Iceland 1956; from South to North over the Vatnajökull ice cap

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In late July 1956, at the age of 25, I set out to walk across Iceland from south to north over the Vatnajökull ice cap, then over the lava deserts to Lake Mývatn. My companions were Byron Davies and Michael Hotchkiss. Davies and I are still in contact, our joint recollections are the basis of the following report. I have not seen Hotchkiss for over forty years. My wife, Kládía Róbertsdóttir, for many years a member of the Icelandic Guides Association, has helped to interpret my photographs in order to identify our route, but there is still some uncertainty left. Thus while the overall pattern of events is correctly given, it could be, for example, that our route over the ice may not have been exactly as described. Why did we go? Suffice it to say that we were young men, in tune with the tenor of our times, out for an adventure using what experience we had.

We left Hull, England, on July 17 aboard the M.V. Brúarfoss, a vessel of about 1000 tons. The captain and crew had their families with them and we all ate together; the community had a patriarchal air. When small children walked the deck in stormy weather I felt responsible for their safety, but slowly my concern about "child overboard" lessened, as I realised that their balance was better than mine. I think we spent two days in Reykjavík where we introduced ourselves to the glaciologist, Jón Eyþórsson, at the airport and to skyr in the town. As we did not have a radio, which in those days used vacuum tubes and needed heavy batteries, we told Jón that, as a safety precaution, we would phone him when we arrived at Mývatn.

The intention was to get as close to the southern edge of the Vatnajökull as possible using the main road which, at that time, did not cross the Skeiðarársandur. A route up Djúpárdalur seemed feasible; I think that we discussed the options with people in Reykjavík. We took the bus as far as we could (Kirkjubæjarklaustur?) and then relied on hitch hiking to get to our starting point. I remember that the "good samaritan" who gave us a lift was a violinist and the name "Jón Sen" appeared in my address list. It was no small service! We had a considerable amount of equipment and supplies and I think he made two journeys to get everything, including three men, moved up to the bridge crossing the river Djúpá. We were then about 25 km from the point where we eventually climbed onto the ice and each of us had two loads to carry. We started up the eastern bank of the river and as tent, sleeping bags, stove, etc. would be needed every night, it made common sense to pitch camp about half way to the ice. This was done on the afternoon of the day Sen left us (day one, July 29). On day two we returned to the road and moved the second load up to the camp. Day three was spent in moving this second load up to the ice and returning to camp; on the fourth day all the remaining gear and the camp were moved up to the ice edge and we explored the area to determine the route of easiest access to the glacier.

Fortunately, the customs authorities had allowed all our equipment and supplies to enter Iceland without payment. Included was food for three men for something over five weeks. At that time the freeze drying process for foods was being developed at the British Ministry of Agriculture, Fisheries & Food in Aberdeen, Scotland. We were carrying tins containing their freeze dried meat, vegetable and fruit products,

Figure 1. Approaching the southern edge of Vatnajökull from Djúpdalur. – *Leiðangursmenn að leggja á Síðujökul með álsleðann samanbrotinn á bakinu.*

supplied without charge in return for a report on their effectiveness to be written upon our return. Other foods, in their immediate box or wrapping, were sealed into plastic pouches and, together with the tins etc., were placed into plastic sacks inside canvas sacks so that the contents were impervious to damage by water. Three such sacks, each weighing about 25 kg and containing food for three men for a week, were allowed for crossing to Skútustaðir, at the south of Lake Mývatn. The food itself weighed about 20 kg, a ration of 950 g per man-day. The remaining two weeks' food, similarly packed, but somewhat more varied and heavier, was sent by bus to await our arrival at Mývatn.

In 1956 good mountain tents weighed about twice as much as those sold for the same purpose today. We had an "Arctic Guinea" made in a very new material, nylon/cotton, by Blacks of Greenock who also supplied our sleeping bags. At that time only major expeditions used motor transport over the ice, often "Weasels" left over from World War II. Motor toboggans did not yet exist and in any case would have been useless when we left the ice. Man-hauling was the only practical method for surface travel on ice caps by small, impecunious groups. Davies was training as an Aeronautical Engineer and we designed and built a collapsible sledge out of T and L section aluminum alloy. It was a compromise, suited, we thought, for use on both the hard ice and soft snow expected. Figure 1 shows this sledge being back-packed up towards the start of our crossing. Also shown is a hazard in approaching the ice cap – what we called "rock flour soup". Rock, ground fine by the ice and suspended in water, formed lakes of "soup" which appeared to be firm but really was a form of quick sand. Carrying a heavy pack one trod with caution. This

