



# The Building as Screen

*A History, Theory, and Practice  
of Massive Media*

Amsterdam  
University  
Press

DAVE COLANGELO

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AMSTERDAM UNIVERSITY PRESS

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*Dave Colangelo*

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*For Monica and Nico*

# Table of Contents

<b>Acknowledgements</b>	9
<b>1. Introducing Massive Media</b>	11
From the Top	11
Why Massive Media?	17
A Brief History of the Public Sphere, Monumentality, and Media	19
The Most Advanced Site of Struggle: The Public Sphere	19
Looking Up Together: Monumentality	22
A Modern Monument for the Modern Masses	25
Space and Media	27
Accelerated Rituals	32
Reverie Amidst the Real	35
Entering Supermodernism	38
How this Book Works	40
<b>2. Large-scale Projection and the (New) New Monumentality</b>	49
Moving Images	49
A Short History of the Moving Image in Public Space	53
Architecture, Expanded Cinema, and the New Monumentality	58
<i>The Image Mill</i>	61
Superimposition and Massive Media: Super Imposing	64
Spatial Montage: Extra Diegetic	67
Dispositif and Apparatus: Staging the City	69
<i>McLarena</i> : Recentring the Audience	72
Participation: Don't Just Sit There and Watch	75
Place Branding and Theatricality	76
A (New) New Monumentality?	77
Experiments in Public Projection	82
<i>30 moons many hands</i>	83
<i>The Line</i>	88
A Perceptual Laboratory	94
<b>3. Low-Resolution Media Façades in a Data Society</b>	99
This Building is on Fire	99
A Short History of the Empire State Building	103
Colours and Meanings	106
Public Data Visualisations	110

The Empire State Building	113
Experiments in Public Data Visualisation	120
<i>E-TOWER</i>	121
<i>In The Air, Tonight</i>	124
Temporary Intensities and Collective Conversations	127
<b>4. Curating Massive Media</b>	133
Changing Spaces	133
A Short History of Public Screen Practice	136
Massive Media and Public Art	139
What People Have in (The) Common	140
Connecting Cities	144
Streaming Museum	157
Curating RyeLights	164
Connecting Sites and Streams	166
<b>5. When Buildings Become Screens</b>	173
Dancing with Buildings	173
Tactics and Strategies	174
More Massive, More Media	177
<b>About the Author</b>	181
<b>List of Exhibitions, Films, Songs, Videos, and Installations</b>	183
<b>Index of Names</b>	185
<b>Index of Subjects</b>	187



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# 1. Introducing Massive Media

## Abstract

This chapter introduces the concept of massive media, a term used to describe the emergence of large-scale public projections, urban screens, and LED façades such as the illuminated tip of the Empire State Building. These technologies and the social and technical processes of image circulation and engagement that surround them essentially transform buildings into screens. This chapter also introduces theoretical concepts surrounding space, media, cinema, monumentality, and architecture in order to provide a framework for the analysis of the emergence of the building as screen. These concepts are key axes upon which the ongoing transformations of the public sphere revolve. Subsequent chapters are introduced in which massive media is probed, in case studies and creation-as-research projects, for its ability to enable new critical and creative practices of expanded cinema, public data visualisation, and installation art and curation that blend the logics of urban space, monumentality, and the public sphere with the aesthetics and affordances of digital information and the moving image.

**Keywords:** urban screens, LED façades, architecture, public sphere, monumentality

## From the Top

Toronto's CN Tower was built in 1976 as a telecommunications tower. The iconic building rises 553 metres above the city as an omnipresent reference point for anyone within a 20km radius. It dominates photos taken of the city and reflects the status and character of the city as relatively young and steeped in the architectural modernism of the era in which so much of it was built, simultaneously gesturing towards technologies and techniques as well as the past, present, and future visions of the city.



Figure 1-1: The CN Tower, Toronto. Photo: Taxiarchos228, used under the Creative Commons Attribution-Share Alike 3.0 Unported license. Desaturated from original.

While the tower has always been prominently lit, it was not until 2007 that the building was fitted with programmable light-emitting diodes (LEDs). Its seemingly endless elevator shafts, cylindrical observation deck, and sharp antenna became illuminated and animated by a range of changing colours. Certain holidays, events, and causes were celebrated on the building by way of programming the patterns and colours of the lights. Deep runs into the playoffs by local sports teams were represented in team colours, the rare championship celebrated in gold tones, the deaths of fallen Canadian soldiers commemorated in patriotic reds and whites, and breast cancer awareness turned the tower bright pink once a year. The CN Tower website provided a calendar of lighting events to help the public decode this information, but one might also hear about it on the radio, see it on television, read about it in a newspaper, or come across a social media post depending on who decided to use lights as part of their publicity campaign. Eventually, the CN Tower began distributing images of the changing illuminations of the tower on Facebook, Twitter, and Instagram so that people could witness and participate in discussing, liking, and otherwise identifying with the associated images and messages on their own self-fashioned channels of communication.

The expressive lighting of the CN Tower and its related media and cultural practices, along with many other architectural landmarks around the world including the Eiffel Tower (which has its own Twitter account in which it speaks in the first-person) and Shanghai's Oriental Pearl Tower, to name but a few, represents a significant shift in the role of buildings with a monumental presence in urban space. As these buildings have become more screen-like, with their animations and colour changes, and as they have become more entwined with other media and screens through their representations on social media, their role as monumental and iconic architectural expressions, as a dense transfer points for civic and individual identity formation, have merged with the role of screens in our culture creating an entirely new cultural entity in the process. In the case of the CN Tower, the stoic tower became open to the ephemerality of the digital trace and became more available, attractive, and open to various causes, concerns, media channels, and conversations. It reflected its place, time, and audience in a new way, responding in a more sensitive, diverse, and timely way to the city allowing people to interact with and through its image. It became an object that could seemingly listen and speak for the city and its inhabitants. It became a building to have a conversation with.

Similarly, the Empire State Building also adorned its tip with a programmable low-resolution LED façade, promoting it through social media channels



Figure 1-2: Empire State Building, Election Night 2016. Photo: © Jonathan Reyes, courtesy of Jonathan Reyes.

and presenting light shows coordinated with internet radio stations, effectively updating the *son et lumière* tradition for the digital age. The Empire State Building and the people that live in its vicinity routinely upload videos of these shows to YouTube, extending the viewing area and public inscribed by the tower. In another example, during the 2008 presidential election, the Empire State Building became a massive real-time display for election results, pitting incremental blue and red columns of light against one another on its spire until finally being bathed in blue to signify Barack Obama's victory, all of which was broadcast on CNN. More recently, digital projection was added to the election spectacle, the increased resolution allowing for the display of real-time vote counts and images of the candidates on the façade (see Figure 1-2).

This massive public visualisation of data and digital imagery tapped into the status of the building as an icon and as a monument that is augmented with programmable lights to create a spectacular embodiment of data that becomes the focal point of a worldwide news event. While buildings have been the substrate for delivering news about elections via magic lanterns since the early twentieth century (see Figure 1-3) (Huhtamo 2013), this current incarnation as a digital, networked screen means that buildings can now perform historical realities in real-time, inserting themselves into public discourse in the process both *as* and *on* architectural surfaces.

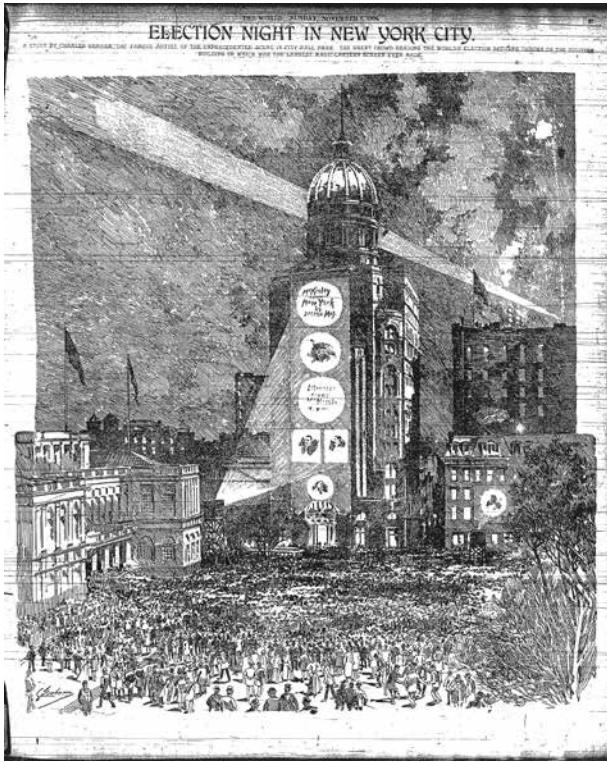


Figure 1-3: Charles Graham, 'Election Night in New York City', *The World's Sunday Magazine*, November 8, 1896. Photo: courtesy of the Library of Congress, newspaper microfilm 1363.

