

is, until the lake is either empty or frozen solid. (Obviously this does not apply if drainage is initiated through crevasses well above lake-floor level.) It would therefore be interesting to see whether there is any correlation between the regimes of such lakes and the flow characteristics of the associated glaciers.

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REFERENCES

- Howarth, P. J. 1968. A supraglacial extension of an ice-dammed lake, Tunsbergdalsbreen, Norway. *Journal of Glaciology*, Vol. 7, No. 51, p. 413-19.
- Kick, W. 1966. Long-term glacier variations measured by photogrammetry. A re-survey of Tunsbergdalsbreen after 24 years. *Journal of Glaciology*, Vol. 6, No. 43, p. 3-18.
- Leopold, L. B., and others. 1964. *Fluvial processes in geomorphology*, by L. B. Leopold, M. G. Wolman and J. P. Miller. San Francisco and London, W. H. Freeman and Co.
- Liestøl, O. 1956. Glacier dammed lakes in Norway. *Norsk Geografisk Tidsskrift*, Bd. 15, Ht. 3-4, 1955-56, p. 122-49.

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Unusual hailstones

On 20 May 1958 in Leningrad near the Finnish railway station, hail was falling. It lasted only three minutes, but the hailstones were very unusual. They were about 7×10 mm in size, and each hailstone was in the form of a hexagonal pyramid which consisted of six pyramids (one inside the other). Three pyramids were of transparent ice, the other three of milk-white ice (Fig. 1). Each milk-white pyramid consisted of sub-individuals (minute hillocks of growth) with air bubbles amongst them.

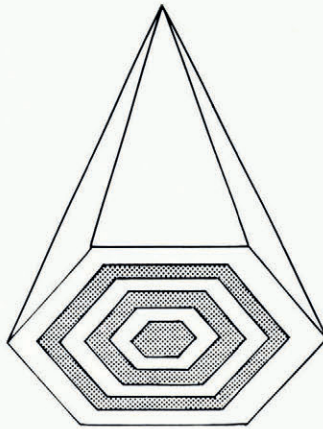


Fig. 1. Shape of hailstones observed in Leningrad, 20 May 1958. Each hailstone consisted of a series of pyramids alternately milk-white and transparent. Size 7×10 mm.

If an alum crystal is placed in a highly supersaturated solution of alum (about 1 kg l^{-1}), the crystal becomes covered by sub-individuals and becomes milk-white. If it is put into a slightly supersaturated solution (3 g l^{-1}), the sub-individuals disappear and a transparent layer is formed on the surface.

It is obvious that the pyramidal hailstones described above grew in a slightly and highly supersaturated water vapour environment. When they grew in the highly supersaturated water vapour, sub-individuals formed and the hailstones became milk-white; when they grew in the slightly supersaturated environment the sub-individuals disappeared and the hailstones became transparent at the surface.

On 17 July 1959 in Moscow during a hailstorm lasting several minutes, the hailstones were disc-shaped. Their diameter was 12 mm, and their thickness 2 mm. They consisted of concentric white and transparent rings.

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