

semi-crystalline, and while they have been subjected to a certain amount of metamorphism and alteration they still plainly show that they were once sediments of an ordinary type. While as yet only a few imperfect fossils have been found in them, they are not more altered than similar rocks which in other localities have yielded abundant fossil remains, so that there is good reasons to suppose that their age may yet be definitely determined on paleontological evidence. Although these semi-crystalline rocks are principally confined to the western half of the plateau region, there are isolated areas of them within the holocrystalline belt which appear to be much younger than the rocks around them, but which have been protected from removal by being infolded with them.

The line separating these two divisions of the Piedmont Plateau which we shall hereafter designate as the holocrystalline (eastern) and the semi-crystalline (western) areas, is not coincident with the crest of Parr's Ridge, but lies on its eastern flank. Commencing in the south near Great Falls on the Potomac it passes slightly west of Rockville and of Hood's Mills, then to the north through Westminster on the Western Maryland Railroad, and thence by a northeasterly course to the Pennsylvania line. Further eastward there is a larger area of semi-crystalline schists in Harford county surrounding the Peach Bottom and Delta roofing-slates. These appear to be infolded in the gneiss and are probably connected with the area near Finksburg by a narrow tongue passing the Northern Central Railway at Whitehall.

The most striking feature in the structure of the Piedmont Plateau is its radiating or fan-like structure, and the fact that the vertical strata forming the axis of this fan follow a direction neither parallel to nor coincident with the boundary between the crystalline and semi-crystalline rocks. These two lines start from the same point on the Potomac (Great Falls), but diverge more and more toward the north. The fan, therefore, while its axis is throughout composed of semi-crystalline rocks, has its western flank made up of the less crystalline and its eastern flank of the more crystalline portion of the Piedmont region.

The different divisions in the rocks of the Piedmont Plateau are the following: