



Soil archives of the Westerkoggepolder (West Friesland, North-Holland); relicts of a peat cover that disappeared by historical land management.

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In a large part of the Westerkoggepolder the surficial Holocene peat deposit of several meters thickness disappeared in historical time due to historical land use. Drainage of the original histosols and crop production promoted bio-oxidation of the organic matrix and consequently lowering of the land surface.

Relicts of this peat occur below old farm houses. In many soil sections a thin organic horizon is present in the stratigraphical position between older and younger clay deposits. This horizon can easily be interpreted as a relict of a peat deposit, truncated by marine transgression.

In the Westerkoggepolder some lots show a typical micro relief. This is the result of local historical small scale peat digging and relief inversion afterwards. Land owners, responsible for this form of peat digging were obliged to fill the excavated trenches with material to restore the land surface. They used clay that they dredged up in the existing drain channels. That is also the reason that in the present landscape some of these channels are relatively broad. Due to relief inversion, these trenches are now visible as small ridges in the landscape. In the flat part of the landscape, a surficial clay layer covers the remnants of the excavated trenches. Pollen analysis indicates that the surficial clay layer must be interpreted as an eluvial alteration horizon. This surficial clay cover is a relict of the former peat bog.