

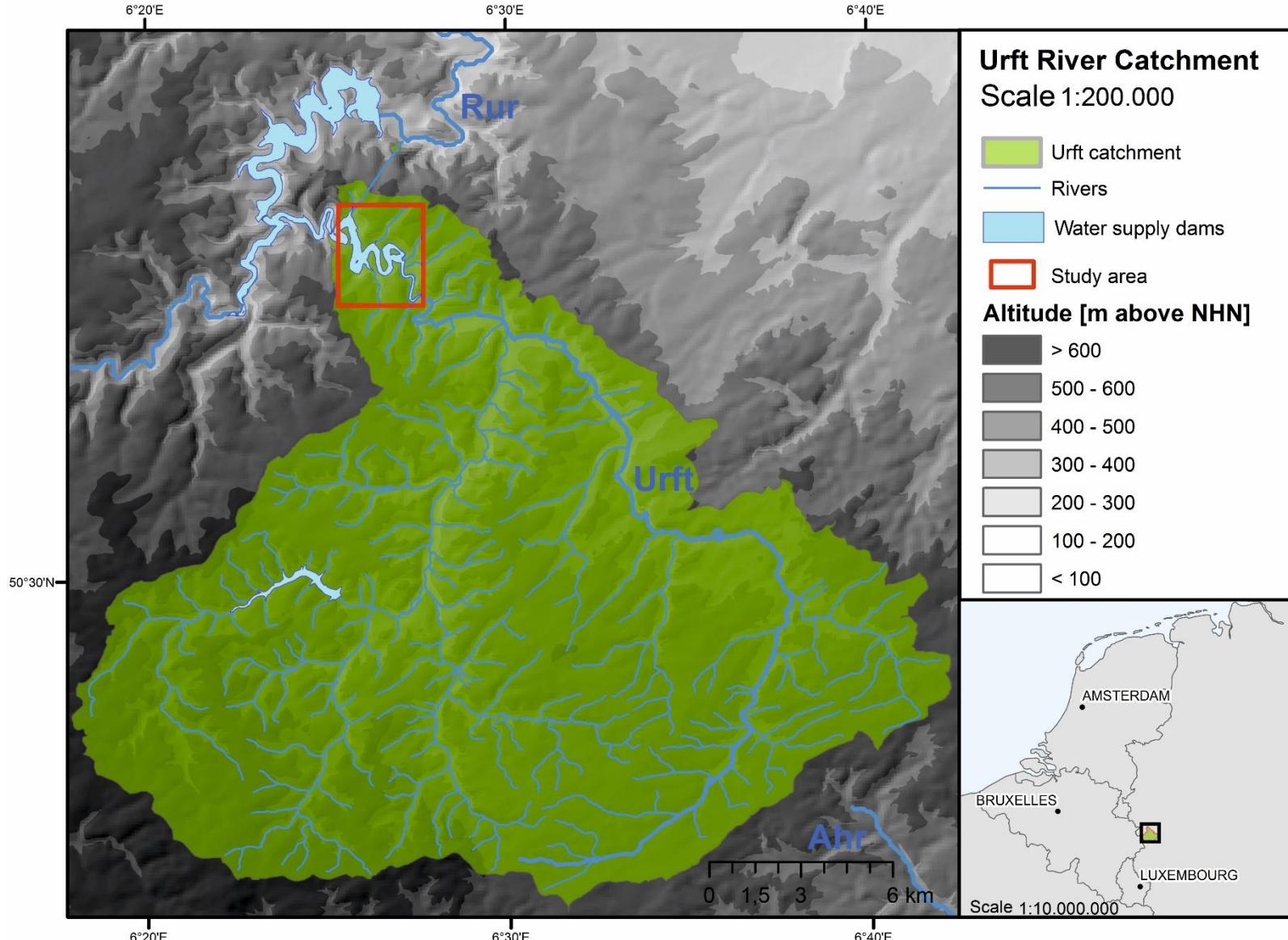


(A. Esch)

115 years of sediment deposition in the Urft reservoir (Eifel Mountains, western Germany)

Georg Stauch, Alexander Esch, Lukas Dörwald, Verena Esser, Simone Lechthaler, Frank Lehmkühl, Philipp Schulte, and Janek Walk



