PUBLIC INTERFACE EFFECTS: RE-EMBODIMENT AND TRANSVERSALITY IN PUBLIC PROJECTION

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Abstract

Public projections serve to both complicate and augment the relationship between various entities in public space by creating affordances for the enfolding of temporal, spatial, and material contexts via digital-networked media. Drawing on the work of Rafael Lozano-Hemmer and Camille Utterback, the authors argue that re-embodiment and transversality are key interface effects of successful public projection installations. These tactics serve an important function in engaging negotiated subjectivities and identities within the shifting parameters of media and the city. The discussion concludes with a brief description of "The Line," a research-creation project proposed by the authors which attempts to instantiate some of the strategies covered.

Keywords

projection, public space, interaction, participation, visual culture, new media

To what degree does the creative use of public projection enable highly specific, deeply embodied experiences that might at once exacerbate and assuage the shocks of "media cities" [1] today? How can public projection in an art context deepen our experience of increasingly hybrid spaces that enfold spatial and experiential contexts, namely the digital and material? How can we map ourselves, literally and figuratively, onto larger social, natural, and technical dynamics in order to realise expanded political potentialities?

In this paper we briefly outline historical precedents in screen-based media that inform our understanding of the interrelationship between public space, visual culture, and media, and provide examples of public projection artworks that explore this confluence. Throughout, we situate reactive public projection within transformations in public space, visual culture, and subjectivity. For our purposes, public space is broadly defined as spaces of interaction outside of the private living space with an emphasis on spaces of public exhibition such as civic squares, buildings, and public events. These sites are well suited for crowds and large-scale projections and have been viewed historically as sites of pub-

lic culture. Visual culture is taken to be a set of related practices and artefacts that rely heavily on visually perceptible phenomena — the study of which entails looking at perception as a historical and cultural phenomenon bound up in the relations between visuality and embodiment, subjectivity, ideology, social relations, techniques, and technologies [2] [3] [4]. Our aim is to consider how theoretical claims about new media apply to contemporary public projection tactics, while identifying potential degrees of freedom within visual culture and public space by operationalizing these hypotheses in practice. We have proposed a research-creation [5] project entitled "The Line" to investigate the increased transversality of identity and subjectivity [6], and the re-embodiment [7] of the experience of media, that sees the body less as a passive point in a perspectival system and more as an active vector in hybrid space [8] that is enabled within the public interface effects [9] of public projections. We contend that, as an artistic strategy, public projection can play an important role in assuaging the often alienating effects of a contemporary visual culture in public space dominated by advertising. Moreover, public projection can provide a platform for engaging social, technical, and political awareness within increasingly conflated and complex systems.

Media, Visual Culture, and Public Space

Our relationship with public space has always been intimately linked with the means by which we describe it. For example, Walter Benjamin noted that cinema, with its ability to take us through, around, and over walls, so to speak, could blow up the labyrinth-like prison world of the modern metropolis that, despite its many wonders, could also isolate and alienate [10]. Commenting on Benjamin's *Artwork* essay, Buck-Morss notes that Benjamin also viewed technological reproduction in the form of film and photography as a means to comprehend the city fragmented and sped-up by industrialization [11]. According to Buck-Morss, "film shows a healing potential by slowing down time and, through montage, constructing 'synthetic realities' as new spatio-temporal orders, wherein 'fragmented images' are brought together 'according to a new law'" [12]. The cinema helped to stitch together images in order to generate a dynamic representation of confounding,

illegible urban spaces [13]. It thereby created abstractions that could be transposed into experience, expertise, and ultimately a new embodied understanding. The cinema made the modernizing city more manageable and, in hindsight, served to prepare its inhabitants for the shimmering surfaces and shifting vistas that lay ahead.

The television screen was one of these shimmering surfaces that proliferated in various sizes, configurations, and modes. Although the television is considered most often in its transformation of the private dwelling, beaming images of domestic products, global triumphs (and atrocities) into living rooms, it also became a force in public spaces. In her book *Ambient Television*, Anna McCarthy describes the "visual statements" and social scenarios constructed by various screens in public spaces [14]. For example, McCarthy describes the placement of screens in shopping malls, airports, and storefronts as creating relational spaces via their placement in and amongst other visual cues, most notably architecture. Throughout, McCarthy highlights the importance of deliberate distinctions of scale, multiplicity, and access, showing how screens are designed, deployed, and appropriated in a number of ways that run the gamut from infuriating and disorienting to comforting and grounding, both obfuscating and co-creating their surroundings. McCarthy's work on public screens and Benjamin's work on cinema give us diagnostic tools for screen-based media, describing their various functions within a shifting politics of visibility, representation, attention, awareness, and presence that emerge from the imbrication of bodies, media, and space.

