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# Cultural Interface

by

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## **Author's Declaration**

I hereby declare that I am the sole author of this thesis. This is a true copy of the thesis, including any required final revisions, as accepted by my examiners.

I understand that my thesis may be made electronically available to the public.



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# Abstract

Architecture can be seen as humankind's original canvas, a primary means of cultural expression and the total, sovereign art form. Public architecture and urban public spaces, in particular, are meant to be theaters for public life, where thoughts, ideas and stories are communicated through the physical surroundings that shape our experience of the city. Historically, that has been accomplished through the incorporation of arts and media. Temples and cathedrals were adorned with sculpture and ornamentation. Festival architectures used art, perspectival illusion and a multi-media approach to redefine the look and feel of the existing streets and piazzas. Still, these methods and architectures were inaccessible to many people. The agency to shape the city was held between the few patrons, artists and architects with power and influence, their narratives and aesthetics were permanently ingrained in the city fabric. The ability for people to change the look and feel of their public spaces was not possible until the twentieth century and the proliferation of digital media. Today, digital technologies have become an ingrained part of how people communicate, consume and create culture. Our society has evolved to become digitally-mediated. Yet, these multi-media techniques and digital technologies have not been incorporated in a way that allows people to have agency over their public spaces and create dynamic environments that are capable to change, to evolve with their population. Through a literature review and case study research, this thesis seeks to analyze how methods relating to public art and performance, digital media, and networks can become participatory and interactive tools through which the people of the city can design their own environments and infuse them with cultural production. Taking into account building practices that promote intervention instead of demolition and designing in a way that synthesizes art and media in space, this thesis proposes a framework for design that will reshape public space. The thesis will then apply the framework to the city of Toronto and show how its application can connect the city, encourage community interaction and make cultural production an active part of the urban public realm. By giving agency to a city's residents to stage their public spaces, any setting can find a new life, tell a new story, and be connected in a cultural network.

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# Introduction

Architecture has had a close relation to art and narrative throughout history. Victor Hugo once argued that architecture was the “total, sovereign art form” which supported all others.<sup>1</sup> Architecture is a product of engineering but it also heavily relies on aesthetics and storytelling. As such, an environment is composed of more than the built form; it is a collage of material and immaterial qualities that create an atmosphere and shape an experience. Resultantly, cultural production, media, and storytelling are essential parts of architectural and public space design. Over time, the job of designing these elements has been segregated between a host of specialized professions; stage design, exhibition design, interior design. This thesis looks to re-examine the design of aesthetic and ephemeral qualities in relation to architectural design to propose a new framework for designing public space and its relation to arts, media and the cultural sector. The historic and case study research will be supplemented with research into digital media to compose a framework which describes a participatory and immersive approach to designing space that incorporates both the physical and ephemeral qualities to overcome the increasingly generic and digitized public realm, a situation which many cities around the world are grappling with today, and which has been exacerbated by the Covid-19 pandemic.<sup>2</sup>

Public space, whether it is the interior of Notre Dame or the Italian Baroque piazza, needs to communicate ideas and shape experiences. The temple, forum, cathedral are all functional spaces; which also convey stories and cultural meaning in the social consciousness. Festival architectures of the Renaissance and particularly in the Baroque, with extravagant ephemeral constructions, took stories off the walls and into the streets, making them envelop space. These celebrations and events reinvented existing urban areas with theater and narrative. Later, with the proliferation of photography and film in the late nineteenth century and digital media in the late twentieth century, the city’s urban spaces could be seen in new ways. Ongoing advances in mobile technologies subsequently gave everyday city-dwellers the ability to become filmmakers and storytellers in their own right.<sup>3</sup> Leading to contemporary cities, where the proliferation of

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1 Victor Hugo, *Notre-Dame de Paris*, (Oxford World’s Classics, 2009), 193.

2 Doris Kleilein and Friederike Meyer, *Post-Pandemic Urbanism (Jovis, 2021)*, 37.

3 Nigel Coates, *Narrative Architecture*, (John Wiley & Sons Ltd, 2012), “Pure Narrativity”, *Perlego*.

these technologies can make it easy for anyone to augment and design their environment through physical or, increasingly, digital means. The cinematographic and scenographic techniques developed beginning in the early nineteenth century combined with digital media provide the opportunity for the city to become more interactive and immersive.

Media frequently augments architecture, whether narrative, arts, or digital media. Public architecture in particular, has historically deployed various media to invigorate public space. This thesis examines how decentralized techniques can supplement traditional forms of ephemeral design in order to engage people to design spatial storytelling environments and give the city new life. First, this thesis will present historic research and precedents which show how art and media can be combined with architecture to create evolving atmospheric environments. From the use of art and ornament, to the festival architecture and staging of the Baroque, and later the cinematographic principles redefined how people look at the city; all were examples of how architecture and the built environment was animated by media, resulting in dynamic public spaces. But the potentials of these media become ever more significant when they become open-sourced, allowing anyone to have agency over the look and feel of a space. Architecture then becomes an editable interface and can communicate multiple designs in the exact same location. Part Two: A New Framework for Public Space will define how traditional extensions to public space can be supplemented with digital media to create cities that are immersive and interactive. The framework will outline the possibilities when the ability to stage and augment space is put in the hands of every citizen, showing new and open-ended potentials for public space and architecture design.

Afterward, the third section, Rediscovering Toronto, will apply the proposed framework specifically to the City of Toronto. This thesis will argue how the design methodology can address the city's fading connection to its city fabric, the need for an expanded public realm, and the distancing of cultural production from urban public space. In Toronto, like in many other urban centers, hyper-individualized, virtual spaces, occupy more of people's private and public life. People are increasingly interacting and creating online rather than in physical public spaces. By melding together analog and digital media, we can reverse this trend and create hybrid spaces that bring together digital information and cultural production in the physical environment.

address the need for a change in public space design. Ongoing studies communicate the need for open public spaces to become destinations in their own right. Although, the resulting strategies proposed maintain the generic solutions with which public space is designed today, relying on the common street furniture and planning mechanisms for installing public art. To make the city's urban realm more engaging, new ways to interact with arts and media must be incorporated into its design.

The distancing seen in open spaces throughout the city can be similarly identified in cultural institutions. The closed-off cultural network within the downtown core already has difficulty attracting and connecting to city locals. Still, the increasing trend of culture being viewed and shared online makes it even more pressing for these public spaces to re-examine how to engage visitors. By incorporating new ways of augmenting space that synthesizes art and media with a methodology that encourages exploration and expression, cultural space can become immersive and interactive. The entire city can be transformed into a canvas to be animated and staged by its inhabitants.

Architecture is commonly defined as the art and technique of designing and building a structure. Although, an essential characteristic that is frequently overlooked is the need for architecture to communicate an experience and ideas through its form. This thesis seeks to combine this vital part of architectural design, which has historically been accomplished through arts and performance, with new media technologies and participatory techniques. By augmenting space and creating dynamic experiences, people can design their own public spaces and communicate stories and ideas in new and more immersive ways.



## Designing Atmospheres

Throughout history architecture has been inherently linked to various media, from painting and sculpture to cinematography, leading to our current climate where digital media has become inseparable from our physical surroundings and our daily lives. No example is more telling than the cellphone. It is a rare occasion for a person to not have a phone on them throughout the day. Although so far, this new dynamic has not had a widespread effect on the architectural design process. While there is an increasing amount of experimentation from designers, media as a design element largely remains an add-on to most public spaces, a brief installation for a design or arts festival. Long term interventions in public space remain mostly as some form of advertising.<sup>4</sup> To rethink today's relationship between architecture and media, this thesis will explore historical examples of how arts and media were used in architecture to visualize the ephemeral aspects of space and construct atmosphere. From the painted, stained-glass windows of Gothic cathedrals, to the ephemeral machine of the Baroque, to the cinematographic montage techniques of the twentieth century; they all show how architecture and various media can interact to create spaces that engage with an audience to convey mood and story.

This thesis explores architecture as the combined spatial act of the design of image and sequence; as the creation of spatial storytelling environments. People process information and their environments through sequences and images. Anton Ehrenzweig in *The Hidden Order of Art*, references a multi-dimensional unconscious attention which consists of processes of visual and auditory scanning that grasp complex images and field-like information through unfocused perception.<sup>5</sup> People frequently recount their day as a story composed of a series of events<sup>6</sup>, remembers a city by a quintessential image, such as Paris with the Eiffel Tower. As such, arranging meaningful sequences or staged views is essential to designing architecture. Similar to how a movie tells a story through a sequence of images, so too should architecture. But recently, architecture has become more about templates and data-driven designs than about communicating

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4 Alexander Wiethoff and Heinrich Hussmann, *Media Architecture* (Walter de Gruyter GmbH & Co KG., 2017), "Introduction", Perlego

5 Juhani Pallasmaa, *The Embodied Image* (West Sussex, John Wiley & Sons, 2011), 65.

6 Nigel Coates, *Narrative Architecture*, (John Wiley & Sons Ltd, 2012), "Chap.2 Phenomenological interpretations of the city", Perlego.

stories or moods. While there are exceptions, contemporary public projects in cities like Toronto, for the most part, shun arts and media in favor of generic, cost-effective designs. In projects where media does permeate the design, it is often used to articulate sculptural forms or present advertising.<sup>7</sup> Arts and media should be used to incorporate cultural production into the design of architecture and public space. The term cultural production is defined as the work of cultural industries such as visual arts, textiles, etc.<sup>8</sup> In the context of this thesis, cultural production relates to works of art and story in their physical and digital forms. This thesis will focus on how media can distribute these productions and overlay them atop the built environment.

By understanding how various media augment architecture, we can develop a methodology for a fluid design of public space, where people can change the experience of an existing environment using interactive elements. This section will specifically explore how various forms of media, ranging from ornament to scenographic design, can contribute to the atmospheric elements of architecture and create engaging and interactive environments.

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7 Alexander Wiethoff and Heinrich Hussmann, *Media Architecture*, "Introduction", Perlego.

8 n.d , "Cultural Production - Oxford Reference.". Oxford Reference, Oxford University Press Accessed March 20, 2022, <https://www.oxfordreference.com/view/10.1093/oi/authority.20110803095652897>.

## 1.0 Atmospheres and Architecture

Architecture is shaped by ephemeral elements ranging from lighting to story and symbolism, all of which meld together to create an environment's atmosphere. Staging these elements in space allow their relationships to create meaning and connect with an inhabitant. The resulting environment is saturated with emotional power and becomes a spatial carrier of mood.<sup>9</sup> Thus, the design of these ephemeral conditions is essential to creating architecture and public spaces that connect with people. The atmosphere is what the everyday person describes when experiencing a space. It naturally follows that the visual compositions' design and the aesthetic elements that construct these atmospheres are essential. Gernot Bohme argues for the importance of these aesthetic qualities in *Atmospheric Architectures*,

*[T]he fact that aesthetics is a basic need of all humanity... this basic need reappears within the frame of an aesthetics of atmospheres. For it shows how the environment and the qualities of their surroundings is responsible for people's well-being... it becomes clear that a humane existence includes an aesthetic dimension... The atmospheric is part of life and staging serves its intensification.*<sup>10</sup>

Gernot Bohme argues that aesthetics and atmosphere are linked and make up an essential part of architecture. An atmosphere is an ephemeral quality, and as such it cannot be directly pinpointed or exactly defined, it is an amalgamation, the sum of its parts. In relation to architectural design, an atmosphere is constructed from a combination of aesthetic and ephemeral qualities. This thesis argues that an atmosphere can be constructed by melding together narrative and media to create visual compositions that shape the feeling of space and communicate ideas to inhabitants. Hence the creation of atmospheric architectures is an essentially visual act that relies heavily on arts and media. Architecture in general, is closely related with aesthetics. In addition to the functional and programmatic considerations of design, architecture is also about crafting the aesthetics of an environment. The qualities of resulting designs

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<sup>9</sup> Gernot Böhme, *Atmospheric Architectures* (London: Bloomsbury Publishing, 2017), "Approaching Atmospheres: Translator's Introduction", Perlego.

<sup>10</sup> Gernot Böhme, *Atmospheric Architectures* (London: Bloomsbury Publishing, 2017), "Atmosphere, a Basic Concept of a New Aesthetic", Perlego.



determine the well-being and feeling of an inhabitant. Until today, these qualities have been dictated by a small handful of people paying for and designing a building, but what if environments can be shaped and altered by anyone? What if environments can be customizable and able to communicate a variety of moods and stories, not just that of the designer or developer? By exploring methods that create and alter the ephemeral qualities of space, anyone can be given the agency to design the environments they inhabit. This thesis will look to explore architecture's close relationship to image-making as a tool to design the ephemeral aspects of space in addition to its necessity in the creation of a multi-sensory experience. By synthesizing the acts of image-making and choreographing sequences in a methodology that has its origins in theatrical staging, dynamic and multi-sensory experiences can be assembled in space.

Staging, as the act of arranging visual object in space, is an innate part of architecture and the creation of an atmosphere. Hence the close link between architecture and theater throughout history. As visual beings, humans comprehend the world through imagery. An image is a powerful tool for the communication of ideas and thoughts. As Cicero observed,

*I cannot say whether it is a natural instinct or a kind of illusion, but when we see the places where we are told that the notables of the past spent their time, it is far more moving than when we hear about their achievements or read their writings.<sup>11</sup>*

Visual compositions simultaneously provoke and organize thoughts. Architecture has the specific benefit of organizing these images in space. It immerses a person in a world rather than just being exposed to an image. Juhani Pallasmaa describes the design of this kind of atmospheric architecture as embodied images that are spatialized, materialized, and multi-sensory lived experiences.<sup>12</sup> The sensation of inhabiting an image and stepping into a new world was once accomplished by staging physical spaces with unique and evolving atmospheres. Although, today, this act of staging and world-building is being applied more towards virtual worlds than architectural spaces. Historically, world-building and theatrical staging were inherent design tools for architectural projects. Space was designed with ornamentation, art, and atmospheric effects that embedded mood and meaning in architecture. Thus architecture, especially

11 Diane Favro. "The festive experience: Roman processions in the urban context," in *Festival Architecture*, ed. Sarah Bonnemaïson and Christine Macy (London: Routledge, 2008), "Seeing the Festival", Perleço.

12 Juhani Pallasmaa, *The Embodied Image* (West Sussex, John Wiley & Sons, 2011), 11.



Fig.1.1 Caudebec-en-Caux

public architecture, was not only practical but also poetic. As Karsten Harries explains, architecture is fundamental to the establishment of meaning attributed to our physical world,

*Architecture helps to replace meaningless reality with a theatricality, or rather architecturally, transformed reality, which draws us in and, as we surrender to it, grants us an illusion of meaning... we cannot live with chaos. Chaos must be transformed into cosmos... When we reduce the human need for shelter to material need, we lose sight of what we can call the ethical function of architecture.<sup>13</sup>*

Architecture has long surpassed its definition solely as shelter. Our built environment is not strictly for practical purposes. The visual and cultural productions that elevate the banality of day-to-day life are essential in architecture design. Harries' point echoes Gernot Bohme's argument that aesthetics and the atmospheric elements of an environment are crucial. Humans are storytelling beings, and as such, the environments they inhabit should also actively engage them emotionally and physically. Most often, spaces that achieve those kinds of embodied connections and remain in our cultural histories, work with arts and media to communicate a story and experience. Public architectures, ranging from the Acropolis, Roman forums, Gothic cathedrals, and Baroque piazzas, were armatures for art and were often animated by ephemeral media. Their ability to engage and evoke emotions led to architecture becoming understood as a primary means of cultural expression. One of the most famous arguments in favor of this idea is Victor Hugo's assertion that architecture was "the greatest book of humanity".<sup>14</sup> Hugo argued that before the invention of the printing press, architecture was the primary means of cultural expression. More specifically, he described architecture as the total and sovereign art that held all others,

*Yet once architecture became merely one art among others, once it ceased to be the total, sovereign, tyrannical art, it was no longer strong enough to hold on to the other arts. So they freed themselves, threw off the yoke of architecture and each went its own way... The printed word, gnawing like a worm at its buildings, sucked and devoured it. It grew bare, its leaves fell off, it wasted visibly away... Reduced to itself, abandoned by the other arts because abandoned by human thought, it called in laborers for want of artists.<sup>15</sup>*

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13 Juhani Pallasmaa, *The Embodied Image* (West Sussex, John Wiley & Sons, 2011), 123.