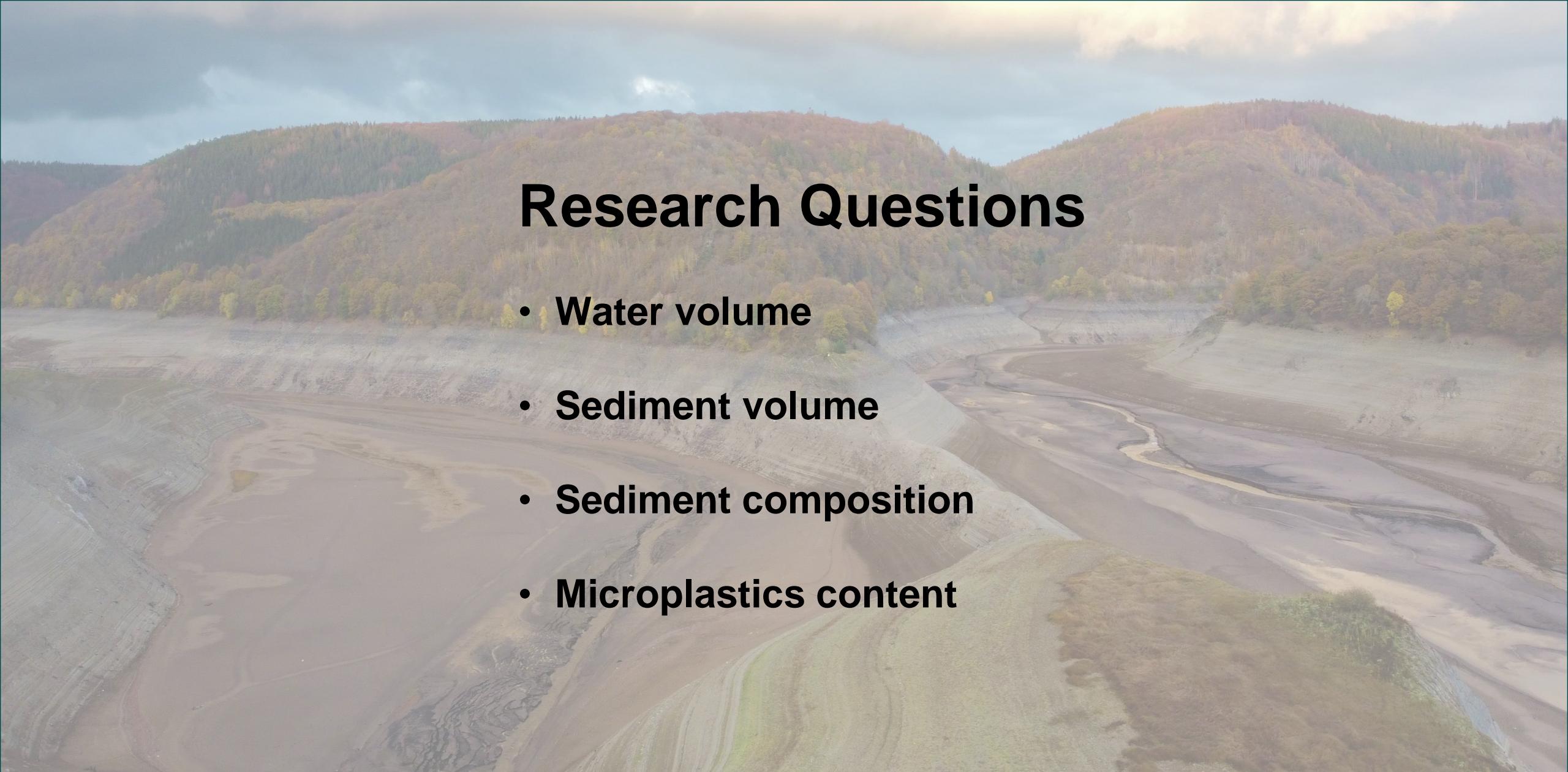


Background – Urft Reservoir



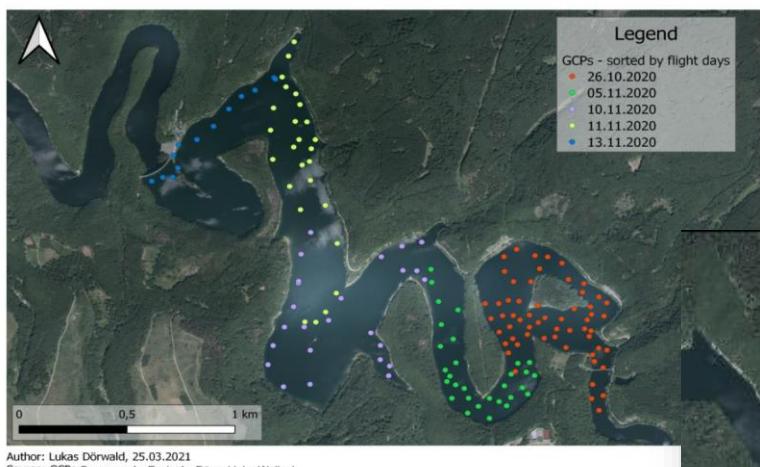
Entry Kermeter tunnel, 13.11.2020

- Construction: 1900 – 1905
- Length of the reservoir: 12 km
- Area: 2,16 km²
- Volume: 45,5 Mio. m³



Research Questions

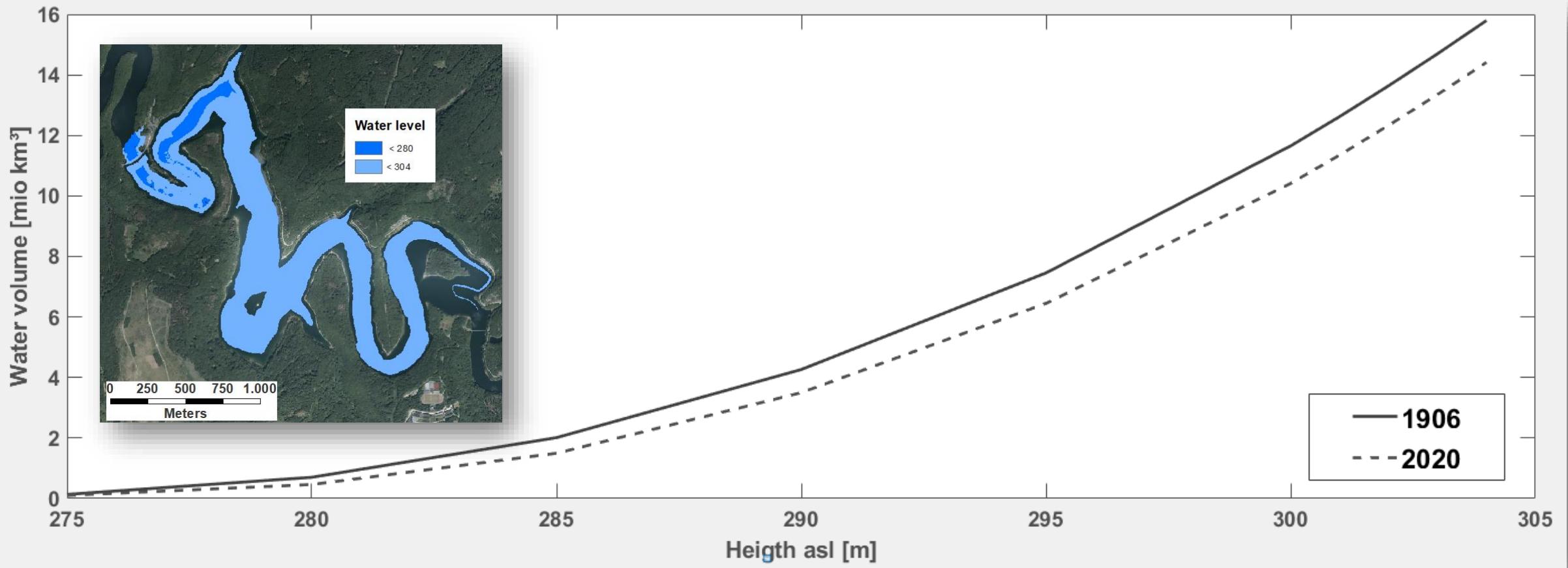
- Water volume
- Sediment volume
- Sediment composition
- Microplastics content

