravitational influence.** Its crust is thicker on the farside, while most volcanic basins — and unusual mass concentrations — occur on the nearside. Mass is not distributed uniformly inside the Moon. Large mass concentrations ("Mascons") lie beneath the surface of many large lunar basins and probably represent thick accumulations of dense lava. Relative to its geometric center, the Moon's center of mass is displaced toward Earth by several kilometers.
- **The surface of the Moon is covered by a rubble pile of rock fragments and dust, called the lunar regolith, that contains a unique radiation history of the Sun that is of importance to understanding climate changes on Earth.** The regolith was produced by innumerable meteorite impacts through geologic time. Surface rocks and mineral grains are distinctively enriched in chemical elements and isotopes implanted by solar radiation. As such, the Moon has recorded four billion years of the Sun's history to a degree of completeness that we are unlikely to find elsewhere.