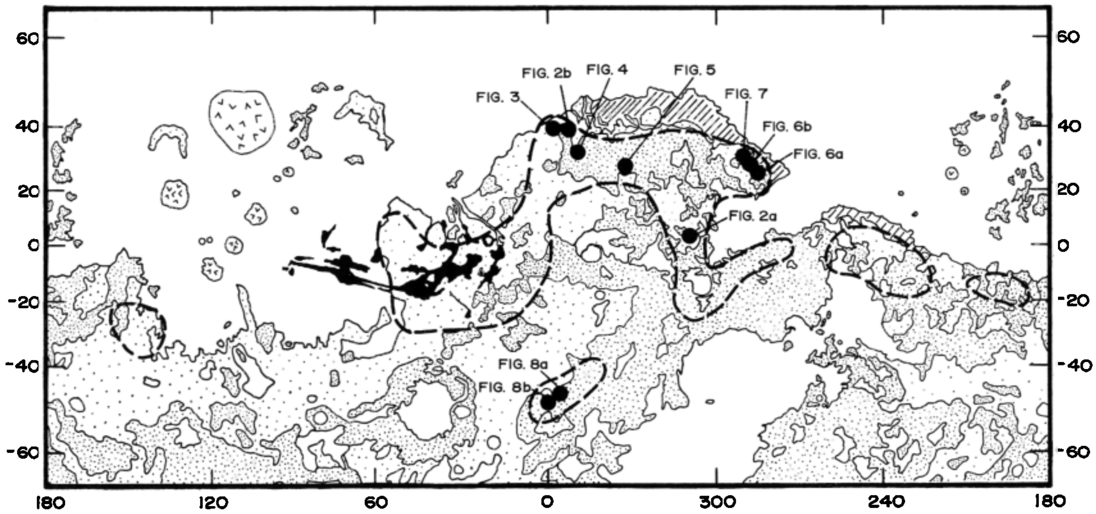
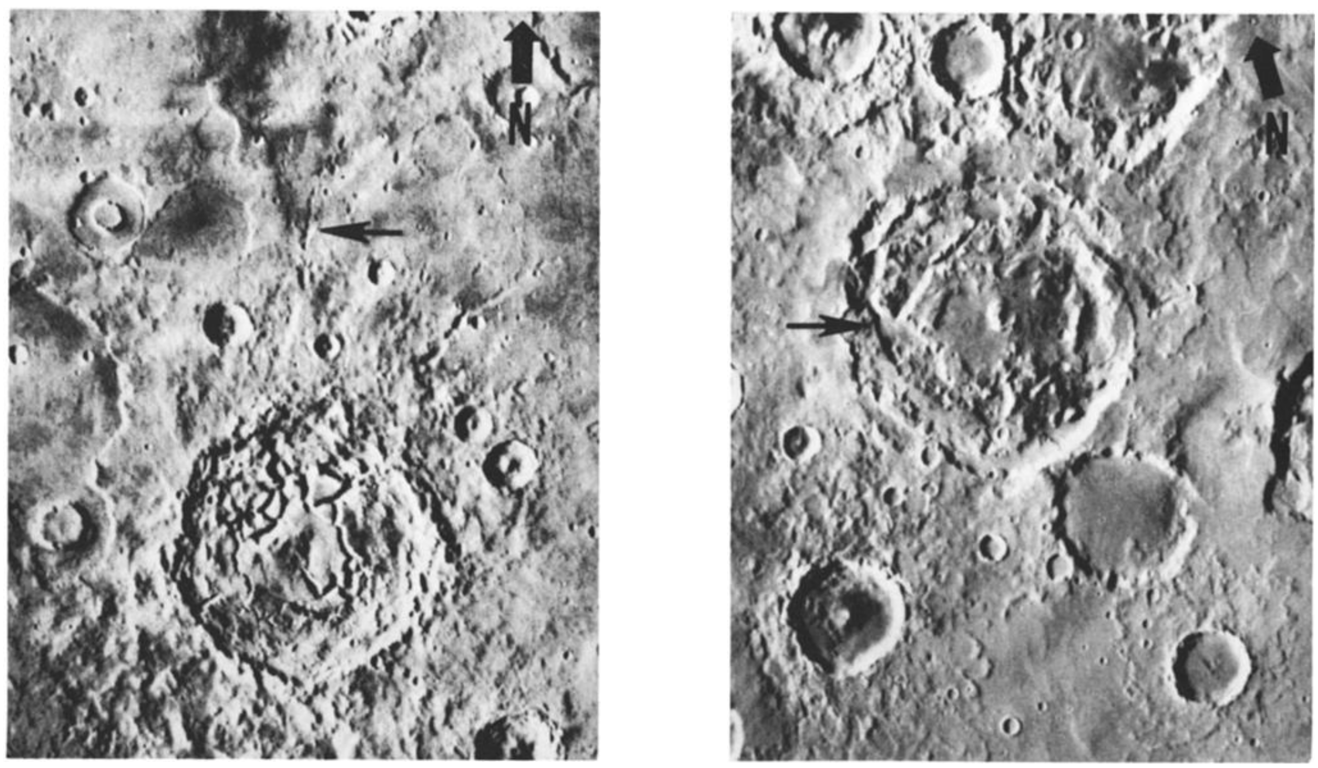


Fig. 1. Geologic terrain map abridged from *Scott and Carr* [1978] showing plains regions (open area), cratered plateau material (widely spaced dots), old cratered, hilly, and basin terrain (closely spaced dots), canyon systems (solid areas), fretted terrain (striated), and volcanic edifices (V's). Dashed outline indicates regions with prominent clusters of floor-fractured craters. Arrows identify examples shown in Figures 2–8.

Carr [1978] adjacent to the eastern edge of Acidalia Planitia. The original raised crater rim is identifiable only in segments, and surface expression of any ejecta deposits is nonexistent. The crater outline is recognized by a series of concentric graben that form an annular moat around an unmodified central floor region containing a possible central peak remnant. The highly degraded state of the original impact structure contrasts with the well-preserved state of the concentric graben. This contrast suggests that structural modification postdates a long history of degradation by erosion or lava flooding.

Figure 3 further illustrates the contrast in age between time of crater formation and the time of structural modification where features associated with the original impact structure have been removed, but fine-scale remnants of structural



a b

Fig. 2. (*a*) Large 100-km-diameter impact crater near Syrtis Major Planitia exhibiting well-preserved ejecta deposits and secondary craters (arrow). Extensive fracturing of the floor surrounds a central floor plate. Viking frame 494A65 centered at 308°W, 4°N. (*b*) Modified 75-km-diameter impact crater near the northern plains of Acidalia Planitia. Ejecta facies have been buried by plains material, and original crater structure (raised rim, wall slumps) is heavily degraded. Concentric graben cross the old wall region (arrow). Viking frame 673B64 centered at 354°W, 39°N.