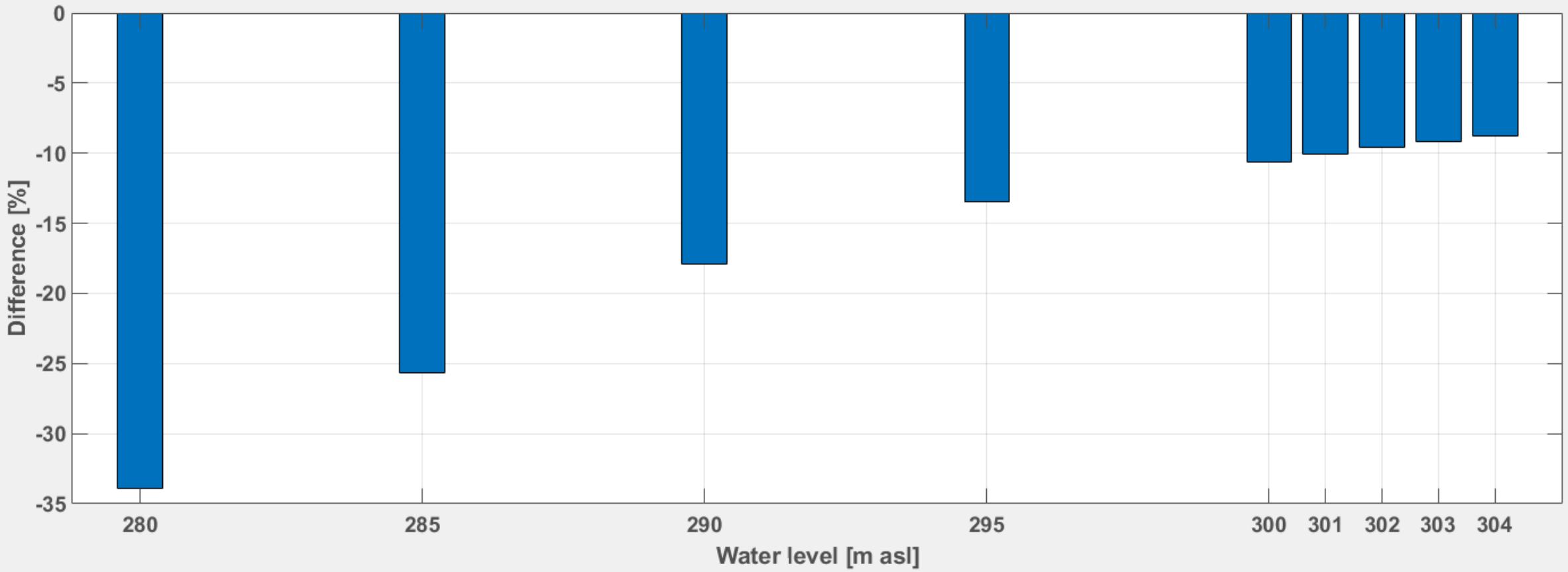


Lukas Dörwald
Meso- to macro-scale landscape modelling with SfM-MVS
photogrammetry - EGU21-3248

