

ice in Baffin Island is estimated on average as 0.5 m by Andrews, and 1 m by Goldthwait and Ward for the south-east part of the Barnes Ice Cap. This till has presumably formed as a result of melting of immediately underlying ice and thus indicates that it contained a substantial englacial load.

Andrews' observation that he has only seen sharp till/ice contacts in Baffin Island, and that there was no incorporation at these contacts, is irrelevant. The source of the englacial debris may be far from the margin, as might be expected from the basal freezing hypothesis. But as far as the Barnes Ice Cap is concerned, basal incorporation must be clearly responsible for its englacial debris load as there are no nunataks to provide a supraglacial source.

It is hoped shortly to present a comprehensive theory to account for the contrasts between the debris loads of different types of glaciers.

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SIR, *Ground-ice wedges interpreted by A. von Bunge (1884) in Siberia*

It is a good thing that Dr Colhoun has reminded us that as early as 1905-08 J. R. Kilroe interpreted an ice-wedge pseudomorph observed near Londonderry as having been formed when the sands and gravels that it cuts were frozen (Colhoun, 1970).

Dr Colhoun has noted that Kilroe's interpretation pre-dated "the classic interpretation of ground-ice wedges in Alaska published by Leffingwell (1915, 1919)", which is true. But Leffingwell was by no means the first author to give the proper interpretation. Ice-wedges were first described from East Siberia by Adams (1815) and Middendorff (1867), and correctly interpreted by von Bunge (1884) on the basis of extremely careful field observations. This has been stressed by Troll (1944) and myself (Cailleux and Taylor, 1954).

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