The Greenland expedition was led by Paul-Emile Victor, and left in May 1948. His party expected to be in Greenland for about three months. The work carried out is regarded chiefly as a reconnaissance for more detailed long-term investigations of the ice-cap planned for next year.

The Antarctic expedition, to be led by André F. Liotard, plans to carry out hydrographic, geographical, geological and meteorological studies, and hopes to set up a permanent meteorological station in Terre Adélie. The expedition will leave in the autumn of 1948. Monsieur Liotard spent the southern summer of 1947-48 visiting the British bases of the Falkland Islands Dependencies Survey.

Both expeditions have the support of the French Government.

LAPP INFLUENCE ON THE USE OF SKIS IN EXPLORATION

[Summary of a lecture on "The role of Swedish Lapps in the development of ski-ing", given by Petter Spik, Sirkas, Norrbottens län, to his fellow students at the Lapp Folk High School, Jokkmokk, on 8 March 1947. Manuscript lent by Dr E. J. Lindgren.]

On 4 April 1884 the first modern style ski race, the Nordenskiöld race, was held in Sweden. Most of the runners were Lapps and the winner was Pavva Lars Tuorda who, with another Jokkmokk Lapp, Anders Rassa, had been on the Second Dickson Expedition to Greenland under A. E. Nordenskiöld in 1883. These two Lapps were indirectly responsible for the race being run.

During the Vega expedition Nordenskiöld had become interested in the possible use of skis in Polar exploration, and when he left for West Greenland in 1883 he took two Lapps with him. Tuorda, who could speak Swedish, was given instruction in map and compass work, and both Lapps soon proved themselves very useful and were especially noted for their powers of selforientation. This was the first time that skis were used to any extent in exploration.

In July Nordenskiöld and a party of nine men set out east from the Nordenskiöld Glacier to investigate the ice-cap east of Disko Bugt. Conditions were bad and progress was slow, and by 21 July they had only covered a distance of 75 miles. On that day Tuorda was sent out to reconnoitre. On his return he reported that conditions were still bad farther east; there was melting snow and an uneven surface with several small lakes. Nordenskiöld then decided to turn back, but sent the two Lapps eastwards with instructions to make a journey lasting 4 days (the main party would wait 6 days for them). They were to note barometric pressure and compass direction every 3 hr.

They left on 22 July and returned after 57 hr., owing to lack of water. They had gone north-east, as long as the poor conditions lasted, for about 30 miles, and had then gone due east over good dry snow until they reached a point a little east of 43° W.¹ which was 230 km. (143 miles) away from the main party. Here they turned back because their fuel supply had run out and they

¹ A. E. Nordenskiöld. Den Andra Dicksonska Expeditionen till Grönland. Stockholm, 1885, p. 232.

were suffering from thirst. They had covered a total distance of 460 km. (287 miles) in 57 hr.

Nordenskiöld, who knew their capabilities, saw no reason to doubt their account, but found on his return to Sweden that few would believe that such a distance could be covered in so short a time. Therefore a race was arranged over a course of 23 Swedish miles (from Purkijaur to Kvikkjokk in Norrbottens län and back). The route was chosen to resemble Greenland ice-cap conditions. Out of thirty entries only ten completed the course, seven of whom were Lapps. Pavva Lars Tuorda covered the distance of 220 km. (137 miles) in 21 hr., 22 min., a considerably faster speed than on the Greenland ice-cap.

There is no doubt that the experience gained from Nordenskiöld's expedition prompted Peary and especially Nansen to adopt skis as a standard item in their equipment. Apart from this, the ski race and its results caused great interest not only in Sweden but throughout the world. Considerable attention was focused on ski-ing as a sport and ski races soon became common events. Lapps figured prominently in these races, especially in the earlier years, and Lapps represented Sweden at several international meetings.

THE HUMAN ECOLOGY OF GREENLAND

[Summarised from "Greenland—an experiment in human ecology". By M. J. Dunbar. Commerce Journal, March 1947, pp. 69–109.]

The *Polar Record*, Nos. 33-34, January-July 1947, contains a review of the Danish work of administration in East Greenland. An interesting comparison is afforded by Professor Dunbar's consideration of the Greenlanders of the west coast from the ecological point of view, that is to say from the study of the human population of West Greenland in relation to the fundamental biological, physical and other factors not only of its environment, but also inherent in itself.

The factors, or variables, from which the pattern of Greenland's economy and development is woven, are these:

- 1. The population, its growth and distribution.
- 2. Hydrographic changes in West Greenland.
- 3. The decline of the sea-mammals in West Greenland.
- 4. The growth of the West Greenland fishery.
- 5. The development of sheep-farming in the southwest.
- 6. The cryolite mine and the cryolite market.
- 7. Miscellaneous resources.
- 8. The native mind and its education.
- 9. Health.
- 10. The policy of the Danish administration.
- 11. Scientific exploration.
- 12. Greenland's strategic position.

This approach to a problem in the sphere of colonial administration, and of development and welfare, is most valuable and instructive. This satisfying treatment of the Danish West Greenland colonial problem is, however, possible only because it is still relatively simple, the chief factors being only a dozen in number and still capable of being disentangled one from another. Although the ecological approach would lead, because of the greater complexity, to less