Technological and artistic developments continue to have unique and significant effects on our relationship with public space and the politics therein. Public screens and projections are particularly interesting as one such development, because they serve to both complicate and augment the relationship between various entities in public space by creating affordances for the enfolding of temporal, spatial, and material contexts via digital-networked media. We would argue that what emerges from this particular confluence is a multi-layered, highly contingent space wherein the development of a potential for the contestation of public visual culture and the contestation of otherwise individualizing and alienating media experiences becomes an important political dimension

of contemporary existence. Public projections can enable the conditions for an interface effect [15] that maps participants and viewers onto larger cultural, social, spatial, material, and abstract dynamics. It creates the conditions for understanding this mutual enfolding which is an important step in fostering a post-human political awareness, and thus calls out for a poetic engagement.

Transversality and the Enfolding of Identities

In "Body Movies" [16], Mexican-Canadian artist Rafael Lozano-Hemmer creates social and political awareness through light, bodies, architecture, and images. "Body Movies" creates an interface effect amongst the disparate elements and contexts it juxtaposes. Images of local strangers projected at an architectural scale merge with abstracted shadows of participants. At the same time, a computer tracking system reacts to the movements of participants, advancing the projected images once live silhouettes match up with the outlines of the projected bodies. "Body Movies" allows for the performance of the enfolding of identities and contexts, and the witnessing of this connection between them in a public space itself charged with political importance. This interface goes beyond the simple mirror-type, 'wave-and-it-changes' effect that most often characterize large, interactive outdoor displays, by seeking wider and deeper connections.

The incorporation of digital systems into public projection, and the consequent richness of user participation that can be built around responsive spaces, sets participatory public projection work such as "Body Movies" apart as expressive of contemporary shifts in media and public space. It is when the identity of a person, place, or a thing is understood as deeply enmeshed within and contingent upon other forces and entities, that it can be described as transversal [17] and contemporary public projections can be seen as an expression of a growing desire and ability to express and embody a transversality of identity and context, such as on- and off-line identities, contextually relevant data, time-based photo-series, and so on. In de-materializing the physical movement of the body, while enabling its re-materialization, re-mediation, and relation to other systems through digital means centred upon a public projection, responsive public projections enable and express a transversality that open publics

to an embodied complexity and productive ambiguity of representation.

From Points to Vectors

What interactive outdoor displays such as "Body Movies" also represent is another step away from the interpolation of viewers (and citizens) as relatively inert points in a perspectival (and political) system, to the construction of a more active position within contingent media environments. This is an argument Mark Hansen makes in *New Philosophy for New Media*, albeit about virtual reality environments [18]. Our application of this theory to public projection is a grounding theoretical claim for our inquiry into media and public space. We believe that public media experiences such as augmented reality, gestural interfaces, and public projection all serve to prepare individuals for the potency of transversal and contingent perspectives; floating perspectives that better represent our shifting relationship to data, public space, and the state. The place and role of the observer within the apparatus [19] of display has changed as the mediating role of the proscenium arch and, by extension, the frame of the display screen [20] of previous modes recede through the layering of media and architecture, be it by the expressive skinning or mapping of buildings via digital displays and projection, or other emerging technologies such as Google Glass. Like augmented reality, public projections introduce a radicalization of contingency via indeterminate viewing conditions, [21] and the disruptive potential of digital forms [22], into the experience of the built form that must be understood for its unique relational potential and for the degrees of freedom and critique that the combination of digital media and public space enable.

That said, it is the publicly visible, device-independent display — the urban screen or public projection surface — as opposed to the relatively fragmented experiences of augmented reality, that make public projections the dense communal transfer points that they are, and identify them as sites of a particular political, historical, and perceptual significance. At the moment, public projection serves as a useful hinge upon which the cognition of transversality can be introduced, enabled, witnessed, contested, and developed.

At the same time, with the addition of greater access to the subtleties and expressivity of position and movement through reactivity and sensors, the body

is situated as an intensive source of potentiality not only within public space, but within a combination of public and information space. While perspectival systems provide a rich means by which we can extract information from media and the world around us, interactivity and participation in public, transduced via the body, light, data, and architecture, provide us with an expanded potential for cognitive mapping and political awareness amongst increasingly complex and interconnected information spaces.