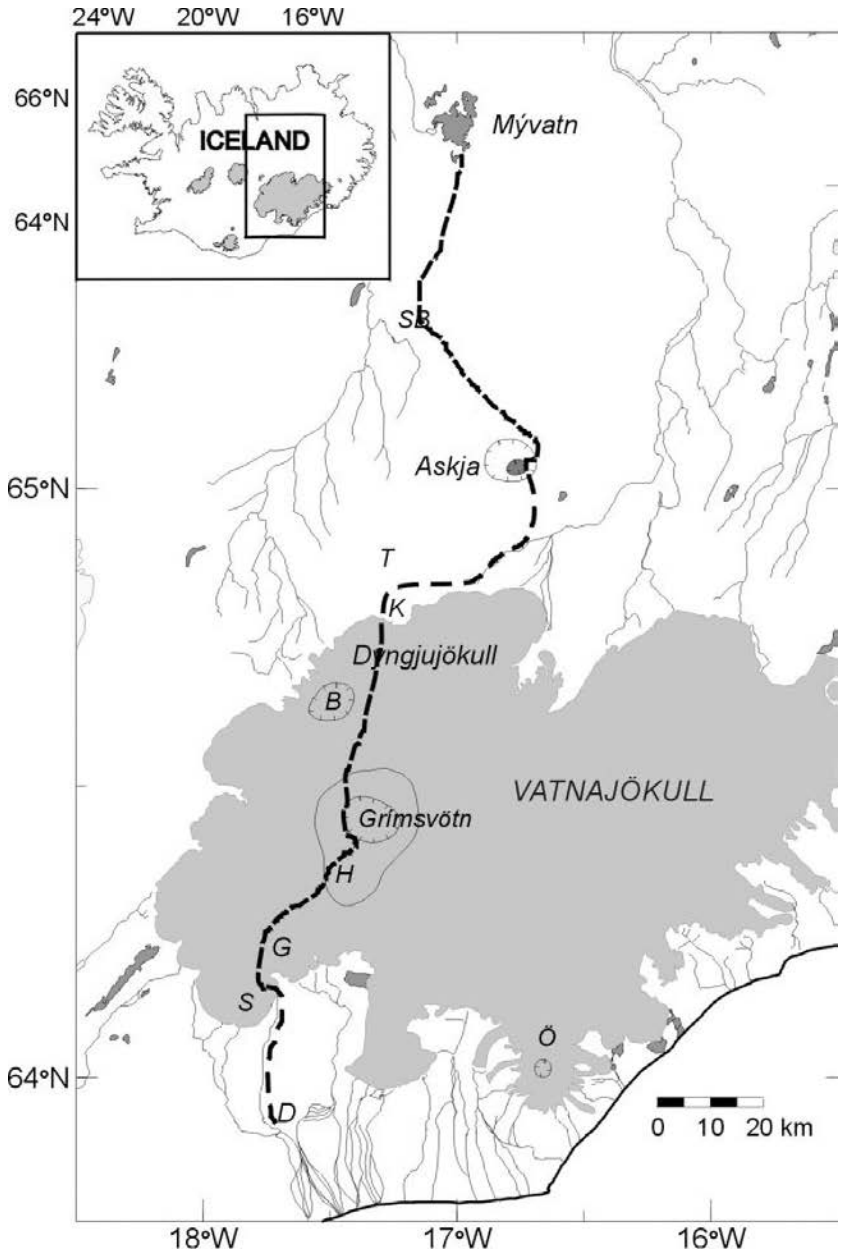

Figure 2. Our route over the Vatnajökull ice cap and north to Mývatn. Djúpá (D), Síðujökull (S), Geirvörtur (G), Háabunga (H), Grímsvötn, Bárðarbunga (B), Dyngjujökull, Kistufell (K), Trölladyngja (T), Suðurárbotnar (SB). – *Kort af gönguleiðinni norður yfir Vatnajökul og um Öskju til Mývatns.*

Figure 3. Camped on the ice with a snow block wall to protect from wind. Note the "clean" and "dirty" ice surfaces, a result of the irregular deposition of volcanic ash. – *Tjaldstaður á jöklinum. Ójafnt yfirborðið gerði sleðadráttinn mun erfiðari.*

Figure also shows the rock fragments embedded in the ice for a few hundred metres above the ice edge, which meant that on the morning of the fifth day we packed our two loads up this distance to the clear ice and there assembled the sledge.

