



B

D



Plate 5A. Highly serpentinous and diopsidic clots and irregular masses in partly calcitic, partly dolomitic marble.

The dolomitic marble (D) appears as the dark, embayed "islands" or remnants whereas the calcitic marble (C) forms lighter colored sheaths and matrices to the serpentinous and diopsidic clots. The horizontal shear planes in the silicate clots are parallel to relict bedding and to the dominant foliation. Features of this and associated marble indicate the evolution of calcitic marble from dolomite as magnesia is concentrated in the serpentine.

Plate 5B. White tongues and lenses of calcite forming along the foliation ( and relict bedding) at the expense of preexisting, dark colored dolomite. The differences in color accurately represent the differences in composition of the rock. The gray color of the dolomite is induced largely by dirty algal growths thereon, whereas the calcite weathers free of these incrustations. The marble shown here is just north of the large Fowler amphibolite mass, and south of the median gneiss. Consequently this marble is inferred to lie stratigraphically above the gneiss and to be the youngest marble in this part of the Grenville series.

Plate 5C. Silicated marble showing the interrelations of serpentinous diopside lenses and beds to calcite and dolomite. The serpentinous diopside lenses (S) such as that under the point of the pick, all are enveloped in light colored calcite (C) which has formed as magnesia from the darker gray dolomite (D) was abstracted and incorporated in the serpentine. The resulting metamorphic rock patterns are directly related to the relict bedding. The differences in shade of dolomite and calcite are only surficial as described in Plate 5B. On freshly broken surfaces both carbonates are about the same color, texture, and grain size.

Plate 5D. At least two generations of calcite (C1 and C2) forming at the expense of the darker dolomite. The first generation of calcite (C1) has formed in the same way as the calcite in Plate 5C. The younger, discordant veinlets of calcite (C2) have formed along joints and tiny faults which cut across the relict bedding and dominant foliation. Some of the youngest calcite is fibrous (pseudomorphous after aragonite) and seems to be the product of surficial weathering of the dolomite.