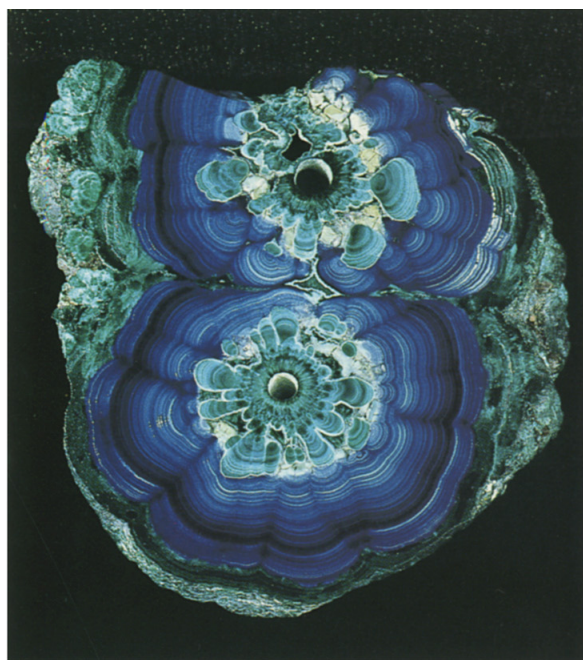




Plate 13. Crocoite (PbCrO_4). This is the mineral in which the element chromium (Cr) was discovered. This specimen is from the Dundas District, Tasmania, Australia. (Photograph by D. Penland, courtesy of Smithsonian Institution)



(a)



(b)

Plate 14. (a) Malachite [$\text{Cu}_2(\text{CO}_3)(\text{OH}_2)$] and azurite [$\text{Cu}_3(\text{CO}_3)_2(\text{OH})_2$], which are green and blue, respectively, are examples of the many minerals each of which has its own constant (i.e., inherent) characteristic color. This specimen is from Copper Queen Mine, Bisbee, Arizona. (Photograph by S. C. Chamberlain of specimen in Pinch Mineral Collection of the National Museum of Natural Sciences, Ottawa, Canada; reproduced by courtesy of the museum) (b) Corundum is an example of the many minerals each of which is essentially colorless when pure but may exhibit several different (i.e., exotic) colors when they include, for example, certain trace elements. (Photograph by W. Sacco)