14 Victor Hugo, *Notre-Dame de Paris*, (Oxford World's Classics, 2009), 193.

15 Victor Hugo, *Notre-Dame de Paris*, 193.



Fig.1.2 Notre-Dame de Paris

Historically, art forms that we have deemed autonomous today regularly shaped the perception of architecture. Visual arts like painting and sculpture were embedded within architecture into the structure of the building and animated it. The Cathédrale Notre-Dame de Paris tells its story through the sculptures that adorn its walls and the stained glass that illuminates its interior. Visual elements were arranged in a sequence, resulting in a visually complex composition that communicated narrative and atmosphere. Hugo's argument of architecture in decline stems from his disenchantment of architecture being laid bare. For him, significance and meaning were expressed through the complexity of forms, layered visual composition, and overlapping of scales.<sup>16</sup> This sentiment can be seen echoed more recently in Robert Venturi's writings on a need to see architecture in a new light. *Complexity and Contradiction* and *Learning from Las Vegas* once again argued for the need to redefine architecture's relationship with complexity and aesthetics. The aesthetics and ephemeral aspects shape how architecture communicates and shapes atmospheres that communicate thought, mood, and emotion. Complexities breed relationships between disparate objects and capture an inhabitant's attention.

Although, one must also consider that superficially complex forms and fragmented images alone can leave a space just as empty as a set of austere walls. In *Complexity and Contradiction*, Robert Venturi acknowledged the need for a cohesive and complex composition that is not designed superficially,

*Simplified or superficially complex forms will not work. Instead, the variety inherent in the ambiguity of visual perception must once more be acknowledged and exploited.*<sup>17</sup>

Without connecting to narrative or performance, visual elements become overcomplicated forms without meaning, or at best, obscure symbols whose meaning is buried with time. Hugo describes this type of condition when writing about the Cathedral of Caudebec-en-Caux. Hugo pronounced Caudebec as 'nothing but stone lacework'.<sup>18</sup> Without narrative, the art that animates a façade does not contain meaning past its artistic accomplishment; it becomes filigree. Similar tendencies towards superficially complex forms can be seen today in the sculptural works of Frank Gehry and Daniel Libeskind. Their

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16 Maarten Delbeke, "A Book Accessible to All," *AA Files*, no. 69 (2014): 119.

17 Robert Venturi and Vincent Scully, *Complexity and Contradiction in Architecture* (New York: The Museum of Modern Art, 2019), 16.

18 Maarten Delbeke, "A Book Accessible to All," *AA Files*, no. 69 (2014): 118.

works exemplify the over-emphasis on form without connecting to surrounding physical or social contexts. These contemporary sculptural architectures have subsequently fueled debates of architecture's relationship with art. The overwhelming consensus of that debate was the need to abolish the idea of architecture as a work of art.<sup>19</sup> While architecture should not primarily be a sculptural act, the connection to arts and media remains an integral part of the design that has been lost. By divorcing art from architecture, has, for the most part, erased story and symbolism from the urban realm.

The synthesis of art and media through a scenographic design approach allows architecture to connect with its inhabitants. In no period is this better exemplified than the Baroque period, when the city was conceived as a theater animated by rhetorical projection and where life played out in its public spaces. Hugo himself acknowledged the narrative and poetic potentials of Baroque architecture. During his travels to Belgium, Hugo revealed his admiration for the narrative and poetic design of the late-seventeenth-century pulpit of St. Gudule's Cathedral. Hugo described his veneration towards Hendrik-Frans Verbrugghen's creation with the following passage,

*It is the whole creation, it is all of philosophy, it is all of poetry, figured by an enormous tree carrying in its branches a pulpit... the whole is prodigiously rococo and prodigiously beautiful.<sup>20</sup>*

Despite the assertion of the dying relationship between architecture and cultural meaning, Hugo still described architecture as evoking thought and emotion. Through the melding of illusionistic perspective, sculptural forms, and structure, Baroque architecture synthesized the arts and theatricality in space to create cohesive atmospheres. This methodology was also not employed solely for religious architectures like the St. Gudule's Cathedral. The preference for wholeness and blurring the boundary between arts and architecture, whether interior or exterior, object or space, extended to the entire city. The result was a multi-media and theatrical approach to designing a wide range of public spaces. The Baroque period resulted in a shifting of attitude towards city life. Cities across Europe were infused with new, theatric energy. The prominent writer, Louis-Sebastien Mercier explored the unique

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19 Hosey, Lance, "Why Architecture Isn't Art (And Shouldn't Be)." ArchDaily. March 8, 2016. <https://www.archdaily.com/783412/why-architecture-isnt-art-and-shouldnt-be>.

20 Maarten Delbeke, "A Book Accessible to All," *AA Files*, no. 69 (2014): 118.

character of urban life in essays in *Le Tableau de Paris*.<sup>21</sup> Mercier was fascinated by the communicative and expressive powers of urban space. After the French Revolution in 1789, Mercier argued that every building, not just the damaged royal monuments, bore the testimony of the event and, as such, could embody monumental status. Therefore, the animated street adorned with posters and flyers formed public libraries which would communicate information and trigger people's memories.<sup>22</sup> This city thus becomes an animated depository of history. Mercier described an image of the city as both an archive and stage. The problem with pursuing these projects is pinpointing whose narratives get portrayed. No one person experiences life in the same way. Like the festival architectures that preceded and succeeded, Mercier's vision of the city as a living library, whose books are its walls and posters can also easily become sources of propaganda, where one dominant viewpoint can flood the streets. That is why a decentralized approach combined with providing access to the tools necessary to produce these kinds of interventions is necessary. Until the twenty-first century, all art and cultural creations, including architecture, were constricted to design by a small group of people who had the tools and know-how. Artists and architects had the overarching authority over what was seen and constructed. When kept in the hands of a few, any cultural production can easily become propaganda. Today's decentralized techniques of sharing and creating content pose an alternative to culture and narrative being kept in the hands of elites. Nevertheless, while Mercier's proposal could easily be biased, its importance lies in the recognition that any architecture, not just monuments, is embedded and comes to hold a variety of stories and meanings. Mercier's image of Paris post-revolution is based on architecture as scaffolding for thoughts and memories. His writings confirm architecture's close relation to media. But posters and ornament are not the only examples, for centuries, architecture has been embedded with media, from the hieroglyphics inscribed in Egyptian temples to the stained glass windows adorning Gothic cathedrals.<sup>23</sup> All public spaces, not just religious buildings, have historically been augmented to communicate stories and information, a famous example being the Prague Astronomical Clock. A complicated and multilayered work, the clock broke with tradition. It was built facing the public

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21 Louis-Sébastien Mercier, *Panorama of Paris*, (1999, The Pennsylvania State University Press).

22 Louis-Sébastien Mercier, *The Picture of Paris*, (1929, George Routledge & Sons, Ltd), 234.

23 Glenda Amayo Caldwell and Marcus Foth, "DIY/ DIWO Media Architecture: The Instabooth," in *Media Architecture*, ed, Alexander Wiethoff and Heinrich Hussmann (Berlin, Walter de Gruyter GmbH & Co KG., 2017), ?.

square, unlike most other astronomical clocks of the time, which were located on the interior of churches. It sits nestled between the buttresses of the Old Town Hall to become an active part of urban life.<sup>24</sup> Examples like Notre Dame or the Prague Town Hall show how media enhances the architecture and creates experiences by layering the built form with information.

But it is not until the Baroque period that these interventions were taken off the walls of buildings and reinvented architectures into multi-media and multi-sensory spatial creations. Baroque ephemeral architectures incorporated media in immersive and three-dimensional ways, taking atmospheric design to new narrative and theatrical heights. Baroque architecture was highly articulated and visually complex. Symbolic orders and imagery composed façades and shaped the forms of buildings. Similar to how the façade of Notre Dame committed the thoughts, ideas, and history to stone; Baroque facades communicated doctrine, mythology, and cultural history. Where the baroque deviated from the tradition of the Gothic was its focus on coordinating disparate elements in the urban fabric to create a cohesive whole instead of designing a stand-alone monument like the Cathédrale Notre-Dame de Paris. The argument can be made that Baroque interventions successfully presented relevant meanings to people since the constructions merged architectural forms with staging and ornamentation, the primary structures of storytelling with spatial qualities. The architecture was no longer a stone book but an experience. In fact, Baroque architects did not perceive any boundaries between creating architectural interventions and shaping urban environments.<sup>25</sup> Whether made of stone, water, or air, every element was connected and designed as one theatrical space. The next chapter will look specifically at these Baroque creations and how they created immersive experiences and applied atmospheric effects towards the built environment and urban spaces.

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24 City of Prague, "Astronomical Clock - Prague.Eu," Prague.Eu. Accessed December 9, 2021. <https://www.prague.eu/en/object/places/3129/astronomical-clock>.

25 David Mayernik, "The Baroque City," in *The Oxford Handbook of the Baroque*, ed. John D. Lyons (Cambridge: Oxford University Press, 2019), 2.

## 2.0 Festival Architecture and the Ephemeral

The invention of linear perspective in the Renaissance allowed people to see the world differently. Brunelleschi's famous painting experiment in front of the Florentine Baptistery launched new possibilities of how the physical environment can be overlaid with an alternate reality so seamlessly that the transition between real and fiction could barely be noticed. In 1415, Filippo Brunelleschi stood in front of the Baptistery in Florence, which was still under construction. Brunelleschi had painted a picture of the Baptistery of San Giovanni. He then drilled a small hole in the picture for one to look through when standing 115 feet away. By rotating the image 180 degrees and placing a mirror at arm's length the Baptistery was transformed by Brunelleschi's painted intervention. The experiment was so successful that spectators could not tell the difference between the painting reflected in the mirror and the original space.<sup>26</sup> The ability to create the illusion of three-dimensional space on a two-dimensional surface would later have massive implications on art and architecture. The repercussions can be seen in Baroque architecture that would employ these perspectival techniques to create illusionistic interiors and exteriors by combining painting, sculpture, and architecture.

The Baroque period provided new and more immersive ways to animate the city with staging and theatricality. Scenography and narrative were incorporated into the design of new architectural interventions and monuments and used to redefine existing spaces. Ephemeral constructions created for festivals and processions combined visual spectacles with illusionistic perspectives to construct unique atmospheres and redefine urban areas. Technological advancements propagated during the Renaissance allowed for new forms of visual representation. Artists and architects staged environments by holistically designing the structural, sculptural, and ephemeral. They constructed experiences through the use of media. The employment of media did not end with the event either. Print mediums, such as festival books and pamphlets, were used to record these events and further engrain them in the cultural memory.<sup>27</sup> Everyday spaces were transformed into otherworldly locations with

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<sup>26</sup> David Salomon, *Transformations and Projections in Computer Graphics*, (Springer, 2006), 79-82.

<sup>27</sup> Laurie Nussdorfer. "Print and Pageantry in Baroque Rome." *The Sixteenth Century Journal* 29, no. 2 (1998): 440.



every passing celebration and festival.

The urban festival has a long history, dating back to the city's birth. Notable examples consist of festivals seen in Roman times when urban space and temporary festival architecture were in an ongoing dialogue, one impacting the other and vice versa. Celebrations and theatrics were closely related to and even affected urban design. Festivals and celebrations were an essential part of urban life. Researchers have studied how the festival routes choreographed in Ancient Rome exploited the genius loci of existing sites and buildings. The processions are cited as, "Significant in the way that 'a city visualized or articulated its identity'".<sup>28</sup> Founding myths and the display of ruling authority were acted out in the city streets. In addition to those ceremonies, a host of other events animated the city; theatrical productions, victory processions, religious ceremonies, mock sea battles, and large-scale feasts. These events included their own set of communal activities and ephemeral architectures. The Roman festival tradition was an essential and interactive part of urban civic life. Despite the efforts to limit the extensive amount of festivals under the reign of Marcus Aurelius, "135 days per annum remained designated festival days".<sup>29</sup> The tradition of pageantry and spectacle was an essential part of Italian urban culture well beyond Roman times, with cities like Venice, Florence, Ferrara, and Rome becoming epicenters for cultural activity in all art forms, including urban theater and festival. Although these events were an essential part of a city's cultural history, their primary function was to embody power at their core. The productions were held at the behest and honored monarchs, churchmen, and noblemen. These festivities inevitably had a host of political messages relayed through them. This thesis will not be examining the political motivations behind the events but instead analyze the scenographic and design methods that produced these festival architectures, mainly how artists and architects used multi-media methodologies to construct multi-sensory experiences and atmospheres.

Baroque ephemeral constructions blended the fictive and the

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28 John R. Gold and Margaret M. Gold, *Festival Cities: Culture, Planning and Urban Life* (New York: Routledge, 2020), "chap. Ancient and Modern, section. The Festive Calendar", Perlego.

29 John R. Gold and Margaret M. Gold, *Festival Cities: Culture, Planning and Urban Life*, "chap. Ancient and Modern, section. The Festive Calendar", Perlego.

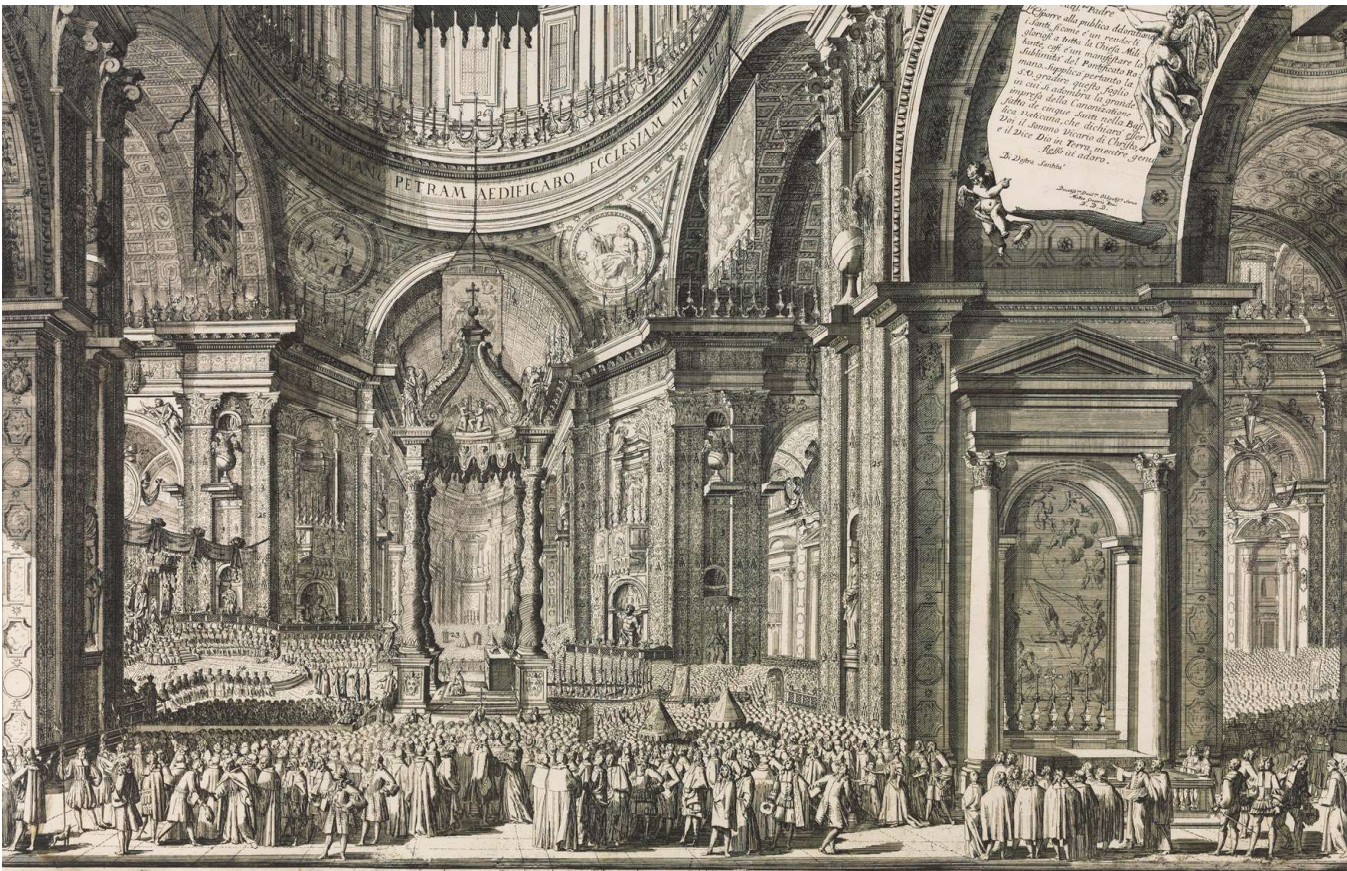


Fig.1.3 Canonization of the Five Saints, Vatican, 1690

real city. The architectural pieces were crafted in ways that made it difficult to discern where the stage sets ended, and the real city began. Whether they were installed in the middle of a piazza or the interior of a church, the constructions would manipulate space and atmospheric qualities for a theatric and narrative effect. These constructions ranged from triumphal arches to whole temporary theaters, with each event including various elements that transformed the look and feel of the city architecture. Materials would vary, but often the constructions would consist of cheap materials such as wood and paper mâché that would then be masterfully painted to create the illusion of luxurious materials such as marble or natural vegetation. In one instance, during Leo X's entry into Florence, set pieces were constructed and painted to simulate the structures in the act of metamorphosis, with the architecture appearing to transform into vegetation.<sup>30</sup> Elsewhere, in Antwerp, a paper mâché colossus was documented as being constructed to commemorate the entry of Charles V and Prince Phillip in 1549.<sup>31</sup> The festival architectures,

30 Francesca Mattei. "Ephemeral and permanent architecture during the age of Ercole I d'Este in Ferrara (1471-1505)," in *Architectures of Festival in Early Modern Europe*, ed. J.R. Mulryne, Krista De Jonge, Pieter Martens, and R.L.M. Morris (New York, Routledge, 2018), "Introduction", Perlego.