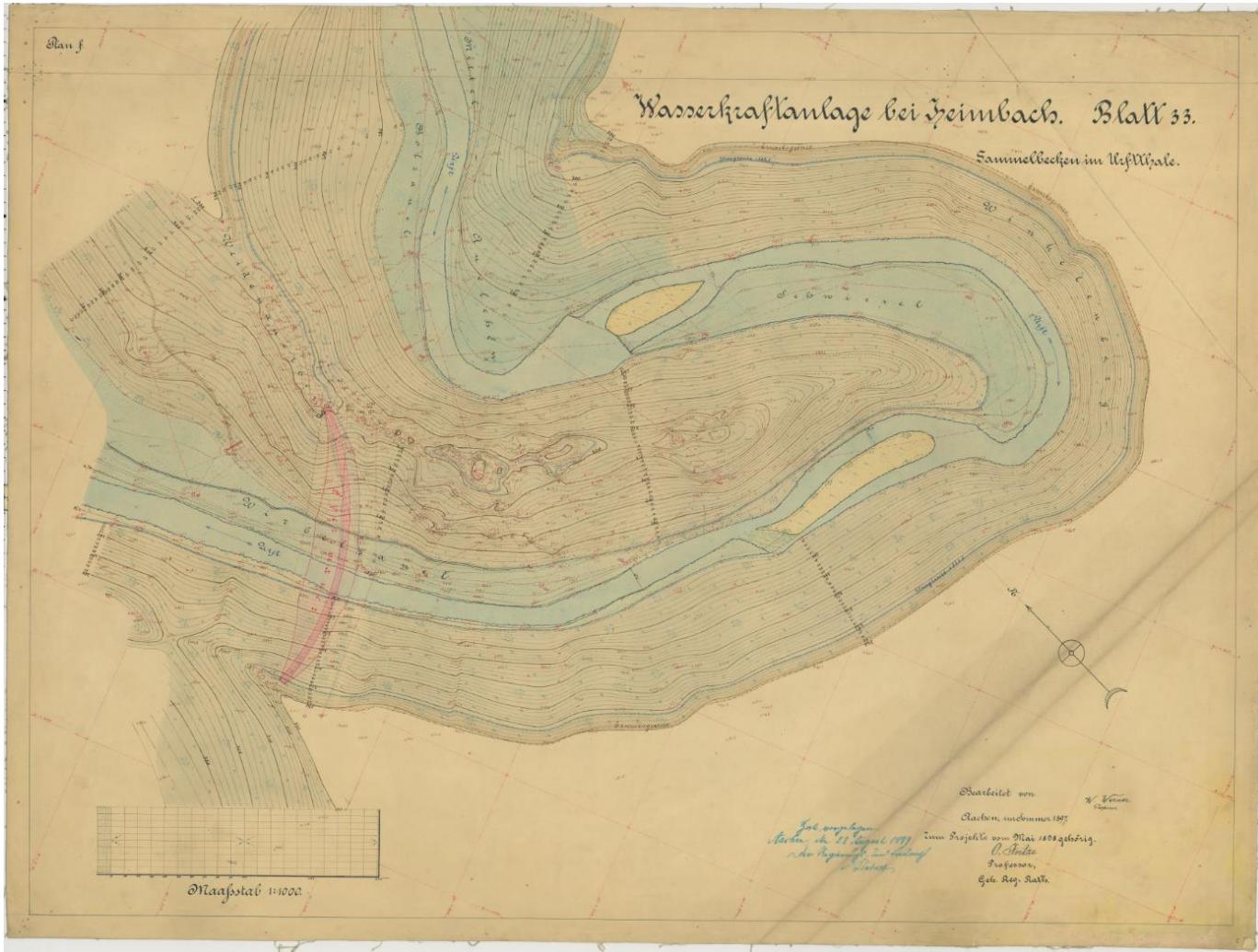


Water volume

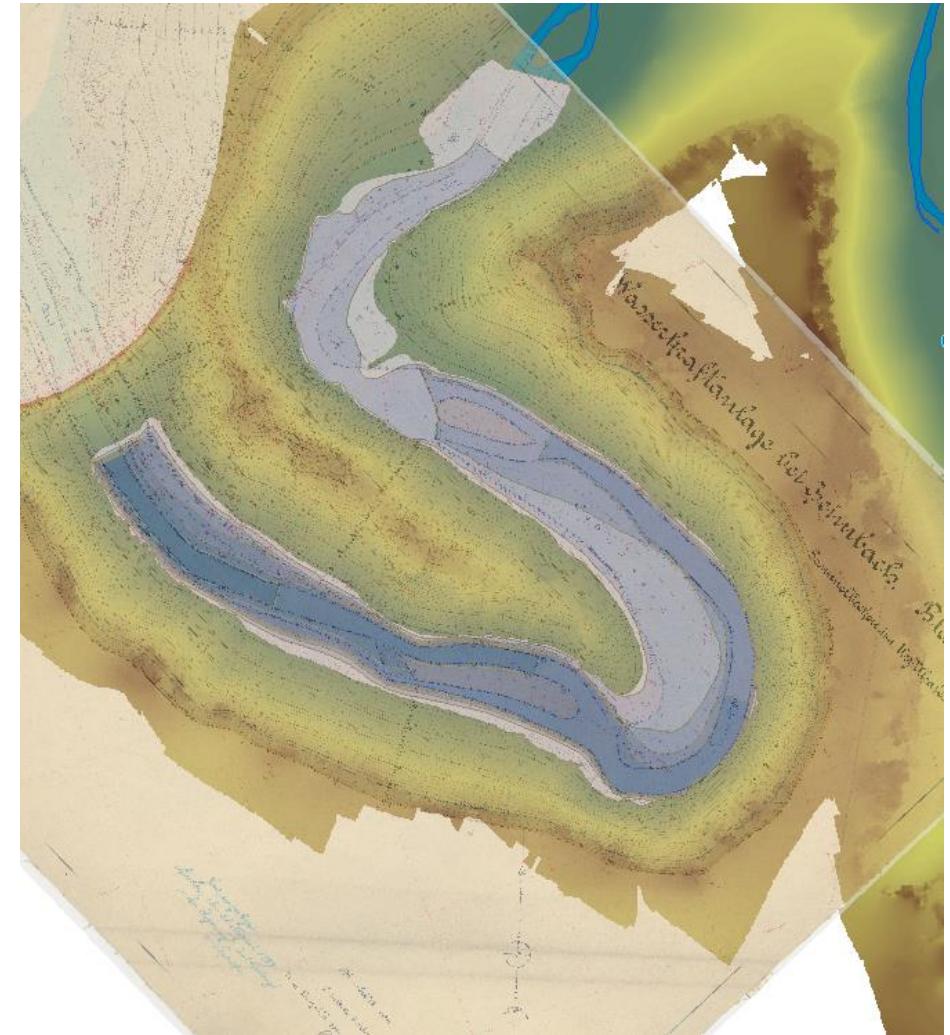




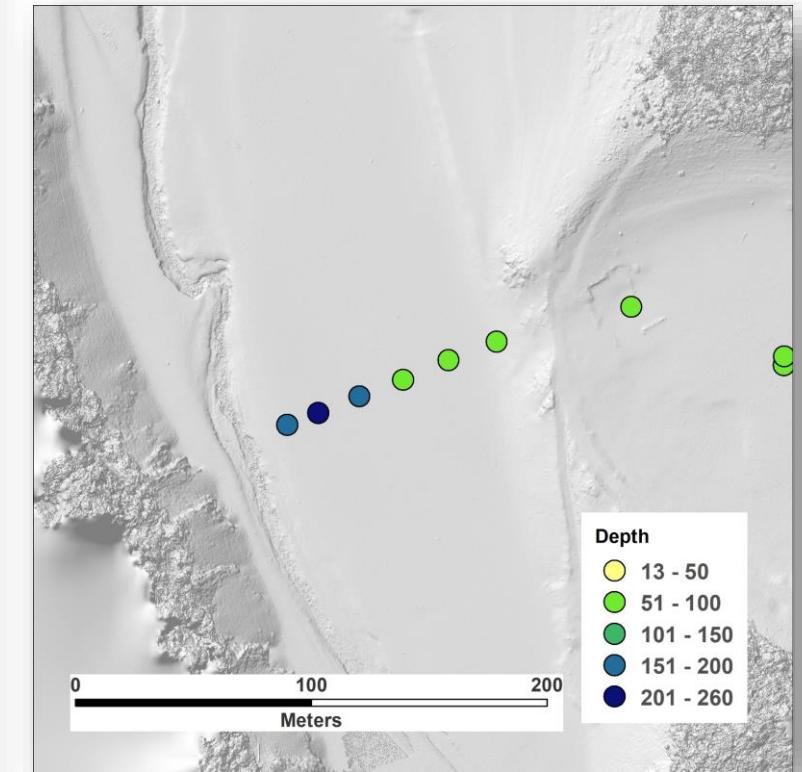
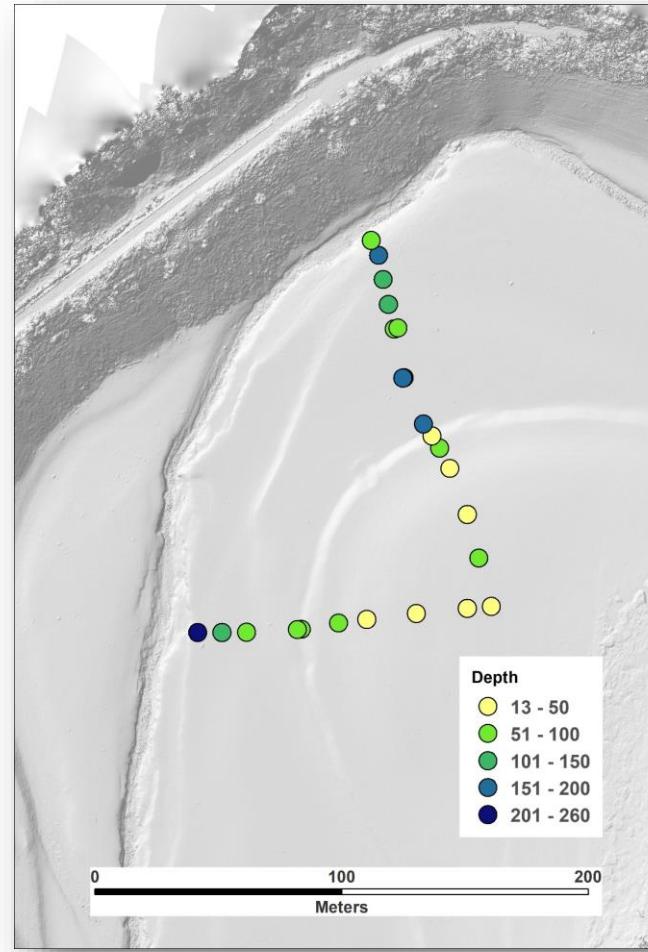
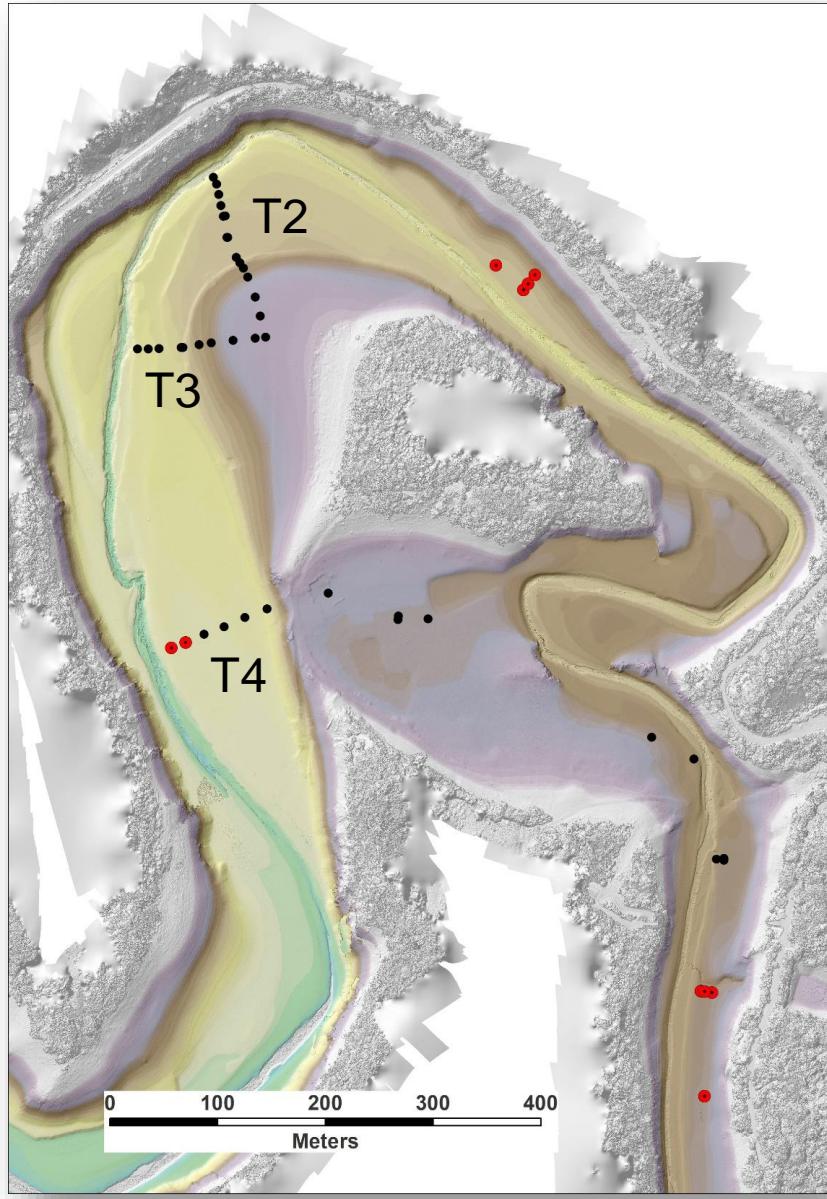
Sediment volume

