

LEUCITYTE. — Eruptive. Consists chiefly of leucite, with a very little augite and some biotite. Color, greenish gray. From Point of Rocks, Wyoming.

5. Soda-lime-feldspar and Mica Rocks.

KERSANTYTE (Mica-dioryte, Mica-porphyrte, Soda-granite). — Granite-like to fine-grained. Grayish to brown and grayish black. Consists chiefly of oligoclase and biotite, with usually some hornblende, orthoclase, magnetite, apatite. Graduates into dioryte. Occurs granitoid at Stony Point, on the west side of the Hudson River, and near Crugers, nearly opposite; in the Vosges.

6. Soda-lime-feldspar and Hornblende or Pyroxene Rocks.

These basic rocks vary in the kind of feldspar present; in texture, from coarse granite-like to aphanitic and scoriaceous, even in the same kind of rock; in composition, through alteration of the pyroxene, in many cases, to hornblende, making them hornblende rocks; and also in the alteration, in many cases, of the pyroxene and chrysolite, when these are present, to serpentine. The dark-colored igneous kinds are conveniently called *trap*.

DIORYTE, QUARTZ-DIORYTE (*Greenstone* in part). — Metamorphic and eruptive. Typical dioryte, consisting chiefly of oligoclase and hornblende, with often some orthoclase and biotite. Colors, gray, dark gray, grayish black, green, greenish black, and also red. Chlorite usually present, and sometimes epidote, in green varieties. Often contains disseminated quartz. No glass is present. Varies in texture from granite-like to aphanitic. In the coarse granite-like dioryte of Crugers the crystals of hornblende are sometimes 4 inches long. $G = 2.66-3$.

A compact aphanitic kind, of a red color, is the typical red porphyry, or *Rosso antico* (*porphyryte*), of Egypt. That of Crugers graduates into kersantyte, by loss of hornblende and increase of biotite. *Dioryte Schist* is a metamorphic, slaty rock, having the composition essentially of dioryte.

AUGITE-DIORYTE. — Eruptive. Consists of augite and oligoclase with little hornblende. Augite often more or less changed to hornblende, making a hornblende-dioryte or the above-described dioryte. No glass. Colors, dark gray to greenish black and black.

A fine-grained rock between Peekskill and Crugers, on the Hudson, consisting of oligoclase and hypersthene, is essentially a *hypersthene-dioryte*, although called *noryte*. The hypersthene is often altered to hornblende, as ascertained by G. H. Williams. *Ophyte*, a fine-grained greenish black rock of the Pyrenees, related to augite-dioryte in composition.

LABRADIORYTE (*Labradorite-dioryte*, *Metadiabase*, Hawes). — Metamorphic and eruptive. Consists of labradorite (or anorthite) and hornblende with some chlorite and magnetite. A fine-grained, grayish green to greenish black and black rock, sometimes porphyritic. No glass present. $G = 2.8-3.1$. Occurs west of New Haven, Conn., as a part of the metamorphic chloritic hydromica schist of the region, evidently metamorphic. G. W. Hawes obtained in analyses (1876): Silica 48.20, alumina 14.12, iron sesquioxide 2, iron protoxide 7.41, manganese protoxide 1.24, lime 11.50, magnesia 8.19, soda 2.60, potash 0.23, titanitic acid 1.58, water 2.20 = 99.27. In the Urals.

ANDESYTE (*Hornblende-andesyte*). — Eruptive. Consists of oligoclase or andesyte and hornblende, with often some orthoclase and biotite. Dark or light green to gray, sometimes purplish. Has the aspect mostly of trachyte, but varies from granitoid to scoriaceous and glassy, even in the same eruptive mass, at Washoe, as ascertained by Hague and Iddings.

DACYTE (*Quartz-andesyte*). — Eruptive. Like the above, but contains disseminated quartz, and often much of it. Graduates into the orthoclase rock, quartz-trachyte or