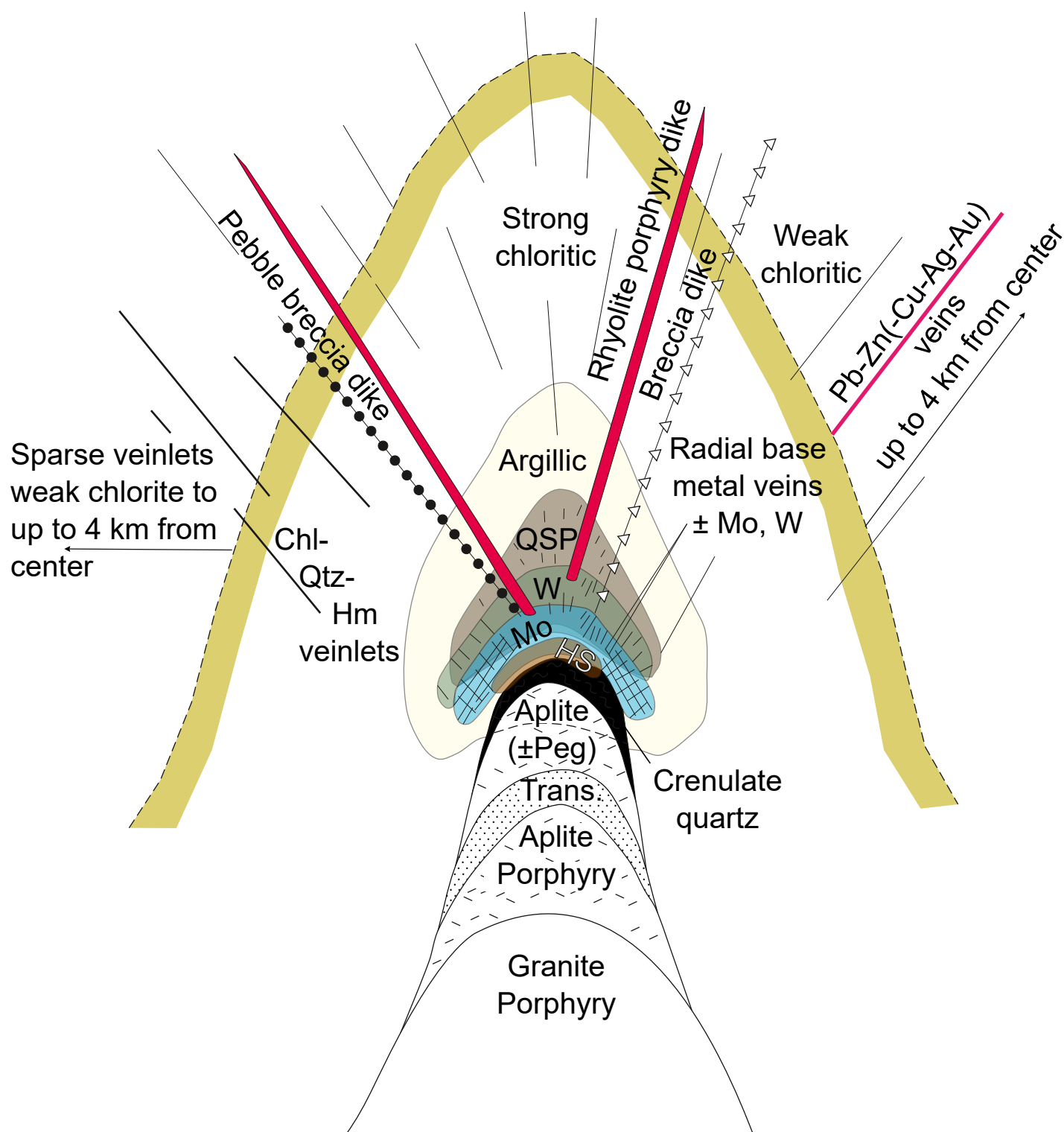


ESM Fig. 1



ESM Figure 1 Idealized geologic section showing the formation of a Climax-type Mo deposit from a granite porphyry intrusion, which grades upwards to aplite porphyry and crenulate quartz layers. The cupola region is overlain and surrounded by the typical zones of the high-silica alteration (HS), molybdenite-quartz stockwork vein-bearing potassic alteration (Mo), greisen huebnerite-bearing (W), pervasive quartz-sericite-pyrite (QSP), and argillic alteration zones. Strong and weak chloritic alteration, as well as radial dikes of rhyolite porphyry, pebble, and angular breccias, may extend for several kilometers. Peripheral veins radiate from the porphyry center into adjacent country rocks and contain base metals ($\pm$ molybdenite $\pm$ huebnerite) in a gangue of quartz, fluorite, rhodochrosite, and calcite ($\pm$ minor barite). Modified after Bookstrom (1989).