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# **Earth Materials**

#### INTRODUCTION TO MINERALOGY AND PETROLOGY

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Cover: Photograph of a polished surface of a rock type known as garbenschiefer, from the German words Garbe, meaning sheaf, and Schiefer, meaning schist. It is a metamorphosed igneous rock and consists of coarse black hornblende sheaves and reddish-brown garnets in a fine-grained matrix of plagioclase, quartz, chlorite, and muscovite. This rock is quarried in Ashfield, Massachusetts, as "dimension stone," and is commercially known as "Crowsfoot" Ashfield Stone. It is part of the Ordovician Hawley Formation, which has a minimum age of 462 million years. Field of view: ~15 cm by 20 cm.

Photograph courtesy of Marc Klein.