



FIGURE 1.—Trend of the acceptance of structures as being of meteoritic origin. Aerial photography after World War II contributed several new finds. Small dots refer to craters less than 1 km diameter, open dots to those between 1 and 30 km, and the large circles are to the scale shown. A few are multiple, but are not so plotted.

contributing to many aspects of crystal chemistry. Interest was further enhanced by coesite never having been found in nature, and by its conditions of formation corresponding to inaccessible depths in the earth. However, when it was *looked for and found*³ for the first time in the sandstone of the Arizona meteor crater an entirely new attitude was created by the possession of a new diagnostic tool. Additional impetus was given by the more recent but parallel synthesis of stishovite,⁴ a rutile form of silica even denser than coesite, at pressures of about 110 kilobars at 1,200°C.^{5a} This material, too, was found associated with coesite in the Arizona Crater, and in the much larger Ries Kessel in Germany.^{5b} These finds justified the early predictions of H. H. Nininger⁶ that such minerals would be found in impact craters.

* The dated portion of the table to 1967 is adapted principally from D. M. Barringer.²¹

** Other supporting data are in the location plots of R. S. Dietz,⁶ the summary of Canadian locations and work by C. S. Beals, *et al.*,⁸ and discussions of crypto-volcanic structures by Eardley²² and by Boon and Albritton,^{23,24} who take W. H. Bucher as a first source.

*** Acceptance dates too indefinite. Actually, the structures have been known for decades.

Note added in proof.—Geophysical methods have located a 240 km diameter basin structure under the Antarctic ice near Long. 140°E, Lat. 70°S. If this is a crater and source area of the australites (see Virgil Barnes; Tektites, *Scientific American*, November, 1961) it would be of recent date, 5-10,000 years.

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