

Katla and Askja

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ABSTRACT

A parallel is drawn between Katla and Askja, the idea being put forward that the subsurface of Mýrdalsjökull is a mature central volcano with a caldera in the middle, which could be compared to the Askja phenomenon in Dyngjufjöll. On the basis of this the volcanic activity of Mýrdalsjökull should also be related, with only one eruption at the same volcanic fissure or vent, as a rule. As a result of this the Katla jökulhlaup does not always find its way out to Mýrdalssandur, but can, and actually has, emptied into Markarfljót and Jökulsá á Sólheimasandi.

WHAT IS KATLA?

In summer 1972 I was staying for some weeks in the Laki area on Síduafréttur. From there Mýrdalsjökull, with the Katla depression, lies

open before the eye, as shown in Fig. 1. My attention was increasingly drawn to various shadows on the snow field, varying incessantly in relation to the position of the sun. The scene reminded me of the Dyngjufjöll massif and Askja caldera which I had also observed for some weeks. What would they look like if a similar ice cover to that of Mýrdalsjökull was put on top of them? Since then I have examined all the available studies of the Katla and Askja areas. There are so many similarities between the two that I have been convinced of their relationship. According to this proposition Mýrdalsjökull is resting on a mature central volcano with a large caldera as generally accepted by Icelandic geologists. The eruptions in Katla are, therefore, probably most identical to the eruptions in Askja where, as a rule, there only occurs a single eruption at each vent. The

Fig. 1.

View towards Mýrdalsjökull from the summit of Mount Laki, the crater row is in the foreground. The outlet glacier farthest to the left is Höfðabrekkujökull. The Katla trough is situated at the head of it. The wide depression in the central part of Mýrdalsjökull should be visible.

Mynd 1.

Mýrdalsjökull séður frá Laka. Gígaröðin er í forgrunni. Höfðabrekkujökull lengst til vinstri. Kötulægðin er við upptök hans. Stór lægð ætti að sjást í miðjum Mýrdalsjökli.