In addition to the ongoing screen-reliant transformation of iconic and monumental buildings in cities, critical and creative uses of what is often referred to as media architecture (Media Architecture Institute 2015) — buildings with dynamic, expressive, often-digital, elements — have also changed the nature of what we look up to and interact with in public space. Artists such as Krzysztof Wodiczko and Jenny Holzer have spearheaded and developed much of this work, using the power of the monumental building or the pulpit of the public, commercial screen to insert messages of anti-consumerism and criticisms of government policies, exposing the complexities of capital, geopolitics, and identity in powerful, highly visible ways that only massive images in monumental public spaces can provide. Famously, Holzer's expansive *Truisms* project found a temporary home on Times Square's Spectacolour electronic billboard, displaying messages such as 'PROTECT ME FROM WHAT I WANT' and 'MONEY CREATES TASTE' in



Figure 1-4: *Paris Est Charlie* is projected onto the *Arc de Triomphe* in Paris. Photo: © Patrick Mayon, courtesy of Patrick Mayon.

what might be the spiritual centre of American capitalism and consumerism. Newer works by Rafael Lozano-Hemmer, such as his *Vectorial Elevation* series and *Body Movies*, extend the possibilities of light and architecture to include the direct participation of people at various sites, as well as incorporating telepresent participation to expand the possibilities for identification and meaning at and between these sites through buildings that have in effect become screens.

Along with buildings that have LEDs directly embedded into their façades, merging physical mass with ephemeral animation, high-resolution large-scale digital projection mappings are now common in cities around the world. Synchronised displays across cities, such as Hong Kong's *A Symphony of Lights*, which incorporates over 40 buildings in the skyline, have become popular for touristic as well as political purposes. Light festivals such as Vivid Sydney and the *Fêtes des Lumières* in Lyon transform entire sectors of cities into digital cinemas and outdoor galleries for public art and spectacle. Coordinated monumental lighting displays have also been incorporated into city-wide protests and demonstrations. In the weeks following the terrorist attacks on the offices of satirical newspaper, *Charlie Hebdo*, the words '*PARIS EST CHARLIE*' (see Figure 1-4) were projected across the *Arc De Triomphe* and the trademark light show of the Eiffel Tower was dimmed to pay respect to those who had died in the attacks (Keromnes 2015). Both



intensified a sense of solidarity through light, architecture, and public space with those gathering and demonstrating in the city.

While artistic and political uses of large-scale projections, screens, and media façades multiply in cities, it should come as no surprise that advertisements take up the most space and time on buildings that have become screens. In this sense, it is more often the case that cities and buildings are not becoming screens so much as they are becoming ad-based media channels. Buildings such as the Empire State Building regularly rent their luminous tip to corporations (such as Facebook and Microsoft) or even Broadway shows to display their colours and use the resulting ‘content’ for promotional purposes. For example, a recent promotion for Verizon saw the building display the results of an online poll that asked fans who they thought would win the 2014 Super Bowl in the week leading up to the event, eventually displaying the results of the daily tally in the colours of the more popular team on the building. Likewise, projection-mapping projects and urban screens around the world regularly promote anything from cars, to clothes, to mobile phones on prominent civic buildings.

Overall, the expansion of critical, creative, and commercial uses of expressive architectural surfaces is a growing cultural force that is changing our relationship to iconic, monumental structures. As buildings become more like screens through the application of interactive, networked, large-scale outdoor projection, architectural façades, and urban screens, we must explore their creative and critical potential, opening up spaces through curation and programming for new expressions of place and identity in the face of advertising and city branding initiatives.

## Why Massive Media?

The building as screen and its related practices of conversation, contestation, and commerce in public culture have two key characteristics. Firstly, they are big — they are, in fact, *massive*. As a result of their scale they are highly visible and thus loaded with cultural and economic value and significance. They *take* space, that is, they take up a significant amount of prime real estate and demand to be considered as public and communal, thus referencing a history and future of *mass* culture as well. Secondly, they are communicative and technical — they are *media*. They use their scale, visibility, ephemerality, centrality, and communicative capacities, from data visualisations enabled by programmable LED façades, interaction through sensors and mobile ubiquitous media, moving images, sound, and networked

communication, to broadcast their messages and engage on- and offline publics. In this way, they are *mass media*. They make space and produce it through interactions both proximal and distal: they mediate. All together, they are *massive media*. They are buildings that reflect a larger shift in our society towards the foregrounding of interactivity and experience. They are structures that can talk and listen, buildings that we can click on, swipe, share, capture, and converse with and about. Massive media are buildings that tell us something about the place they are in, about ourselves and others as we engage with them, and that connect us to other people and times, both near and far.

This book addresses this emerging phenomenon. And it does so because there is a lot at stake in these seemingly playful, benign situations. Architecture and media shape our understandings of who we are, individually and collectively, and change how we read and interpret the world around us. Questions of identity (of the self and other) are bound up in our cultural expressions, particularly ones that appear to be public and representative, as works that appropriate the scale and visibility of a building tend to be. These spaces are also particularly fraught with competing commercial interests, be they those of advertisers who seek to capture larger markets in increasingly spectacular ways, by technology and telecom companies whose aim is to convince us that more technology in cities is an inherently good thing in itself ignoring the power imbalances and biases this creates, or cities that are angling to compete for global talent and tourism. Many projects in this field present themselves as playful, participatory, or revolutionary but amount to little more than city branding or passive entertainment, and are often elitist and exclusionary. The critical and creative potential of these spaces remain despite these tendencies. The relative novelty of the form presents us with unique opportunities to shape emerging practices and to carve out new spaces for new media art and expanded cinema that can strengthen our ability to connect with our past, present, and future, locally and translocally, at a time when these connections are under threat by politics of division, economics of disparity, and technologies of distraction and segregation.

The exploration of creative, historical, and critical understandings of massive media is necessary considering the proliferation of screen-based and screen-reliant buildings and environments and their potential impact on the development of public culture and architecture. How do these new assemblages of media, architecture, and space fit within a history of iconic architecture and monumentality? How do they reflect and challenge our notions of public culture and how we have expressed collectivity and progress? How does massive media change and challenge our notions of space,

monumentality, and the public sphere through the application of various primarily screen-based media? And finally, and perhaps most crucially: How can the combination of media in the form of moving images, data, networks, and animations make large-scale public displays and urban media environments more inclusive and sensitive to their social and historical contexts?

In exploring these questions, this book will outline useful, practical and theoretical tactics that should be of interest to students, practitioners, and researchers of architecture, new media art, interaction and user experience design, cinema, and the humanities, providing a test for theoretical claims made about the transformative properties of digital technology in cities and for monuments, and a reliable guide and predictor of future outcomes, directions, and critical practice in this field. It aims to establish critical perspectives, theories, and methods for the practice of public visual culture through massive media amidst technological, social, epistemological, ontological, and economic change.

## **A Brief History of the Public Sphere, Monumentality, and Media**

### **The Most Advanced Site of Struggle: The Public Sphere**

Looking at and conversing about the same thing at the same time. It is a simple idea but it is a critical element of intersubjective cultural discourse. When millions of us watch the same television show, listen to the same song, or read the same book, we become part of a discursive community that, through various channels of feedback, both immediately and at various mediated distances, shapes how we collectively think and feel about these things. These scenarios outline the conditions of what we might call a public sphere: a place where autonomous individuals can come together to form a group that can mediate and manage feedback related to their collective thoughts and desires.

The public sphere can be seen to have undergone a trajectory of transformation and fragmentation alongside technological advancement. Jürgen Habermas defines a healthy public sphere as the places and protocols (both technical and social) by which private people come together to form a public that is as accessible, autonomous, non-hierarchical, and participatory as possible. Habermas' understanding of the contribution that various media and spaces have on this coming together is crucial to the resulting qualities of the discourse generated by a public sphere. He notes that the public sphere, due to its size, is a dispersed commonality of strangers, which 'requires specific

means for transmitting information and influencing those who receive it' (1974, 49). For the bourgeois public sphere, emerging in the early eighteenth century from a previous courtly conception of 'representative publicness' (Habermas 1989, 5), this meant a combination of media and public space that included the growth of the press, literary societies, the salon, and the coffee house. Habermas argues that the health of the bourgeois public sphere flagged in the twentieth century due to a re-feudalisation and fragmentation via mass media that concentrated power in large multi-national corporations and isolated individuals in private dwellings where the media platforms of television and radio had taken hold.

