

the remainder of the mass is converted into kaolin or porcelain clay, which is used in the manufacture of true porcelain.

There are known localities of this in Harford, Cecil and Baltimore counties, and doubtless it can be found in other counties in the same geological range, if they be carefully explored.

2.—SYENITE.

This rock is also an aggregate, whose essential components are felspar and hornblende. It usually also contains grains of quartz. It has a speckled appearance, owing to the dark colors of the crystalline grains of hornblende being intermixed with those of the felspar. When the felspar has a reddish tint and is in large proportion, the rock appears to have a red color.

In some localities it seems as it were to pass into granite by the disappearance of the hornblende, whose place is taken by mica and a larger proportion of quartz. On the other hand, from a diminution of the proportion of felspar and an increase of hornblende, it passes into amphibolite or hornblende rock. Syenite is subject to disintegration like granite, and has similar architectural applications.

3.—QUARTZ.

Although quartz sometimes occurs in sufficiently large masses to come under the definition already given of a rock, it never forms such extensive areas as granite and syenite. In some parts of this State it constitutes dykes, veins or masses, in metamorphic rocks, especially in mica slate.

Its characters has already been noticed under the head of simple minerals.

4.—PORPHYRY.

There are many varieties of Porphyry, all differing from granite materially in structure.

A porphyry is made up of crystals (generally of felspar,) which are imbedded in what seems to have been a soft paste, but subsequently hardened. This *paste* is said to constitute the base of the porphyry, and is usually compact so as to present a smooth surface when fractured. It is mostly a variety of compact felspar differing somewhat from that constituting the imbedded crystals and less pure.

The colors both of the base and the crystals in different localities are various.

This rock is by no means abundant in Maryland, being only found in the Catocin Mountain, and in smaller quantity