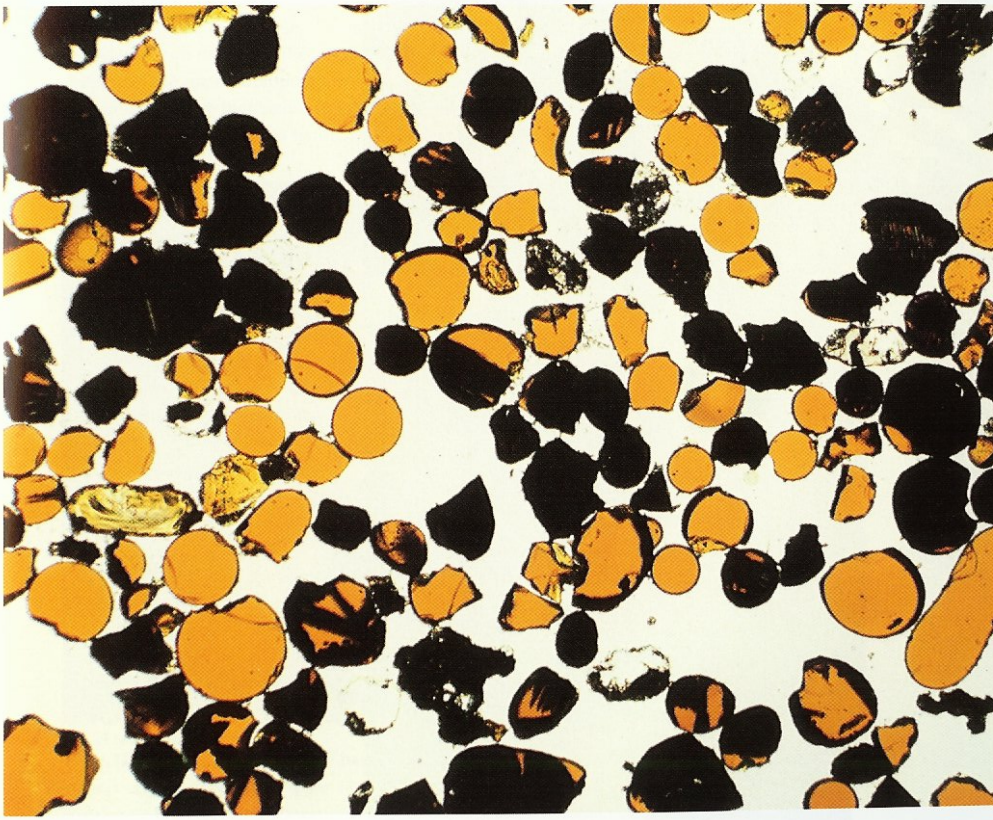
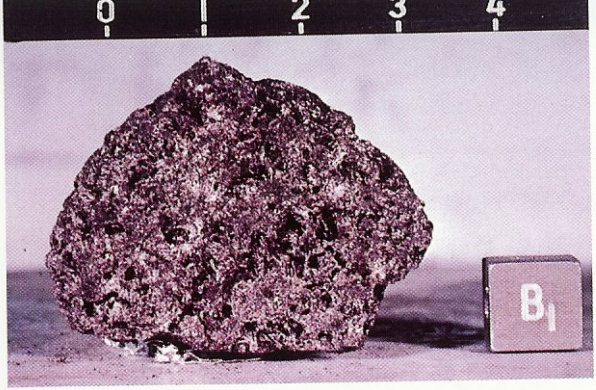
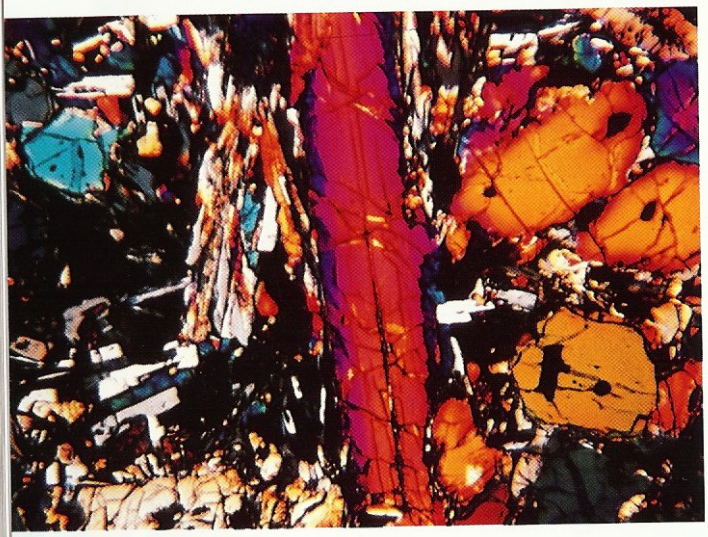
Plate 5. Astronaut Jack Schmitt, the only professional geologist to go to the Moon, examining the rim of Shorty crater at the *Apollo 17* Taurus-Littrow site. Note, in the foreground, an exposure of orange soil; this material is volcanic ash that erupted from a lunar fire fountain over 3.7 billion years ago.

Plate 6. Microscopic view of the *Apollo 17* orange soil. It is made up of very small (each about 0.04 mm across) glass spheres; the orange color is caused by their high titanium content. These glass beads were formed during a fire-fountain eruption over 3.6 billion years ago.







basalt from the Taurus-Littrow Valley, the *Apollo 17* landing site. The thin-section image is a slice of rock, cut 0.03 mm thick and viewed through the polarizing filters of a microscope. Geologists do this to identify minerals, which have characteristic colors and shapes, and to show the texture of the rock, which gives us clues about its origin. This basalt is made up of the minerals plagioclase, pyroxene, and olivine.

Plate 8. False-color mosaic made with three bands of the ultraviolet-visible camera on *Clementine* of the Aristarchus Plateau. In this image, blues are fresh highland materials, deep red is dark pyroclastic (ash) deposits, yellow is outcrop of fresh basalt (in crater and rille walls), and reddish-purples are mare lava flows. The sinuous rille is Schröter's Valley, a large lava channel on the plateau. The mosaic shows the quality of the full-resolution data set from the Clementine mission.