

## And Then the Rain Began

### Damage to archaeological sites in southeastern North Rhine-Westphalia during the 2021 flood disaster.

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#### Abstract

Between July 12 and 15, 2021, a heavy rain event of unprecedented intensity hit large parts of Belgium, Luxembourg, and western Germany. There, in particular, the federal states of Rhineland-Palatinate and North Rhine-Westphalia. In addition to massive damage on residential buildings, and traffic routes, this event cost 180 people their lives.

In North Rhine-Westphalia the two specialized authorities responsible for the preservation of archaeological monuments, the Landschaftsverbände Rheinland (LVR) and Westfalen-Lippe (LWL), began immediately after the disaster to query the responsible local authorities (the so-called "lower monument authorities"), which administer both architectural monuments and archaeological monuments, about the damage to archaeological sites. Due to the enormous amount of damage in the affected regions of NRW, but also because the local authorities were in part directly affected by damage themselves, it quickly became apparent that the local authorities were overstretched in terms of expertise and personnel. As a result, LVR and LWL initiated two independent prospection projects to record precisely this damage to ground monuments.

Our lecture is intended to present the results of the LWL-led investigations. The prospection undertaken for this purpose took place in the "Sauerland", a regional area in the southeastern part of North Rhine-Westphalia. The two districts "Ennepetal", "Märkischer Kreis" and the city of Hagen were the focus of the investigations. Responsible for the execution of the investigations of the LWL-Archäologie für Westfalen, so the complete name of the department, was the field office Olpe.

By evaluating geological and hydrological maps, it quickly became apparent that steep and winding valleys were predominant in the damaged area. This topographical feature of the area obviously intensified damage. Since these areas are crisscrossed by small streams, which are distributed over the slope areas of medium elevation ranges. It was decided to start field research there.

Then, in May 2021, one of the largest surveys of the post-war period in this region started in order to quantify and qualify damages to the archaeological landscape there. The prospection was oriented primarily to the river courses. To this end, 245 sites were examined for damage. 100 of these sites were newly discovered or described for the first time. At almost 130 of the 245 sites, flood damage was detected.

With a report to the responsible state ministry, as well as to the affected 11 municipalities, the surveys to record flood damage will be completed in July 2023. The reports are also accompanied by a catalog of potential recommendations for action. The flood damage surveys to date already allow for a rough prediction of which areas or landscape features may be affected by future catastrophic rain events. Afterwards, it will be a political question and a scientific question how to deal with the damage, how to preventively protect ground monuments in high-risk areas, and how to optimize damage surveys in the future in terms of economy, time, and science.

## References

Newsblog and summary of the flood event of 2021, published by the „Bundeszentrale für politische Bildung“: June 12<sup>th</sup>, 2023; 13:50: <https://www.bpb.de/kurz-knapp/hintergrund-aktuell/337277/jahrhunderthochwasser-2021-in-deutschland/>.

LWL-Blog and status of the project in March 2023: June 12<sup>th</sup>, 2023; 14.18: <https://www.lwl-archaeologie.de/de/blog/nach-der-flut/>

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