More recent theories of the public sphere tend to focus on the role of media in the public sphere. Following from Habermas, German filmmaker and theorist Alexander Kluge and his colleague Oskar Negt take on the challenges posed by mass media to the health of the public sphere such as fragmentation, isolation, and distraction. Negt and Kluge were particularly interested in electronic media and satellite links that created the conditions for the existence of global news outlets such as CNN in the 1980s. Somewhat more pessimistic about the global proliferation of electronic media than McLuhan, Negt and Kluge saw 'the media of industrial commercial publicity, in their most negative implications, as an inescapable horizon, and as the most advanced site of struggle over the organisation of everyday experience which contextualises all other sites' (Hansen 1993, 211). Thus, the public sphere became for them a struggle for the contextualisation of sites of debate and memory through media. As a result, their approach shifted the conditions for the health of the public sphere to those of 'openness, inclusiveness, multiplicity, heterogeneity, unpredictability, conflict, contradiction, and difference' (ibid., 189) that can be enacted in and through the use and appropriation of media which changes the who, what, and how of participatory politics. As Miriam Hansen notes in an essay that revisits Negt and Kluge's work:

The new types of publicity that have been proliferating over the past decade or two, especially with the electronic media, not only urge us to rethink, once again, the function, scope, and mode of intellectual activity; they also force us to redefine the spatial, territorial, and geopolitical parameters of the public sphere (ibid., 183).

The proliferation of media in public space via monumental projections and displays, as well as networked, location, and context aware technologies, as evidenced by buildings like the Empire State Building, can be seen to

introduce a new dimension to the ongoing struggle for spaces and forums for reasoned argument and debate. Here, specifically, Claire Bishop is critical of the quality and meaning of the modes of public participation afforded by certain assemblages of expressive displays, digital sensors, and networked devices as public spheres. In her discussion of relational aesthetics and the idea of activated spectatorship in installation art, Bishop argues that good participation should open up channels for discussion and debate. Bishop notes 'the public sphere remains democratic insofar as its naturalised exclusions are taken into account and made open to contestation' (2004, 65). In the context of public space, these 'naturalised exclusions' include the exclusions of sociability enforced by the prioritising of flow through spaces as well as the prohibitions related to the rights of the citizen to alter their surroundings or see themselves reflected back in it. For Bishop, what is central to authentic participation is 'activated spectatorship' (2006, 50), or a scenario that values equality over quality, collective authorship over singular control, and the 'on-going struggle to find artistic equivalents of political positions' (2012, 3). The degree to which various examples of massive media achieve this kind of 'activated spectatorship' will be discussed in case studies and examples in the chapters that follow.

Michael Warner (2005) adds that the contemporary public sphere, as much as it is about rational argument and discourse, can also be apolitical and agnostic, emotional and playful. It can be merely about getting involved intimately, viscerally, and deeply with strangers. This could be something as simple as cheering at a sporting event, collectively facing (or de-facing) a monument, retweeting a hashtag *en masse*, or clicking a 'like' button online. Warner's perspective can be linked to the earlier work of Hannah Arendt who prefers the term 'public realm' to describe what emerges from the simple act of being able to act together, and to share 'words and deeds' (1958, 198). For Arendt, the public realm need not be tied exclusively to physical locations, but rather bound to the ways in which we might create and control, to various degrees, a 'space of appearance' (ibid., 198) for ourselves. These spaces, of course, are threatened by censorship, power, and control in its many forms. And, while Arendt focusses primarily on forces of tyranny and fascism affecting society in her time, in many ways these forms of control have become embedded and encoded in technologies and our interfaces with it. All of this points to a technics and politics of visibility, a 'distribution of the sensible' (Rancière 2000) and appearance that is supported and challenged by various extensions and tools such as the expressive surfaces of structures and media linked in and through them via media interfaces. In this way, massive media can be seen to emerge as a kind of 'common', a public sphere

that serves to shape dominant economic and social uses of public space. As such, massive media is in part constitutive of a larger coordination of technology, politics, and economics, shaping contemporary public spheres and a commons that is, to various degrees, 'oriented towards the production of social relations and forms of life' (Hardt 2009, 26).

### Looking Up Together: Monumentality

Like the public sphere, monumentality is a concept that has been tied up in the politics of memorialisation, debate, and representation, and thus factors in to an understanding of massive media. What we think of as 'monumental' has been influenced and inflected by various technologies of production and communication, including media architecture, urban screens, and public projection technologies, thus challenging and changing notions of space, public space, and the public sphere.

Monuments are dense transfer points that collectivise individuals and condense memory and ideological meanings. Through the monument, these meanings are transferred back to the collective through the performance of rites and rituals associated with them. Analysing this in greater detail, Henri Lefebvre argues that monuments in general enact two major things: '(1) displacement, implying metonymy, the shift from part to whole, and contiguity; and (2) condensation, involving substitution, metaphor and similarity' (1997, 136). For example, with respect to displacement, the Statue of Liberty can be a stand-in for the whole of the United States. As another example, The Empire State Building can represent New York as a whole, and to come in contact with it or its image is to come in contact with the entire city in one place or image. Conversely, with respect to condensation, New Yorkers, or even Americans as a whole, can congregate around these objects (or image-objects) — they condense attention, values (life, liberty, and the pursuit of happiness), and longing for connection into a dense point of semiotic transfer. In massive media, the addition of social media to these sites extends the possibilities for trans-local displacement and condensation through telepresence.

Monuments can be any combination of material, symbolic, and functional characteristics. Pierre Nora uses the more general term *lieux de mémoire*, or sites of memory, and includes anything from a state archive to commemorative statues and plinths and even shared moments of silence which we might observe on Remembrance Day as possible sites of memory. He says these are necessary because we no longer have *milieux de mémoire*, that is, 'real environments of memory' (1989, 7), a category of collective memory lost in the post-industrial decline of peasant societies in which

memory was contained in ‘gestures and habits, in skills passed down by unspoken traditions, in the body’s inherent self-knowledge, in unstudied reflexes and ingrained memories’ (ibid., 12). That said, Diana Taylor argues that the distinction is not as clear as Nora contends. Taylor places a greater emphasis not on temporal shifts, but in changes in forms of transmission, which may be embodied or archival and may occur among different kinds of publics and communities (2007, 22), thus modulating the qualities of cultural survival and affect in memory.

The *Arc de Triomphe*, as a site of memory for example, honours those who fought and died for France in the French Revolution and Napoleonic Wars, or, with the recent projected application of the text ‘*PARIS EST CHARLIE*’, also honours those who died in the terrorist attacks on the Charlie Hebdo office (Keromnes 2015), indicating the collective importance of this issue to Parisians, the French public, and via its remediation, the rest of the world. While the *Arc de Triomphe* is a site of memory, in Nora’s words, it is also a more nuanced form of cultural transmission in that it combines forms of transmission through the application of projection (the physical monument and the projected image) while also reaching communities locally and globally in its remediation through electronic and print media — another form of transmission. In the *Arc de Triomphe*, like all sites of memory, the material, symbolic, and functional coalesce as collective memory that, in Nora’s words, ‘crystalises and secretes itself’ (1989, 7), and does so today through multiple, composite, and simultaneous forms of transmission arguably activated and centred upon, in this case, what we might call massive media.

While Nora emphasises the variations in possible sites of memory, and Taylor refines this by emphasising the role of media, it is the specificity of large, public displays — the plinth, the arch, the statue, or the clock tower, illuminated, animated, or not — that represent a unique trope of monumentality that are particularly germane to the development of a concept of massive media. It is both the scale of the display and its urban situation in these examples, often one that is both visible and central, that lends them particular powers and influence. Monuments and urban space effectively act cooperatively as power brokers that exchange authority and importance through metonymy (literally and figuratively: what and who they stand for) and condensation (who and what they call out to congregate around them). Michael Rowlands and Christopher Tilley, quoting Herbert Bayer, note that these ‘civic compositions [...] assume that the urban landscape is the emblematic embodiment of power and memory’ (2006, 500). Iconic buildings and monuments represent this power and memory in relation to their setting, and do so in concentrated form. They are concise statements

of memory and power within the urban landscape as a whole. In this way, monuments and landscapes give power and significance to one another, one existing on the stage of the other, made particularly visible to their audience in their scale and position: they produce and share what Walter Benjamin (1999) might call the auratic.

The Empire State Building in New York City provides one such example of auratic monumentality. Situated as it is in central Manhattan, the backdrop of the city with its layers of power and memory coalesce with the monument due to its scale and juxtaposition with that backdrop. The images of the building, promotional and personal, reproduce this idea as a testament to the aura produced by it (as opposed to diluting it). The various reproductions of the building's images are inspired by and contribute to its unique geographical situation. Monuments exist prominently within urban and public space so that both the monument and the space around it can benefit from the metonymy described by Lefebvre (1997), allowing for a transfer and amplification of power.

It should be noted that not only do monuments transfer meaning, they also transfer power through meaning for those that control and direct their construction and use. As Lefebvre notes:

[...] each monumental space becomes the metaphorical and quasi-metaphysical underpinning of a society, this by virtue of a play of substitutions in which the religious and political realms symbolically (and ceremonially) exchange attributes — the attributes of power; in this way the authority of the sacred and the sacred aspect of authority are transferred back and forth, mutually reinforcing one another in the process (1997, 136).