31 Smith, Pamela H., Tianna Helena Uchacz, Sophie Pitman, Tillmann Taape, and Colin Debuiche, "The Matter of Ephemeral Art: Craft, Spectacle, and Power in Early Modern Europe." *Renaissance Quarterly*, no. 1: (2020): 78–131.

therefore, varied in size and utility, but their primary purpose was for illusion and visual spectacle. Their purpose was to convince their audience of being in another place or give the impression of opulent settings clad in marble and vegetation while, in reality, being elaborate constructions made of wood, paper, and paint. The architecture would also feature other accessories in interior scenes, including tapestries and candles, to create a specific atmosphere. The *machine* were theatrical set pieces commissioned by nobility and other high-powered dignitaries such as the Ottoboni family. Their design and construction are described by Edward Olszewski in *Dynamics of Architecture in Late Baroque Rome*,

*The religious machina was a grand architectural apparatus often the size of a large building. It could be overwhelming as it filled the nave of the church, especially when combined with a manipulation of directed lighting, veiled in intensity for theatrical effect, sometimes in combination with rays of light in gilded stucco, and clouds with glories of clustered cherubs.*<sup>32</sup>

The sheer size aided the spectacle of much festival architecture, as is confirmed from this account of the religious constructions. In addition to their grandeur, the *machine* and architecture used many different media to stage an atmosphere and move people emotionally. Olszewski asserts a wide array of art forms were assembled to create these architectural set pieces,

*The devotional machine took the form of a grand architectural ensemble, but it represented an architecture reduced to a temporary and exclusively religious function, one that had to incorporate non-architectural but essential elements such as paintings, tapestries, gilded figures, lamps and candles.*<sup>33</sup>

The Baroque constructions used all forms of media in their design of space. The architecture was not about pure forms but assemblage and collage. In contrast to Olszewski's assertion that architecture was somehow reduced from a higher state, this thesis argues that by conceiving architecture as a multi-media construction, a richer and more engaging environment can be created, with ephemeral baroque architecture as proof. Temporary structures can hold a great wealth of meaning because they can directly respond to an environment. Ephemeral constructions like the religious machine were dynamic partially because of their temporal nature. A fresco tells the same story each time it is seen. By contrast, the religious machine contorts

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32 Edward J. Olszewski, *Dynamics of Architecture in Late Baroque Rome* (Self-pub., De Gruyter Open, 2015) 102.

33 Edward J. Olszewski, *Dynamics of Architecture in Late Baroque Rome*, 102.

space, augments it with art and artifact, and animates it with light and shadow. The various configurations between each element can be reconfigured each time. As a result, the multi-sensory experiences that assembled all art forms in one construction drew many visitors. Olszewski cites the Roman guidebook; Mercurio Errante and its explanation of how these constructions drew great spectator interest, “*Rossini’s guidebook also explained what attracted the visitors, namely, the machine’s rich ornamentation, its well-designed painting, the requisite glory of angels, superb music, and an infinity of lights representing a starry heaven.*”<sup>34</sup> An immersive experience was created by using all media cohesively designed in space. The ephemeral constructions of the Baroque present an idea of public space design that is evolutionary, multi-media, and interactive.

The temporality of these constructions was essential in its ability to tell different stories and pushed artists and architects to innovate and construct a new version every time. The festival architectures and *machines* provided a chance to test bold and inventive designs. Short life spans promote experimentation and invention. For this same reason, temporary interventions in public space are once again becoming a widely embraced tactic in contemporary urban design strategies. Impermanence and the frugal nature of temporary architectures make authorities and viewers more comfortable with experimentation and unconventional interventions. Urban dwellers respond to the display of temporary interventions with a more open mind. That is true for today’s age as well as for the Baroque. Thus, the Baroque constructions pushed the creators and the visitors as well. The novelty added to the spectacle of these events and drew on people’s curiosity. These reinventions required people’s attention to notice the similarities and differences and provoked them to see a space in a new light, to be intrigued and moved. Art and the spatial environment are influential due to their ability to evoke thought and feeling. Their amalgamation then leads to a sense of immersion that cannot be obtained if looking at either separately. As Juhani Pallasmaa describes in *The Embodied Image*,

*The surprising commonalities between the art forms of theater and architecture ... strengthened my view that artistic imagery from music to poetry, painting, and sculpture, theater and architecture, acquires its special and magical power through becoming part of the listener/reader/viewer/dweller’s embodied existence and sense of self.*<sup>35</sup>

While primarily visual, the Baroque constructions engaged with all senses and temporality to create an experience that connects with

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34 Edward J. Olszewski, *Dynamics of Architecture in Late Baroque Rome*, 104.

35 Juhani Pallasmaa, *The Embodied Image: Imagination and Imagery in Architecture*, (John Wiley & Sons Ltd, 2011), 10.



Fig.1.4 Bacchus Ephemeral Statue - Exterior

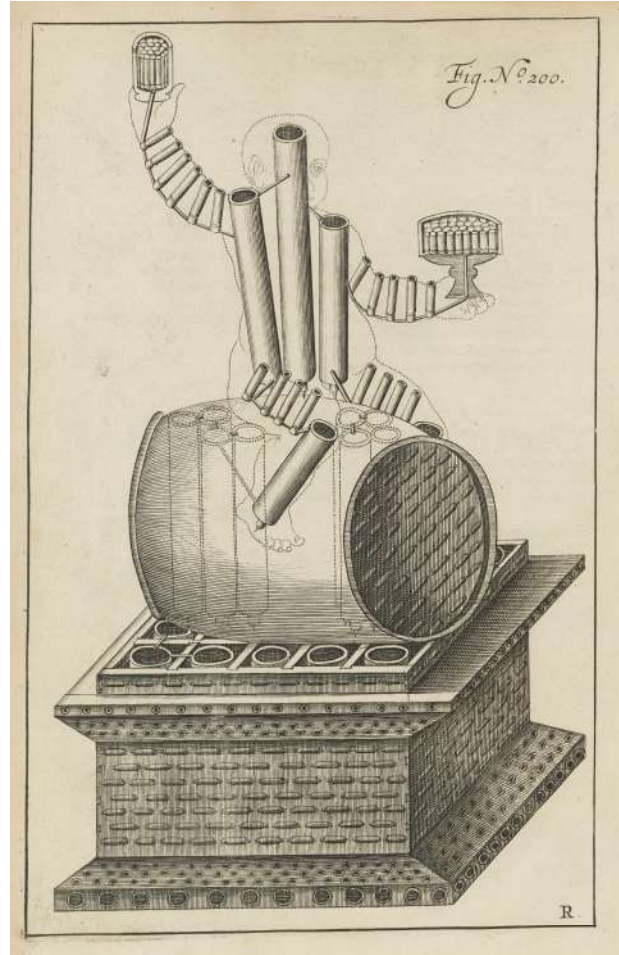


Fig.1.5 Bacchus Ephemeral Statue - Interior

the participant on every level, engaging emotions, imaginations, and the physical body. Arts and media animate space and connect ideas and stories that move past the existing environment. They reveal different dimensions of a space. Without these elements, it becomes hard for people to read a space and assign meaning. Visual artifacts, like painting, sculpture, or natural characteristics, composed festival architecture, and architectural interventions like the Trevi fountain acted as armatures on which meaning and story were attached. The importance of these elements required the ephemeral constructions to be designed with as much care and detail as a work of the high arts or permanent piece of architecture. These were not only chances for artists to experiment but also a means of promoting their services. Festivals and celebrations guaranteed large audiences. As a result, displaying spectacular effects and artistry would be partially aimed



Fig.1.6 Jupiter and Minerva and the Forge of Vulcan, for the “China” Festival, 1733

at procuring later commissions from influential patrons.<sup>36</sup> Therefore, the inventions created for these events were by no means thought of as a lesser form of artistic production. A host of influential artists and architects of the time participated in the construction of temporary art and theatrical stage sets,

*Brunelleschi famously made the stage machinery for mystery plays... Tintoretto derived a sizable portion of his income from painting furniture and scenery for theater; and Peter Paul Rubens designed the joyous entry into Antwerp of Cardinal-Infante Ferdinand of Spain in 1635, as well as its spectacular description printed in elephant folio in 1642... In his life of Jacopo Pontormo, Vasari describes in vivid terms*

36 Sarah Bonnemaïson and Christine Macy, introduction to *Festival Architecture*, ed. Sarah Bonnemaïson and Christine Macy (London: Routledge, 2008), “Introduction”, Perlego.



Fig.1.7 The Prima Macchina for the China of 1732: The Council of the Gods, 1732

*the synesthetic aims and multimedia production of a festival spectacle created by Andrea del Sarto, Piero da Vinci, Baccio Bandinelli, and many other well-known artists.<sup>37</sup>*

There was a strong connection between the aesthetics of creating art and architecture. While today, the concept of ornament and multimedia animating architecture is interpreted by some as kitsch, the Baroque era embraced the theatricality and narrative potential of synthesizing the arts through architecture and spatial design. Similar to the Baroque ideas of urban design and architectural intervention, the design of the ephemeral *macchine* designed the space in its totality and strove for wholeness. Various elements ranging from

37 Smith, Pamela H., Tianna Helena Uchacz, Sophie Pitman, Tillmann Taape, and Colin Debuiche, "The Matter of Ephemeral Art: Craft, Spectacle, and Power in Early Modern Europe." *Renaissance Quarterly*, no. 1: 78–131 (2020): 80.

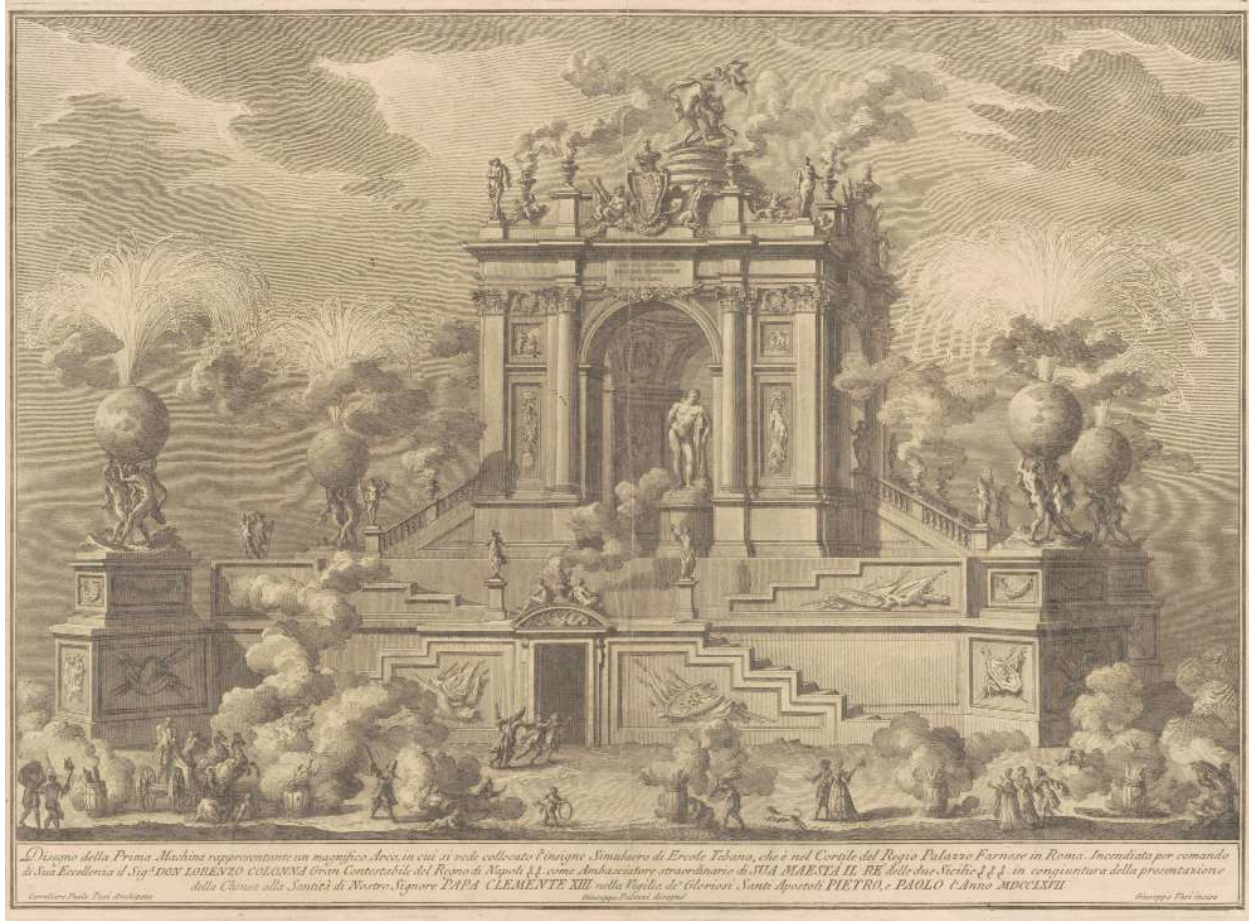


Fig.1.8 The Prima Macchina for the China of 1767: A Triumphal Arch with the Farnese Hercules, 1767

painting, structure, and even pyrotechnics were integrated cohesively to transform the city into a stage. Illusion and perspective were employed in the design of set pieces. Unique constructions varied in their life span. Some architectures were designed to be and remained temporary and are lost to us today, while others remained in use well past their intended expiration date. Pieces like the Bacchus statue shown in Figures 1.4 and 1.5 were explicitly constructed to be animated and subsequently destroyed by pyrotechnics.<sup>38</sup> On the other hand, some structures were preserved and reused, as with Druon Antigoon. This paper-mâché colossus was crafted to represent Antwerp’s identity for Charles V and Prince Philip of Spain’s entry into the city in 1549.<sup>39</sup>

No event exemplified these ideas more lavishly than the

38 Smith, Pamela H., Tianna Helena Uchacz, Sophie Pitman, Tillmann Taape, and Colin Debuiche, “The Matter of Ephemeral Art: Craft, Spectacle, and Power in Early Modern Europe.” *Renaissance Quarterly*, no. 1: 78–131 (2020): 86.

