

At the edge of UTOPIA: co-designing resilient public spaces in marginalised European territories

Pia Fricker, Chiara Chioni

Aalto University, School of Arts, Design and Architecture

Keywords

Situated Knowledge, Community labs, Public space co-creation, Climate adaptation, Immersive technology

Across Europe, climate change, social exclusion, and demographic transitions are reshaping demands on public space beyond metropolitan cores, especially in marginal territories. Urban and landscape design increasingly relies on digital, data-rich, and AI-supported workflows to assess, visualize, and implement climate-adaptive strategies; yet when deployed in participatory settings, these tools also reconfigure how knowledge is produced, negotiated, and materialized. This paper addresses these dynamics through the early implementation of UTOPIZE (HORIZON-IA, 2025–2028), a New European Bauhaus initiative establishing UTOPIA Labs as community hubs for site-specific, collectively driven actions at small and medium scales.

Comparative, practice-based research spans three marginalised European contexts facing distinct climate challenges, governance structures, and socio-cultural conditions: Ponte Lambro (Italy), Karlskoga (Sweden), and Penacova (Portugal). Across these urban fringe, peri-urban district, and rural settlement, multidisciplinary teams co-design each lab's governance, spatial configuration, and technological ecosystem, combining XR engagement platforms, AI-supported analysis, and prototyping. These media shape what becomes visible, discussable, and actionable in 'ex-urban' design: while they can democratize access to complex environmental information and support collective deliberation, they may also privilege quantifiable risks and expert categories, potentially obscuring experiential and place-based knowledge. Co-design thus emerges as a negotiated field where scientific, technical, and local understandings are held in productive tension.

By coupling a comparative account of context-informed lab configurations with design principles for keeping climate knowledge negotiable, situated, and collectively owned, the paper positions emerging technologies as political and relational. Findings articulate three forms of fitting: scale, by calibrating tools to local capacities; knowledge, by maintaining models open to place-based cultural and ecological narratives; and time, by linking nature-based scenario development to incremental acts of stewardship. Ultimately, UTOPIZE advances a practice of tailored, shared world-making for resilient cities and landscapes across Europe.