The authority to facilitate the construction of the monument is seen as sacred, and this reverence is recursively transferred with the 'religious' (or ideological) content of the monument which has its own symbolic power in society. Thus, power is consolidated and shared by form and content. The *dispositif* — to borrow a term from cinema studies — of the monument in the city (its visibility, scale, and permanence) represents an attractive and useful site for discourses of power because of the metaphorical and metaphysical connection it creates between power, authority, and society. For example, Big Ben, a unique source of identification for the City of London, and perhaps an example of proto-massive media, symbolises the orderliness of parliament and reinforces the power and centrality — geographically, politically, and symbolically — of the institution, which then, recursively, becomes a source of pride. The authority of order, and the orderliness of authority are broadcast,



transferred, and mutually reinforced. Monuments have metaphorical and metaphysical power to which societal values, civic and national identities, and political ideologies are attached, exchanged, and entrenched.

In addition to a transfer of power, monuments and iconic structures also act as dense transfer points for memory and connection when coupled with rites and rituals that animate the space around and on them. As Rowlands and Tilley point out, monuments 'provide stability and a degree of permanence through the collective remembering of an event, person or sacrifice around which public rites can be organised' (2006, 500). Monuments, such as war memorials or iconic, city-defining structures such as the Eiffel Tower produce a set of associated social practices such as annual Remembrance Day rituals or marriage proposals. As Lefebvre notes, 'Such a space is determined by what may take place there, and consequently by what may not take place there (prescribed/proscribed, scene/obscene)' (1997, 135). This includes mediated practices such as the use of recording devices, the socially accepted volume of speech, the calendar of rites and rituals associated with the site, the laying of wreathes on certain days, and so on. Essentially, Lefebvre's point is that monumental space is produced through proscribed performance. Take, for example, the many war memorials in the form of statues or more abstract concrete, metal, or marble forms, in front of which wreathes are placed at specific times of the year. This practice of monumentality need not be visual either. We might also include the example of the ancient 'call to prayer' that rings out across the rooftops of cities in the Islamic world, or the ringing of church bells in the West, both performed from purpose-built structures that rise above the space around it, creating, essentially, a broadcast.

Sites of memory are completed and maintained through public performance. To this, we can add the performance of the monument itself, or the performances of various kinds of participation it exhibits, when it is animated by computer-controlled pixels in the form of an LED façade or digital projection. This book will apply the idea that new performances and repetitions of rites and rituals arise with the proliferation of massive media, helping to produce new identities for spaces and for people, making them feel connected through the changing symbolic value of the digital monument.

### **A Modern Monument for the Modern Masses**

While deities on hills, church spires, and other conspicuous religious symbols formed the majority of the ritualistic monumental landscape in cities prior to the advent of modernity, the last two hundred years of monumentality have

tended towards more secular structures, many of which incorporate some form or expression of technology and/or media that reflects discourses and practices of modernity; namely industrialisation, urbanisation, mechanisation, electrification, increased travel and migration, and the acceleration of capital (Berman 1982). An example, albeit never built, is Vladimir Tatlin's Monument for the IIIrd International, planned for Petrograd (now St. Petersburg) in 1919-1920. Seeking societal reform through art, Tatlin proposed a many-tiered, spiralling tower of glass and steel reaching skyward at a dynamic angle. The work sought to be 'an active transformational force in the mass revolution' (Rowell 1978, 100) of communism in the USSR and throughout the world. Notably, the stacked, cylindrical sections of the building each had a different function and were meant to revolve at a different speed. The bottom-most cylinder housing the legislative body would revolve once a year, and the two upper-most, an information bureau and broadcast centre equipped with radio antennae and film projectors 'to emit propaganda to the street' (*ibid.*, 104) would revolve daily and hourly, respectively. Tatlin's Tower was, according to critics at the time, a dynamic, mechanical monument to 'something alive and still developing' (Shklovsky quoted in Lynton 2009, 102), as opposed to 'torsos and heads of heroes and gods' (Punin quoted in Lynton 2009, 99) of the past, and thus could better 'share in the life of the city' (*ibid.*, 99) and its time by expressing, shaping, and contributing to the collective emotional life of the masses.

Other monuments of modernity include the Eiffel Tower, a monument to industrialisation, the clock tower such as Big Ben, a massive timepiece for the mechanisation of industry and standardisation of social practice, the great gateways of travel such as the Golden Gate Bridge or the Statue of Liberty, welcoming weary immigrants to a new nation, or the sky scraper such as the Empire State Building with its electric lights lit by the energy of capital made to circulate at ever increasing speeds by the occupants that light its windows. These were monuments to capital, to standardisation, to consolidated power, to functionalism, but not necessarily to any specific population, individual, group, or historical event. Like modernity, they were impersonal, efficient symbols of hope, dynamism, power, and progress. While modernity realised itself through mechanisation, the circulation of capital, and even cinema, as Hansen (1995) points out, it was also realised through monumental expressions of mechanical, sculptural, and electric media.

According to certain modernists, these monuments, while emblematic of their time, still left much to be desired in terms of the role that monumentality should play. For example, Sigfried Giedion theorised that monuments should be sites for 'collective emotional events, where the people play as

important a role as the spectacle itself, and where a unity of the architectural background, the people and the symbols conveyed by the spectacles will arise' (1944, 568). Except for Tatlin's proposal, this was not the case with the kinds of monuments modernity had typically produced. Giedion called his views the 'new monumentality' (Mumford 2000, 151), essentially arguing that monuments should not be stoic and stuffy, but should allow collectives to participate in and through them in some way. While acknowledging the return to grandeur at large scales in public spaces which characterised modernist monumentality, in *Nine Points on Monumentality*, members of the *Congrès International d'Architecture Moderne* (CIAM) which included Giedion and the French artist Fernand Léger, advocated instead for something more responsive and variable in monuments. Tellingly, their suggestions included the provision of 'vast surfaces' for projection:

Mobile elements can constantly vary the aspect of the buildings. These mobile elements, changing positions and casting different shadows when acted upon by wind or machinery, can be the source of new architectural effects [...] During night hours, colour and forms can be projected on vast surfaces for purposes of publicity or propaganda. These buildings would have large plane surfaces planned for this purpose, surfaces which are non-existent today (Giedion et al. 1943, 50).

Giedion et. al saw the provision of colour, light, and variability as a progression in monumentality: a redefinition of grandeur, identification, and monumentality through surface contingency. Along with László Moholy-Nagy, whose experiments with his Light-Space Modulator at the time mirrored the aesthetic goals of CIAM, and were even extended by him (theoretically) to the realm of architecture, these modernists, critiquing modernism, suggested that there was potential in architectural dynamism for 'publicity and propaganda' through the application of moving light. How this would create greater emotional connections between people and space was not clear at the time, but the potential had been identified: buildings needed to become more like screens to break from inadequate modern and pre-modern precedents.

## Space and Media

A deep understanding of theories of space and media is necessary for the study and use of the emerging building as screen — of massive media. As was shown in a number of the examples above, space and monumentality are

not static or fixed but produced in complex social and technical processes. This idea comes to us primarily through the work of Henri Lefebvre. In his book *The Production of Space*, he argues that we have moved past a strictly Euclidian, mathematical understanding of space that sees it as measurable, continuous, and discrete, to an understanding of space as a collection of fragmented, subjective spaces produced through practices, protocols, social relations, and technical supports. As such, spaces need not be purely physical. They can include mental spaces, commercial spaces, global spaces; essentially there are multitudes of spaces (1991, 236) that are produced and also, importantly, consumed in time through our actions. While in a public square, for example, we simultaneously consume and produce space by photographing it, appropriating it in various ways, or transposing it to other spaces and contexts through media. A public square is a commercial space in that various exchanges and transformations of capital are present in the form of advertisements, street vendors, and even street photography. It is also a global space in the way these photographs might circulate in print or online, or the way in which the materials and goods on display are made and marketed elsewhere. Finally, it can be a mental space in the personal cartographies created by individuals, something that Kevin Lynch (1960) describes in his *Image of the City*, or in the way Nora (1989) describes sites of memory. Space, instead of being fixed, is co-produced in the complex interplay of social and technical actors, groups and individuals, matter and memory. Thinking of how this relates to massive media, take the specific example of being in a crowd in Times Square: the bright lights and grand vistas of the space contribute to its production, as well as tourists snapping photographs (which contribute to mental images for those near and far), the nearby hotels cashing in on the spectacle, and the advertisers reaping the attention lavished upon the flashy billboards by the eyeballs that take them in.