39 Smith, Pamela H., Tianna Helena Uchacz, Sophie Pitman, Tillmann Taape, and Colin Debuiche, “The Matter of Ephemeral Art: Craft, Spectacle, and Power in Early Modern Europe.” *Renaissance Quarterly*, no. 1: 78–131 (2020): 93.



Festa Della China. The event was one of the oldest festivals in Rome, held annually for about 600 years. In its beginnings, the Festa Della China's main feature was a procession through the streets of Rome following a lone white horse to St. Peter's Basilica. As an equine symbol of the sacrificed Christ, the horse would enter the central portal of St. Peter's and finally come to rest before the pope's cathedra, where the pope would bless it. Unlike other Roman festival events, the China featured wandering as a central feature of the entire spectacle. The horse wandered the streets as the main spectacle, as opposed to other festivals where animals would be confined to carriages or floats and blended into the iconography of the procession.<sup>40</sup> Since its beginnings, the Festa Della China alluded to the need to observe and explore the city. It presented the city as a labyrinth to be explored as if one were a wandering pilgrim.<sup>41</sup> Changes to the festival came in the late seventeenth century when the residence of the ambassadors of the Kingdom of Southern Italy and Sicily moved to the Palazzo Farnese, and the festival became increasingly extravagant, as most all events did as Rome gained high status among travelers embarking on the Grand Tour. Following these changes, the festivities became less focused on the procession of the China. Instead, they focused on the culminating fireworks display and the set pieces installed in the piazza of the Palazzo Farnese. The event centered around reinventing the urban landscape through these architectural *invenzione*.<sup>42</sup> The ephemeral constructions embellished large parts of the urban fabric as the procession moved from one end of the city to another and culminated in a large fireworks display in the Piazza Farnese during the Baroque years.<sup>43</sup> The festival is a telling case study since it has its events and constructions recorded in a series of prints. These prints document the *machine*, which reinvented the urban fabric to create alternate worlds. The spectacles depicted exotic themes and locations. By exploring the city, one would explore the world. As a result of the Age of Discovery, people were hungry for exploring and connecting to faraway places. These events were one way that they could experience these distant locations. However, the preference towards the exotic was not constricted to the Festa Della China. All festival events grew in size and spectacle as Rome became a prominent stop along the Grand Tour. The masquerade held in 1751

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40 Nicholas Temple. "Festa della China: Tradition and the 'exotic' in Roman festival design – Italy," in *Architecture, Festival and the City*, ed. Jemma Browne, Christian Frost and Ray Lucas (New York: Routledge, 2019), "Chap. 3, The White China and equine symbolism", Perlego.

41 Nicholas Temple. "Festa della China: Tradition and the 'exotic' in Roman festival design – Italy," "Chap. 3, The White China and equine symbolism", Perlego.

42 Nicholas Temple. "Festa della China: Tradition and the 'exotic' in Roman festival design – Italy," in *Architecture, Festival and the City*, "Changes in the seventeenth and eighteenth centuries", Perlego.

43 Nicholas Temple. "Festa della China: Tradition and the 'exotic' in Roman festival design – Italy," "Changes in the seventeenth and eighteenth century", Perlego.

saw the exotic climax of these spectacles. The processions that ran along the Corso celebrated the world's four continents and displayed a series of elaborately decorated carri. Each carri, decorated float, had its own set of costumed figures and details designed to evoke the aesthetic qualities and character of the different regions of the world.<sup>44</sup> While highly elaborate, the depiction of this event in Jean Barbault's painting shows an animated procession that bears a striking resemblance to today's parades, with elaborately designed floats and actors. The *macchine* created for the Festa Della China, on the other hand, were elaborate pieces of architecture that designed an entire environment. The complete Festa Della China was intended as a cohesive sequence, culminating in the pyrotechnic displays in the Piazza Farnese. A range of media was combined in the staging of these events.

The processions redesigned the city and animated it with art and story but also created a sense of wonder and reinforced the need for discovery. The parades and festivals connected disparate locations of the city by transforming the city into one big stage. These events exemplify how designing space with image and perspective along a spatial and narrative sequence can radically change the atmosphere of public space. Festivals and their environment design engaged people and prompted interaction between citizens and the city by transporting them from the everyday activities and environments they inhabit to alternate worlds. That is what makes art and performance such an essential part of society and architecture, its ability to engage the imagination and show a new perspective. Designing architecture with a multimedia approach thus allows for new ways to communicate narrative and connect with an inhabitant.

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44 Nicholas Temple. "Festa della China: Tradition and the 'exotic' in Roman festival design – Italy," "Changes in the seventeenth and eighteenth century", Perlego.



## 3.0 Cinematic City

The urban festival implemented a multimedia approach to designing an environment to create theatric events. The Baroque then took this practice to new heights as ephemeral effects, and illusionistic techniques became primary design tools in the creation of festival architectures as well as permanent constructions. Illusionistic perspective and elaborate scenography allowed for new ways to incorporate image-making into the design of urban public environments. Later, the beginning of the twentieth century gave rise to the widespread use of photography and cinema, tools that would come to radically transform the image of the city and the way an atmosphere and experience is constructed once more. Architecture and scenography have had a symbiotic relationship throughout history, but the image-making technologies of the late nineteenth and early twentieth century allowed theatric and immersive ways of designing an atmosphere to expand into space in general, not just the theater set or a select number of staged piazzas during special occasions. These media technologies made it possible to communicate a narrative sequence in urban space easily. Cinema trained people to see the city differently and prompted people to construct their own spatial relationships. Space no longer had to be represented in its wholeness as in a painting but could be fragmented and reassembled according to each individual's ideas. The time of the flâneur, the keen urban observer, had begun. These technologies allowed anyone to discover and author their own vision of the city.

Image-making and staging are crucial tools that affect one's perception, thought, and emotions; they construct the atmosphere of a space. Visual perspectives express the way we remember and understand space, and as such, the city's public spaces are defined by them. Their images and aesthetic landscape depict cities. As was seen with the Baroque festival, the architectural and visual elements were designed together and used to augment a city aesthetically. As a result, these constructions played a significant role in building a city's identity. The modern city's character remains highly visual and aesthetic, albeit more fragmented and generic. The rise of photography, while empowering people to visualize stories and new visions of the urban realm also sparked the proliferation of the postcard city. The phenomenon of a city's identity becoming defined by a confined set of views of staged monumental architectures. In this case, the staging of the modern city was no longer experience-based but a tool for curating a very particular image. The resulting

tourist city promoted the reproduction and commodification of urban public space. Today, this condition is exacerbated by Instagram architecture which prioritizes the aestheticization of space and the commodification of cultural and public spaces.<sup>45</sup> This thesis explores the potentials of cinematographic perspectives and the implementation of art and media to design atmosphere through visual sequences. Unlike Instagram architectures like pop-up museums or contemporary cultural monuments, an approach to creating an atmosphere cannot be summed up in a single image. Like the interior of Sant. Ivo Della Sapienza, an immersive experience, can only be truly appreciated in sequence and space. The addition of spatiality and temporality makes the act of image-making into an act of creating immersive environments and experiences, which makes it architecture.

By exploring concepts of cinematography, particularly the creation of sequences and organization of narratives, new ways of seeing and designing the city can be exposed. The importance of sequences and narratives in our daily lives and occupation of space can be seen in the words of Ezra Pound, “*The life of a village is narrative... In a city, the visual impressions succeed each other, overlap, over-cross, they are ‘cinematographic’.*”<sup>46</sup> The techniques of montage and assembly, popularized by cinema, define people’s experience of urban space. Each person has their own narrative and image sequence running through their head. Through the ‘narrative paradigm’ concept, Walter Fisher explains that most people retain information as stories, anecdotal narratives with characters, storylines, and scenery. Narrative and sequential imagery is a part of human nature. As image and filmmaking technologies become more widespread and accessible, each unique perspective and experience can redefine the city. When incorporated into designs interactively and collaboratively, media and the arts can shed light on new contexts and create memorable experiences.

The assembling of images through collage and montage is a more interactive way of understanding and coordinating the disparate elements of the city. In an increasingly fragmented and discontinuous

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45 Pardes, Arielle. (2017, Sept. 27). Selfie Factories: The Rise of the Made-for-Instagram Museum . *Wired*. <https://www.wired.com/story/selfie-factories-instagram-museum/>.

46 Scott McQuire, *The Media City: Media, Architecture and Urban Space*, (SAGE Publication Ltd, 2008), Chap. 3, Perlego.

urban environment, cinematographic techniques can create narrative and visual sequences that give new meaning to urban space. But these ideas are by no means unique. Observation and piecing together the fragmented visual perspectives that build the city have been essential since Charles Baudelaire's definition of the flâneur in his essay, *The Painter of Modern Life*. The flâneur observes the city, not just the prescribed set of perspectives popularized through media channels, be they mass-produced engravings or today's social media feeds; the flâneur observes the particular beauty as much as the general beauty.<sup>47</sup> A flâneur is attuned to the aesthetics and atmospheres that shape and intensify everyday spaces. The urban dweller can reassemble the city into a unique cinematographic sequence through the 'art of strolling.' Within this act lies the appreciation of the everyday experience and its beauty.<sup>48</sup> The essence of the flâneur is a counterbalance to the institutionalization of the city. As such, the flâneur has inspired thoughts on urban design to this day. Concepts relating to the flâneur can be identified in the works of many different theorists throughout the twentieth century. Writers such as Walter Benjamin and Situationists such as Guy Debord adapted concepts regarding the experience of the city. For Walter Benjamin, the act of discovering and exploring the city became increasingly crucial as Haussmann's redesign of Paris began stripping the local qualities of space in favor of the grand boulevards that cut through the city and gave way to modes of higher-speed traffic. In response, Benjamin called for barriers to urban circulation to protect the pedestrian experience of urban space.<sup>49</sup> The slower-paced act of flânerie allows for appreciating the aesthetics that define the city and its character. Observation is essential to the creation of an engaged urban inhabitant. Cinematographic sequences capture the details and qualities observed by the flâneur and give them a meaningful order. Rather than creating a total static image, the filmmaker assembles disparate elements into a new fictionalized reality, much like how the Baroque Ephemeral overlaid the city with art and architecture to create a theatrical event. Benjamin elaborates on this idea when comparing the painter with the cinematographer,

*The painter maintains in his work a natural distance from reality, the cinematographer penetrates deeply into its tissue. The images obtained by each differ enormously. The painter's is a total image, whereas that of the cinematographer is piecemeal, its manifold parts being assembled according to a*

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47 Charles-Pierre Baudelaire, *The Painter of Modern Life* (Penguin UK, 2010), 1.

48 Charles-Pierre Baudelaire, *The Painter of Modern Life*, 2.

49 Scott McQuire, *The Media City: Media, Architecture and Urban Space*, (SAGE Publication Ltd, 2008), "Chap. 6, Down in the Street", Perlego.

*new law.*<sup>50</sup>

Instead of creating an alternate reality, cinema breaks the indifference of daily life and brings out its particular beauty, as a flâneur would have observed. The cinematographer embodies the act of image-making with temporality, allowing the sequence to connect to a viewer on another dimension. A cinematographic experience of the city stimulates a viewer visually and engages their emotions and imagination. These experiences are most often created through the technique of cinematic montage. This method combines collage with a temporal layer that can redefine a visual composition and challenge spatial relationships. Just as staging and object adjacencies create relationships in space, the cinematic montage creates narratives and meanings through the cutting and rearranging of sequences. The Situationists explored this method of creating visual sequences to understand the city. The technique was defined as *derive*, which encourages every person to explore the city and create their own sequences.<sup>51</sup> *Derive* describes mind mapping that creates unique narratives and meanings associated with urban locations. Nigel Coates further explains the concept of *derive* in *Narrative Architecture*,

*The process of familiarization with any one urban environment requires endlessly complex and risky experiments, with every main route encountered deepened by experiments in wandering, or what Situationists called derive. These are the experiences that compose narrative patterns, and help make up the mental maps which, like a taxi driver, chart sequences in space that correspond to certain periods, days or time spent with particular people. With every journey you are inclined to construct a story in which you are both protagonist and audience.*<sup>52</sup>

A keen sense of observation is necessary to build the narrative framework that connects a city's discontinuous spaces and fragmented images. The act of *derive* on the part of an inhabitant creates many narratives. The incorporation of media and the creation of cinematic and layered sequences in the design of an environment then allows for visualizing these unique narratives. No one person

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50 Scott McQuire, *The Media City: Media, Architecture and Urban Space*, "Chap. 3, Montage City", Perlego.

51 Smith, Phil, "The Contemporary Dérive: A Partial Review of Issues Concerning the Contemporary Practice of Psychogeography," *Cultural Geographies*, no. 17 (2010): 103–22.

52 Nigel Coates, *Narrative Architecture*, (John Wiley & Sons Ltd, 2012), "Chap.2, Radical Terrain", Perlego.

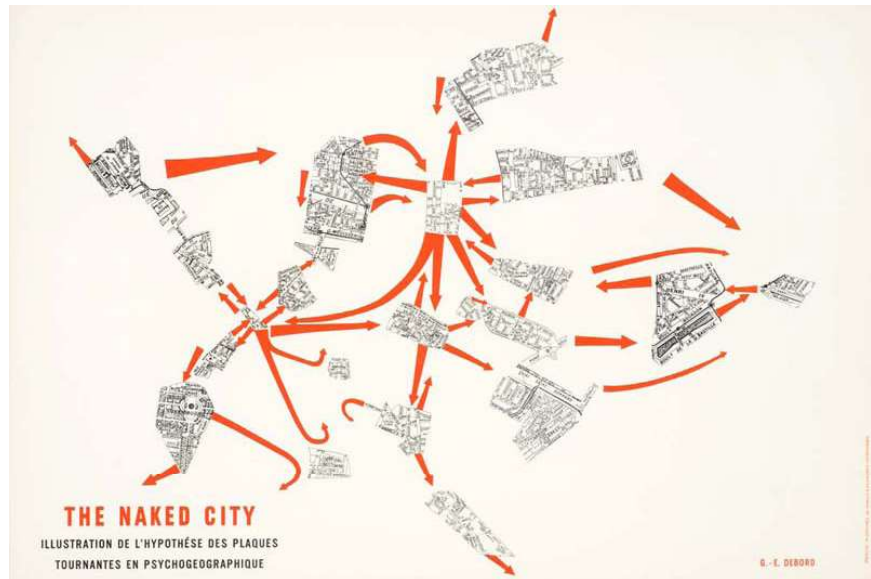


Fig.1.9 The Naked City, Guy Debord

sees a location in the same way. Therefore, public space design should allow people to stage their environments and communicate these experiences. The image-making and media technologies that have evolved since the beginning of the twentieth century provide new and more immersive ways to augment and stage environments that do not require laborious construction or excessive materials. Like films, environments can assemble and collage new and existing elements to stage space and construct narrative and emotional experiences. Unfortunately, instead of augmenting existing spaces, today's media technologies are being used to create customizable virtual worlds. Digital media aims to develop more realistic virtual environments that construct entirely fictional worlds, a phenomenon explained in more detail in the next chapter. This retreat into digital space severs people's connection to their surrounding environments. Moreover, these developments run contrary to the initial ways that cinema transformed the experience of space. The cinematic image of the early twentieth century re-contextualized environments through montage and collage; it did not reinvent it. Instead of creating new worlds, theoreticians and architects advocated decontextualizing space to make the city one's own. Guy Debord's Naked City exemplifies this concept. Debord's message to people being, "[T]hat citizens should not take their city at face value, but deconstruct it, making space for their own existence as well as for these hostile forces within it."<sup>53</sup> One should not retreat from an unfamiliar or foreign space but augment and interact with it. A cinematic approach to designing environments provides a new way of looking at architecture as a layered and expressive assembly. The city is already a series of fragmented images, so it is important for public space design to provide ways to connect particular sequences

53 Nigel Coates, *Narrative Architecture*, "Chap.2 Phenomenological interpretations of the city", Perlego.



that communicate stories and cultural meanings. Juhani Pallasmaa describes this organizational practice of architecture as the creation of poetic images,

*Differing from the usual understanding of the word, the poetic image refers to an evocative, effective, and meaningful sensory experience that is layered, associative and dynamic, and in constant interaction with memory and desire.<sup>54</sup>*

As was discussed in the previous chapter, image-making is essential to the design of the atmosphere. The layering of separate multi-media elements creates an experience felt by all senses. In urban design, this layering can bring new meanings to the existing disjointed images of the modern city.

