gation difficulties encountered along the open coast of Beaufort Sea and Amundsen Gulf are different from those met in the almost-enclosed seas of Coronation Gulf and Queen Maud Gulf. Quite different transportation problems are met in the eastern part of the region north of King William Island. These contrasts illustrate the diversities within an area which has regional unity. A description of the physical character of the country helps to explain the reason for these differences, and at the same time shows the general similarities within the natural environment.

General Geology.—The rocks underlying the Western Arctic are of Precambrian and Palæozoic age. Around Coronation Gulf there appears to be a deep embayment in the Precambrian rocks. The mainland coast from Boothia Peninsula to Darnley Bay, except for a sedimentary strip north of Coppermine and on Kent Peninsula, is composed of rugged or worn Precambrian rocks. East of Coppermine settlement granites and gneisses predominate. On the north side of this basin Precambrian rocks outcrop on the central west coast of Victoria Island and extend in a broad belt across the northern part of the Island to the heads of Richard Collinson Inlet and Hadley Bay, and possibly to the northeastern tip of Victoria Island. Within this basin, Precambrian sedimentary rocks and early Palæozoics, chiefly Ordovician in age, have been deposited.

The best known of the Precambrian rocks in the Western Arctic is the Coppermine Series. They outcrop on both sides of the Coppermine River and extend eastward. The rocks have a gentle dip towards the north. Northeast of Great Bear Lake, they have been eroded into linear hills known as the Copper Mountains. These hills have steep, south-facing cliffs, and gentle northward slopes terminating in drift-filled valleys. The mountains are composed of a series of superimposed flows of basaltic lavas. A similar type of topography, unidentified as to age, is located 40 miles east of the junction of Coppermine and Hepburn Rivers. There the escarpments face eastward. North of Copper Mountains, Precambrian shale and limestone overlie the basalts of the Coppermine Series. Basaltic rocks of similar appearance outcrop again on southern Victoria Island at Richardson Island and west of Cambridge Bay, but they do not constitute the whole south coast of the Island.

Palæozoic rock, largely unclassified as to age, underlies the remainder of the Western Arctic Islands, and a mainland coastal section northwest of Coppermine. It is probable, however, that more recent rocks of Cenozoic age have been laid down in parts of Banks and northwest Victoria Islands. The detailed geology of much of the Western Arctic, particularly identification of the sedimentary rocks, is as yet imperfectly known.

Rocks of Ordovician age have been reported from the flat west coast of Boothia Peninsula and on part of low King William Island. Fossils found in rocks in other parts of King William Island indicate Silurian age. At Read, Liston and Sutton Islands, off the southwest coast of Victoria Island, Ordovician rocks appear again; probably similar rocks can be found on the nearby mainland. Younger rocks have been reported from both the south and north coasts of Banks Island suggesting that much of the Island may be considered post-Silurian in age.

Glaciation.—Although the southern limit of continental glaciation in North America is well established, there is much doubt about the northern boundary. Recent geological work has established the fact that at least the southern part of Victoria Island was glaciated, and possibly the whole Island.* The thickness of

*Washburn, A. L. "Geology of Victoria Island and Adjacent Regions, Arctic Canada". Geological Society of America Memoir 22, 1947.