Technologised spaces of massive media such as Times Square manifest themselves in the many relations that are opened up when space is not seen as authentically achieved, static, or absolute. In his book *The Media City*, Scott McQuire uses the term 'relational space' (2008, 28) to define this shift as it relates specifically to theories of contemporary public spaces. By way of television, cinema, and photography, and now accelerated and augmented by media including digital mobile devices and urban screens, public space has increasingly become something that, according to McQuire, 'cannot be defined by essential attributes or inherent and stable qualities' (ibid., 22). He argues that these media factors have introduced greater *ambivalence* and *contingency* to our conception and use of space. McQuire explains that changes in urban form and the embodied experience of space beginning

with the modernisation of cities, the development of rapid transport, and the electrification of cities in the early twentieth century diminished the coherence of traditional means for the representation and construction of social space and identity. David Henkin provides an even earlier example of this co-evolution of media and space in the city. Focussing on late-nineteenth century New York City, Henkin describes how a burgeoning population in the city gave rise to an 'increasingly heterogenous and unwieldy urban community' (1998, 38). This condition of estrangement led to what Henkin calls 'city reading' in the form of more public signage for the purposes of advertising goods, spreading political ideas, and sharing information, as the 'city of strangers' (1998, 7) could no longer rely on trusted intersubjective interactions or a shared culture. Public space, once solidly 'anthropological' (Lefebvre 1991, 229), based on tradition and familiarity, has, over time, tended towards increasingly unfamiliarity, mirroring the emergence of mass society, defined instead by the flow of people, capital, and information.

Changes in how space is produced have shifted how space is perceived and how people reorient themselves amidst these jarring changes. As McQuire notes, 'in a world remade by machine technology, artificial light and rapid movement, embodied perception was increasingly susceptible to sudden switches and abrupt shifts' (2008, 62). Consequently, changes in urban form 'levied increased demands on technological images to 'map' the city, and thereby make it available to perception, cognition and action' (ibid., ix). Thus, the city and media have existed in a dialectic between rupture and recuperation, between distraction and enhanced attention. For example, serialised photographs taken of the Haussmannisation of Paris, a process that introduced a great deal more artificial light and rapid movement to the city, were used to both demonstrate the transformation of spaces as well as to make it comprehensible. Similarly, the radical montage of early city symphony films such as Dziga Vertov's *Man With a Movie Camera* (1929) had the effect, as Benjamin observed, of unlocking the 'prison-world' of the modern metropolis (quoted in McQuire 2008, 65) that had become incomprehensible in its complexity and the speed with which it was to be traversed by car, tram, or subway.

Furthermore, McQuire demonstrates how distinctions between private and public, local and global, are blurred to create new spaces, and the ways that communicational and spatial bonds are transformed as a result. Expanding on the quality of *ambivalence* of contemporary relational spaces, McQuire notes that 'Relational space names the ambivalent spatial configuration which emerges as the taken-for-granted nature of social space is withdrawn in favour of the active constitution of heterogeneous spatial connections linking

the intimate to the global' (ibid., ix). The role of mobile ubiquitous media in public is a clear example of this shifting spatial characteristic. Smartphones can, for example, aid in the escape from a taken-for-granted context such as public transit by providing refuge through an intimate (yet potentially globally connected) space. The enclosures that once defined private and public, local and global, recede and hybridise in such instances. As a consequence, McQuire argues, space today more frequently assumes significance through heterogeneous, variable, and impermanent interconnections (ibid., 22) as opposed to unidirectional, homogeneous, fixed connections (as envisioned in early practices related to television consumption, for example). As McQuire concludes, 'communicational bonds exhibit different durations and velocities to older forms of social bonds embedded in spatial proximity' (ibid., 22) and thus, relational space contains an ambivalence that comes with the speed associated with the rapid switching of tele-communication, and forms the basis for the mixture of contexts, of spaces of places (Lefebvre 1991) and spaces of flows (Castells 2001, 2002).

In a concept similar to McQuire's relational space, Adriana De Souza e Silva focuses on the role of mobile interfaces in creating what she calls 'hybrid space' (2006, 261). This also serves to describe the space in which massive media emerges as both a disruption and a filter. 'Produced and embedded by social practices, in which the support infrastructure is composed of networks of mobile technology' (ibid., 271), hybrid spaces blur the boundaries of physical and digital space, augmenting both in the process. Data is extracted from these spaces through practices such as surveillance, personal photography, or social media, while also augmenting these spaces via computer displays and public screens. As De Souza e Silva notes, 'the flows of information that previously occurred mainly in cyberspace can now be perceived as flowing into and out of physical space' (ibid., 265). Like McQuire, De Souza e Silva considers our 'always-on' (ibid., 262) connection to virtual spaces in physical spaces as the means by which remote contexts, both in space and time, become enfolded inside the present context, creating an ontological bridge of sorts. McQuire adds a critical dimension to the idea of enfolded, hybrid, and ambivalent space noting that these spaces create mostly hidden meshworks of surveillance evoking what Deleuze (1992) presciently described as an emerging 'control space'. At the same time, these hybrid spaces also contribute to pockets of network-driven activity such as flash mobs and protests, and furnish access to building-scale effects on urban screens and reactive architecture via interactive installations. As McQuire notes, this can lead to a perpetual state of responsiveness and anticipation for devices, individuals, and buildings — akin to computer interfaces themselves — that

act either as distractions or a points of grounding reference. Here, we see how the building and the city have become screens, and begin to understand what the consequences, effects, and affordances of this might be.

Continuing along this line of inquiry, McQuire names *contingency* as a second major characteristic of the emergence of relational spaces — the kinds of spaces that massive media are an integral progenitor of. He notes that both public screens and mobile devices contribute to a fluidity of social space and subjectivity that can be considered radically contingent particularly with the relative speed at which images are produced and consumed within these contexts. The contingencies brought about by the mixture of spaces and contexts have, for McQuire, allowed for the emergence of new spatial ensembles that better reflect the ways we interact in and through the image today. For example, the current apex of the heterogeneity and contingency of spatial regimes can be seen to be embodied in practices such as augmented reality and mixed reality (2008, 21) in applications such as Google Glass and Microsoft's HoloLens. In the promotional discourse attached to such devices, and in McQuire's theories, there remains an optimism about a new frontier of hybrid space in terms of the freedoms it affords for the layering of contextually relevant information, for telepresent yet embodied encounters, but also for dissenting voices and interpretations.

In addition, contingency, as a characteristic of contemporary relational space, can be seen as central to the affective register and thus, much like cinema before it, a powerful attraction for representational (and commercial) applications and perceptual training through spectatorship and participation. The moving and networked image in public space plays a significant role in the accelerated contingency of surface effects — the multiplication of images in, on, and around buildings as a result of public and private displays — and the attraction/distraction that this creates. Siegfried Kracauer (1965), an early observer of the effects of contingency introduced into space by the moving image, argues in his *Theory of Film* that cinema works through the distraction and mystification caused by the moving image. This is precisely a distraction from the surrounding environment and context of the observer. Kracauer observes that film results in an increased demand on the spectators sensorium resulting in a distracted attention, innate curiosity, and an openness to sense impressions. The moving image creates an effect that captivates an audience and acts as a unique and powerful physiological stimulus. He likens film to an object of prey, tapping into our animalistic tendencies to notice and fixate on moving objects. Janet Harbord (2007) extends this analysis to public spaces. She argues that contingency is central to the affective register and notes that

whereas films projected in cinemas can be described as contingent insofar as the moving cameras that captured them present changing views within a cinematic frame, current configurations of expanded cinema via projections and screens in public space can achieve contingency and the subsequent effects of distraction, attention, and mystification through indeterminate viewing conditions and digital manipulation that open the digital moving image to recombination, relationality, and reactivity. Public screens up the ante in terms of the distraction/attention dialectic of media, a dialectic that will be explored in more detail throughout the book.

Following from this, cinematic concepts and considerations such as scale (Doane 2009), superimposition, montage, and apparatus/dispositif (Baudry 1975) are important factors in exploring the implications for the combination of media and monumentality. Tom Gunning speaks about the role that superimposition plays in cinema and beyond in his article, 'To Scan A Ghost: The Ontology of Mediated Vision'. He notes that 'incongruous juxtaposition' of a superimposition on film 'yields an eerie image of the encounter of two ontologically separate worlds' (2007, 6). Although, in Gunning's case, he is describing the appearance of superimpositions upon and within the space of the screen, when this diegetic space is the life world, so to speak, then the superimposition becomes the projection itself and the thing being imposed upon is the city, opening up new ontological complications and possibilities. Furthermore, public projection can be seen to extend the concept of montage, the juxtaposition of images to create new meanings, to a spatial montage with the city around it again, affording new possibilities for the moving image and space.

