Chapter 13
Digital Images:
Interaction and Production

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ABSTRACT

The valence of any visual paradigm and its accompanying technologies is subject to the contingencies of political regimes and cultural shifts. The instigation, implementation and even reconfiguring of any associated technological system effects a translation and adjustment to the structure and use of these supporting mechanisms that both re-defines the relationship between object and viewer and ultimately influences its translation into material form. The permeation of digital systems throughout contemporary urban space is typified by Internet Protocol webcam systems, instigated by civic authorities for surveillance and the imagistic promotion of iconic city form. This paper examines how this system's reception and subsequent translation of transmitted data signals into digital information not only presents new material to mediate people's engagement with public space, but moreover, how it presents new opportunities for the designer to materialize its three-dimensional form within the spatial ambiguity of virtual and real-time environments.

INTRODUCTION

The visuality regimes that work to compose the contemporary paradigm are both numerous and, above all, highly competitive. According to Jay (1988) this is a desirable and, more importantly,

a productive condition which presents opportunities to shape the ways in which landscape and its habitable space are mediated to the viewer via constantly evolving technologies.

In light of this, the ubiquitous implementation of the webcam network within contemporary urban environments is a technology that mediates the city image to the public domain to support diverse

but simultaneously occurring subcultures. This system is traditionally a surveillance mechanism instigated by civic authorities as a response to the spatial complexity of the modern city and its inability to be observed from a single vantage point. However, the distinction here is, unlike the panoptic scheme devised by Bentham (1995), the technological transportability of the image facilitated by the Internet Protocol network allows captured 'content' to re-enter public space rather than remain the property of a privileged minority.

Furthermore, the implementation of these high volume data networks has overridden the former limitations of closed circuit surveillance systems and extended the reach of their remote capacities into the area of urban tourism. Recent observations reveal that authorities strategically site network cameras as imagistic purveyors of significant city sights. In this new dual role, these pervasive digital systems are able to provide a new privileged, albeit highly orchestrated, vantage point from which the 'remote' tourist is able to view the city landscape.

However, the most important and enriching aspect of this type of visual regime is contingent upon the very diversification of its systemic architecture: upon the reflexive capacity of webcam technology which offers viewers an opportunity to adapt and mediate their visual experience of the urban environment, and also upon aspects of its operation which can be exploited by the designer to materialize three-dimensional form.

This paper, therefore, will discuss how the webcam's conversion of the actual into the virtual provides an engagement with urban space that is both qualitative and experiential. The disruption of the regulatory control of the webcam images opens a space for productive engagement with the making of city images that both exceeds the intention to privilege sanctioned forms and to render stable representations of the urban landscape.

Also it will discuss how the technologies of the virtual can provoke a springboard from which to intervene within this landscape, and more impor-

tantly, it will show how the geometry instigated by the camera governs this intervention. With specific focus on the productive exploitation of specific aspects of translational camera hardware: the re-arrangement of the colour filter array patterns located within colour sensor mechanism and the adaptation of aberrant diffraction effects, the paper will reveal how their potential incorporation into design composition can have a material effect upon urban form. The outcomes of tests outlined in this paper thus initiate just some of a potentially diverse range of new opportunities for the composition of a dynamic and diverse urban space.

IMAGING SPACE

Politics and Image-Making

The right to select projective images of the city is underscored by the same type of highly determined and politically sanctioned power structures that have always governed this type of representation. Both Louis Marin in his book, *Utopics: Spatial play*, (1984) and and W.J.T Mitchell in his essay, *Imperial Landscapes*, (2002) establish how control of the production and dissemination of representations of landscape, both 'natural' and urban, can be deliberately exploited to achieve control of that space. For Marin, this notion is predicated not only upon the prohibitive expense of manufacturing the city portrait or map, but to an even greater extent upon the fact that the framing of the city view is always dependent upon the acquiescence of those who control the viewpoint. Possession is not the same as access, and in this type of scenario, one might indeed occupy the space but is in no way empowered to curate or alter the view. However, the most important issue here is that in both cases the exercise of political control gained through the 'right' to image inhabitable space is linked to the control and propagation of these socially sanctioned images

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