Distribution.

The areal distribution of these rocks, which is most conveniently shown by a reference to the map, cannot, however, be taken as a basis for any quantitative calculation. Nordmarkite occupies about as large an area as both the others, but it appears in places to overlie the essexite, and thus the original surface extent of that rock as well as the abyssal volume of all must remain concealed.

LATER DYKES.

Dykes.

Besides dykes of the various classes of rocks which constitute the main mass of the mountain, there are considerable numbers of later age which are themselves of at least two different ages of intrusion. They were generally distinguished in the field as the dark-coloured and light coloured dykes, a distinction that was easily made, as dykes of intermediate, or doubtful, shades were seldom if ever seen.

Two classes.

The directions of a sufficient number were measured to ascertain that no clue to their relations could thus be obtained, but the dark dykes were found to be intersected by the light-coloured ones in several instances, while no case of the reverse relation was found. Hence the classification according to colour seemed to be a natural one, a conclusion which has been borne out by a more detailed study of their mineralogical and structural characters.

Lamprophyres.

On microscopic examination it is found that the dark coloured dykes are lamprophyres, some of which by their coarser texture, presumably due to slower cooling, become an hypabyssal form of theralite, while the light coloured series consists of trachytes, which occasionally pass into bostonite. In fact the entire light coloured series probably differs in no essential respect from the bostonites of Lake Champlain described by Prof Kemp*. But as the term was employed by Prof. Kemp to emphasize their occurrence remote from any known volcanic centre, it has been thought better to use the term trachyte as the generic one in this case where dykes occur at the seat of two intrusions of a syenitic magma. The term bostonite is accordingly restricted to those specimens in which the ferro-magnesian silicates are present in less than essential amounts. In such cases too, the trachytic structure appears to be less marked.

Trachytes.

* 'The Trap Dykes of Lake Champlain,' J. F. Kemp and V. F. Marters, U. S. Geological Survey, Bulletin No. 107, pp. 18 and 22.