There is, of course, the additional political significance of an amplification of the subtleties of surveillance, and thus control [23] and commodification, by way of tracking bodies digitally and physically. This circumstance poses a new and potentially dangerous avenue for control over bodies and representation in public space. In spite of, or perhaps because of these dangers, artistic interventions through interactive public projections are of great importance.

Equally important here is the role that interactive public projections play in shifting the ordering principle of perspective. Take, for example, the perspective offered to the viewer in Camille Utterback's 2010 public projection, "Shifting Time – San Jose" [24]. Here, archival film footage of a street scene blends into present-day high definition video when triggered by a viewer's proximity to the projection. Instead of addressing viewers as if located at the ideal perspectival point, Utterback's apparatus entreats participants to understand themselves as vectors in space, their perspective shifting along with the content before them. This proprioceptive position expresses their enhanced role within the interface effect substantiated by the installation. Although less overtly political in content than "Body Movies," Utterback's piece substantiates an embodied relationship to space and, in this case, the dimension of time and the politics of perspective. It therefore suggests and demonstrates degrees of freedom upon which the exploration of gestural, embodied interaction and public visual culture may be mined and explored.

Much of the creative and critical use of public projection, such as Lozano-Hemmer and Utterback's work, can be seen as enabling what Mark Hansen calls a "(re)embodiment through technics" [25]. As Hansen notes, "embodiment no longer coincides with the boundaries of the human body, as disembodiment of

the body forms the condition of possibility for a collective (re)embodiment through technics" [26]. The common ground formed in the creative and critical use of participatory and interactive outdoor projection is not of consensus, but of mutual recognition and play between the body and technical, environmental, temporal, and social networks.
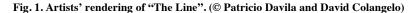
The Line

Our latest work of *research-creation* [27] proposes to operationalize and test suggested possibilities of re-embodiment, transversality, and the creation of interface effects linking human and non-human actors through interactive public projection. Our proposal, entitled "The Line," consists of an interactive video database of linear built forms at various scales (a sidewalk, a fence, a road, a row of houses, a strip mall, a highway, etc.) projected onto a 200-year old barn on the site of a recreated, late nineteenth-century village. Depth sensors distributed along the base of the building will detect the proximity of people to the projection surface and recombine video segments of the set of lines described above. Thus, an interaction space will be created in front of the barn in which a scattering of participants will produce a *cadavre exquis* of lines displayed in a single panorama on the barn. Re-embodiment will take the form of participants recognizing the effect of their movement on the projected image, and a collective re-embodiment is possible through cooperative efforts to "line" images up. Transversality will be expressed via the relationships between environmental, social, political, technological, and human systems [28] [29] enabled by the interface effect that links

multiple participants to a photo series through sensors and computation. This will allow participants to witness and embody these relationships publicly at an architectural scale. As such, they will be granted an expanded presence in this hybrid space, and treated not as inert points, but as vectors of potentiality.

"The Line" is to be presented as part of Land|Slide: Possible Futures [30], a site-specific art exhibition in Markham, Ontario, one of North America's fastest growing suburbs. The exhibition aims to encourage a collective conversation around the future of land use. The site itself, a reconstructed nineteenth century village, represents a utopian collection and configuration of heritage buildings. These buildings were salvaged from outlying areas now primarily occupied by strip malls and suburban homes. It serves as a fitting backdrop to an inquiry into how and why we might desire to question the authority of space, the methods of its construction, and our changing role within it.

Our goal in merging projected representations of various infrastructural lines, embodied interaction, and public space is to create a hybrid space that relates people and things to one another in order to highlight responsibility and empowerment. Transversality, (re)embodiment, and an active engagement with public visual culture by these means contributes to an experience of the flows and networks of people and things that are either perceptually overwhelming or concealed within the built form, governmental policies, and technologies. Exposing this may be one way to contribute to Latour's goal of "making things public" [31]. For a public to see itself in itself, at once, is crucial to critical reflection and engagement around

any issue. Therein, ultimately, lies the power and importance of developing interactive public projection as a poetic and political tool: it can become a powerful way for us to participate in image and place making, challenging the prevailing "distribution of the sensible" [32] that discourages or denies access to public visual culture.

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Fig. 1. Artists' rendering of "The Line". (© Patricio Davila and David Colangelo)

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