Virtual REALationalities:

A Typology of Spatial Production in Augmented Reality Mobile Apps

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"All reality is mixed reality", Mark Hansen declares in the opening of *Bodies in Code* (2006). Although this statement might encompass endless meanings, Hansen's interpretation is very specific: reality is formed via the mixing of bodies with existing technologies. As a result, Hansen explains, our situation is configured by available technologies, their applications, and the ways we employ both. Endorsing Hansen's technologically-driven phenomenological approach, my research examines the production of reality and, correspondingly, of cultural space in light of one of the most influential technological advancement in the past two decades: Augmented Reality (AR).

Today, the commercial and aesthetic possibilities of AR are extensively explored by software corporations and cultural institutions alike, while designers' aspiration to produce a tangible form of computing makes our world more augmented and less virtual. What this shift creates, I argue, is a sense of convergent reality, in which virtual content is accepted as an inseparable part of the actual lived-experience. Following this line, my paper explores the concept of the AR *convergent space*: a compositional space in which material and virtual aspects are united through the interactive experience offered by AR apparatuses.

My goal here is to identify the specific forms enabled by such AR spatial practice. For this purpose, I examine the different relationships and forms of synchronization between the actual and virtual elements in the AR environment, in tandem with Henri Lefebvre's perception of space as a unitary practice that oscillates between abstracted and differential spatiality. Ultimately, I suggest three types of AR spatial convergence: controlled, open, and inclusive. Each type also contains two sub-categories, a diversity that exemplifies how AR is actually used as a practical tool for the social (re)production of space. Analyzing AR projects like *ReBlink* (2017), the Stedelijk Museum's *ARtours* (2010-13), and *Border Memorial* (2012) I demonstrate how these in-situ, synchronized mobile interactions illuminate specific social and cultural conditions and spatial politics through the mixing of virtual and actual elements. While these projects expand and transform the boundaries of spaces, they also ask us to reconsider the relationship of reality, virtuality, and augmentation.