Both of these concepts can be encapsulated within an understanding of the apparatus/dispositif, the ideological and technical interface of cinema, as expanded (Youngblood 1970) and extended by massive media. For example, Mary Ann Doane (2009), writing on the role that scale plays in cinema, describes the way that cinematic scale reflects a desire to lose oneself in the image — an essential quality for ideological transmission through any media form achieved to a degree by the dispositif. These concepts of film and cinematic media take on new dimensions and qualities when transposed onto the city in the large-scale projections and animated displays of massive media explored in this book.

### **Accelerated Rituals**

One potentially negative side of the stimulus of increased contingency, often by way of the application of media in public space, emerges in the



belief that it can erase history, mystifying and fragmenting a public for the purposes of capturing an audience within the crosshairs of ideology. Jonathan Crary argues that the 'accelerated ritual' (Crary 1999, 370) of the moving image can efface the history of a space and divorces repetition from its association with tradition building. For example, think of the repetition we might associate with seeing the same structure every day, for example, and the traditions that might follow from this. Now think of what happens when that structure is covered in screens that display ephemeral content.

As Crary argues, it was electrification that first transformed the surfaces of the city into mutable, oneiric, 'formless fields of attraction' (468) that often had an effect of distraction and dehistoricisation for the purposes of pleasure and persuasion. That is not to say that tradition, community, and debate cannot be fostered through the moving image in public space. In spaces dominated by moving images, tradition may be found simply in the repetition of the spectatorship of the moving image, or it may be created in repeated exposure to the same images or sets of images, or perhaps in their appropriation and circulation amongst viewers. McQuire characterises such practices as moving us from 'object-oriented perception' (2008, 41) to a mode of perception that foregrounds the relations between objects and operations on them — essentially, to a mode of perception based on ideas of superimposition and montage that emerge from the creation and reception of cinema. Thus, in relational space tradition, connection, and meaning is not completely obliterated, it simply takes on a different velocity: it is more ambivalent and contingent, but no less meaningful. Extending this thinking to mobile screens, McQuire also notes that in contingent, relational space, 'the pre-given nature of social space and the taken-for-granted contours of subjectivity are increasingly withdrawn in favour of the ambivalence of mobile spatial configurations and ephemeral individual choices' (*ibid.*, 22) engaged by such devices. As such, contingency is seen to be suspended in relational space, albeit briefly, through the 'interconnections established between different nodes and sectors' (*ibid.*, 22) and thus tradition and connection may be re-established, albeit primarily according to this modified logic of the digital and networked screen. Rituals, publics, and tradition are not necessarily obliterated by screens — they are made temporary and provisional, site and device specific.

Thus, screen technologies in public spaces might be seen as existing along a continuum with crude distractions on one end and sensitive filters on the other, making space both more and less sensible and legible. Picking up on the way mobile technology modifies the legibility and flows of public space and changes power dynamics, De Souza e Silva and Frith (2012) focus

on the filtering possibilities that personal media afford us, noting the ways they provide a mast to affix ourselves to amidst increased contingencies of media maelstroms that now permeate public spaces. Similarly, media artist David Rokeby has stated that 'we are desperate for filters' (1995, 154) in the sense that we need ways to manage the contingency of media messages and channels that we actively and passively encounter. While technologies such as mobile phones and urban screens can be seen as contributing to contingencies, they are also the filters by which these contingencies can be navigated and managed for the purposes of legibility. Similar to Simmel's (1950) concerns decades earlier, De Souza e Silva and Frith cite the omnipresent threat of overstimulation by the city and its associated media through interfaces both individual (such as the smartphone) and shared (such as public space) as ultimately desensitising. De Souza e Silva and Frith see personal, mobile interfaces as connecting, influencing, and providing some means of control over flows and spaces of information. These interfaces, and the growing importance of the concept of interface in culture, address a growing desire to selectively interact with public spaces as a way to fend off the onrush of a blasé attitude that might result via the bombardment of the senses. As such, mobile media, alongside the massive media they accompany directly or indirectly, are capable of making public space both more and less legible and sensible.

Predating McQuire, others such as Moholy-Nagy have taken a positive stance on the subject of increased stimulus in the city and its relationship to perceptual acuity. As he states in *Painting Photography Film*, his investigation into perception and various media, 'The vast development both of technique and of the big cities have increased the capacity of our perceptual organs for simultaneous acoustical and optical activity' (1969, 43). He cites Berliners crossing the Potsdamer Platz who simultaneously perceive 'the horns of the motor-cars, the bells of the trams, the tooting of the omnibuses, the halloos of the coachmen, the roar of the underground railway, the shouts of the newspaper sellers, the sounds of a loudspeaker' (ibid., 43). To close the loop, he insists that far from being a mechanism for disorientation, this shift in stimulus can prove generative for the media arts where 'modern optics and acoustics, employed as means of artistic creation, can be accepted by and can enrich only those who are receptive to the times in which they live' (ibid., 43).

Krzysztof Wodiczko is similarly interested in the role that certain urban stimuli, particularly of the massive media kind (although he does not name it as such), can play in the rupture and recuperation of meaning. For Wodiczko, the city and its structures, such as its monuments and government buildings,

are imbued with the misdeeds of the past, such as colonialism, and the present, such as racism and xenophobia. Through media interventions such as large-scale projections of disadvantaged people (e.g. immigrants, people experiencing homelessness, inmates) on contextually relevant buildings (e.g. courthouses, monumental plinths) he sees his role as helping to 'heal the city's wounded psychosocial relations and its catastrophic reality' (1999, 4). In doing so, he hopes to 'arrest the somnambulistic movement' (1999, 47) of passive consumption (and production) of space, which serves to reproduce hegemonic myths of power, and foster a collective and communal form of therapy with the city.

Arguably, what this groundwork of media studies shows is how media and processes of mediation make the modernising city both manageable *and* unmanageable, and how the human sensorium and cultural consciousness is co-evolutionary with its media-rich environment, something that is echoed in the writings of Benjamin and McLuhan. This points us towards posing important questions about the role that massive media play in this dialectic of perceptual rupture and recuperation, questions that I tackle in the following chapters.

### Reverie Amidst the Real

Others, such as Brougher in *The Cinema Effect*, further argue that the illuminated night of the modernised city, with its moving images and the growing cultural obsession with the moving image, triggered an ontological shift in city life beyond mere perception. As Brougher notes, 'film has spilled out of the great movie palace cathedrals and has spread into the city itself and into the way we live our lives' (2008, 19). He notes that since the advent of outdoor projection, amusement parks, and other such illuminated spectacles, we no longer encounter the cinema's technology of spectatorship, its apparatus and dispositif, in the cinema alone. As he says, 'dark chambers separated from the world at large are no longer a necessity for the cinema effect' (ibid., 35). These alternative cinema-like scenarios can furnish the possibility of alternative worlds and spaces of reverie amidst the very real, material spaces of everyday public life, thus engendering the possibilities for object negation of one's surroundings and/or increased relationality, hybridity, and legibility.

Increasingly, the gap both perceptually and ontologically between cinema and the city, between mediation and the built environment, has narrowed due to the proliferation of cinema and the city's increasing uptake of the functional characteristics of cinema, namely the use of electric light in darkened spaces filled with people. McQuire and others (cf. Gunning 1990)

actually situate a mobility of vision and an embodied, collective spectatorship in proto-cinematic environments such as the World's Fairs and Expositions of the late nineteenth century. As McQuire notes, 'The World's Fairs showcased the potential for electric lighting to establish a new rhetoric of urban space, opening the way for the city to be transformed into a performative space in which fixity of appearances would give way to increasing flux' (2008, 119). Similarly, Gunning states that 'The World Expositions were not only founded on the regimes of the wandering eye, but they also proved to be expert tutors in the delights (and possible perils) of this new mobile vision' (1990, 15). Perhaps one of the most well-known cinematic cityscapes that embodies this vision is that of Times Square in New York City, perhaps the very icon of what might be termed massive media. Critical theorist Marshall Berman, in his article 'Metamorphoses of Times Square', observes of the space that 'you have to tie yourself to some sort of inner mast in order not to be overwhelmed' (2001, 42). Whereas the traditional cinematic experience provides a mast in the form of a comfortable, standardised environment of spectatorship, the media city affords no such reliable reassurances or restraints. The exaggerated electronic forms of Times Square turn the city into the cinema, complete with lights, camera, and plenty of action. As Berman notes, 'Under the lights a whole new world could be born [...] the street itself is a form of living theatre; ordinary people on the street are performers as well as spectators' (ibid., 54). It is within this frenetic, frameless context that massive media experiences can be seen to operate, and in which their possibilities for the construction of new registers of space and identity are played out.