The city is a fragmented and discontinuous environment. One needs to observe and explore to piece together the meanings and narratives from sequences and adjacencies to make sense of it. The aesthetics and images which communicate atmosphere and meaning in space need to be connected through a sequence, organized in time and space for the urban realm to become an immersive experience. Image-making and collage on their own create an abundance of stimuli but no meaningful connections. Today's modern city is filled with images, from the billboards in urban plazas to the pamphlets and graffiti adorning facades. The urban dweller is constantly bombarded with images,

*In today's world of mass consumerism, globalization, worldwide economies and accelerated communication, we are ceaselessly bombarded by visual images. Italo Calvino refers to their experiential condition as 'the unending rainfall of images', whereas Richard Kearney uses the notion 'image addiction'. Roland Barthes calls our entire post-industrial and post-modern mass-media culture 'the civilization of the image'.<sup>55</sup>*

The highly animated yet disconnected city can be attributed to aestheticization devoid of meaning or context. The images that decorate public space are increasingly commercialized. The argument can be made that the festival imagery was highly commercial due to the close relationship with symbols of power and authority. Still, the aesthetics created went far beyond simple promotional imagery. The resulting constructions related to the surrounding context while also staging an alternate version of reality. Image-making was

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54 Juhani Pallasmaa, *The Embodied Image: Imagination and Imagery in Architecture*, (John Wiley & Sons Ltd, 2011), 41.

55 Juhani Pallasmaa, *The Embodied Image: Imagination and Imagery in Architecture*, 18.

combined with illusion to create a cohesive augmented space. The advertisements that populate the city today do not converse with their surrounding environment. Instead, the language of billboards and digital advertisements rely on the generic, the ability to see the same image in the same way, everywhere.

Combining the collaging and juxtaposition of elements in a particular sequence create narrative in space. It was seen in the Baroque festivities and their ephemeral constructions on a grand scale and on a more personal level with the spread of cinematic tools and techniques. Designing environments with the principles of cinematic montage in mind brings a multi-dimensional aspect to space that combines the complex, temporal and narrative elements which create an experience. This thesis proposes how these different types of media, both theatrical and cinematographic, can inform a new type of environmental design. The design of public architecture should promote cultural production in space to create interactive and narrative environments. The use of media to visualize cultural production and narrative in architectural projects and urban design is essential and must be defined as an active design element. The next chapter will discuss how combining art, staging and cinematographic principles can be combined with digital media technologies to create a participatory and culturally-mediated approach to architecture and interventions in the urban realm.





# The Framework

## A Framework for Public Space

The preceding chapters outlined how, historically, atmospheric environments have been created using various forms of media and manipulation of ephemeral effects such as lighting and sound. By exploring historic examples that employed the use of the arts and ornament, scenography, and cinematographic principles, this thesis has defined the creation of an atmosphere as the synthesis of arts and media in space. Expanding on this research, this thesis will show how the creation of atmospheric environments, of unique spatial experiences, can be created through the combination of three elements; object, frame and narrative. While there are already examples that have incorporated one or more of these elements, it is only through their combination that we can create engaging public spaces for contemporary cities like Toronto. Atmospheric design is essential, particularly today when the cities face dangers from commercialization and digitization. Increasingly, today's urban inhabitants are being distanced from public space and are instead turning to virtual spaces.<sup>56</sup> The proposed framework for the design of public space is meant to counteract these forces. The framework sets out to offer ways to animate public spaces with new types of cultural programming which incorporate arts and media in a participatory and interactive manner. Not everyone has the access to design a new building, put up an exhibit, or construct a new plaza, but if the methods outlined by this framework are applied, anyone would have access to install interventions that would change the look and feel of existing spaces through the use of cultural intervention and digital media. Public space would become immersive through the layering of architecture, art and story. It would become participatory since any citizen would be able to contribute to their environments. Like participatory art where the public is engaged in the act of creation, the urban realm would be co-authored by its citizens, not just its governments and developers.

Cultural spaces, places to view and collaborate on cultural production, are moving online. Not only are more experiences moving online but increasingly people's perception of every environment is mediated by a screen, whether a city street or a museum exhibition. As Nicholas Mirzoeff, a visual culture theorist, has argued of technology, "It's not just a part of everyday life, it is everyday life. The technological experience has seamlessly become a part of our social context."<sup>57</sup> Thus, public space design should

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56 Clark, Peter Allen, "What Is the Metaverse? Here's Why It Matters," Time.com, Time, November 15, 2021. <https://time.com/6116826/what-is-the-metaverse/>.

57 Peter Ride, "The narrative technology: understanding the effect of New Media artwork

adapt to the new ways people communicate and inhabit space.

This situation does not only affect the design of cultural spaces but has been affecting the design of the open urban realm. Hardscapes such as the streetscape, plaza, and walkway have become non-places. They are designed as circulation corridors rather than places with character and atmosphere. The dominance of vehicular activity has exacerbated this condition even further.<sup>58</sup> For years the city has been designed around traffic control rather than the urban dweller, the pedestrian, the flâneur. As pedestrian movement and public activities once again become forefront in the design of streets in a growing number of cities, it is essential to propose a framework for designing urban spaces that engage and connect with inhabitants. This thesis presents a methodology that addresses the need for cultural production to mediate the city's public spaces, from the cultural institutions to the everyday public spaces, in a more immersive and interactive way.

One of the most important parts of designing interventions in the urban public realm is understanding how a person moves through space. In today's cities, more often than not, people are constantly in motion, moving from place to place. The different public spaces in the city are part of a more extensive network, but there needs to be a way to find new connections and paths that connect separate locations in the city. An approach that gives people an alternative to the everyday ritual of Google maps supplying the most efficient route or going along the same well-worn path one takes every day. Having a street system connecting a city does not mean that people will be well acquainted with every neighborhood or visit an area at the city limits as often as they see the downtown district. The way people move through the city is predicated on the activities and visuals, the atmospheric and aesthetic qualities, which populate the space along the way. This is why it is so important to have these circulation routes and program them to make layered and dynamic public spaces. Similar to how urban walking tours create unique routes linking sites that seem unrelated to the passerby, the act of augmenting urban space and visualizing hidden narratives and histories can provide an opportunity to discover unknown pathways through the city. This chapter outlines a framework which is centered on designing spaces that are meant to be discovered and experienced

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in the museum," in *Museum Making: Narratives, Architectures, Exhibitions*, ed. Suzanne Macleod, Laura Hourston Hanks and Jonathan Hale (New York: Routledge, 2012), pg#.

58 Kevin Lynch, *The Image of the City* (Cambridge, Massachusetts, MIT Press, 1964), 92.

in sequence, with new meanings and atmospheres overlaid atop the daily life of the urban city. It is composed of three main principles:

**Object:** How can we continually augment space with visual artifact?

**Framing:** How can we create layered environments by employing staged perspectives?

**Narrative:** How can we visualize old and new stories in our physical surroundings and find new connections in public space?

Architecture is imbued with permanence and gravitas. As such, the primary means of altering the public realm have been through demolition and reconstruction. By employing techniques that explore space as malleable and atmospheric, the city's public spaces can regularly evolve and communicate new narratives and experiences. This framework will explore combining conventional ideas of visual artifacts such as art and sculpture with digital media such as projection and AR to create layered environments that can communicate different stories and atmospheres in a non-destructive way. Additionally, by incorporating scenographic and cinematographic principles, the framework proposes a more interactive and participatory method of designing public space that goes beyond the traditional methodology of festival architecture, scenography, or public art and exhibitions. By giving people the tools to shape their environments, new forms of cultural expression and production can arise, creating a new way of seeing and interacting with the city and transform anyone into a creator as well as an inhabitant. The proposed framework offers a way to design layered environments that allow for cultural production and storytelling to mediate the public spaces people encounter daily.





## 5.0 | **Augmenting Space with Visual Artifact**

This thesis proposes cultural production to become an active component in the design process. Cultural production is a broad term but can best be described by the products of the cultural industry, this includes visual, performance, and increasingly, digital arts. In this context, a culturally-mediated and participatory public space means that people should be able to incorporate a variety of physical and visual artifacts that tell a story and construct an atmosphere. Historically, as shown in the previous section, these objects and artifacts have consisted of ornament, stage sets, and various artworks ranging from mosaics to frescoes and sculptures. This section will deal specifically with how we can incorporate new ways to install artwork in the urban realm.

In order to have cultural production become an active design tool available to the public and be used in architectural and urban design, we must first establish public programs that; give people the opportunity to produce content and subsequently, stage their environments with these objects. That can be done through a two-pronged approach; encouraging cultural institutions to invest in maker-spaces, and rethinking how work is exhibited. The public spaces of the city must become the front-of-house, with museums, galleries and other cultural institutions incorporating more productive spaces currently defined as back-of-house. Additionally, productive spaces facilitating the creation of content should be exhibited and put in the spotlight, putting more attention on the act of creating. Changing cultural institutions from commercial spaces back into productive areas would encourage more people to create instead of simply consume culture while also allowing artists and hobbyists, to present their work directly to the public, outside the blank gallery walls in the public spaces of the city.

### **Towards a new means of Cultural Production**

Digital media and many art fields have a high barrier of entry. The tools and supplies necessary to create artwork and media productions are expensive and require time to learn. Existing cultural institutions must take on the role of maker-spaces that can teach and foster relationships with local and incoming hobbyists, artists, and artisans. To overcome the increasing trends of commercialization and commodification, cultural institutions in the city must look to

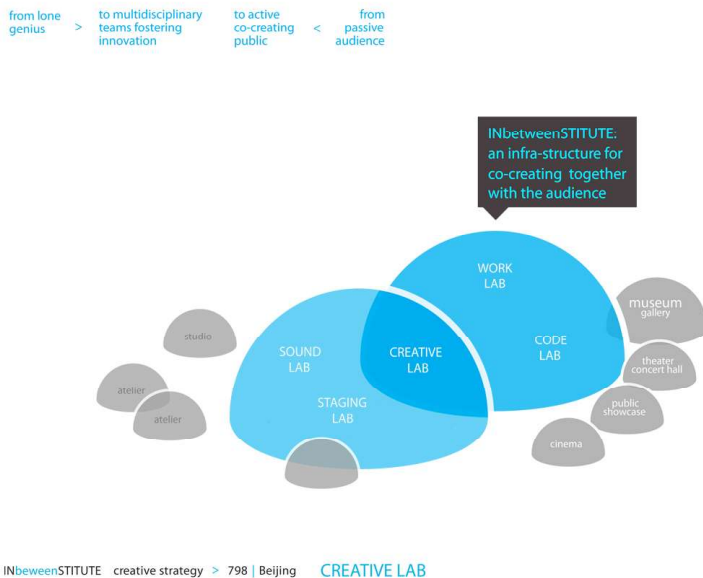


Fig.2.1 INbetweenSTITUTE

their roots in the Renaissance atelier and Cabinets of Curiosities and redefine themselves as multi-functional cultural spaces. They must not only be places to consume but to create as well. Practices like Hybrid Space Lab, are exploring ways to address changes in the creation cultural production and its connection to the postmodern city. Their project *INbetweenSTITUTE* is a proposal for an open infrastructure which bridges the spaces of artistic creation with public spaces such as museums, galleries and theaters.<sup>59</sup> The project specifically defines new hybrid ways that creative professionals can interact with their audiences. By fusing private production spaces with public viewing areas the boundaries between creation and consumption are blurred. By incorporating artist spaces in public space, the project aims to connect creative networks with the urban realm. Locations where these installations would be located include open spaces and spaces adjacent to museums and galleries. Traditional cultural institutions would therefore be supplemented by the project's more process-oriented interventions; defined as Curators Labs, Hybrid Heritage Labs, Archive Labs and Future Arts Lab.<sup>60</sup> The project shows trends towards more interactive means of

59 Hybrid Space Lab, "INbetweenSTITUTE," Hybrid Space Lab | Think Tank and Design Lab for Architecture, Urbanism, Design and Media. Accessed March 20, 2021. <https://hybridspace.com/project/inbetweenstitute/>.

60 Hybrid Space Lab, "INbetweenSTITUTE,"

cultural production and consumption. People want the opportunity to get involved in the culture, whether they are creators or audience members. Unfortunately, not everyone has access to the tools or networks to participate in the creation process. Making tools like projection, 3D printing, and other mixed reality technologies available to communities, artists, artisans, and hobbyists will democratize the cultural realm and public space by making otherwise hard to learn and expensive technologies into open-source design tools. An expanded network of maker-spaces and productive cultural spaces can allow people to create content which could then be exhibited throughout the city, transforming the urban realm into an exhibition space, with every person free to design it.

Cities not only need more productive spaces in the traditional sense, such as workshops and studios, but they also need digitally-equipped spaces that allow people to learn and create with new media. This means making technologies available while also educating people on hybrid workflows. Hybrid workflows are infiltrating a growing number of facets of our lives. From work and augmented reality games, to hybrid production workflows; more and more is being produced in a digitally-augmented manner. Existing maker-spaces and shared workspaces do not provide access to these tools or techniques, which is where cultural institutions can fill in the gaps and expand the opportunities for people to create and innovate.

Cultural institutions like the Serpentine Pavilion are acknowledging the need for infrastructural developments needed in order to support new forms of creation, as well as the changing the role of museums and galleries in a period of accelerating technological evolution. The Serpentine released a report titled *Future Art Ecosystems* which begins to address these issues. In it contains a chapter titled; Strategies for an Art-Industrial Revolution which specifically talks about infrastructural processes that would provide integrated ways of funding, producing and distributing projects.<sup>61</sup> The rapid technological changes and shifts in how people communicate and inhabit public space require a change in the approach to culture, entertainment, architecture and public space design, the cultural and design industries as a whole. Developments in this increasingly digital and connected age need new methods for cultural production as well as participatory and interactive methods of exhibiting these works, for which urban public spaces can be the perfect sites. Such practices continue to blur the boundaries between creator and audience and cement the need for more places where people can produce content. This leaves the question of how this

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61 The Serpentine, "Future Art Ecosystems - Serpentine Galleries," Serpentine Galleries. Accessed January 5, 2021. <https://www.serpentinegalleries.org/whats-on/future-art-ecosystems-2/>.



Fig.2.2 Lumiere Light Festival - Lyon - 2014



Fig.2.3 Lumiere Light Festival - London - 2013

content is to be displayed.

