Democratizing Design with AR + Generative Intelligence

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Over the past two decades, digital tools have transformed how urban design is practiced, opening up new ways to analyze, generate, and visualize ideas. Still, many of these technologies remain difficult to use, often locked behind technical expertise, and they rarely connect smoothly with real-world policies or local conditions. Immersive tools, in particular, are usually treated as add-ons for visualization rather than as core instruments for shaping urban environments.

This study explores a workflow that combines generative design with Augmented Reality (AR), with the aim of democratizing technology in urban design. The workflow allows for rapid prototyping, direct and immersive adjustment of design parameters, and instant real-time feedback in context. By tying computational modeling more closely to lived spatial experience, it helps lower technical barriers and encourages more open, collaborative, and evidence-based design processes.