

CUPRITE



A secondary copper mineral formed by supergene alteration of native copper (q.v.) and copper sulfides. Much of the native copper from the Keweenaw has films of cuprite, some of which formed after the mines were opened, but some of which, particularly from the higher levels, predates the mining (Butler and Burbank, 1929). "Chalcotrichite" is a capillary or fibrous variety. Northern Peninsula.

Houghton County: 1. Centennial mine. 2. Laurium and La Salle mines, Osceola. 3. Quincy mine, Hancock (2, 3 Morris, 1983). Gemmy red crystals up to 1 mm encrusting copper and quartz crystals have been found on the 7th level of the Quincy amygdaloid lode, 50 to 100 meters northeast of the No. 2 Shaft (T. Rosemeyer, personal communication, 1999).

Keweenaw County: 1. *Allouez mine*: Fine crystals (Spiroff, 1938, 1964; Mihelcic, 1954); as excellent microcrystals with four different forms associated with copper, malachite, and chrysocolla



Figure 68: A 1.3 cm aggregate of cuprite crystals filling a void in conglomerate from the Allouez mine, Allouez, Keweenaw County. A. E. Seaman Mineral Museum specimen No. JTR 1792, Jeffrey Scovil photograph.

in interstices between conglomerate boulders. Also as variety "chalcotrichite" and as inclusions in calcite, which impart a carmine red color to that mineral (Yedlin, 1974; Morris, 1983). 2. Clark mine, Copper Harbor. 3. North Cliff mine: Fine micro-crystals showing gyroidal forms in nodules of copper (Moore and Beger, 1963). 4. Cliff mine: With azurite as massive nodules cemented by copper and, locally, silver. A few vugs lined with excellent crystals were found by Williams (1966). Usually these crystals are faced by {001}, {011}, and {111} of about equal development. Some crystals show gyroidal symmetry with {321} left, and, if this is present, {211} is a major form. 5. Delaware mine (Morris, 1983). 6. In stromatolites (calcite) in the Copper Harbor Conglomerate near Copper Harbor with copper (q.v.), domeykite, and copper sulfides (Nishioka et al., 1983). Microscopic. 7. At the Central and Phoenix mines: As a red patina on native copper crystals, often with tenorite (Figure 60). 8. Mohawk mine: coatings on copper with malachite. 9. Mount Bohemia: An oxidation product of copper sulfides in veins (Bhatt, 1952). 10. *Copper Harbor*: As 1-2 mm crystals thickly coating native copper in a vein exposed on the floor of Lake Superior (at a depth of ~23 meters) just west of the "Devils Wash Tub," approximately 5 km west of Copper Harbor.

Ontonagon County: 1. Algolah mine: Associated with paramelaconite (q.v.) (Williams, 1962a). These two minerals were found together on the 1st sub-level (T. Rosemeyer, personal communication, 1999). 2. Indiana mine: Well-formed crystals (Butler and Burbank, 1929). 3. Michigan mine: Pseudomorphs after copper crystals. 4. National mine: As rich masses and replacements after copper. 5. White Pine mine: Veinlets in Nonesuch Shale (Carpenter, 1963); tiny cubes and coatings with malachite on native copper (Rosemeyer, 1999). 6. Adventure mine: As 1-2 mm bright red cubes on crystallized copper from the adit level. 7. Caledonia mine: In microscopic cubes on the 4th level, Knowlton lode (6, 7, T. Rosemeyer, personal communication, 1999). 8. Minesota mine: Massive with malachite (J. Schoenfuss, personal communication, 2003).

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UPDATE

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