

A Science Service Feature

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? WHY THE WEATHER ?

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SNOW ABRASION

Hard, dry snow driven by the wind is as effective an agency in wearing away objects exposed to it as is the sand of windy deserts. Striking examples are seen on the borders of the Antarctic continent, which include the windiest known regions on the globe. Sir Douglas Mawson tells in an account of his recent Antarctic expedition of finding in Adélie Land a hut built by his expedition of twenty years before. He says:

"The exposed wood of the hut and all the wooden objects were found to be deeply scored by the snow blast, resulting in hard and soft tissues standing in singular relief. The fully exposed Oregon boards have been thus reduced in thickness by the snow abrasion in twenty years by quite half an inch."

In the narrative of his earlier expedition he writes:

"The abrasion effects produced by the impact of the snow particles were astonishing. Pillars of ice were cut through in a few days, rope was frayed, wood etched and metal polished. Some rusty dog chains were exposed to it and, in a few days, they had a definite sheen. A deal box, facing the wind, lost all its painted bands and in a fortnight was handsomely marked, the hard, knotty fibres being only slightly attacked, whilst the softer, pithy laminae were corroded to a depth of one-eighth of an inch. The effect of constant abrasion upon the snow's surface is to harden it and, finally, to carve ridges known as sastrugi. . . . Even hard blue ice may become channeled and pitted by the action of the drift."

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