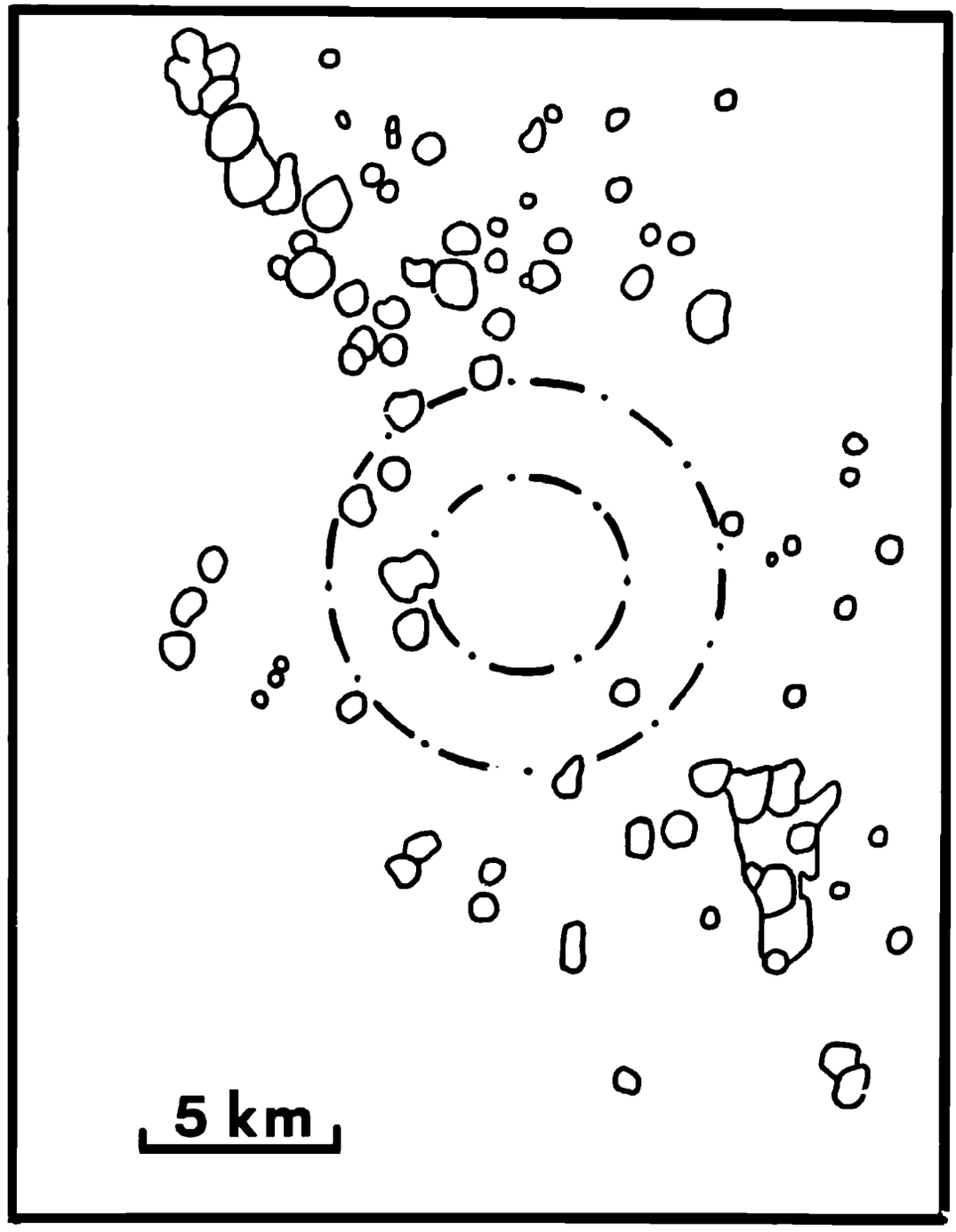

Fig. 7c

rays of Copernicus are relatively bright because they contain a component of feldspathic foreign material that, with time, has produced mature soils with a higher albedo than soils from the local basalt.

Additional evidence for the compositional distinction between Copernicus ray material and local substrate comes from a number of post-Copernicus craters that can be identified which have excavated mare material and deposited it on the surface of the ray. Some of these crater ejecta deposits appear as dark-haloed craters superimposed on Copernicus ejecta or rays. The dark deposits from Draper C (crater CM) are one example (Figure 1*b*). Other dark-haloed craters such as Copernicus H can be identified [*Hawke and Bell*, 1981; *Bell and Hawke*, 1984] and are indicated with arrows in Figure 1*a*.

Many, if not most, small post-Copernicus craters are relatively young and are surrounded by the normal bright zone of immature freshly excavated material. Such craters appear as small bright spots both within the ray and in the mare of Figure 5. A much larger and prominent dark-haloed crater can also be seen within the eastern ray of this image (indicated with an arrow on the left). Two conditions must be met for an impact crater of any size on a ray of Copernicus to develop a dark halo: (1) the crater must be large enough to excavate basaltic material from beneath the ray and form deposits that