### City as Front-of-House

In addition to extending access to more productive and collaborative spaces, cities must sponsor programs that allow people to stage these productions in their public spaces. Modern urban arts festivals show us a glimpse into what this kind of animated public realm could look like. The modern urban art festival primarily redefines public space through art installations. While the main subject matter is the artwork, the festivals also give residents the opportunity to see their city anew. Temporary arts and light festivals; such as the Lumière Light Festival, use city streets and urban public space as exhibition space. Consequently, regular city life is suspended and for a brief moment the city can be explored with as much curiosity and engagement as a new and foreign location. The Lumière Light Festival lights up London's streets and visitors can see the city in a whole new light, literally. The nighttime event shows how the



Fig.2.4 *The Sultan's Elephant*

combination of visual compositions of artifact, digital projection, and lighting can transform the city with new meaning and narrative. Its success can be seen in the numbers that turn out. For example, in 2016 the festival boasted 1.4 million viewers.<sup>62</sup> Public space needs events that can create these kinds of shared experiences and memories in the community. The Lumière Light Festival combines artwork installation and event-making to produce a new way of inhabiting public space. It provides an experience that cannot be replicated online. The festival is produced by Artichoke, a company that works with city officials and international artists to create art installations and events in public space. By bringing artists together to redesign the city streets and public squares, the company creates experiences that live in a community's shared memory. The Lumière Festival is not the only large-scale event-making experience that the company has produced. An earlier project, *The Sultan's Elephant* was an event defined as part art-installation and part urban theatre. Using the streets of London as its stage, the production spanned 3 days in May of 2006 and transformed the city into a new fictive universe. Lyn Gardner of *The Guardian* called it, "nothing less than

62 Lumiere, "About Lumiere," lumiere-festival.com, Google, accessed on September 17, 2021. <https://www.lumiere-festival.com/about-lumiere/>.



Fig.2.5 London's Largest Living Room

*an artistic occupation of the city and a reclamation of the streets for the people.*"<sup>63</sup> Its sheer scale caused the need for attention, but the success of the project comes from its theatricality. The project is not only an object, event or simply a story; *the Sultan's Elephant* is all three wrapped up into one immersive performance. The streets became an outdoor theatre and the performance not only gave people a break from the normal urban functions seen on the streets but also caused memories of the ordinary spaces to be reimagined by the extraordinary. The city can be seen as re-energized, its scale, permanence and hierarchies challenged by the out-of-this-world production of an 11m tall elephant and a rocket crash-landed in the middle of a road.<sup>64</sup> What this project shows is the need for the urban realm to be infused with narrative and theatricality, for everyday reality to be distanced once in a while. Just as Baroque festival architectures turned city into stage, staged visual artifacts must infiltrate public space to visualize narrative and historic sequences, and turn the city into a stage once more.

The festival remains a well-known staple in most metropolitan cities. The London Design Festival is another example of the world of art and experimental architecture penetrating the daily life of the urban realm. The annual festival has been a venue for many temporary installations that provoke city-dwellers to take a new look at their city. One such project was Studio Weave's *London's Largest Living Room* which created a collection of exhibition furniture that moved through the city of London. The flat pack furniture whose design was inspired by antique English furniture pieces were placed

63 Gardner, Lyn. (2008, August 27). And for our next trick .... *The Guardian*. <https://www.theguardian.com/stage/2008/aug/27/theatre>

64 Nigel Coates, *Narrative Architecture*, (John Wiley & Sons Ltd, 2012), "Chap.6, Architecture as street theatre", Perlego.

in various parks and public spaces for the duration of the festival.<sup>65</sup> The furniture also displayed location-specific writings inscribed on each piece. The stories and information provided an ephemeral layer that added a new dimension to the space. The nuggets of information invited the visitors to look at their surroundings in a new way. Although, the subsequent end of the festival meant that the artifacts vanished from the public realm they were commenting on and found their permanent homes in museums and galleries. Nothing in the built realm is ever permanent. Part of the reason these projects can make such an impact is because they are temporary and show the evolution of space in real-time and design beyond the bounds of what is thought possible in the urban realm. But these types of interventions and performances need not be held only on a few scheduled festival days. Festival projects like *London's Largest Living Room*, while provocative, disappear from the public consciousness and rarely become woven into the fabric of the city. Instead, these interventions leave the public realm only to remain annual spectacles with their memory held on a company website. The information is subsequently only widely available amongst the museum-goers and designer community already aware of the work of these firms. The idea of the arts or design festival exploding onto the city streets can be more than just a vehicle for promotion and tourism. Instead, these types of projects should be thought of as tools for the design of everyday public space all year round. By taking ideas from festivals that currently live in the city's cultural memory only as spectacles and turning everyday spaces into cultural space, new connections to and between communities can be achieved. Dayanita Singh, an artist interviewed in TATE Modern's article, *What is the Museum of the Future?*, has argued for a similar approach to exhibition design that connects directly with the city. She describes this approach as a Suitcase Museum,

*To me, the museum of the future is small and portable. It's organic and allows for change and growth continuously. It is a Suitcase museum, on wheels. It has ambassadors who transport it on flights and trains. The suitcases are the display and the storage units and must include a reserve collection... One could say they are pop-up museums that may be on show for an evening or an entire year. They have a PDF as a catalog which can be printed on demand. The ambassadors seek new venues for them in the places they travel to and patrons to make an event for their opening. The museums of the future will need to reach a wider cross section of people*

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65 Studio Weave, "London's Largest Living Room," [studioweave.com](https://www.studioweave.com), Google, accessed on July 25, 2021. <https://www.studioweave.com/projects/londons-largest-living-room/>.



*and not depend on those visiting them.*<sup>66</sup>

Singh and the other interviewees communicate the need for a new way to experience art inside and outside the museum's walls. Artists are looking for new means to reach more people and create new experiences. Similarly, this framework seeks to address the need for new ways of connecting the city to the cultural sector and blurring the boundary between the museum and public space. Festivals and temporary performance installations in the urban realm show us that everyday spaces can be canvases upon which cultural production and other visual artifacts can be installed and staged. This should not be a tool relegated solely to designers and public planners but instead be in the hands of the citizens of the city, giving everyone the agency to display their works while also augmenting the look and feel of their public spaces. The resulting urban realm would then be less vulnerable to the effects of commercialization and fatigue. Public space design would better reflect local culture and heritage by giving citizens the power to design their own spaces. Additionally, pedestrians and city dwellers would be enticed by their constantly evolving surroundings, benefitting the urban public spaces of the city as well as the cultural institutions.

In their beginnings, museums and galleries partly spread in the form of cabinet of curiosities. These cabinets were both intellectual and aesthetic laboratories as well as stage-like exhibition settings.<sup>67</sup> They combined the productive and consumptive aspects of the cultural sphere. One of the most famous examples of a cabinet and its scenographic and narrative potential is Sir John Soane's Museum in London.<sup>68</sup> Architectural motifs and historical fragments are staged in various *mis-en-scenes*, creating a theatrical and historic atmosphere. The result is an environment that communicates a sense of narrative and history despite the house being a custom design. The collection therefore serves two purposes. The artifacts, as a singular collection, contribute to the overall atmosphere of the house. Secondly, the specific arrangements enhance the individual objects' poetic qualities through evolving juxtapositions.<sup>69</sup> Collage and viewpoint (which will be covered in more detail in the next

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66 Tate Etc, "What is the museum of the future?," [tate.org.uk](https://www.tate.org.uk/tate-etc/issue-35-autumn-2015/what-museum-future), Tate Modern, Sept.2015, <https://www.tate.org.uk/tate-etc/issue-35-autumn-2015/what-museum-future>.

67 Florian Kossak, "Productive Exhibitions," in *Museum Making: Narratives, Architectures, Exhibitions*, ed. Suzanne Macleod, Laura Hourston Hanks and Jonathan Hale (New York: Routledge, 2012), 217.

68 Sir John Soane's Museum London, "Our History," [soane.org](https://www.soane.org), Google, accessed on August 18, 2021. <https://www.soane.org/about/our-history>.

69 Sir John Soane's Museum London, "Our History," [soane.org](https://www.soane.org), Google, accessed on August 18, 2021. <https://www.soane.org/about/our-history>.



Fig.2.6 Sir John Soane Museum

chapter) are important tools for the design of space. Recognizing juxtapositions and discovering viewpoints that show specific relationships require attention and an active engagement on the part of the inhabitant while moving through a space. The designs of cabinets of curiosities such as Sir John Soane's utilize staging and the collage of images to create an atmosphere and overall sense of history and narrative. A cabinet of curiosities is not about any single artifact but instead the creation of an experience. By building on staging methodologies, such as those seen in Sir John Soane's Museum, with interactive media anyone can have the ability to stage their environment, making public and cultural space more engaging. These smaller-scale and multi-layered exhibition techniques should be incorporated into public space design. The cabinets were usually private spaces so their owners had complete freedom in their curation which is not the case in public space. However, public spaces can incorporate flexible and open elements to be filled in with a variety of cultural objects. Even existing public spaces can be layered with cultural production. By doing that public space can be infiltrated by different types of cabinets spread out throughout the city. Thus, extending urban cultural space beyond institutional walls and reclaiming underused public spaces through the installation of cultural production.

The resulting public cabinets of curiosities also need not be limited to physical interventions. Physical environments are increasingly being overlaid with digital information. Augmented Reality (AR) technology is one way of overlaying digital content

onto the physical surroundings. While the viewer is still required to see information through their mobile screen, the technology provides a link with the physical world and adapts content with a person's movement, unlike current technologically mediated interventions in public space, like billboards and digital screens. Thus, the technology stimulates a spatial image-sequence. The success of the AR application, *Pokémon Go* showed how people can be encouraged to explore their physical environment through the addition of digital visual artifacts.<sup>70</sup> The technologically-enhanced urban dweller needs environments that connect the physical environment with digital content. Due to their ability to synthesize these separate worlds; AR technologies can aid in the creation of a truly participatory public realm. So far AR has been applied to urban space sparingly and when implemented have mainly been for commercial and historic city tours. If interactively incorporated into the design of public space, people can easily contribute to as well as discover their environments. While *Pokémon Go* did not promote a meaningful connection with the public realm apart from promotion of businesses, it did show a method of creating a hybrid space where digital and physical content meet. The power to alter the environment without the labor or demolition required by regular interventions gives a large swath of the population agency over how their public spaces look and feel.

AR also paves the way for individual artists to directly bring artwork to a greater number of people, a means that goes beyond the standard procedure of digitizing collections. One such example is Olafur Eliasson's *AR Wunderkammer*. The project is available through an app that allows anyone to access his art piece from any place in the world.<sup>71</sup> Anyone can be a curator and arrange their art in any location. Viewers are able to stage their personal environments. *AR Wunderkammer* holds a range of digital art artifacts that can be "placed" in one's space, from weather patterns like a rain shower to extraterrestrial rocks and rare animals.<sup>72</sup> These digital experiences were created by Eliasson in collaboration with Acute Art, an AR company. The project is a part of the cultural scene's response to our increasingly digital world. Acute Art director Daniel Birnbaum has described AR as a very important tool for the 21<sup>st</sup> century art world, "*I think the potential is enormous and that these tools will be essential to new forms of international visual culture and exchange... Acute Art was founded on the decision of democratizing art and bringing*

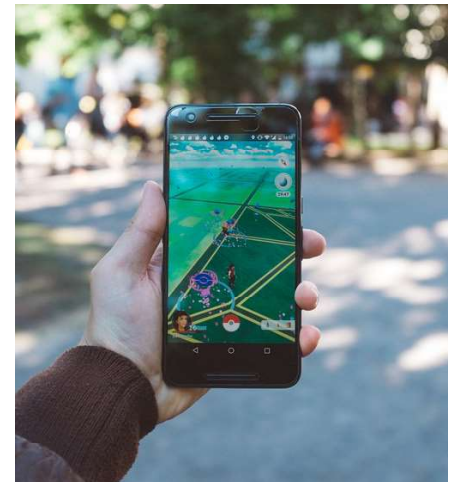


Fig.2.7 View of Pokemon Go app on smartphone

70 Nickl, Agostino, "Physicalising the Phygital." Smout Allen, 2015, Accessed April 10, 2021, <http://www.smoutallen.com/agostino-nickl-year-5>.

71 Hitti Natashah. (2020, May 14) Olafur Eliasson creates augmented-reality cabinet of curiosities. *Dezeen*. [https://www.dezeen.com/2020/05/14/olafur-eliasson-augmented-reality-wunderkammer/?li\\_source=base&li\\_medium=bottom\\_block\\_1](https://www.dezeen.com/2020/05/14/olafur-eliasson-augmented-reality-wunderkammer/?li_source=base&li_medium=bottom_block_1).

72 Studio Olafur Eliasson, "WUNDERKAMMER," Studio Olafur Eliasson, Accessed March 20, 2022. <https://olafureliasson.net/press/wunderkammer>.



Fig.2.8 View of AR Wunderkammer rainbow

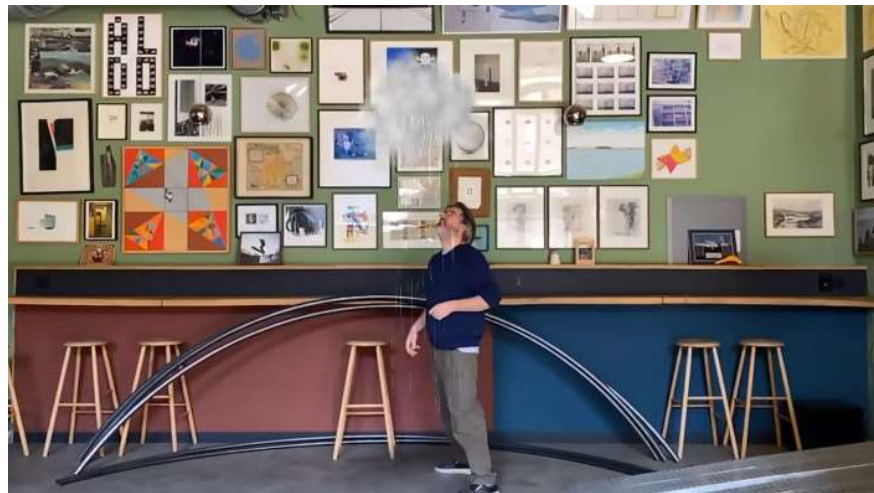


Fig.2.9 View of AR Wunderkammer raincloud

*it to places where it could not be before.*<sup>73</sup> These technologies not only bring new frontiers in the art world, but can affect every facet of daily life, particularly architecture and public space design. It is important to recognize that while digital technologies have created new forms of communication and interaction that distance the inhabitant from their environment, these same technologies can also bring about new, more participatory, forms of communication and exchange that can make public space more dynamic.

AR technology frees art and allows it to infiltrate any location. Public space can thus be democratized if people are given the opportunity to use tools like AR and projection technologies as well as analog media to augment and design their environments. The act of animating space with visual artifact can therefore be anything from a public art sculpture, painting, digital projection, or any combination. Public space subsequently becomes an open canvas. This approach to design means that anyone can have the agency to curate what is seen in a space. Similar to the *AR Wunderkammer*, this methodology would give artists the freedom to present their work anywhere. It provides an alternative to the current systems of cultural exhibition; whether that is the traditional museum and gallery or the highly populated internet environment. Embedding digital media in public space allows the public realm to be editable and imbues people with the agency to construct the atmosphere of a space and install new means of cultural production. The resulting democratization of public space engages more than just the emerging

73 Natashah Hitti, "Olafur Eliasson Turns Elements from Nature into Augmented Reality Artworks," Dezeen, Google, accessed May 14, 2021, [https://www.dezeen.com/2020/05/14/olafur-eliasson-augmented-reality-wunderkammer/?li\\_source=base&li\\_medium=bottom\\_block\\_1](https://www.dezeen.com/2020/05/14/olafur-eliasson-augmented-reality-wunderkammer/?li_source=base&li_medium=bottom_block_1).

artists but the entire city population as a whole.

### Designing Public Space with a Permanent State of Impermanence

So far this chapter has outlined how this way of augmenting space can benefit creators, but it can also have an important role to play in the life of every urban dweller. People want to be engaged in their public spaces, to be surprised and discover new experiences. Unfortunately, it is a natural part of daily life where the better one gets to know a place, the less one pays attention to it. A shock to the system or a change in the scenery can bring that attention back. The use of art and other visual artifacts can stimulate people to bring their attention back to the physical environment. *The Making Room* is an example of a project that tries to overcome the disconnection between inhabitants and their physical environment and their growing sensory deprivation. The project addresses the growing condition of buildings starting to feel increasingly similar and the resulting disconnection between a person and their environment.<sup>74</sup> The techniques applied by this project represent an example of a design trying to overcome the display blindness of urban dwellers that are constantly bombarded by the multiplicity of digital advertisements with which the city is animated. The project is composed of a timber pavilion in the V&A Dundee museum that is filled in with casts of architectural fragments taken from the city through digital scans. The scans are collected by local inhabitants discovering and digitally documenting fragments of historic buildings in the city. The result is a physical palimpsest of the city, with portions of the physical environment collaged together. The V&A Dundee has described the project as, “[inviting] us all to look out for moments of beauty in our everyday surroundings.”<sup>75</sup> Therefore, the project is not only a production made by the community but also instills a continued sense of discovery. The successful installation of visual artifacts in the public realm must work at the boundaries between the permanent and temporary. The act of documenting the fragments for *The Making Room* can be seen as a temporary act but the notion of discovering one’s everyday city spaces becomes a permanent state of mind.