More than forty-five years have elapsed since we went onto the ice and for thirty of these I led oceanographic research teams, operating from the sea ice, to collect data from the Arctic Ocean and the channels of the Canadian Arctic Archipelago. Having worked outside in the cold, darkness and blizzards of midwinter at 75°N as well as in the delightful 24 hour sun of late spring, it is now so easy for me to criticise our equipment and techniques. The runners on the sledge were about 4 cm wide, good for the hard ice or strastrugi. We brought 15 cm wide strips of aluminum sheet and could screw them onto the entire length of the runners for use on a soft surface. Almost immediately we had to install these strips – they were never taken off! Pulling the sledge uphill over the soft snow was very hard work and the intense solar radiation forced us to keep our bodies covered. We had to put glacier cream on all exposed areas of skin, including under the chin where one may get burned due to radiation reflected from the ice. The sun melted the snow so that we progressed through a sort of "snow soup" on the surface of the ice. Slowly but surely our boots filled with ice water; we traveled with frying bodies and freezing feet, pulling a cross between a snow plough and a sledge! Two years later we were on skis in Svalbard, our home-built sledges now had 10 cm wide teflon coated fibreglass runners, with protruding steel edges to grip on clear ice and we travelled at night!

But back to the Vatnajökull. We had climbed up onto the ice about 16 km south of a nunatak named

Figure 4. Near Bárðarbunga heading for Kistufell. Note the cloud bank following the northern edge of the glacier and the poor attachment of the load onto the sledge. – *Nálægt Bárðarbungu, með stefnu á Kistufell.*

Geirvörtur (see Figure 2) and set off in mid afternoon of day five. Davies' diary says "Going steeply uphill in soft snow, B.A". I do not remember that first campsite but it must have been a few kilometers north of the ice edge. On day six (3 August) we continued northward in intense sunlight on soft wet snow. At Geirvörtur the rock protrudes at least 200 m from the ice. It resisted the flow of ice from the north so that to the south there was a depression in the surface, similar to the lowered water level seen downstream of a boulder in a river. I think this depression channelled katabatic winds falling outwards from the center of the ice cap. As we entered the area, the sky became overcast, the snow harder and a very strong wind, with gusts sufficient to push us off balance, started to blow in our face. Were we and our equipment good enough to cope with these conditions? I remember this uncertainty coupled with the thought that I might be leading us into disaster and decided to go back. We turned and as we moved back the wind lessened. We pitched camp. There was no snow to build a wall (see Figure 3), but at least the tent was excellent and stood firmly with its main guys onto our ice axes. Towards night the wind dropped and, gaining confidence, we decided to go on after all. By late afternoon of the next day we were exhausted by heat and the intense work of dragging the sledge. We had made about 1.6 km/hour and reached a point somewhat south of the low snow summit of Háabunga (see Figure 2). Our intention to get up early next morning (day eight) was defeated by our tiredness and once again we got flogged by heat and soft snow. At last we learned sense,

went to bed at 17:00 and arose at 00:30 on day nine.

A cold clear night with crackling tent and frozen fingers. Hard snow, good going and by 07:30 we had reached Grímsvötn and were camped at the southern edge of this caldera, which was filled with mist. Later on it cleared and far below we could see lakes of varying extent kept open by volcanic activity beneath the ice. A glacier flows downwards towards these lakes; from crevasses issue plumes of volcanic smoke – not a place to enter. The ridge of the tent was festooned by airing sleeping bags, drying socks, etc. Inside we were shielded from the sun but were very hot; outside we needed all our clothing to protect us. Volcanic ash was deposited on irregular areas all over the Vatnajökull, having two immediate effects on our operations. The grit on the snow surface made the sledge far more difficult to pull and where the surface was dirty with this deposit the enhanced radiation absorption caused abrupt changes in level (Figure 3). The sledge had to be lifted up 30 cm, occasionally 50 cm, from dirty onto clean snow surfaces.

