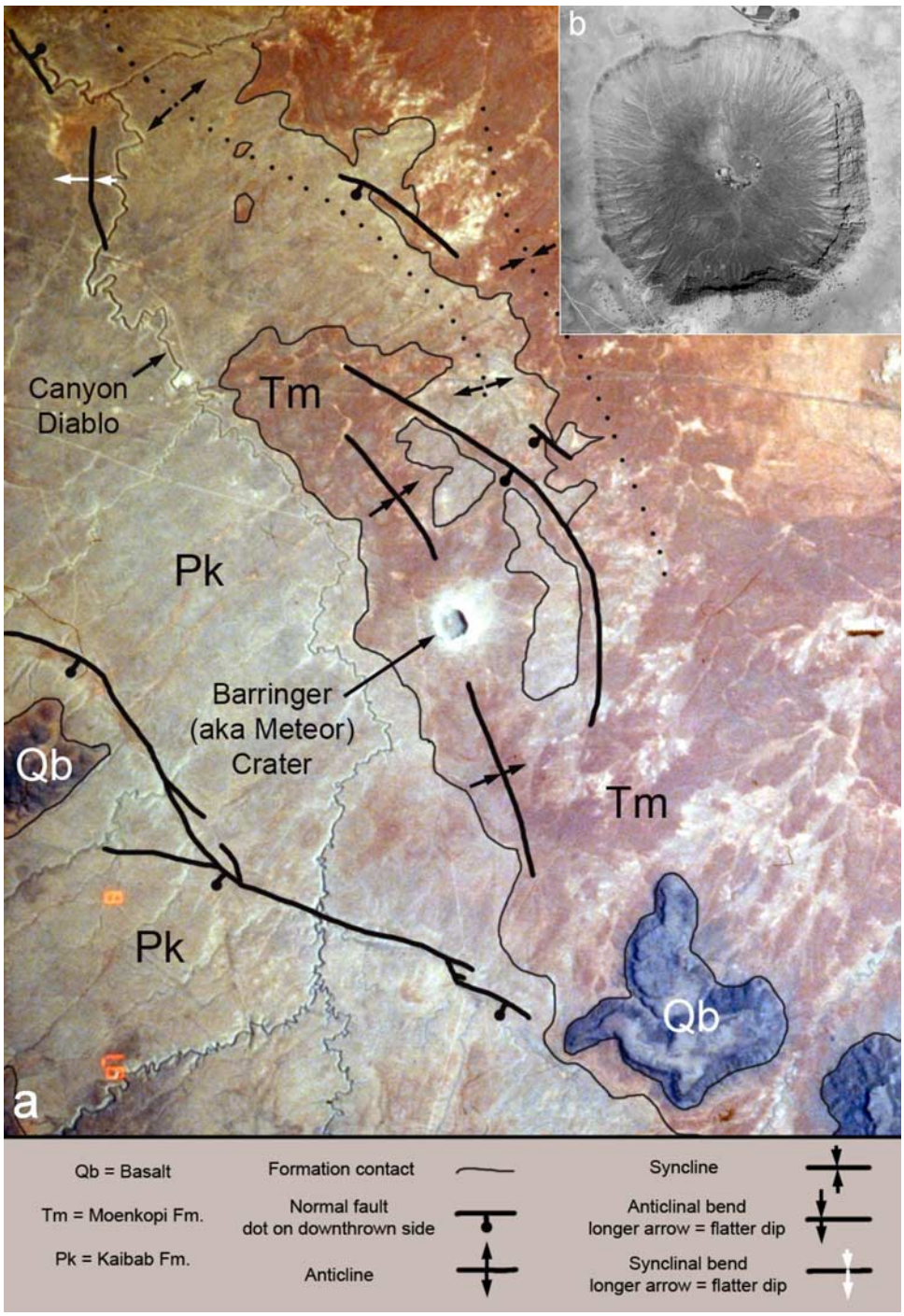

Figure 1. (a) An overlay of the schematic geologic map of the region around Meteor Crater and a Columbia space shuttle image [*Kring*, 2007]. Anticlinal and synclinal bends and the fault traces have been drawn on the basis of the work by *Shoemaker* [1960]; contacts between the Permian Kaibab (Pk), Triassic Moenkopi (Tm), and Quaternary basalt (Qb) are drawn approximately. (b) An overhead aerial view of Meteor Crater. Rim-to-rim distance is ~1.2 km.

in them. These preexisting structures can be studied beyond the region affected by crater formation to determine if they influenced the formation of impact deformational features and final crater morphology. A ~1070-m-thick horizontally bedded set of Paleozoic to Mesozoic sedimentary strata and underlying granite-gneiss basement provide the structural context for Meteor Crater. The sedimentary sequence is composed of an ~100 m thick Martin Formation, ~23-m-thick Redwall Formation, ~85-m-thick Naco Formation, ~550-m-thick Supai Formation, ~220-m-thick Coconino Formation, ~3-m-thick Toroweap Formation, ~80-m-thick Kaibab Formation and ~9-m-thick Moenkopi Formation.