## Sustainable reconstruction of the Ahr valley in Rhineland-Palatinate, Germany

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In 2021, the flood disaster in the Ahr valley, Germany, caused immense damage and destruction, particularly in the municipality of Altenahr. It will take several years to fully restore the Ahr Valley's infrastructure, a major political and urban planning challenge.

Planning in the Ahr valley is caught between the need for climate-adapted reconstruction (including the associated flood protection measures), on the one hand, and the "1:1 reconstruction" currently practised in many places because of the inhabitants` great longing for normality, on the other. The German company AS+P Albert Speer + Partner GmbH, is one of the private planning offices which has supported the affected region since January 2022, planning the reconstruction in a respectful way, focusing on resilience and adaptation, and encouraging the damaged communities to create a future worth living. The work of AS+P originally started in the municipality of Altenahr. On behalf of the state of Rhineland-Palatinate, the company today works as a "local municipal coordinator" supporting several flood-damaged villages individually.

The Ahr Valley is a rural area characterized by low density and an attractive and ecologically valuable landscape. For this reason, urban development must be designed to scale and in harmony with the characteristic landscape. Immediately after the flooding disaster, a committed but uncoordinated reconstruction took place, and the Ahr valley is now very heterogeneous. To date, small-scale, solitary developments have taken place. In places, new buildings have already been erected, in other places the picture is characterized by fallow land and so-called "flood ruins" - an initial planning situation with great uncertainties.

The flooding is clearly a consequence of climate change. Adaptation and dealing with climatic requirements and effects have long been an integral part of urban planning. Nowadays, it is the green-blue rather than the grey infrastructure that provides orientation. Resilience and adaptation are guard rails for future planning, from the overall perspective to the local or specific detail.

Against the backdrop of high public expectations on the one hand and compliance with legal framework conditions on the other, the challenge was to find pragmatic solutions and the requirement to plan with care, all with the intention to prevent a second flood disaster. Resilience and adaptation have become important components of planning considerations in an agile planning system, in which multiple processes run simultaneously on different spatial planning levels, involving many different institutions. For example, the water restoration concept for the river Ahr must be harmonized with local development measures and also with bridge and road planning. Continuous mutual feedback and constant harmonization is essential. A flexibilization of planning thinking was and is the logical consequence.

The Altenahr municipality decided to align their urban development with a strategic masterplan. The guiding concept developed by AS+P in 2022 covers everything from future housing, living, mobility and working in the Ahr valley to the sustainable use of landscape and environment and the question of how flood-adapted construction methods can be harmonized with the typical regional building culture. Key objectives, measures and priorities are formulated. Goals and measures in the fields of tourism, settlement development, public services, economy, and mobility are also described and proposals for implementation are made. Thinking of a resilient and adapted reconstruction on a high spatial level, the main priorities were to develop a spatial vision for the Altenahr municipality and to define positive goals and connecting synergies.

In addition to the supra-local strategic masterplan, local development concepts were designed for the flood-damaged villages by private local planning offices. They have been mapped back to the strategic framework of the masterplan and form the basis for current decisions regarding sustainable urban development. Even at this level of spatial planning, resilience and adaptation have been key objectives when planning projects in a targeted manner. The local development concepts also provide an important basis for the urgently required municipal urban land-use planning.

Professional support, both financially and personally, is still essential for the coming years. The fundamental questions are how the concepts and projects can be implemented in existing structures in a resilient and future-oriented way. The local municipal coordinator will start processes and exchanges, with the intention to establish a self-sustaining planning culture. One of the key issues is an effective management of the distribution of funds. Resilience and adaptation will continue to play a significant role as guiding principles when implementing future projects.

## SHAPING TOMORROW'S COMMUNITIES: SUSTAINABLE DEVELOPMENT AND RECONSTRUCTION IN THE AHR VALLEY