Crossing the ice cap had shown us another deficiency in our sledge design. We had attached the load to the sledge deck piece by piece, with a cover to keep off rain (Figure 4). Occasionally things fell off as their ties became undone. In one instance we lost the tent this way and had to retrace our steps to recover it. A later design had a long canvas coffin-shaped "bucket" lashed to the deck, forming an integral part of the sledge. This bucket had sewn up sides and fold over flaps with ties on top and contained all the items to be transported. A year or two later a tragedy on the Greenland ice cap taught another lesson. Three men, camped on the ice in a high wind, were deprived of food and equipment when their sledge blew away and ran into a crevasse. They died just before reaching help. Not only was our equipment much improved for Svalbard two years later, but the main guys of our tent were always attached to the sledge!

Weight was of critical importance to us. The three weeks' food required two carries to the ice cap; the remaining 2.5 weeks supply could then be placed on the sledge. We reckoned that one weeks' food would remain after leaving the ice, a reasonable back pack load and enough to reach Mývatn. We had to provide some form of insulation on the tent floor, but air mattresses were too heavy and lightweight foam plastic pads did not exist in 1956. A piece of heavy duty wrapping material, consisting of two layers of heavy brown paper separated by tarred butter muslin, was cut to fit the tent. Between us and the snow was the tent floor, this composite sheet, then a layer of our outer clothing beneath the sleeping bag. One "dived" onto the floor from the tent doorway to make the proper indentation in the underlying snow to fit one's hip. It was wonderful to lie in the tent, protected from the sun, but much moisture was produced. At night the tent would be folded up, not rolled, because the frozen condensation had made the fabric rigid and much heavier. We needed plenty of drinking water to cope with the heat and dehydrated foods, but fuel for our little kerosene stove was limited and with some success we melted granular snow by placing it in a plastic bag on the sledge to absorb sunlight.

On day ten we arose just after midnight finding heavy mist, but got away by 02:30 on a compass course for Bárðarbunga (2000 m), the second highest point of the Vatnajökull. "Point" is a mis-nomer as Bárðarbunga has such gentle slopes that the summit is difficult to determine. We camped in the mist which did not clear until after midday so we spent day eleven in camp, estimated 8 km south of the summit, getting up at 22:00 to find mist and wet snow. At 00:00 the snow was not frozen but "enough is enough" and we decided to get out. Travelling north by compass we must have passed very close to the summit and at 14:00 on day twelve (9 August) we reached Kistufell (Figure 5) on the northern edge of the ice cap after 17 hours of activity. We spent many of these hours struggling through breakable crust, a condition where the surface of the snow freezes leaving a soft layer beneath. On each stride this crust breaks beneath the weight of the booted man hauling a sledge, destroying all rhythm, the secret of stamina. Looking north, we could see the edge of the ice cap stretching from east to west, a contour that was repeated in the sky by heavy banks of cloud. In the intense sun on a white surface we saw the dull black of the lava desert beneath its cloud cover and wondered if it was here that Tolkien had first imagined "The land of Mordor,

Figure 5. Trölladyngja and Kistufell viewed from Dyngjujökull. – *Horft til Trölladyngju og Kistufells af Dyngjujökli.*

where the shadows lie". We wove through moraine piles, a feature of the lower levels of the glacier at the northern edge of the ice cap, abandoned the sledge by a small stream, and entered the Ódáðahraun.

We camped on the desert, close to the ice, south of the Trölladyngja shield volcano. It rained heavily and day thirteen was decreed a day of rest. We found that nylon/cotton was not waterproof and constructed a flysheet for the tent from an empty polyethylene food sack. But our feet were warm and dry and we lay in our bags, half asleep, revelling in the contrast between inside and outside. Next morning, after a good breakfast, our belongings were arranged into three loads. Everything, except the food itself and personal items, was sodden wet and very heavy. Slowly we rose to our feet and set off to the east. Lava exists in two basic forms which provide a walking surface for the backpacker ranging from simple to very difficult. This area had been subject to flooding, weathering, deposition of volcanic ash etc.; it was as easy to traverse as sand dunes. Almost always there was a route through the lava blocks or, for the other type of lava, a simple walk over rough plates. A far more serious difficulty was the lack of water. It is a desert because rain just percolates down through the porous lava and streams from the ice gradually sink from view.

