



Photo: Picture alliance/ dpa

Tending to the territory of the river Post flood design for the Ahr Valley, GLA302, NMBU 2022
Helia Sadeghianfar

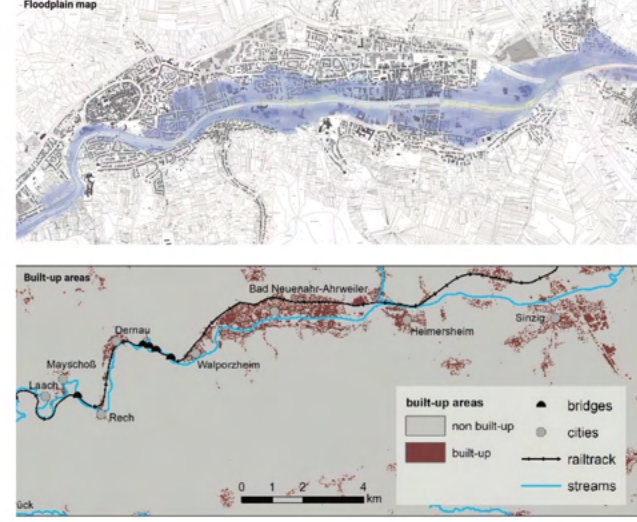
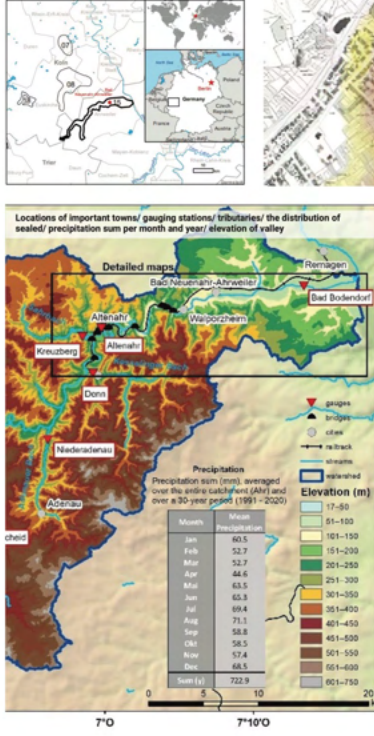


3D Map: Google Earth, 2009

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This project aims to provide suggestions to reduce or prevent flood damage on buildings and structures in the Ahr valley through floodproofing strategies with the focus on Bad Neuenahr-Ahrweiler.

Bad Neuenahr-Ahrweiler is a spa town located in Ahr valley in west of Germany which was mainly hit by the floods of 14 and 15 July 2021, and about 18,000 inhabitants, or more than half of the local population, were affected by this disaster.



Following extremely heavy rainfall, 766 people injured and 3000 of 4200 buildings situated along the river Ahr damaged.

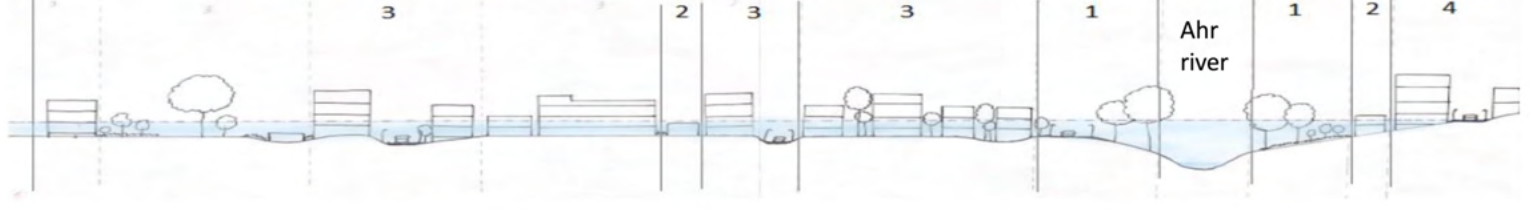
Tending to the territory of the river Post-flood design for the Ahr Valley (D), GLA302 NMBU 2022
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Flood proofing modern and new brick buildings

In our project we divided the Bad-Neuenahr into four different zones regarding the terrain and flood level and we provided different floodproofing strategies according to their zones and building types. In this poster the focus is on modern and new brick buildings.



Across the Ahr valley, there are four different types of buildings: traditional timber houses, traditional brick houses, modern buildings and existing buildings adapting sustainable approach.



Flood proof strategies

- Zone 1/ high risk area/less elevation:** Avoid building/ wet flood proofing/ breakaway walls
- Zone 2/ most affected area with low elevation:** Elevating houses/wet flood proofing/at least 2-storey houses
- Zone 3 / flat area with 100m sea level high:** Dry flood proofing/2-storey houses
- Zone 4/ less affected buildings/elevated area:** Dry flood proofing/single-storey house