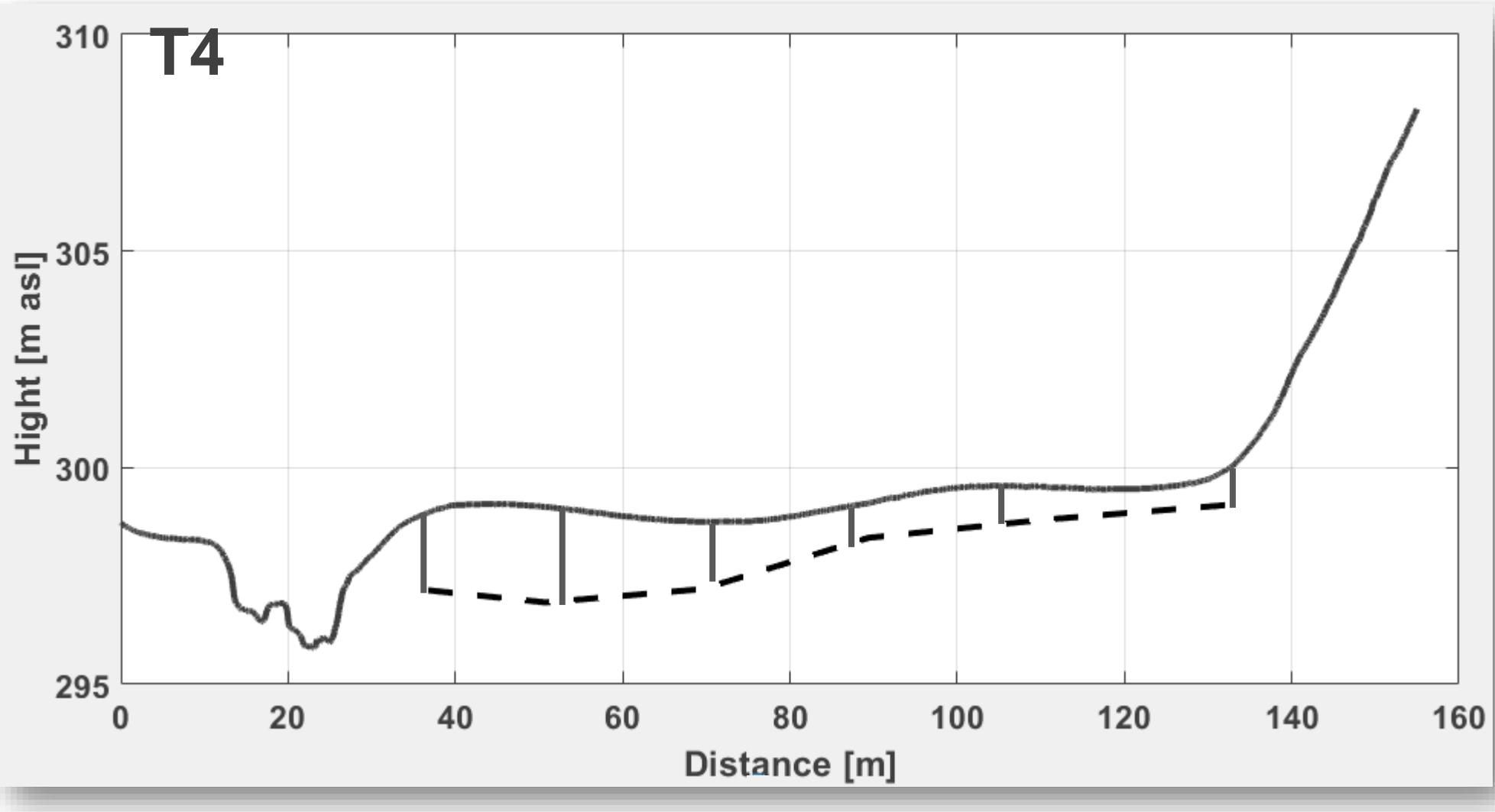


Werner 1897 (archive WVER)