Our route ran parallel to the ice edge for about 23 km and we camped by a large river flowing northeast from the ice cap, eager for water after a dry day. The river was not potable, but a thin version of "rock flour soup". As all our foodstuffs were dehydrated there was no dinner. "Soup" was placed in a container overnight, but most of the flour had not settled by morning. Eating rock flour irritates the bowels

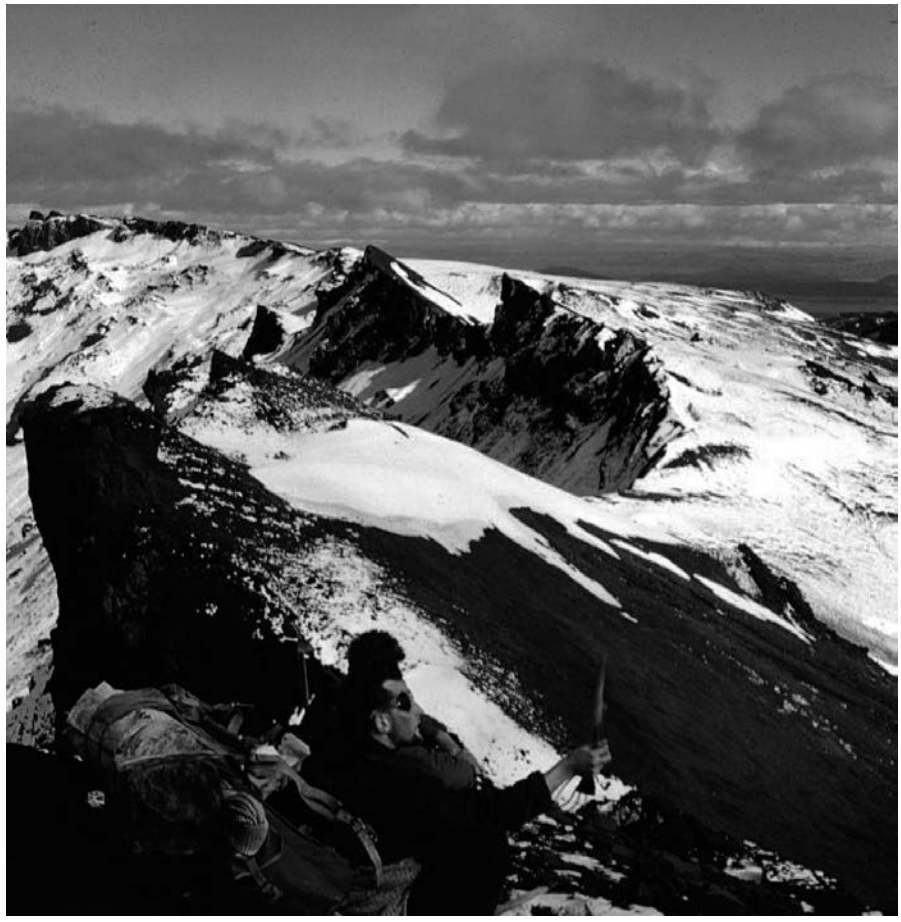

Figure 6. The highest part of the caldera rim of Askja, at this volcano's southern edge. – *Áð á suðurbrún Öskju.*

disastrously, so no breakfast on day fifteen! North of us, about 16 km away, was the volcano, Askja, a place we had intended to explore by the easiest route. The highest point of Askja was on the mountains forming the southern rim of the caldera. Some way below this summit was a very attractive snow patch, about 600 m above our campsite. We set off and I remember vividly the effort involved in walking uphill with a heavy pack lacking food and water, but by 16:00 we had eaten and drunk a large meal using melted snow. Mist now obscured vision and, although we went on, a way up to the summit ridge eluded us, so we camped on the lower reaches of the upper cliffs. The mist persisted until 11:30 on the next day, but then route finding was possible. We were too far east and, retracing our steps, reached the ridge sometime later (Figure 6). Descending into the caldera posed some problem, but by lowering our packs down maybe 15 m of cliff we could, unladen, readily climb down.

One third of the caldera of Askja was occupied by a lake, the Öskjuvatn, about 10 km^2 in area. We reached the shore of the lake and walked east then north to camp on the beach at its northeast corner. The lake water must have been near freezing point, but here and there patches of algae showed where gas bubbles rose from between stones on the lake bed.

