



Storms in a lagoon: the flooding history of Schokland (Noordoostpolder, The Netherlands) during the last 1200 years derived from geological and historical archives

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Flevoland (central part of the Netherlands) is an area of long-term discontinuous deposition, which has been reclaimed from the Zuiderzee in the 20th century. The Zuiderzee was an inlet of the North Sea, which came into existence during Medieval times at the expense of vast peat swamps. The inhabitants of the Zuiderzee area have a long tradition of living and struggling with water. For Schokland, located in the northern part of Flevoland (The Netherlands) and its inhabitants, this tradition started at around AD 800 when peat formation came to an end in the former Flevo lagoon region. Since that time, a surficial clay cover was deposited on Schokland. The top of the peat underlying the clay is dated at ~ 1200 BP, while the top is dated up to ~ 70 BP, implying that the clay was deposited during the Medieval to Recent occupation of the former Flevo lagoon region. We have studied the clay sequence with the combined use of geological and historical archives in order to determine the most recent flooding history of Flevoland (last 1200 years).

Field data, lab analyses (grainsize analyses, TOC, pollen, microfossils) and a literature study show that storm events had a major impact on both the sedimentary and the anthropogenic history of Schokland. A comparison between geological data and documented historical storms is made and possible remnants of the eleven major storm events, mentioned in the historical sources, that eroded parts of Schokland are identified in the subsurface of the area in the form of spikes with coarser sediment relative to the background sedimentation.