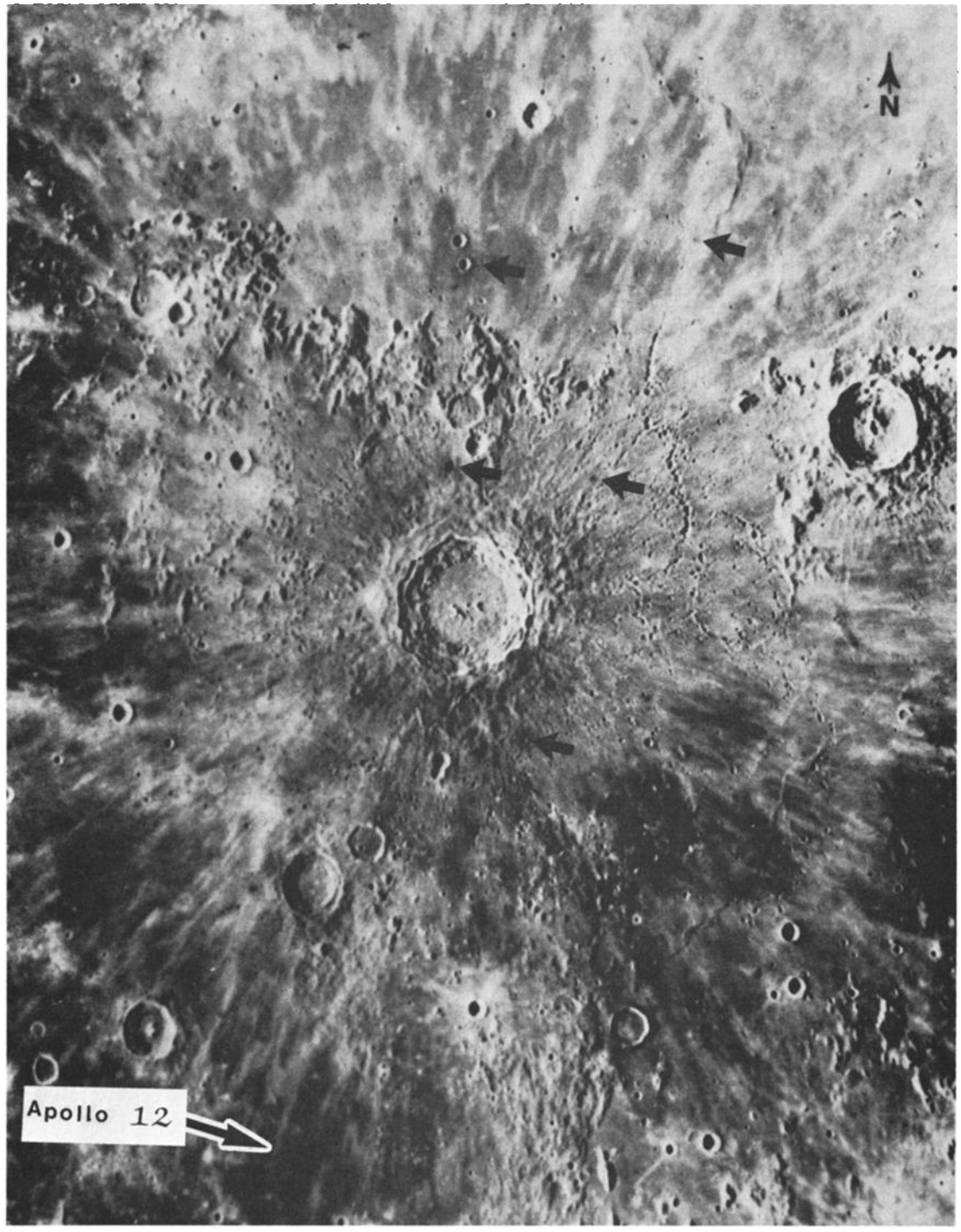

Fig. 1*a*

Fig. 1. (*a*) Overview of the 95-km-diameter lunar crater Copernicus, which exhibits an extensive bright ray system (Lick Observatory photograph). The Apollo 12 landing site and dark-haloed craters that are post-Copernicus in age are indicated with arrows. (*b*) Location photograph giving the center position of each area for which near-infrared reflectance data were acquired in this analysis of Copernicus ray system (Mosaic of U.S. Air Force photographs C2695 and C2699).

et al., 1972], while others argued for a mixture of primary material and locally derived secondary and tertiary ejecta [*Head and Hawke*, 1975]. The debate intensified when Apollo 16 landed in the highlands at even greater distances from the Imbrium basin [*Muehlberger et al.*, 1980]. Some proposed that primary Imbrium or Orientale ejecta composed the deposits at the site [*Chao et al.*, 1973; *Hodges et al.*, 1973; *Eggleton and Schaber*, 1972], while others emphasized the role of ballistic emplacement of Imbrium ejecta and the erosion of local material to produce the deposit [*Morrison and Oberbeck*, 1975; *Head*, 1974].

A major influence on the understanding of the emplacement