The syenite porphyries are somewhat lower in lime and higher in alkali percentage than the corresponding syenites. But the differences are not thought to be sufficiently large to condemn a reference to the same parent magma.

Paleozoic rocks

Potsdam (Cambric) sandstone. Lying uncomformably on the old and much eroded Precambric surface, a great sandstone formation appears, on the north and east and on the eastern half of the southern border of the Adirondack region. This is a water-deposited formation, and, so far at least as its upper portion is concerned, a marine formation. It is thickest on the northeast, thinning out to disappearance both to the south and west. As, furthermore, it appears to be the upper beds which persist, and the lower ones which disappear in these directions, it seems certain that, so far as the immediate region is concerned, the marine invasion came on it from the northeast and extended progressively southward and westward.

In Clinton county, where the formation is thickest, the basal portion is rather sharply differentiated from the rest in character, and this portion has considerable thickness, though how much, and how large a part of the whole thickness it constitutes, is wholly uncertain. The writer was the first to show this, and it has lately been reaffirmed by van Ingen.[1] This portion consists in part of coarse basal conglomerates, in part of poorly indurated sand beds of small durability and in smaller part of thoroughly indurated sandstones. It is nearly everywhere characterized by a considerable feldspar content, in addition to the quartz, and this feldspar is for the most part fresh. Considerable magnetite also appears in places, along with grains of garnet and occasional zircons. The rock has therefore an arkose character in this portion, while above it is prevailingly of pure quartz sand. Red is the predominant color of the base, and there is but little white sandstone in it, while above the latter is the prevailing color. As a general proposition, a feldspar content and a prevalence of red beds go together and are certain signs of the basal portion.

[1] N. Y. State Mus. Bul. 52, p.543.