This thesis is proposing the public realm embody this dichotomy and be in a permanent state of impermanence.

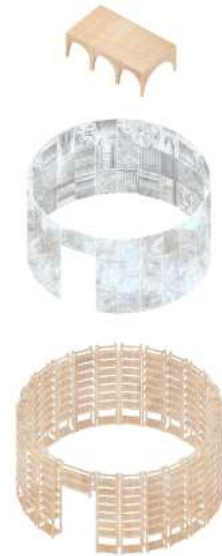


Fig. 2.10 The Making Room Diagram



Fig. 2.11 The Making Room - 3D scan of architectural fragment

74 Assemble Studios, “The Making Room,” [assemblestudios.co.uk](https://assemblestudios.co.uk), Google, accessed on August 16, 2021. <https://assemblestudio.co.uk/projects/the-making-room>.

75 V&A Dundee, “Assemble: Making Room,” [vam.ac.uk](https://www.vam.ac.uk), Google, accessed on September 27, 2021. <https://www.vam.ac.uk/dundee/exhibitions/making-room>.



Fig.2.12 *Body Movies*



Fig.2.13 *Body Movies*

Monumentality does not inspire the gravitas and attention it once did. The digital revolution has created a demand for novelty and interactivity. By designing in a way where places are constantly evolving, with each place embodying a unique atmosphere, the public realm can once again be an important destination in social and cultural life. Designing using a permanent state of impermanence means that there is a possibility for every space to be transformed into a new version of itself. Rafael Lozano-Hemmer's series: Relational Architecture similarly alters the experience of existing public spaces. His works employ digital media to respond to human interaction and experiment with digitally-augmented transformations to public space. His 2001 piece *Body Movies*, staged in the Schouwburg Square in Rotterdam projected images of 1000 portraits taken on the streets of Rotterdam, Madrid, Mexico and Montreal onto the Pathé Cinema building.<sup>10</sup> However, the portraits only remained obscured until people walking through the square revealed the images. An active component of the piece was the spontaneous and participatory movement of the viewers. The participation also spanned multiple levels. *Body Movies* catalyzed of multiple scales of interactions; between the object and inhabitant, object and multiple inhabitants and interactions between the inhabitants themselves. Interactivity was an active element of the installation. Resultantly, the art work is not meant to be viewed but participated in, a person moving through the square is as much a part of the work as is the projector. The

encouraged participation resulted in an improvised performance where the individual was no longer just a passerby; *Body Movies* prompted the suspension of people's daily activities in order to make them see the space anew, challenge their relationship to it and their community. As Timothy Druckery explains:

*It is evocation of the kind of space in which active participation is not a by-product, but the driving force in the creation of a dynamic agora in which every position is established in an open system that ruptures hierarchies and dismantles the notion that the public is an undifferentiated mass, the media not the harbinger of a utopian global village, interactivity not the opiate of shoppers.*<sup>76</sup>

Collective participation and animating public space with ephemeral works allows for the introduction of experimental works, like those of Lozano-Hemmer and Artichoke to prompt transformations in public spaces. These types of works should be transformed from festival spectacles only seen a few times a year to elements of public space design, allowing for the expression and participation of the community year-round. Therefore, the public spaces of the city should be able to be augmented with various visual artifacts that produce similar kinds of engagement, whether it is with a projection, a phone booth aquarium or a digital Pikachu.

### Participatory Methods for Populating the City with Visual Artifacts

Thus, creating flexible spaces that support the installation of various visual artifacts, be they physical, ephemeral or digital, benefits creators and spectators, all urban inhabitants. But no one is simply either a creator or consumer anymore. Developments in Web 2.0 and DIY movements have created a participatory culture that no longer simply consumes content but also seeks active engagement with content and production.<sup>77</sup> People are no longer satisfied with established methods of content consumption. The average person today is simultaneously a consumer as well as a producer. Axel Bruns defines this new condition as 'produsage', a hybrid condition between traditional definitions of production and usage.<sup>78</sup> Whether digital like Wikipedia or physical like various tactical urbanism



Fig.2.14 Parking Day - Washington -2018



Fig.2.15 Parking Day

76 Nigel Coates, *Narrative Architecture*, (John Wiley & Sons Ltd, 2012), "Chap.3, NATO", Perlego.

77 Alexander Wiethoff and Heinrich Hussmann, *Media Architecture* (Walter de Gruyter GmbH & Co KG., 2017), "Introduction", Perlego.

78 Axel Bruns, *Blogs, Wikipedia, Second Life, and Beyond* (Peter Lang, 2008), 15.

interventions, user-led creations show the need for personalization and participation. The postmodern age has spawned opportunities for what Jenkins describes as a participatory, convergence culture. He describes this phenomenon as occurring due to consumers taking media into their own hands.<sup>79</sup> Collaboratively produced content can be seen infiltrating many different facets of public life, from participatory artworks to open-source urbanism and software. These produsage processes are inherently open-ended, continually unfinished. As an extension of public life, the urban realm should similarly be conceived of as in a permanent state of impermanence, where temporary interventions and digital media create interactive designs to be experienced and edited by anyone.

The open-source urbanism movement has already begun engaging people to have a more active role in their communities and public realm. With self-initiated urban improvements and the co-production of urban assets, open-source urbanism is a decentralized and collaborative approach to designing public space. Currently, the projects associated with this movement consist of collaboratively creating street furniture and guerrilla installation of urban elements. Projects also include events such as Parking Day. Originating in San Francisco, the event is a more decentralized approach to urban space design.<sup>80</sup> The movement signals a need for more participatory practices to create a more inclusive and engaging public realm. This thesis' proposed framework aligns itself with these methods. It seeks to add to these design methods by incorporating new means of cultural production in space, on top of street furniture elements. The addition of open access to information and technology can create a new commons in existing public areas. Combining these participatory urban design methods with new means of cultural production and consumption can reinvent the way people see and interact with the city. The ability to augment space with visual artifact has a dual-effect; it spurs the creation of new cultural production as well as giving agency to a city's population over the look and feel of their public spaces.

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79 Axel Bruns, *Blogs, Wikipedia, Second Life, and Beyond*, (Peter Lang, 2008), 1.

80 Merker, Blaine, "Today Is Park(Ing) Day! We're Building Urban Resilience," Gehl, September 17, 2021, [https://gehpeople.com/blog/parkingday\\_2021/](https://gehpeople.com/blog/parkingday_2021/).





## 6.0 Stage Perspectives

Similar to how different adjacencies and juxtapositions create different meanings, the perspective through which one looks at an environment affects the experience of the entire space. This section will describe how the placement of visual artifacts in sequences of cinematographic perspectives create engaging multi-sensory experiences in public space. Augmenting space with visual artifacts allows pedestrians to rediscover their cities constantly. When designing public space with a method of permanent impermanence, a city-dweller can expect a new experience around every corner. This stimulates people to become more aware and engaged in the physical environments that make up their communities. Although, the sole installation of visual artifacts does not create an engaging public space. As was discussed in Part One, fragmented imagery does not convey meaning; images must be combined and be framed, related to each other in sequences. Visual artifacts must be incorporated in staged perspectives, framed in specific views. Visual artifacts can trigger memories, emotions, and thoughts, but the perspective through which they are seen plays an integral part in how we conceive space and ideas. Everyone notices different characteristics, objects, and views. The act of creating staged perspectives allows people to visualize those connections and viewpoints. Using scenographic and cinematographic concepts to design specific perspectives allows cultural production, like the interventions discussed in the previous chapter, to be liberated from the frame and encompass a whole environment and immerse its viewers. The perspective has historically been associated with the flat image, the painting hung on a wall or the frame projected on the movie screen. In this framework, staged perspectives can be defined as interactive stage sets composed of visual artifacts which compose an immersive, three-dimensional environments and respond to the inhabitant. Just as the Baroque Ephemeral staged the machine, public space today must be designed with staged perspectives that show unique views. The city needs “well-framed vistas,” as William Whyte advocated.<sup>81</sup> Today, new technologies, such as digital projection, VR, AR and MR technologies allow us to extend these framed vistas into immersive experiences. This chapter will focus on what is needed to produce interactive and immersive experiences in public space.

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<sup>81</sup> William H. Whyte, *The Social Life of Small Urban Spaces*, (Project for Public Spaces, 1980), 22.

The most intuitive way of designing a perspective in space is through framing. The page, picture, and movie frames are examples of how people have been taught to see an image and read a story. Framing of views has had a long tradition in public space and architecture design. Whether through the use of vegetation, buildings, or temporary interventions, the perspective has been an important design tool for creating space. Its prominence can be seen in many examples worldwide, but most prominently in Italian Baroque art and architecture. The Baroque period recognized the need for illusionistic perspectives to be arranged in spaces and incorporated into the design of various urban interventions.<sup>82</sup>

Today, designing perspectives in public space mostly correspond to the commercial and advertising elements that crowd urban streets and plazas. Contemporary cities are defined by urban elements such as super-sized billboards and extensive boulevards, and the need to make everything bigger and grander so that the maximum number of people can see an object from the most significant number of angles possible. It's about communicating the same message no matter the time or place; the same commercial can be experienced in the same way, whether it is in Dundas Square, Times Square, or Piccadilly Circus. Dynamic public spaces are anything but that; they communicate varying messages based on the place and time. Designing staged perspectives involves being in a specific place and time to engage and communicate with the inhabitant. Framed views have always been an essential tool in architecture and urban design, but they have been lost in creating everyday public space. Designing public space using staged perspectives advocates an alternative to the generic streetscapes and plazas being created today.

Transience and impermanence are important qualities that define the urban realm. Digital projection and Mixed Reality technology allow changes to physical spaces without the need for demolition or reconstruction. Resultantly, these technologies allow the same space or object to be viewed from a new perspective. Sarah van Gemeren and Tim Simpson have explored this kind of transience through their exhibition at the broelmuseum. *Fantoom* is a piece that analyzes the impermanence of the physical and



Fig.2.16 Dundas Square



Fig.2.17 Times Square



Fig.2.18 Piccadilly Circus

82 David Mayernik, "The Baroque City," in *The Oxford Handbook of the Baroque*, ed. John D. Lyons (Cambridge: Oxford University Press, 2019), 4.



Fig. 2.19 *Fantoom* - Sculpture Artifact



Fig. 2.20 *Fantoom* - Chandelier Artifact

questions our perception of how and when an object exists in time.<sup>83</sup> The physicality of the objects is represented through ephemeral projections, teasing the question of what gives an object its form. The exhibition makes one think about how we perceive and remember objects and how that is intricately related to the perspective through which they are seen. The chandelier is only fully captured when viewed straight and framed in front of the mirror on the wall behind it. Combining projection techniques with the framing of views creates a visually complex environment that prompts the viewer to explore the space. The *Fantoom* project is dynamic because it alters the view based on the viewer's position. The viewer is then encouraged to move around the room to discover and see new information.<sup>84</sup> The exhibition shows a cinematic framing of information in space through its ability to create a series of framed views that each communicates something different. The museum and art gallery exhibit is built upon the idea of the frame surrounded by empty space, the white cube which protects that one static view. But as more cultural artifacts are being viewed in a very similar manner online, the city's cultural areas need to provide more than just a space to view an artifact; they need to provide a spatial and multi-sensory experience that cannot be achieved simply with static images or sculptures. The same can be said for open urban spaces, which place public art or urban interventions without staging them.

83 (n.d.), "glithero's fantoom projects the transience of physical objects," Designboom. <https://www.designboom.com/design/glithero-fantoom-biennale-interieur-11-07-2014/>.

84 (n.d.), "glithero's fantoom projects the transience of physical objects," Designboom.

Creating an immersive environment requires choreographing a sequence of framed perspectives that communicate an atmosphere rather than just an image. The museum and the city have the unique characteristics of spatiality and temporality that can connect with viewers in a multi-sensory and emotional way instead of the page or screen. Public space design and content installation should take advantage of that and break out of the conventional method of designing static images. Therefore, creating dynamic and immersive environments is achieved by creating a sequence of framed views rather than relying on one culminating and dominating viewpoint. Designing with staged perspectives is a methodology that builds on current architectural and exhibition framing techniques, which depend on a linear and exclusive perspective and proposes a more atmospheric and enveloping way of designing space.

### Designing Immersive Environments

Incorporating digital media technologies into an environment then adds an interactive element and connection to the digital public sphere to the design of atmospheric environments. Mixed Reality technologies liberate information and content from the screen and the two-dimensional view. Unlike VR, MR and AR technologies overlay information onto an existing environment instead of the viewer being transported in an alternate, illusionistic space. Sony began exploring these technologies with their Interactive Tabletop project but recently experimented with their spatial implications.<sup>85</sup> Experiment's like Sony's show ways we can incorporate digital media seamlessly into our physical surroundings. When most people picture immersive technologies like MR or AR entering the city's physical space, they predict an overwhelming and commercialized environment; with people constantly bombarded by ads and semi-transparent holographs, dazed by the sheer amount of visuals. Keiichi Matsuda's *Hyper Reality* films comment on this possibility of the future. The short films visualize how the proliferation of these technologies can manifest in everyday life.<sup>86</sup> And yes, this is a possibility if not incorporated into the design process and left for advertising and decoration purposes, as was the fate of today's urban screens. But ignoring these means of creation and communication means that the public realm will not be able to connect to people and their new means of communication and consumption of content. Designing public space means adapting to the new ways people

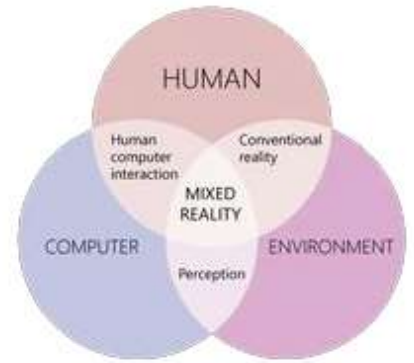


Fig. 2.21 Mixed Reality Diagram

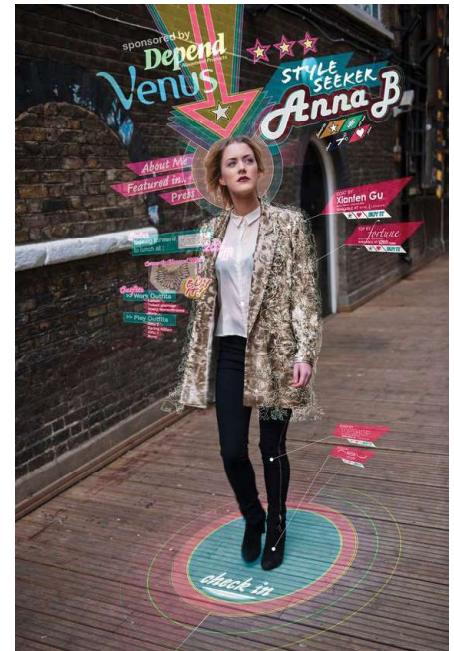


Fig. 2.22 Hyper Reality Still

85 Statt, Nick, "Sony's Prototype Projector Turns Any Tabletop into a Touch-Sensitive Display," *The Verge*, March 13, 2016, <https://www.theverge.com/2016/3/13/11215454/sony-interactive-projector-future-lab-sxsw-2016>.

86 Winston, Anna, "Keiichi Matsuda's Hyper-Reality Film Blurs Real and Virtual Worlds," *Dezeen*, May 23, 2016, <https://www.dezeen.com/2016/05/23/keiichi-matsuda-hyper-reality-film-dystopian-future-digital-interfaces-augmented-reality/>.



