Remarks to H. Bistrup: A day in North Greenland.

By Lauge Koch.

On reading Mr. Bistrup's remarks one receives the impression that he has only studied the maps of my article, but has been unable or unwilling to understand the text. I shall quote a passage from the text (pp. 610—11): „As will appear from the above, the map I carried with me on the flights was chiefly based on the map of the Danmark Expedition, which as regards the coast was extremely accurate, and in addition the corrections made by Ejnar Mikkelsen, Peter Freuchen, and myself had been inserted. All the previous mapping had been done on sledge journeys, which means that the details of the coasts and the land or inland ice along the travelling routes were well mapped, but a general view was lacking. Thus the interior of the large peninsula back of Nordostrundingen, which was indicated on the map as inland ice, was entirely unknown."

Indeed, I fail to understand that any member of the Danmark Expedition can feel offended at the way in which I mention the maps of the Danmark Expedition; I say not merely that the coast contours are extremely accurate, but also that the details of the land and inland ice along the travelling routes are well mapped. To this I add: „But a general view was lacking". The new yielded by my flights was precisely that the general picture was changed.

The passage quoted above follows immediately upon a section in which I give a carefuld account of the mapping of the previous expeditions, principally that of the Danmark Expedition. Within the scope of the paper I have dealt with the earlier expeditions, and have pointed out that I have utilised their results wherever I found them to be correct. I therefore took it for granted that the readers of my paper would understand that in the preparation of my map in fig. 2 all the observations available from the earlier expeditions had been utilised. Thus Mr. Bistrup's six points fall to the ground and need no further reply.

The article appeared (nearly four years ago) in a publication issued in honour of Dr. Sven Hedin, and was thus intended for an international public, who would hardly take the least interest in a historic-cartographical account of the changing phases of the map according as the results of the various expeditions were added. If that had been my object, the article would have been quite different. Mr. Bistrup in his Fig. III shows a photographic reproduction of a map published in 1918, and is of opinion that this is the ideal map which I ought to have used. The case is not so simple. For (1) this map was no fortunate compilation of the maps of the various expeditions up to 1918, and (2) it was not up-to-date, since fresh material had been secured after its publication (e. g. my maps from the Jubilee Expedition, which played an important part in the planning of the flying routes in 1933).

As to (1). The map of 1918 gives in several places a poorer picture of the actual conditions than do the original maps of the Danmark Expedition, and to an international public it must be incomprehensible at various points. Thus for instance the whole travelling route of Knud Rasmussen is indicated, while that of Ejnar Mikkelsen is only indicated in part, and that of the Danmark Expedition not at all. Furthermore, if we look at the land around Cape Rigsdagen, we receive the impression, notably from Mr. Bistrup's photographic reproduction, that an isolated dominating mountain massif occurs there, although on Hagen's sketch-map this area is correctly indicated as lowland of *altitudes of 100—200 m.* The map, however, is quite incomprehensible if we follow Knud Rasmussen's travelling route from 1912; for it proves that he descends from the inland ice in about 31° W. long (the edge of the inland ice as assumed by the Danmark Expedition), but subsequently he descends from the inland ice once more in about 27° E. long (as indicated by himself on the map of the 1st Thule Expedition). That is to say, the map shows *two* edges of the inland ice, no regard having been paid to the fact that in 1912 Knud Rasmussen ascertained that the edge of the inland ice was situated farther eastward than assumed by the Danmark Expedition.

As to (2). If my object had been to prepare a *detailed* map which was to be a compilation of the original maps of the Danmark Expedition, the Alabama Expedition, the 1st Thule Expedition, and the Jubilee Expedition, this would have been an exceedingly difficult and very expensive task, since different methods had been employed in the preparation of the four maps, and this lay beyond the scope of my object. As no such *detailed* compilation was avail-

able, I chose in my fig. 1 to reproduce the *latest compilation of the existing mapping material,* viz. the *general map issued by the Geodetic Institute in 1933,* which gives a schematic representation of land, inland ice, and water, the features of interest in this connection.

As regards Mr. Bistrup's concluding remarks about free-hand drawing I wish to point out that my mapping is not based on free-hand drawing *alone.* I quote what I say about this question (p. 609): "In addition to an instrument-board showing altitude, hour, compass direction, etc., instruments for taking bearings were placed on either side of my seat. Naturally, however, a great part of the mapping done on such a flight must be free-hand drawing, so the map cannot be published on too large a scale, although during my earlier flights I had acquired a fairly good training in this kind of mapping."

I have sometimes among cartographes who have gained their results through laborious work on sledge journeys, noticed a certain bitterness because mapping has now been greatly facilitated through radio and airplanes. As I have myself for several years done mapping work in North Greenland according to the old methods, I have all qualifications for understanding, and really do understand, this bitterness. It is not my intention to discuss here the advantages and disadvantages of the old and the new mehods; I shall merely point out that on mapping from an airplane one gains a general view of the land which one does not obtain, and cannot possibly obtain, on a sledge journey. When last summer "Eigil Knuth's, Ebbe Munck's, and Alf Trolle's Expedition to Northeast Greenland in commemoration of the Danmark Expedition" started out for the regions explored by the Danmark Expedition, I supplied them with all my mapping material from the 1933 and 1938 flights accompanied by comprehensive notes, in which I emphasised what I held to be weak points in my maps. I quote the following passage from my accompanying remarks: "Even if a fjord may seem to you to be shorter or longer than indicated on my map, you must take into consideration that one makes no great mistake sitting in an airplane; and fatigue, deep snow, storm, and other circumstances may give one the impression that the distances are quite different from those indicated on the map. On the whole you must therefore take it for granted that as regards the main features the maps of Northeast Greenland are correct ..."

Mr. Bistrup so to speak belongs to my regular attackers; during recent years he has repeatedly been discontented with me, although

I have never intentionally offended him. I therefore regard it as useless to answer him, and should not have found it worth while to answer him in this instance either, if his remarks had not been published in the periodical of the Royal Danish Geographical Society.

Copenhagen, November 14th, 1938. *Lauge Koch.*

CONCLUDING REMARKS.

Mr. Koch in his reply acknowledges that the details used in the map (fig. 2) *"New mapping"* as to the six points in my rectification are the results of earlier expeditions.

As this was not to be seen of map (fig. 1) *"Map of North-east Greenland before the flight"* I maintain that not only my rectification was a necessity and that I was right, but also that map III was necessary and moreover that Mr. Koch himself in his reply has proved that it was so.

Copenhagen, November 21., 1938. *H. Bistrup.*

I cannot agree with Mr. Bistrup that his remarks were necessary. Nobody who studies my article without the intention to misunderstand will be in doubt as to the material on which my map is based. Nor can I agree with Mr. Bistrup that it was necessary to call attention to the map of 1918, which at one essential point, at any rate, is directly misleading.

Copenhagen, December 19th, 1938. *Lauge Koch.*