

crystalline or other evidently foreign rocks were found upon the beaches. The soil in the valleys and on the lower slopes of the hills is a reddish, fine grained material, doubtless formed by the disintegration of the rocks above described.

No satisfactory general views of the coastline of the northern and lower part of Bering island were obtained on account of foggy weather. A landing was, however, made on the north shore at cape Yushin, where the "north rookery" is situated. The shore is here rocky, and wide, low reefs run out from it, entirely composed of volcanic rocks. One of these is a dark brown melaphyre, containing plagioclase, augite and olivine crystals, with some magnetite, embedded in a groundmass of the same constituents. There is also a fragmental rock of somewhat peculiar appearance, which seems not to be a true agglomerate, but an eruptive material charged with fragments of dissimilar rocks. The basis is somewhat amygdaloidal, and may very probably have the same composition as the rock first noted. Well formed pyroxene crystals are abundant in some parts of the mass. The rocks are much shattered, and it was not easy to determine the precise relations of the two varieties here associated. No trace of sedimentary rocks like those of Stareya was seen.

At Nikolski, on the west side of the island, the point south of the little bay is composed of hard, fine grained, gray, augite-porphyrity, composed of plagioclase, augite, and a light brown biotite, considerably altered to chlorite, apatite and magnetite. It is homogeneous in texture and apparently massive. Here and there this rock is curiously spotted with flesh-colored chalcedony, which occurs in it in small kernels not distinctly amygdaloidal. The relation which this rock may bear to the stratified sediments of other parts of the island remains uncertain, as no sedimentary rocks were seen here. Basaltic rocks are, however, probably abundant in the northern part of the island, for fragments of such rocks are common on the beaches.

The shores about Nikolski in some places show a well marked low terrace, at twenty to thirty feet above high-water mark, which evidently indicates an elevation of about that amount, as there is a second still lower flat just above the actual beach, which may be accounted for by the accumulation of storm-wash under the present conditions or very nearly so. This lower flat is no doubt that in which the *Rhytina* bones were found to be most abundant by Nordenskjöld. With these exceptions no terracing was observed in Bering island. According to Mr N. Grebnitsky, the governor of the Commander islands, some fossil shells and plants have been found in the rocks of Bering island, which, on transmission by him to Saint Petersburg, were referred to the Miocene Tertiary. Lignite is also found on the island, but in inconsiderable