

**HYDROMICA SCHIST OR SLATE.**—Metamorphic. Thin schistose, consisting either chiefly of hydrous mica, or of this mica with more or less quartz; having the surface nearly smooth; feeling greasy to the fingers; pearly to faintly glistening in luster; whitish, grayish, pale greenish in color, and also of darker shades. This rock used to be called *talcose slate*, but, as first shown by C. Dewey, it contains no talc. It includes *parophite schist*, *damourite slate*, and *sericite slate* (*glanz-schiefer*, *sericit-schiefer*, and part of the *glimmer-schiefer* of the Germans).

*Varieties.*—a. *Ordinary*; more or less silvery in luster. b. *Chloritic*; contains chlorite, or is mixed with chlorite slate, and has therefore spots of olive-green color; graduates into chlorite slate. c. *Garnetiferous*. d. *Pyritiferous*; contains pyrite in disseminated grains or crystals. e. *Magnetitic*; contains disseminated magnetite. f. *Quartzitic*; consists largely of quartzite, or is a quartzite rendered schistose and partly pearly by the presence of a hydrous mica. Includes the argillyte or clay-slate which has the composition nearly of a hydrous mica, like that of the White Mountain Notch, where much of it is andalusitic.

**AGALMATOLYTE** (*Gieseckite*, *Pinite*).—Compact; cut with a knife; composition that of the hydrous mica, damourite. Derived mostly from the alteration of nephelite.—From the Archæan of Lewis County, N.Y. (Dysintrybyte), China, etc.

**PARAGONITE SCHIST.**—Metamorphic. Consists largely of the hydrous soda mica called paragonite; but in other characters resembles hydromica slate.

**FELSYTE** (*Euryte*, *Porphyry*, *Petrosilex*).—Eruptive and metamorphic. Compact orthoclase with often some quartz intimately mixed, flint-like in fracture. Opaque. Colors grayish white to red and brownish red.  $G = 2.56-2.7$ .

*Varieties.*—a. *Non-porphyrific*; of various colors. b. *Black*; rare. c. *Porphyritic Felsyte*, or *Porphyry*, *Orthophytic*; containing the feldspar in small crystals distributed through the compact base; color red, and of other shades. d. *Quartzophytic*; containing quartz in grains; often called *Quartz-porphyry*. e. *Quartzless*. f. *Spherophytic*, the *Pyromeride* of Corsica.

**PORCELANYTE OR PORCELAIN JASPER.**—Metamorphic. Baked clay, having the fracture of flint, and a gray to red color: it is somewhat fusible before the blowpipe, and thus differs from jasper. Formed by the baking of clay-beds, when they consist largely of feldspar. Such clay-beds are sometimes baked to a distance of thirty or forty rods from a trap dike, and over large surfaces, by burning coal-beds.

**MICA-TRACHYTE.**—Eruptive. Consisting of orthoclase and black mica, with some orthoclase augite, chrysolite, and glass. Dark grayish green. Mount Catini.

**TRACHYTE** (*Sanidin-trachyte*).—Eruptive. Ash-gray, brownish, bluish, rarely reddish.  $G = 2.6-2.7$ . Consists mainly of orthoclase, often with disseminated crystals of the glassy tabular variety called sanidin. Named from the Greek for *rough*, in allusion to the rough surface of fracture. Differs from felsyte in containing some glass, and a rougher surface. Graduates into the following.

**RHYOLYTE, QUARTZ-TRACHYTE.**—Eruptive. Like the preceding in colors, but containing quartz, and sometimes passing into a coarsely crystallized variety called *Nevadyte* (from Nevada). Common in the Rocky Mountain region and west of it. *Pearlyte* and *Lithoidyte* are more or less glassy varieties—between glass and stone; and pitchstone is another similar variety, pitch-like in luster. These graduate into the following.

**OBSIDIAN** (*Volcanic glass*).—Eruptive. A true volcanic glass, but more or less microlitic. Colors grayish black, gray, purplish to red, brown. Sometimes orthophytic; often contains spherulites, which are 70–75 per cent silica. *Pumice* is a scoriaceous variety with linear cells. Constitutes a high bluff in the northwest part of the Yellowstone Park, north of Beaver Lake, which has a top of pumice, and also a large area east of the bluff; cavities in Obsidian bluff often lined with crystals of sanidin, tridymite, quartz, and sometimes of fayalite.