

great igneous masses, a nearly horizontal set also appears, but this is more intermittent and less regular than the others.

Since the usual foliation strikes of the region are either to the northeast or to the northwest, it is likely that the inclined joints in those directions represent compression joints in the shearing planes, these being more or less controlled by the foliation. An instance of the sort is illustrated in plate 15. The cliff there shown is a joint cliff, with a n. 50° w. direction, an important joint direction in the vicinity. Two sets of inclined joints cut the face of the cliff, both of which have a strike of n. 30° e. The one has a fairly uniform hade of 35° to the northwest, while the other is much more irregular, often swerving into a horizontal position, but in general hading to the southeast. The rock is augite syenite, with a very rude and imperfect foliation, which strikes about n. 40° e., closely approximating the strike of the joints. At the right of the view another joint set appears with a n. 70° e. strike and a hade of 15° to the south, and there is yet another nearly vertical set, not appearing in the view, which has a n. 20° w. strike. It would seem very likely here that the n. 30° e. joints are compression joints, produced in the shearing planes.

Such instances as the above are rather exceptional, however, and the usual, nearly vertical joints which prevail throughout the region have not yet been successfully classified.¹ That at least an east-west system had been developed in Precambrian times is indicated by the prevalence of that trend in the diabase dikes. They vary from it through 20° or 30° both to the north and south, but within those limits have it so uniformly as to indicate not only the presence of a fissure system with this trend, but also that this set constituted the line of least resistance to the upward movement of the molten rock. This might have been because this was the only, or the best developed set, but more likely the use of it to the exclusion of other sets was determined by the direction of the side pressure which prevailed at the time.

That minor faulting has often occurred along these joints has already been set forth. It has not yet been determined whether

¹ Such for example as the n. 50° w. series of plate 15, well shown also in plate 16, a nearly vertical set which is quite persistent over a very large area in the mid-Adirondack region.