

DOMEYKITE



As noted in the description of algodonite (q.v.), domeykite and algodonite are the two principal copper arsenide species present in the native copper deposits of the Northern Peninsula. Their close association has led to a large number of obsolete species names having been applied to them (see algodonite).



Figure 74: A section of a domeykite vein from the Mohawk mine, Mohawk, Keweenaw County. 6 × 12 cm. A. E. Seaman Mineral Museum specimen No. DM 1213, Jeffrey Scovil photograph.

Houghton County: 1. *Isle Royale mine and lode.* Especially 12th level of mine. Analyzed by Genth (1862), who states that one of the specimens “shows a thin coating of an arseniate of copper, probably olivenite” (q.v.). 2. *Houghton (Huron) mine* (Koenig, 1900): Also along Houghton fault west of this mine. 3. *Hancock mine* (Koenig, 1900). 4. *Hancock shore of Portage Lake:* Formerly found as masses in drift (Koenig, 1900). 5. *Shelden and Columbia mine* (Dana, 1892). Hawke (1976, page 52) states, “In the spring of 1898 when a new street was being opened up at the location of the old Shelden and Columbia mine, a quartz vein was discovered containing a foliated domeykite.” 6. *Painesdale:* A surface vein of anilite exposed

near the Champion mine contains minor domeykite (X-ray verified) and native copper.

Keweenaw County: 1. *Mohawk mine.* Found in abundance. Material from this locality has been analyzed by Koenig (1902), and by Ellestad and Willman (Schwartz and Forsyth, 1937). 2. *Abmeek numbers 2, 3, and 4 mines.* The collections at the A. E. Seaman Mineral Museum, Michigan Technological University, contain masses from this deposit nearly a meter across. Much of this is probably a mixture with algodonite and arsenian copper. 3. *Manhattan (Albion) mine* (Dana, 1892). 4. *Seneca mine.* Domeykite and Co-Ni arsenides in and near fissures in the Seneca, Ahmeek, and Mohawk mines and especially abundant where the fissures cut the Kearsarge lode. At this intersection in places the veins contained 30 or more centimeters of solid copper arsenides (Moore, 1962). 5. A very unusual occurrence in stromatolites (calcite) in the Copper Harbor Conglomerate 1.6 km east of Horseshoe Harbor: Microscopic, intergrown with copper and cuprite (Nishioka et al., 1984).

Ontonagon County: 1. *Algomah mine* (unverified). 2. *White Pine mine:* Domeykite containing microscopic inclusions of native bismuth occurs in late veins (Bornhorst et al., 1995).

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