To aid in an understanding of such affective, fragmented, relational, and mediated spaces, the concepts of the 'composite dispositif' (Verhoeff 2012), 'non-representational space' (Thrift 2008), the 'peripatetic' audience (Bennett 2009), and 'transversal' identity (Murphie 2004) will prove useful. First, composite dispositif describes a state of mediation in which standardised environments of spectatorship, such as the cinema, the city, or the interface of a smartphone, overlap and co-constitute a relational experience. This concept helps to provide a more nuanced and complex understanding of media as being semi-coordinated, filter-like, and personally constructed, based on access to various technical and visual interfaces (such as the city and mobile devices). Here, Verhoeff draws from both Michel Foucault (1980) and Jean-Louis Baudry (1975) in constructing her sense of what dispositif means. For Foucault, dispositif is used to describe a historically specific mixture of material and discursive practices that combine to contribute to some form of social control (i.e., a prison), while Baudry, following from Louis Althusser, uses the term to describe the conceptual arrangement that

interpellates the viewer into a certain subjectivity or point of view as a result of a coordinated technical apparatus. In cinema, this coordinated technical apparatus is the equipment, such as cameras, film, the theatre space, and other cinematic hardware required to produce various effects, namely the capturing and maintenance of the viewer's attention on the diegesis. For massive media, this technical apparatus might include elements of cinema, architecture, urban space, mobile technologies, and telecommunication. As such, the effects of massive media can be considered as composite, relational, and contingent mixtures of many technical assemblages and associated dispositif. For example, the coordinated effect of a heavily screened environment that includes elements of the media city such as urban screens and mobile devices that cater to an ambulatory spectator that is variously attracted and distracted by media (Verhoeff 2012, 104) might be described as a composite dispositif. Simply put, the composite dispositif describes a situation in which we are both captured and comforted, distracted and attracted, by the overlapping media layers that define relational space. This is an important concept when considered alongside Susan Bennett's concept of the 'peripatetic' audience of performance in public space which, she suggests, must be captured by embracing and supporting multiple, incomplete combinations of media forms (2009, 12).

Massive media also alludes to the possibility of expressing another concept of contemporary spaces known as 'non-representational' space (Thrift 2008). Nigel Thrift suggests that metaphors of cyberspace and information superhighways have challenged the ideation of what constitutes environments for experiences and action in contemporary life — of space. Thrift also focuses on *flow* as opposed to what he calls 'authentically achieved space' (2006, 141) existing outside of the of-the-moment flows of people and things in and through it. In this, he shares an affinity with Lefebvre in that he foregrounds action, performance, and flux in the production of space. Thrift's work also has parallels with Manuel Castells's notion of space as being the result of tensions between the 'space of flows' of the electronic age and more originary spaces — what he calls the 'space of places' (2001, 2002, 576). The inclusion (and incursion) of this 'space of flows', the electronic, computerised networks of telecommunications, into the 'space of places', the physical nodes of public squares, skylines, roads, neighbourhoods, and buildings — the lines, nodes, landmarks, and zones that Lynch (1960) describes in his *Image of the City* — is an important shift in how we conceptualise space. Spaces of places have become globalised through technological incursions, and spaces of flows are localised when substantiated through technology (such as screens, personal and public) in spaces of places.

Such a techno-social situation can be seen to produce what Andrew Murphie (2004) designates as 'transversal' subjectivities existing in many localities, or trans-locally. To understand the identity of a peripatetic entity as transversal within a composite dispositif in non-relational space is to understand it not as transcendent or fragmented, but as deeply enmeshed with other identities and locations via technologies of mediation. One phenomenon that demonstrates the way identity is expressed and performed transversally today is seen in the way different profiles may be acted upon on multiple websites for various purposes. Trans-local, transversal identity may also be produced through urban screens that are networked or participatory, once again, merging spaces of flows and spaces of places, generating complex hybrid spaces and publics.

### Entering Supermodernism

Taken together, this transformation in what space is and how it is constructed points to a shifting architectonics of space, that is, the expression through architecture of the history, setting, and specificity of a site (Frampton 1983), one that continues to be shaped primarily by various visual media and the flows they engage and carry. To put a name to these changes, theorists have invoked terms such as super- (Ibelings 2002) or hyper- (Augé 1995) modernity. Supermodernism describes a design perspective focused on and inflected by the acceleration of technology in the design, creation, and reception of architecture, space, and the monumental. While these spaces might include the non-descript spaces of automated flow in the service of capital, such as airports and parking garages (according to Marc Augé), they also include architecture, such as the programmable tip of the Empire State Building, that enacts and embodies an information aesthetic (Manovich 2008) through specific and precise computer visualisations and animations.

As with attention and legibility, the digital can be both a blow and a boon to architectonics, depending on who you ask. Paul Virilio, writing somewhat exasperatingly yet presciently in the late 1980s, a time when the challenges and possibilities of the digital were just beginning to be felt, argues that the digital can sever our connection to the material and corporeal. Virilio sees the dawn of supermodernity as a distinct shock to the very principle of architectonics, and thus also to the ability 'to assert, describe, and inscribe reality' (1986, 18). He notes:

In fact, if architectonics used to measure itself against the scale of geology, against the tectonics of natural reliefs with pyramids, towers and other

neogothic structures, today it no longer measures itself against anything except state-of-art technologies, whose dizzying prowess exiles all of us from the terrestrial horizon (1986, 30).

One example might be the critique of architectural works such as Frank Gehry's Bilbao Guggenheim Museum, criticised for semiotic and technical overreliance on the algorithmic instead of purely architectonic considerations. McQuire argues that 'Gehry's project utilised the computer not as a tool for communication but as a technique of architectural mastery' (2008, 98), thus creating a structure that has a greater connection to the tools of its conception than to site or audience specificity. What Virilio warns us of, and what is demonstrated in Gehry, is the danger of a kind of technological determinism in architecture and monumentality that ignores the discursive potential of these new technologies for citizens.

Hal Foster argues that to make architecture more 'actual, grounded and pragmatic' (2010, 136) we cannot ignore technology. Instead we need to find ways to have it express the 'social real' (ibid., 136), which includes the traces of culture, memory, and presence of the site and the people that populate it. In many ways, this echoes the sentiments of the CIAM in their advocacy for a greater connection to the emotions of people and the space(s) they inhabit, as well as the critical, creative, and commercial thrust behind massive media. For Foster, expressing the social real includes coming to terms with what he calls our 'complicity in the culture of the image', meaning that our buildings must work both as powerful images and as generators of bodily affect, thus reflecting a shift in our thinking regarding the relationship between architecture, mediation (technology, or image), and affect (embodied experience). The opposition between the terrestrial plane upon which buildings and bodies are measured, the plane of appearances (images and buildings themselves), and the non-representational (information), is continually collapsing and should be expressed and developed materially in architecture and public space. One way to do this is to create 'urban visualisations' with expressive architecture that are considerate of the environment (surrounding buildings, local culture, atmosphere), content (the information displayed and any interpretations that may be generated by it), and carrier (the building, square, façade, or any other element that supports the broadcast medium) (Vande Moere and Hill 2012; Vande Moere and Wouters 2012). The proliferation of massive media might be evaluated based on how well it is situated in a real-world environment (both borrowing and contributing to it), how informative it is (whether it allows onlookers to create meaningful insights or provide feedback), and if it provides a

useful civic function (is aesthetically pleasing while calling for some kind of reflection, change, or action).

Finally, as Hito Steyerl argues, our complicity in the culture of the image in general, but specifically through our changing hybrid surroundings, also calls to mind the importance of ‘post-production’ (quoted in Shental 2013) or the documentation, dissemination, and archiving that occurs officially and unofficially alongside the production of culture which can be seen to contribute to a supermodernism in architecture and culture. As Steyerl notes, ‘We are embedded within a post-cinema that has been completely transformed, mutated into whole environments, permeating reality to the point that we can now understand it with media thought and alter it via post-production’. As an element of this supermodern condition of architecture, massive media may be seen as a conduit or catalyst for the circulation of images in that it contributes to a reality understood through remediation and the social recombination and distribution of images and media traces.

## How this Book Works

Chapters Two, Three, and Four of this book focus on one of three related yet distinct subsets of massive media: moving images in large-scale public projection, data-responsive low-resolution façades or media architecture, and the curation and programming of massive media. Each chapter includes a number of case studies (Yin 2012) that are used as probes into particular contemporary instances of massive media. The case studies, which include site visits, participant observation, interviews with artists, designers, and cultural producers, close and distant readings of social media associated with various buildings-as-screens and their related events, and archival and historical research, where applicable, flesh out some inflections and possible trajectories of massive media, all in relation to a rich and varied history of media, space, and architecture. These chapters also include examples of creation-as-research (Chapman and Sawchuck 2012). Creation-as-research is a form of research-creation, the more general term for the integration of a creative process, experimental aesthetic components, or artistic work as part of a research work (*ibid.*, 5). Actually making works of massive media has allowed me to struggle with the logistical, theoretical, and creative questions that surround this area of architecture, design, and culture, and to better articulate and critique it. In doing so, I have been inspired by the work of Matthew Fuller, who, commenting on the challenges of observing and understanding the imbrication of media and spatial assemblages, or



media ecologies, notes: ‘to see how the world operates necessitates a more complex and involved participation in it’ (2005, 106). In partly researching this book through creative works, I have designed, proposed, situated, and experienced the technics (Thain 2008), politics, and practices associated with massive media, using these experiences to augment analysis, critique, and theory. In this way, creation-as-research follows from Heidegger’s thinking about ‘praxical knowledge’ (Smith and Dean 2009, 7) where ideas and theory are ultimately the result of practice. The five creation-as-research projects I present throughout the book include a number of large-scale public projections and public data visualisation installations, as well as a plan for curating massive media that I have put into practice and continues to evolve. These works provide a point of comparison against the case studies presented in the chapters, as well as a specific perspective on the artistic and curatorial use of massive media.