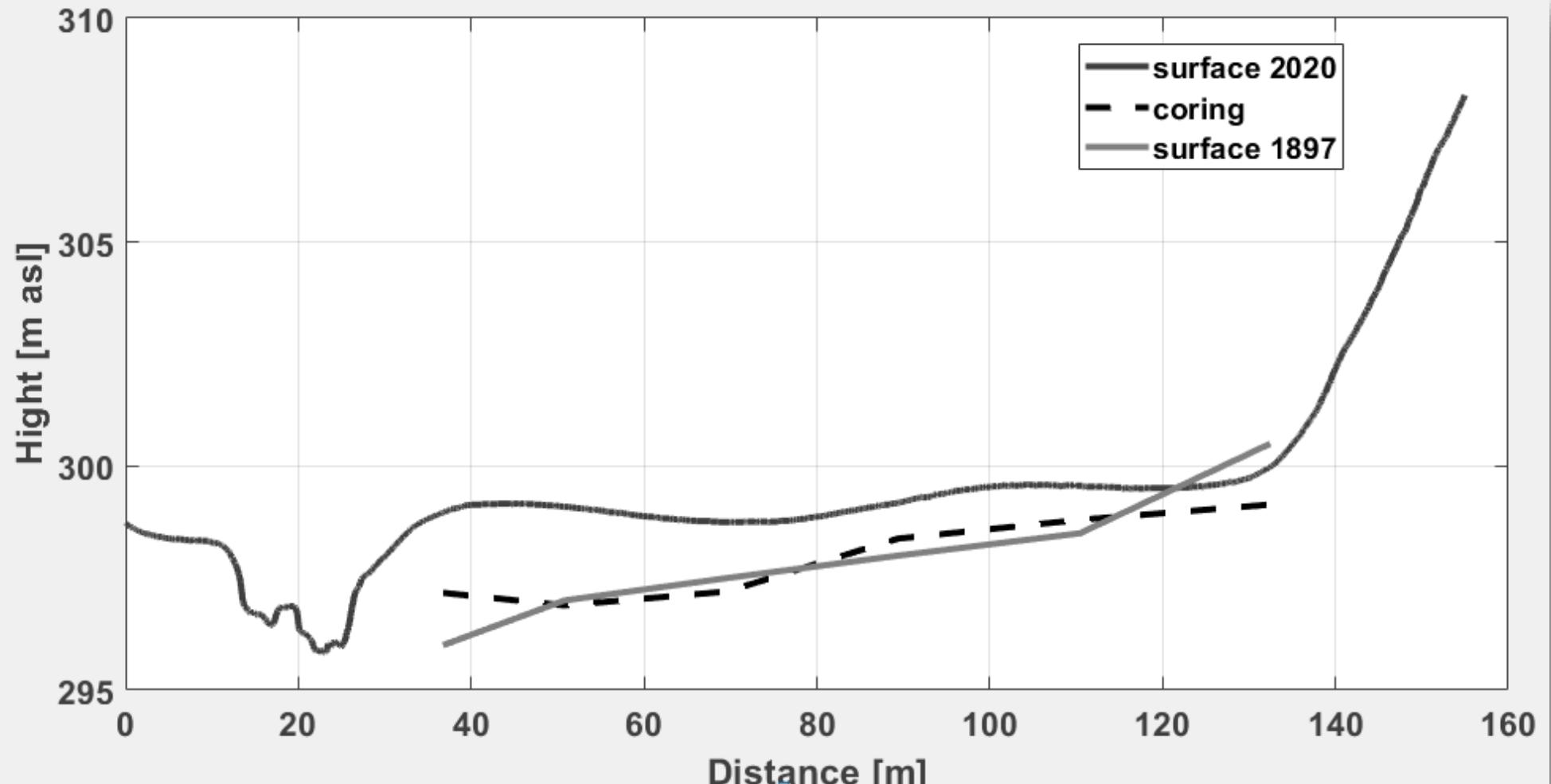
georeferenced hist. map

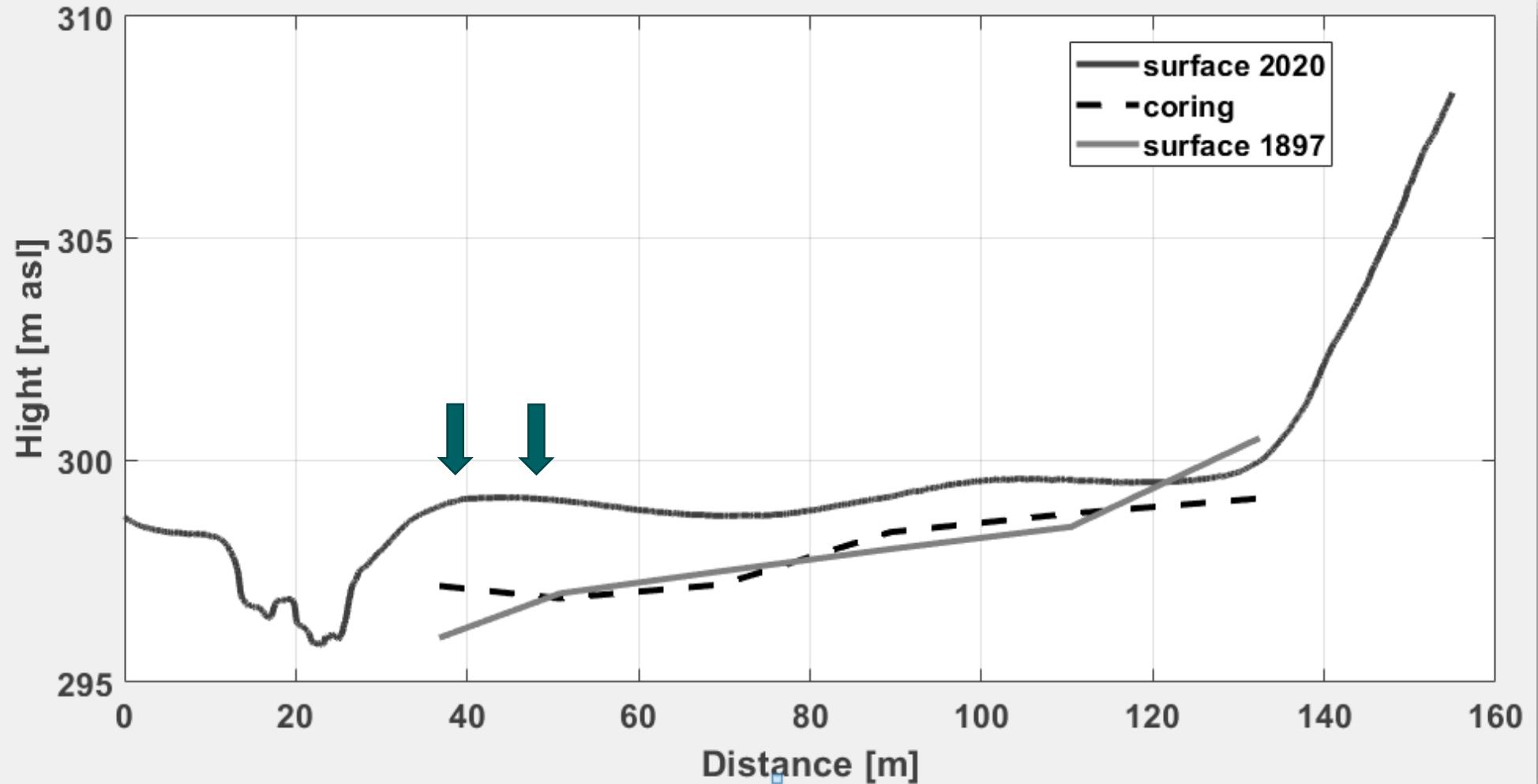




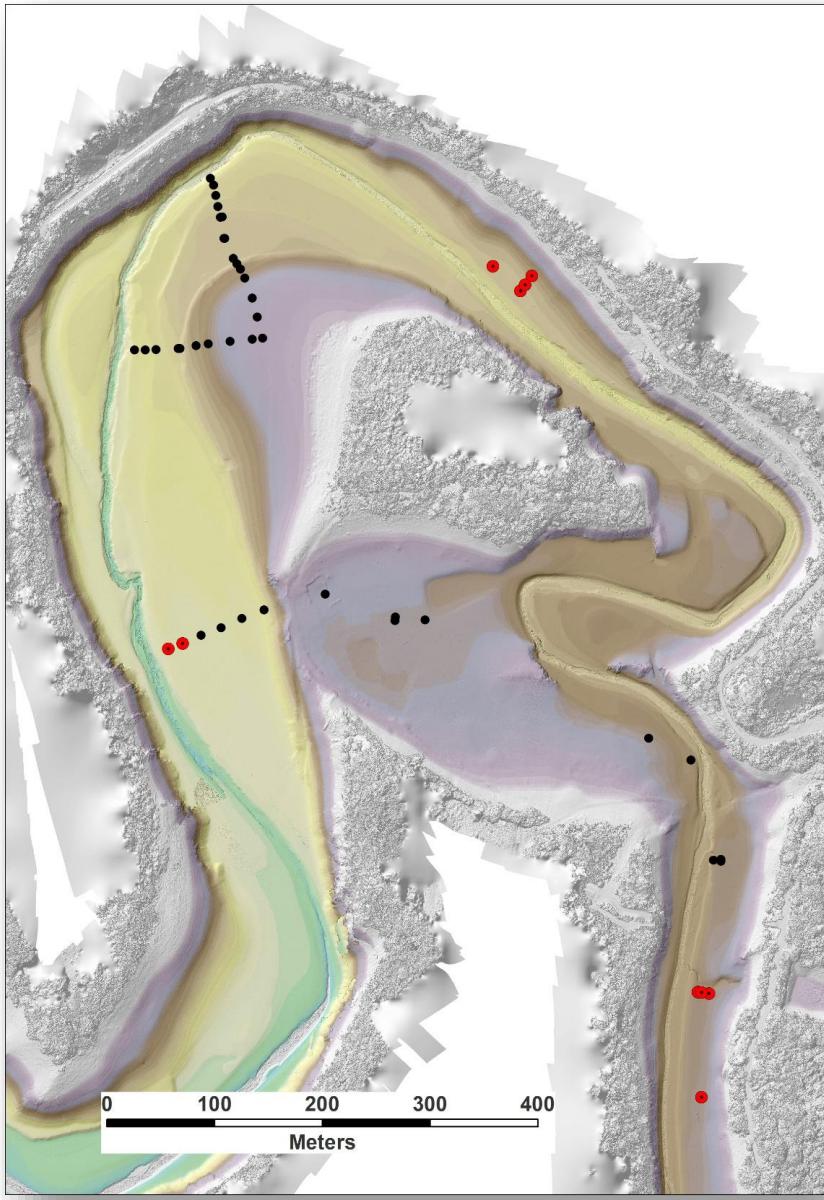