There was hot water and we were filthy. Using a finger to estimate temperature, a cup to catch suitable water and soap, we stood in the lake and sluiced ourselves, cup by cup. We had to select carefully betwixt too hot and too cold, but on getting into a set of clean underwear I felt a new man! Day seventeen, 14 August, was spent in resting and investigating our surroundings. An explosion crater close to camp, volcanic tuff which floated on water, and cliffs that fell to the Öskjuvatn, showing layers of lava flow, suggesting that the lake filled a collapse of the original caldera bed. There was a slight smell of sulphur but the lake water was greatly appreciated; we tried to wash some clothes. Next day we walked north out of the caldera through low hills and on through stoney flats and lava fields without surface water. We found a dry stream bed, heading in the right direction, which provided us with easy walking on firm sand. In the late afternoon a thin mist arose and, after a short but fruitless search, we dug for water, found it about 70 cm down, and camped on the sand. At this and the next camp, photographs show that we were still drying out our washing, strung up on a line between tent and ice axe! The stream bed continued as our highway and now occasional tussocks of coarse grass appeared. On the afternoon of this day, nineteen, we came to where a full grown river burst forth, this spring being surrounded by grass, plants and small shrubs. Another kilometer or two and there a wide river flowed between verdant water meadows. Apart from the algae, we had seen no living thing, plant or animal, for two weeks and the sheer joy of returning to the world of the living remains with me vividly today. From the map I believe that this wonderful surge of life is at Suðurárbotnar. There appeared to be a track through the meadows but it was soon lost and eventually we pitched the tent at a bend in a small stream, maybe 20 km south of Mývatn. Mist in the morning made us use a compass and, heading north, we entered a bog which caused considerable delay. We detoured to the west and I recollect that we walked alongside a major drainage channel cut into the turf or peat south of the western side of the lake. On this, the twentieth day, August 17, we arrived in Skútustaðir on the southern shore of Mývatn. After talking to the local parson we camped on the village green and phoned Jón.

We spent two more weeks in Iceland. With our tent on a spectacular apron of grass jutting out into a lava flow near Reykjahlíð, free of our heavy packs we walked up to 30 km/day doing the usual tourist things, visiting hot springs, steam jets, boiling mud pools, etc. and boating on the lake. Then we took the bus to Akureyri and camped by the Youth Hostel. We hitch hiked to Dalvík, and began a five day back-pack trip over the mountains between Eyjafjörður and Skagafjörður coming down Ingjaldshnúkur into Kolbeinsdalur. Many herds of horses were in this valley, each with a stallion who rounded up his dependents and came forward to confront us, very definitely not amused by the invasion. I was worried; even if I dumped my pack there was nowhere to run! We walked over to Hólar to camp and, after a rest day, reached Austur Vatnabrú where we pitched our tent by the river. We met the bridge warden, Þorsteinn Björnsson, who accepted some of our remaining biscuits, entertained us to cognac and coffee, and made a diary entry of our visit. Next day we took the bus to Reykjavík and, using transport offered by the police, placed our tent in front of the University building. This was followed by two nights at the Youth Hostel (5 kr./night), then to Leith (Scotland) on the Gullfoss, which rolled 40° in calm seas, just in time to attend the Tattoo at Edinburgh castle.

ÚTDRÁTTUR

Rakin er ferð þriggja ungra Breta yfir Vatnajökul í júlí-ágúst 1956. Bretarnir gengu norður Djúpárdal, um Síðujökul, Háubungu, Grímsvötn og komu niður af jöklinum við Kistufell. Þaðan lá leið þeirra í Öskju, um Suðurárbotna til Mývatnssveitar og til Reykjavíkur. Ferðin frá brúnni við Djúpá og norður á Skútustaði tók 20 daga, þar af voru þeir viku á jöklinum.

In Sellönd. Herðubreið, Sellandafjall and Dyngjufjöll. Ljósm./*Photo*. E. Lyn Lewis, August, 1956. – *Í Sellöndum. Sellandafjall í forgrunni en fjær Herðubreið og Dyngjufjöll.*

Approaching Lake Mývatn. Ljósm./*Photo*. E. Lyn Lewis, August, 1956. – *Komið niður í Mývatnssveit.*