In Chapter Two, I investigate the narrative and associative potential of massive media with respect to moving images and monumentality, focussing primarily on Robert Lepage’s *Le Moulin à Images* (or *The Image Mill*) (2008-2012), *McLarena* (2014) at the *Quartier des spectacles*, and two creation-as-research projects: *30 moons many hands* (2013) and *The Line* (2013). *The Image Mill*, presented in the lower town of Quebec City every night in the summer from 2008 to 2012, remains the world’s largest outdoor projection to date. This nightly occurrence celebrated the 400<sup>th</sup> anniversary of Quebec City by presenting a mixture of archival footage, motion graphics, light, and sound on a 300m wide wall of grain silos in the lower harbour of the city. With purposefully dimmed street lights, the ‘stadium’ seating provided by the city’s ramparts, and a radio signal that carried audio to viewers in hotel rooms surrounding the site, this presentation actively transformed not just one building, but an entire city into a cinema through a composite dispositif (Verhoeff 2012) centred upon its massive display (see Figure 1-5).

In addition to *The Image Mill*, I also consider *McLarena*, an interactive outdoor projection at the *Quartier des spectacles* in Montreal that incorporated the direct participation of its audience, as a comparative case study. Through conversations with the lead production designer of *The Image Mill*, a close reading of documentation (video and catalogue), producers’ reflections about the project, and site visits to investigate both examples, I compare and contrast the approaches and outcomes of these large-scale outdoor projection-based installations and read them through the theoretical lenses of the public sphere, spectatorship, monumentality, and space as inflected by media. I argue that the expanded cinema of monumental projection places the moving image in a direct relationship



Figure 1-5: Robert Lepage / Ex Machina, *The Image Mill* (2008), Quebec City. Photo: Nicola-Frank Vachon (nicolafrankvachon.com), courtesy of Ex Machina.

with its surroundings, thus invoking an extra-diegetic, spatial montage with the city, multiplying contingency and ambivalence and thus extending the boundaries and characteristics of architecture and monumentality. I also argue that cinematic superimposition persists in large-scale public projection and is extended through the urban and architectural specificity of the substrate and situation in which it is presented. The architecture and affordances of massive media spectatorship mediate between space, people, and image, recentring audiences towards a confluence of bodies, the city, and discourses of memory. Taken together, the special effects of cinema taken outdoors transform the conditions of space, monumentality, and the public sphere, furnishing possibilities that range from 'dehistoricisation' (Crary 1999) to 'activated spectatorship' (Bishop 2004) in public spaces. In short, as buildings become screens, they become exhibition spaces for the relocation of cinema (Casetti 2015), a powerful technology/idea in itself that must be adapted and managed within public space to better engage site, audience, and architecture.

Building upon these principles, Chapter Three focuses primarily on low-resolution LED façades, highlighting their unique potential as public data visualisations and the implications of this more durable and architecturally integrated form of massive media. Specifically, I examine the narrative and associative potential of The Empire State Building. A structure that has a

long history of architectural lighting, the Empire State Building upgraded its lighting to a programmable LED façade in 2012 providing animation capabilities and greatly accelerating the rate at which the lights and the causes they represent are changed. As a case study, the building elucidates the connection between data-responsive low-resolution screens/buildings, monumentality, and space. The addition of programmable lighting extends its existing function as symbol and monument of the city by integrating it into a daily program that sees it oscillate from highly corporate advertising programs to the commemoration of a much more diverse set of functions, causes, affiliations, and events. These include displaying political campaign information in real-time, engaging in global campaigns of solidarity for causes such as climate change and anti-terrorism, celebrating sports teams, and presenting dynamic animations set to live music broadcast over the radio for the purposes of entertainment, all disseminated and circulated through various channels such as television and social media. A closer look at this particular assemblage, its history (and that of related structures such as weather beacons), the discourses associated with it, and the role that data visualisation plays on large, low-resolution façades, demonstrates the way such structures couple with concepts of supermodernity (Ibelings 2002), hybrid (De Souza e Silva 2006) and relational space (McQuire 2008), and ‘new monumentality’ (Mumford 2000, 151). Two research-creation projects, *In The Air, Tonight* (2014–), a project created for the LED façade of the Ryerson Image Centre and Ryerson School of Image Arts (RIC/IMA) in Toronto, and *E-TOWER* (2010), a project created for Toronto’s CN Tower, further demonstrate that media architecture and public data visualisations, in their massive embodiment of data of shared consequence and the subsequent intensity of embodiment experienced by spectators and participants against the scale and significance of urban space, better reflect the development of a supermodernism (Ibelings 2002) in architecture characterised by the irruption and imbrication of the ‘infoscape’ and the cityscape. Data-rich public spaces of identity, congregation, and contestation seek and find appropriate and consistent outlets in highly visible, contingent, and ambivalent (McQuire 2008) spatial assemblages of architecture and media. I also argue that low-resolution media façades must be situated, informative, and functional while considering their carrier, content, and environment (Vande Moere and Wouters 2012; Vande Moere and Hill 2012) which should be expanded to consider on- and off-line spaces if they are to truly compliment ‘smart city’ initiatives. This means that they must not only cater to the whims of their hosts and the tech companies that furnish them with these systems, but begin with a consideration of their unique historical and social situation.

Finally, it is important to consider the role that curatorial support plays in guiding, developing, and fostering artistic experimentation and equitable opportunities for representation with massive media. Thus, Chapter Four looks at the roles and responsibilities of artists and curators in signalling the way forward in art and public culture through massive media. Here, I focus on two particular efforts to develop spaces, sites, and practices of massive media. The first is the EU funded group Connecting Cities, which aims to build up a worldwide connected infrastructure of media façades, urban screens, and projection sites to circulate artistic and social content. The second case concerns the New York-based Streaming Museum, an organisation that forms temporary partnerships with cultural and commercial centres to produce contemporary-themed art exhibitions on screens (including its website) and public spaces on seven continents. Through conversations with Susa Pop and Nina Colosi, key curators and producers from Connecting Cities and Streaming Museum respectively, and an examination of their curatorial methods and goals, I describe the careful selection and coordination of on- and offline sites and networks of production and presentation and the provision of experimental relational practices in diverse urban contexts that they employ. Exhibitions such as Streaming Museum's *Nordic Outbreak* which included works that circulated online and on seven continents, including a month-long multi-screen presentation of Björk's *Mutual Core* in Times Square, and Connecting Cities' *Binoculars to... Binoculars from...*, an extended voyeuristic feedback loop between multiple European public screen scenarios, provide examples of the curatorial challenges and opportunities of massive media with respect to access, audience, participation, spectacle, and scale. I augment this analysis by presenting an on-going research-creation project called RyeLights that seeks to open up the Ryerson Image Centre and Ryerson School of Image Arts (RIC/IMA) LED façade to greater artistic experimentation and community engagement through institutional change and the provision of technical protocols and support. Taken together, these studies indicate a broader shift in curatorial attention from autonomous artworks to curatorial networks, hybrid infrastructure, transfer protocols, technical specifications, and software packages that are particularly relevant to massive media. They also demonstrate that negotiations with corporate and civic entities are crucial in order to find solutions for artistic practices of massive media that are sustainable and suitably autonomous and representative.

The final chapter provides some concluding remarks and extends my analysis to suggest various tactics for artists, filmmakers, designers, architects, city planners, and arts administrators to support the critical and creative development of massive media. These include learning from the

affordances and risks associated with other media forms such as cinema, remaining persistent in creating sustainable and open technological, political, and social spaces for critical and creative uses of massive media, and using practice itself as a way to disseminate and spread these ideas and concepts. I also suggest that massive media be considered as an important infrastructural element within smart city and digital placemaking initiatives. Ultimately, the emergence of massive media — of buildings that are fast becoming extensions and focal points of screen networks, and thus, of social activity — necessitates a responsibility for harnessing complex technologies and the complexities of networked space for aesthetic critique, empathetic social connection, and societal change.

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