

to the stratification and sometimes across it, are rather abundant but are evidently of later origin.

The rock in its present form probably represents an advanced stage of granulation, for although but little is seen in the way of twisted grains and strain shadows, these are usually not well seen when the granulation is complete. The large remnants of plagioclase crystals on the other hand, which occur abundantly in many parts of the rock, indicate an extensive granulation. At the bridge over the North River at St. Jérôme, on the western edge of the area, as well as at a point about a mile and a quarter further north near the northern end of the area, the same rock is well exposed, at the latter locality showing an exceeding well-marked cataclastic structure.

Zone of intermediate character.

This gabbro mass is surrounded by a zone of rocks of varied character, many of which strongly resemble the anorthosite in appearance, but which are quite different in composition. They are well exposed to the west of St. Jérôme back from the North River. This zone includes a large quantity of ordinary orthoclase gneiss, and in it occurs the crystalline limestone already described as occurring to the south-west of the village, but it consists chiefly of rocks, which, in addition to augite and plagioclase, contain variable amounts of hornblende, orthoclase and quartz, and which are thus intermediate in character between the gneiss and the anorthosite, some of the many varieties represented approaching more nearly to gneiss and others more nearly to anorthosite in character and composition. It is thus a matter of great difficulty to trace upon a map the exact limits of this zone. In the accompanying sheet, this has been done as accurately as possible by the aid of a microscopical examination of the rocks from a number of points.

This zone surrounding the typical gabbro or anorthosite, probably represents a peculiar border facies of the latter, which in many places has intruded itself into the gneiss parallel to its foliation, giving an appearance of interstratification, while movements, induced by pressure subsequent to the intrusion, serve to render this appearance more deceptive. The orthoclase gneiss and the limestone in this zone are thus of the nature of inclosed or partially inclosed portions of the country-rock.

THE STRUCTURE OF THE AREA.

The foliation or banding of the gneiss in the western part of the Laurentian corner of the sheet has a general north-east strike, which to the east swings around and runs about due north. The change is well shown between St. Jérôme and New Glasgow. The northerly