Werner 1897 (archive WVER)



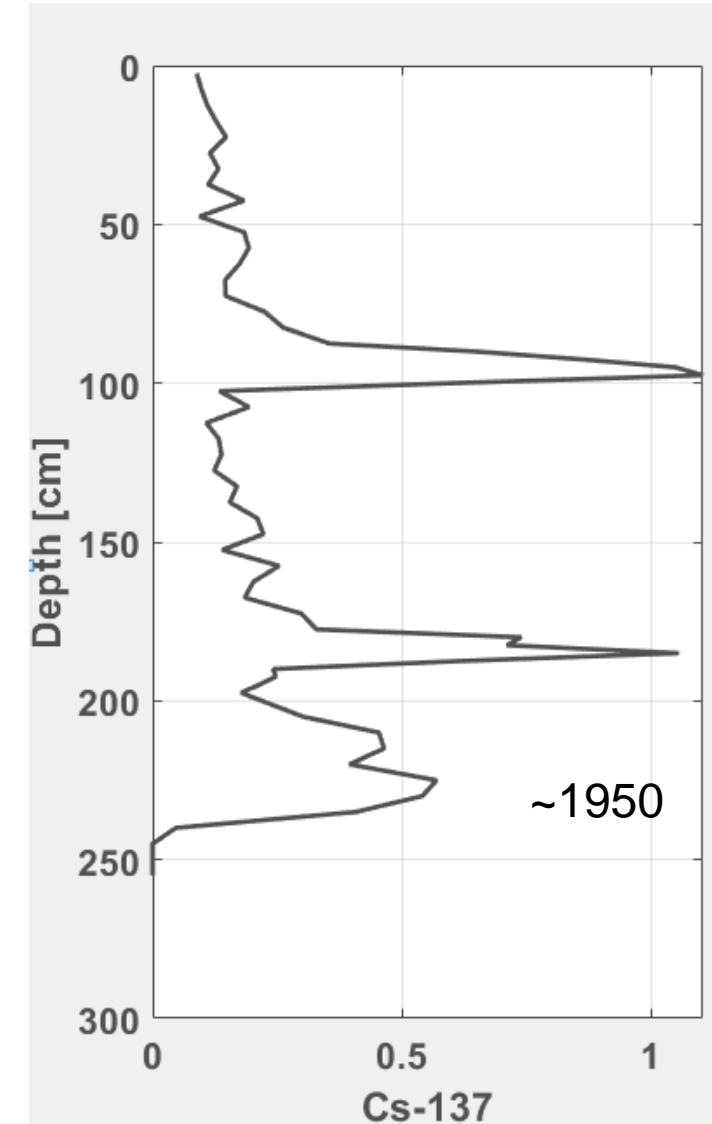


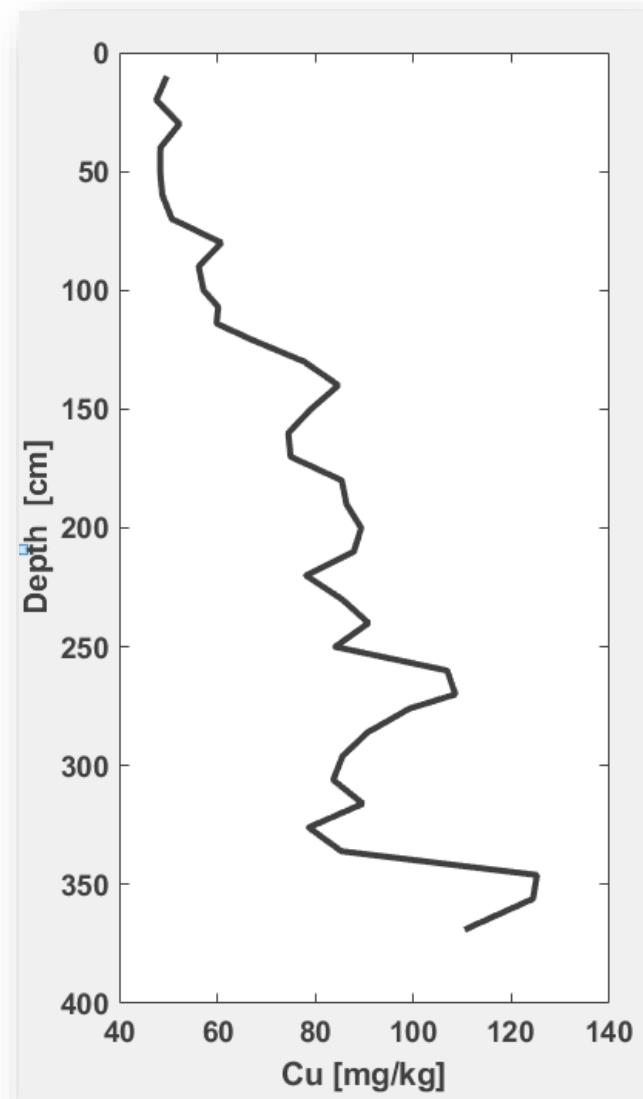
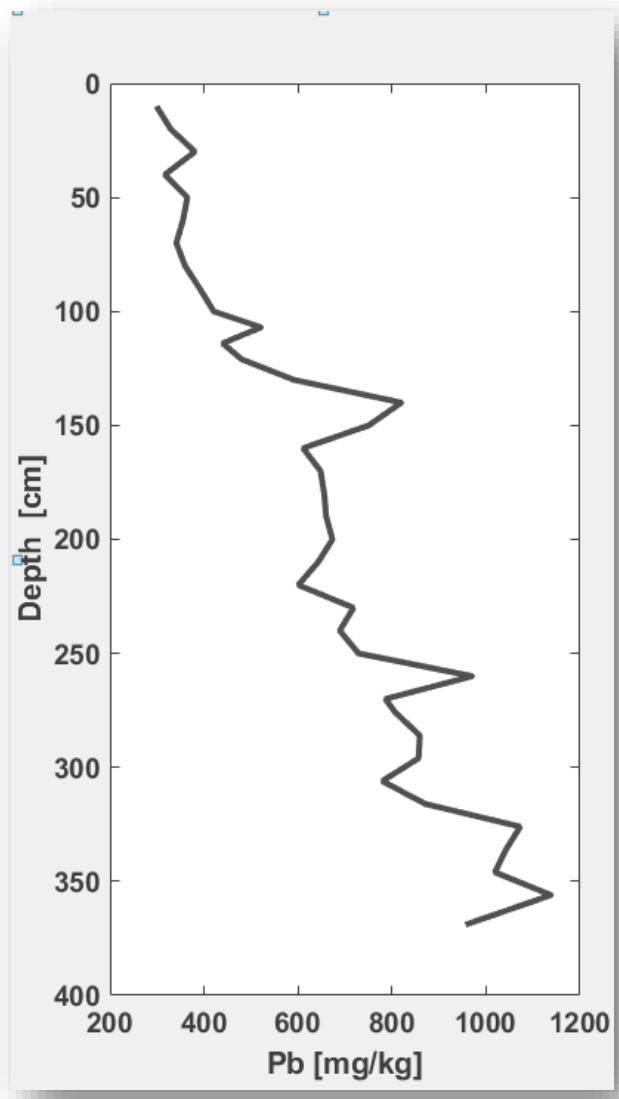
Sediment composition





