AIR MOVEMENTS IN SOIL

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Soil above groundwater has air and water. Their movements have been examined by Green and Ampt (1911) and Morel-Seytoux (1973). Morel-Seytoux (2020) is still active.

In Hämeenlinna in Mustasuppa pit of Leiriharju esker I made measurements in 2004. Between 27.7. and 3.8. there was a big rain event (Kasi, 2006), and the following piston flow (Ksiazynski, 1994) circumstances were observed.

Since 2018 I have measured air movements on the top of Leiriharju in the southern side of Mustasuppa below of a stone. In winter there is upwards flowing 100 % moist air in mean temperature +7.2 C. Then the lowest atmospheric temperature was -21.4 C. Ahead of the stone snow is melt. Okko (1957) had this kind of observations in southern Finland in plenty of sites.

What is happening on the groundwater surface in Leiriharju? I think Morel-Seytoux better presents my surface in 1973 than in 2020.

Leiviskä (1914) shew that in summer in the center of hill, when digging, ice was found. Later similar depositions elsewhere in southern Finland have been reported. Are they perched groundwaters?

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