

incident. This may be so, but it is curious that the same story is told elsewhere in the Labrador Peninsula. And always the narrator specifies a certain person who has accomplished this feat. Is not this possibly a myth?

In giving the names of the animals he has in one column used the spelling as given him by the Montagnais-Naskapi. This, of course, is of no value from the linguist's point of view. Furthermore, in getting the identification of birds, Harper had occasion to use a bird-book, having the Indian pick out and give the name of the particular bird. This technique has definite limitations. Many times the Indian will misidentify. Accordingly, Harper's terms must be used with a certain amount of caution.

There is, as noted earlier, very little to commend this book. In the early sections rarely does he add anything new to our knowledge of the Indians of the Labrador Peninsula. On page 38 he does present new facts regarding Fort MacKenzie and the Indians of the area but this is extremely meagre. Not until page 61 does he give any of his own observations and they cease on page 82. They consist of vague sketches of the various Indians that he met and talked with. Here is some new information.

Harper's portraits of the various individuals who have worked among the Indians of the Labrador Peninsula are limited. He has been selective by considering only the old-timers. Again most of his data are simply quotations. The sketch of Turner, though, is based on letters held in various archives. Here new material is presented that is rather interesting, regarding the life of a man who was the first to do field work among the Indians and Eskimos of Fort Chimo.

Harper does have a sympathetic feeling for the Indians of the Labrador Peninsula and this is fine. He presents a case, however, which is probably overdrawn. One gets the feeling that here are very helpful and well-disposed natives, although involved in a way of life that he admits is changing and bringing hardships to them. Because of

this his work is in contrast to other accounts of the Indians of this area. Nowhere does he consider the situation that has arisen because of the mines that have been established in the area. He mentions the fact that some groups have moved into these areas, but he does not portray the actual conditions under which the people live. All in all, this is a very disappointing work.

EDWARD S. ROGERS*

CLIMATE-GLACIER STUDIES IN THE JUNEAU ICE FIELD REGION, ALASKA. By MELVIN G. MARCUS. *Chicago: The University of Chicago. 1964. Department of Geography, Research Paper No. 88. "Planographed", paper, 9 x 6 inches, ix + 128 pages, 14 tables, 25 figures, including maps. \$4.00.*

This is one of the few published works that attempt to evaluate critically the interactions between glaciers and climate. Professor Marcus assumes that short-term changes in the hydrological regimen of glaciers can be explained by short-term climatic fluctuations. The region chosen to test this hypothesis was the Juneau Ice Field, Alaska, where extensive glaciological and meteorological data were available for a period of over 10 years from the American Geographical Society's Juneau Ice Field Research Project. In addition, other meteorological data, including temperature as a function of altitude from radio-sonde balloons, were available from Juneau and other weather stations. Emphasis was placed on the Lemon Glacier, where the complete hydrological budget was calculated for several years, using a variety of techniques. Over the period from 1948 to 1958 the Lemon Glacier suffered a net water deficit of about 21×10^6 m.³, although there were budget years such as 1954-5, when the glacier had a water surplus. The data were analyzed statistically in

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terms of weather and climate by the aid of a computer. The two most important factors in the determination of the glacier's annual water budget were found to be the number of degree-days above 0°C. and the annual accumulation of snow. Clear-cut correlations could not be established with other factors, such as length of the ablation season, number of summer storms, mean

monthly temperatures, or cloud cover. The results clearly indicate that much research must still be done before we understand the relations between the regimen of a glacier and the weather in a satisfactory manner.

This small book by Professor Marcus should definitely be studied by everyone interested in this subject.

LAWRENCE E. NIELSEN

Obituary

Lauge Koch (1892-1964)

LAUGE KOCH, renowned leader of 24 Danish government expeditions to Greenland spanning almost half a century, was born July 5, 1892 and died June 5, 1964 in Copenhagen. He gained his Mag. Scient. (cartography) in 1920 from the University of Copenhagen and his Ph.D. in geology in 1929.

Dr. Koch's unique series of explorations began in 1913 in West Greenland. During 1916 and 1917 he accompanied Knud Rasmussen on the Second Thule Expedition to Northwest Greenland. From 1920 to 1923 Lauge Koch was leader of the remarkable Bicentenary Jubilee Expedition (to commemorate Hans Egede's arrival in Greenland) when he performed, together with three Eskimos, the strenuous 200-day sledge journey along the north coast of Greenland, which resulted in the Atlas of North Greenland (24 maps at the scale 1:300,000).

The systematic geological investigation of North and East Greenland conducted by Dr. Koch between 1926 and 1958 has been lauded as "one of the most concentrated efforts towards co-ordinated regional geology of a significant segment of the earth's surface which the geological science has experienced, and one made in the face of exceptionally unfavourable geographic and climatic conditions" (G. O. Raasch, 1961, p. 147, Foreword to the "Proceedings" of the First International Symposium on Arctic Geology). In that period of 32 years 1291 persons from many countries, mainly Scandinavia, Switzerland, and Britain, took part in his expeditions, the largest parties consisting of more than 100 men. A total of 1208 "man-summings" and 126 "man-winters" were spent under Dr. Koch's supervision in Northeast Greenland — that harsh but beautiful stretch of land between the Inland Ice and the pack ice, in the latitude 70°N. to 83°N. Although Dr. Koch himself was primarily interested in geology, he encouraged work in a variety of other fields: an almost complete coverage of medium-scale topographical maps was produced, many geographical and biological investigations were carried out, and studies were made in glaciology, hydrology, meteorology and archaeology. "Such continuity of leadership . . . is without parallel in the history of polar expeditions" (J. W. Cowie, 1959, *Polar Record*, Vol. 9, p. 547).

In the early days when travelling was by dog-team, Lauge Koch was a master of this art and gained the admiration of his Eskimo companions whose language he thoroughly understood and spoke. He kept abreast of the times,