Sedimentation ~ 230 cm / 70 a

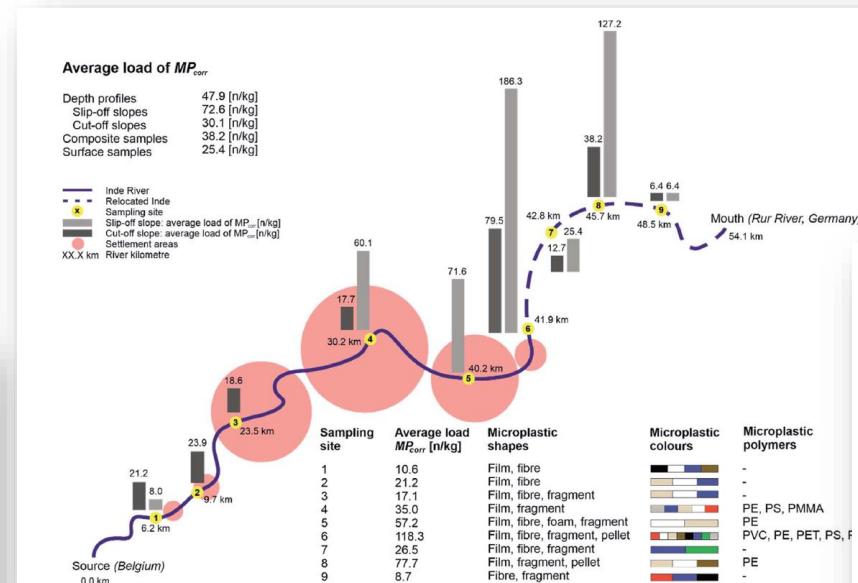




Microplastics content

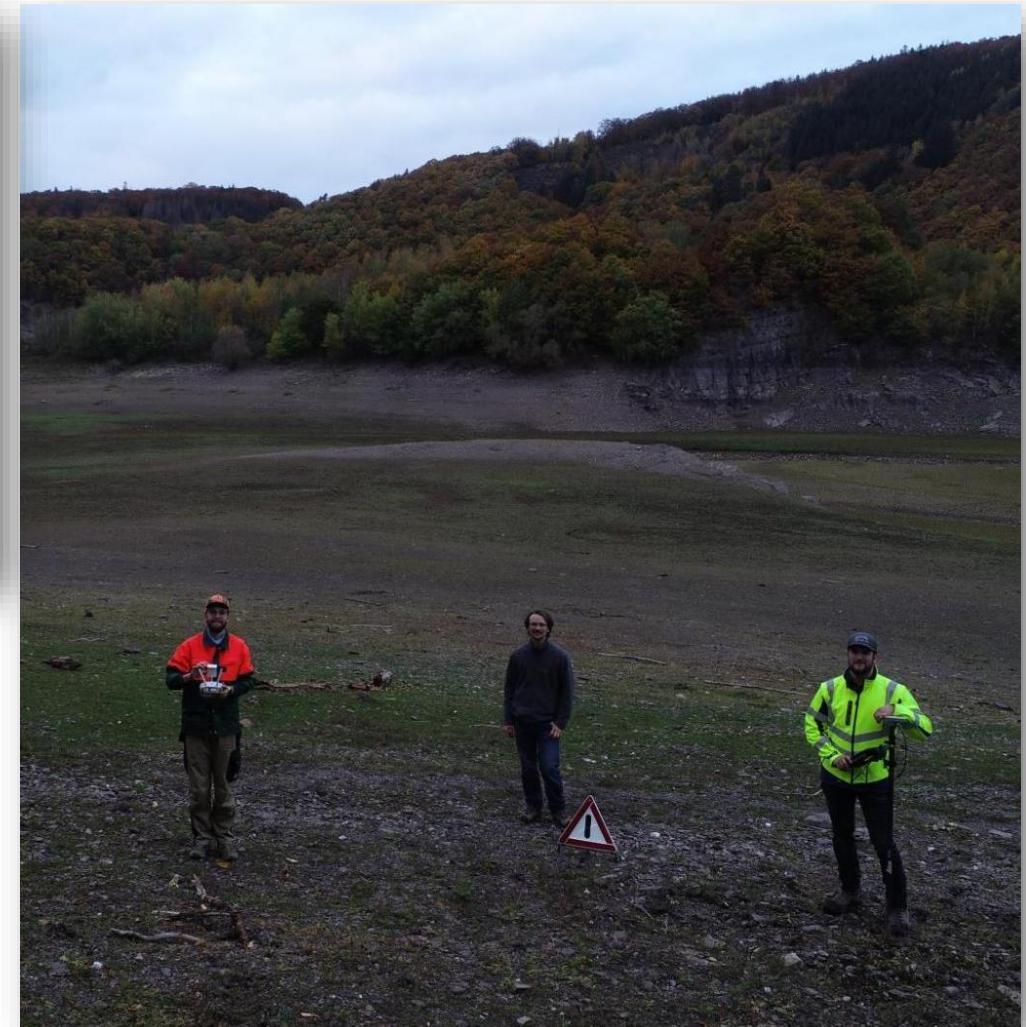


Collin Weber
Plastics and microplastics – A future marker to reconstruct floodplain chronology (Opinion) -
EGU21-62



Polymer development
Year of invention / patenting

Polyethylene Terephthalate (PET)	1973
Polypropylene (PP)	1959
Expanded Polystyrene (EPS)	1954
Polyvinyl Chloride (PVC)	1940
Cellulose Acetate (CA)	1938
Polystyrene (PS)	1937
Polyamide (PA)	1934
Polyethylene (PE)	1933



Thank you for your attention

