

Fig. 1. Solution cavities in Redwall Limestone and contact between Supai Formation and Redwall Limestone. Numbers refer to locations of detailed measured sections. (a) Bridge Canyon, (b) Hance Trail, (c) Whitmore Wash.

These solution cavities and channels were eroded and dissolved out of the upper layers of the Redwall Formation by the downward movement of water during the long period of exposure of the limestone layers. Later the entire Formation was covered over by other deposits, and finally the great Canyon was cut. Note that the eroded cavities are filled with red, shaley mudstone, which washed down into them from above, before the addition of thicker deposits above sealed them off. From E. D. McKee, and R. C. Gutschick, History of the Redwall Limestone of Northern Arizona, Geological Society of America Memoir 114, 1969, 726 p., Figure 33. (By permission of the Geological Society of America, and Dr. Edwin D. McKee.)