Fig. 2.23 Sony's *Hidden Senses* Exhibition

communicate and inhabit space. Today that is increasingly digitally augmented. Scott McQuire speaks of the relationship between media and the city and has argued that. “*As much as developments in telematics have been constitutive of the ‘crisis’ of urban space, they are also an essential part of any meaningful response to the crisis.*”<sup>87</sup> This thesis argues that by incorporating these technologies to enhance the history or narrative of space, these technologies can create a hybrid public space that brings about new types of cultural programming. Combining objects, digital projection of information, and human interaction can create ever-evolving environments that touch all senses and stimulate the occupant’s attention and involvement.

Sony’s *Hidden Senses* exhibition at Milan Design Week in 2018 explored how these interactions might be incorporated into everyday spaces. The exhibition explored how to overlay ephemeral information that was, up until now confined to the screen, across multiple surfaces in space.<sup>88</sup> The project broke the standard convention that user-technology interactions must occur on a screen, whether a phone, TV, or computer. It featured exchanges that blended the interfaces people would interact with into the physical surroundings and architectural surface. Adopting the idea that everything could be an interface allows a host of new possibilities for how people connect to objects, information, and their surroundings. At its core, the *Hidden Senses* exhibition explored combining the physical and digital to create an all-new hybrid space that emphasizes the sensory experience<sup>89</sup>, telling stories through the layering of information and

87 Scott McQuire, *The Media City: Media, Architecture and Urban Space*, (SAGE Publication Ltd, 2008), “Preface”, Perlego.

88 Sony, “Hidden Senses,” sony.com, Google, 2018. <https://www.sony.com/en/SonyInfo/design/info/mdw2018/>.

89 Sony, “Hidden Senses,” sony.com.

interaction with objects. It explores methods to transform architecture into an interface that presents content and communicates with its inhabitants.

Currently, the terms Mixed Reality and Augmented Reality are used interchangeably. Augmented Reality is defined as an overlay of content in the real world without being directly related. The real-world space and the AR content cannot respond to each other, simply visually overlaid. On the other hand, Mixed Reality similarly overlays information on real-world surroundings, but the physical and digital worlds can react to each other in real-time.<sup>90</sup> Mixed Reality is a more cohesive method of layering physical and digital information. There are few examples of Mixed Reality as the technology has not been developed as far as Augmented Reality or Virtual Reality (VR). But Mixed Reality holds potential for new ways to incorporate cultural production in architecture and create immersive experiences that connect with inhabitants in ways that AR or VR cannot as their technology is detached, to varying degrees, from the physical realm. That being said, AR and VR projects currently account for the creation of the majority of “immersive environments and experiences”.<sup>91</sup> VR dominates the emerging field of ‘immersive content’, which often consists of 360° films viewed with a VR headset. AR has subsequently dominated the games and advertising industries with notable products like *Pokémon Go* and developments into the *AR Cloud*, a real-time 3D map overlaid onto the real world. If implemented, the *AR Cloud* would enable information to be shared and tied to physical spaces and discovered through an AR device, usually a phone or other mobile device.<sup>92</sup> This program creates a link between virtual and physical spaces, the user-interaction remains limited and primarily geared towards presenting information, much like the digital screens that currently decorate architectural surfaces. VR and AR projects are consumptive and have been explored by companies through a commercial and object-oriented lens. Instead, this thesis focuses on examples of AR technologies to show the potentials of layering physical space with digital information that promotes interaction and creation rather than purely information consumption. It also explores possibilities if these technologies were pushed closer to MR developments with more participatory working methods.

Like AR, MR technology mediates between the person, digital information, and the environment. The difference between MR as opposed to AR or VR is the real-time interaction between

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90 (n.d.), “Mixed Reality: The Gateway to the Mirrorworld,” Foundry, Accessed November 4, 2021, <https://www.foundry.com/insights/vr-ar-mr/mixed-reality>.

91 Neo, Jun Rong Jeffrey, Andrea Stevenson Won, and Mardelle McCuskey Shepley, “Designing Immersive Virtual Environments for Human Behavior Research,” *Frontiers in Virtual Reality*, March, <https://doi.org/10.3389/frvir.2021.603750>.

92 (n.d.), “How the AR Cloud Will Transform Immersive Technology,” Foundry, August 14, 2019, <https://www.foundry.com/insights/vr-ar-mr/ar-cloud-immersive-technology>.



Fig.2.24 StageCraft LED Volume for *The Midnight Sky*



Fig.2.25 *Mandalorian* Shoot on ILM's StageCraft Virtual Production Set

the physical and virtual realms. It promotes an idea of space that constantly responds to stimulus and information. The field of Human-Computer Interaction (HCI) examines this relationship specifically in terms of how humans and computers interact. The communication system between a human and computer is composed of many elements; input information can be communicated with mice, a keyboard, touch screen, voice, or skeleton tracking.<sup>93</sup> This exchange of data means that the computer can begin to understand information about the space it occupies. The result is a programmable and interactive space that breaks from the screen and into the environment. Thus, AR simply overlays information, while

93 Jinwoo Kim, *Design for Experience* (Springer, 2015), 151.





Fig.2.26 Orca Studios' soundstage using LED Volume technology

MR creates an extension,

*Rather than simply displaying simple images like augmented reality, MR features an immersive, interactive interface that overlays physical reality, putting fully digital objects that are trackable in the user's environment.<sup>94</sup>*

MR technologies allow the ephemeral aspects of space to be designed and augmented in real-time, creating an immersive space. The resulting environments engulf the viewer and simulates atmospheric effects. Until today, sets and elaborate physical artifacts were constructed to convey an atmosphere. The facades of buildings, festival architectures, and stage sets were built to animate space and tell stories. Today, media technologies can be implemented to enhance these methods and simulate new levels of immersion. Examples of this way to experience space and story can be seen in ILM's *StageCraft* LED system. *StageCraft* is an LED video wall that is 20 feet tall, 270 degrees around, and 75 feet across—the technology coordinates between a real-life camera and a 3D digital scene.<sup>95</sup> The 3D scene changes and reflects the digital environment as the physical camera moves. *StageCraft* shows new possibilities in simulating environments and creating hybrid spaces. While this way of working is still relegated to stage sets and is too expensive to become pervasive in places outside high-end production facilities, this development shows possibilities of interaction between

94 (n.d.), "Mixed Reality: The Gateway to the Mirrorworld," Foundry, Accessed November 4, 2021, <https://www.foundry.com/insights/vr-ar-mr/mixed-reality>.

95 Holben, Jay, "The Mandalorian: This Is the Way," American Cinematographer, Accessed March 20, 2022, <https://ascmag.com/articles/the-mandalorian>.

digital displays and their environment past simply being animated billboards. MR and immersive technology provide a way of working that can overcome the digital fatigue and commercialization of the urban realm. Combining these hybrid environments with a public engaged in the process of content creation, public space design can come to resemble the act of world-building. World-building is defined as a user-centric, experience-based, narrative-building process.<sup>96</sup> Currently, this process is confined to film and game development, focusing on creating realistic fictional worlds. But the three core elements that define this process are also relevant to creating atmospheric architecture. People can express their stories and augment their physical world with visual and ephemeral content. Digital media then must become a ubiquitous design component, like the curtain wall or digital screen, to allow for the staging of hybrid content that constructs immersive and connected experiences.

Digital displays and urban screens have already become ubiquitous in our urban realm. Billboards and information screens flood indoor and outdoor public spaces and cover entire building facades. They broadcast a repeating stream of information 24/7.<sup>97</sup> As such, people start to tune out the noise. A host of visuals every day bombards the average person. Image-making and perspective, as design tools, have been sidelined because of this proliferation of mass media. Yet, this exact excess of imagery makes designing environments focused on place-specific installations and staging essential, as they create atmospheric environments that cut through the noise. Currently, the application of Information and Communication Technology (ICT), which presents most visual information in urban spaces, is dominated by advertisers and real estate developers. As a result, the use of media in prominent urban projects remains commercial. Digital media is most commonly implemented as prominent façade elements that repeat the same information on an eternal loop. A media facade needs approximately 8000 hours of content per year to display an engaging program, hence the resulting looping of content. Consequently, as the novelty of these technologies has worn off, people ignore these visuals leading to a phenomenon called display blindness.<sup>98</sup> When separating media from its current commercial focus, digital media, like analog medias before it are interfaces which, “*mediate not only*

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96 Contributors to Wikimedia projects, “Worldbuilding.” Wikipedia, the Free Encyclopedia. Wikimedia Foundation, Inc, March 29, 2006, <https://en.wikipedia.org/wiki/Worldbuilding>.

97 Alexander Wiethoff and Heinrich Hussmann, *Media Architecture* (Walter de Gruyter GmbH & Co KG., 2017), “Chap. From Allopoietic Content to Autopoietic Content for Media Architecture through a Better Understanding of Architectural Typologies, The Challenge of Content”, Perelego.

98 Alexander Wiethoff and Heinrich Hussmann, *Media Architecture*, “Chap. Media Facades and Narratives for Public Spaces, Spatial Aspects and Urban Elements”, Perelego.

*between us and our world (designation), but also between us and our fellow man (communication), and between us and ourselves (self-understanding)."*<sup>99</sup> It becomes imperative to consider how these media interact with architecture and people's spatial surroundings when considering this core idea. The need remains for the use of media architecture to become interactive and decentralized. The hybrid content that results from a layering of physical and digital media in space needs settings to support and visualize physical artifacts and digital information. By thinking of architecture as an interface to be augmented and interacted with, anyone would be able to change the content displayed and, ultimately, the atmosphere and experience of a space, whether it is an outdoor public space or the inside of a gallery.

Museum and gallery spaces currently promote a one-directional experience. Information is communicated to the viewer, bringing an end to the interaction. These spaces, particularly museums, have become extensions of the classroom, archives of art and history; they primarily seek to engage students, hobbyists, and tourists. Examining museum space and new ways it can relate to public space and the more expansive city is a sentiment that is being considered by many curators, museum directors, and artists. People worldwide are asking what the museum's future is with public space. In an article from the TATE Modern titled *What is the Museum of the Future?* People from all around the world were interviewed on their opinion of the future of museums. Most of the answers identified building context-specific spaces, with a great deal of importance on connecting to the community and engaging with public space in the city. An interviewee, Boris Charmatz, explained his idea of a new approach to the museum,

*The future of the museum is about building an art space that would rethink what a public space can be... What can we share, but also how can we express and be confronted with others in the public space beyond the neutral, clean gallery?*<sup>100</sup>

Constructing a public space that has a close connection to arts and culture can be a way to engage many people in their local communities and the overall urban arts community. Exhibiting and interacting with culture in-situ, rather than a neutral gallery, can provide not only new audiences but new connections between art

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99 Alexander Wiethoff and Heinrich Hussmann, *Media Architecture*, "Chap. Interfaces of Media Architecture, Interface/Screen", Perlego.

100 Tate Etc, "What is the museum of the future?," tate.org.uk, Tate Modern, Sept.2015, <https://www.tate.org.uk/tate-etc/issue-35-autumn-2015/what-museum-future>.

and public life. After all, art is meant to comment on, and challenge shared ideas, not be cordoned off in a gallery or archive. The public and the cultural spaces need not be so disconnected. By employing techniques from this framework, the exhibition space can become more participatory and atmospheric. By designing interactive experiences instead of relying on traditional display methods, the viewer can be more engaged, and new audiences can be enticed. Media technologies allow people to augment space virtually as well as physically. The museum can therefore provide methods that will enable people to add information to the exhibits and consume the content presented. The average viewer can become a ‘prosumer’ that absorbs information and contributes to the overall experience. The white-box gallery provides a perfect space to be transformed into a new and immersive setting. Instead of composing a sequence of images along a wall, the entire space can become a cohesively designed environment similar to a Cabinet of Curiosities. These spaces can be transformed into the locations that held the artifacts and treasures on display instead of being contained in a standard glass case. The experience does not have to stop at the museum or gallery walls, either. Entire worlds can permeate the city and connect the museum with disparate local communities; they can extend the museum experience into the urban realm in general. As seen with projects like the Grand Tour in London, people are engaged when content from these cultural institutions permeates everyday space.<sup>101</sup> But instead of simply hanging replicas of paintings, everyday spaces can be transformed into an entire scene, with content and atmospheric effects such as music and lighting blending into a cohesive experience that engagingly presents the work. Series of these scenes can be staged across the city, connecting disparate locations with cultural institutions, creating a network of experiences that simultaneously tell a story and allow people to discover their city.

And it is not just the museum typology that can benefit from this interactive way of working; performance spaces are struggling with the digitization affecting daily life, and changes in how people find entertainment. Running the risk of becoming confined to cultural relics, like the Ancient Greek temple, cinemas, in particular, must explore how to entice viewers to occupy the theaters instead of seeing the same product on a screen in their own home. The promises of 3D graphics and Dolby surround sound lose their cache as these technologies infiltrate private spaces. The cinema must strive for immersion and experience that cannot be replicated online or at home. As such, these spaces are beginning to experiment

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101 “The Grand Tour,” The National Gallery, June 2007, <https://www.nationalgallery.org.uk/about-us/press-and-media/press-releases/the-grand-tour>.



Fig.2.27 Oculus Cinema Experience - Los Angeles Theater

with experiential design that is multi-sensory and extends the experience beyond the confines of the screen. In the *Oculus Cinema Experience* in the Los Angeles Theater, the entire viewing room was animated as content from the screen spilled out and filled the whole room, igniting every sense.<sup>102</sup> Ironically, this project was designed to express the power of Oculus Quest, a VR headset whose technology is aiding in the separation of the public from the very type of physical entertainment spaces this project inhabited. Instead of using experiential design as a promotional tool, places like the movie theater and independent cinemas should incorporate this methodology to create experiences that attract viewers to produce and consume content in this manner. Just as sound or the digital camera revolutionized the movie-going experience and transformed the art form, immersive media technologies can create new types of cultural production and viewing experiences.

The cinema experience has similarly been affected by the digitization of our cultural sphere. Physical spaces have been challenged by the change in how people consume content. Now, particularly after the Covid-19 pandemic, content is increasingly viewed through a personal device, whether that be a phone or TV screen.<sup>103</sup> As a result, the cinema experience has become generic.

102 Hillburg, J. (2020, June 18). Los Angeles's A+D Museum Will Shutter Its Physical Space, Move Online Permanently. *The Architect's Newspaper*. <https://www.facebook.com/archpaper/>. June 18, 2020. <https://www.archpaper.com/2020/06/los-angeless-ad-museum-will-move-online-permanently/>.

103 Colley, Rachel C., Tracey Bushnik, and Kellie Langlois. 2020. "Exercise and Screen

The franchise movie theater has homogenized the movie-going experience. Every Cineplex is the same; the movie palaces of old and indie cinemas are few and far between. There are still art-house and independent movie theaters struggling to hold on. But these spaces increasingly struggle to entice viewers to leave their homes' comforts and personalized experiences to go back to a movie theater. One of the flaws in the cinema experience today is that it focuses solely on the period when the theater lights go down. The movie theater is made up of more than just the viewing rooms. The lobbies of these buildings can be more than just snack bars; they can create unique experiences; recreate the faraway places, lost cities, or fictional worlds of films, and let the movie world spill out into the real world. The twentieth-century movie palaces made going to the movies a lavish event filled with theatricality. Creating immersive experiences that spill out from the screen and into the cinema spaces and even the city beyond can create theatric and cinematographic experiences that cannot be recreated at home. By employing techniques from this design methodology, cinemas can make going to the movies an experience again, one that does not begin at the doors of the viewing room but the entire cinema environment and even the city at large.

Digital media has become a pervasive and inseparable part of daily life. As such, it should become an active design component in future public architecture. Up until now, it has been hard to incorporate digital media in new-build projects as the technology has been evolving at a rapid pace, making it obsolete by the time the project is entirely constructed.<sup>104</sup> But that has been because most projects focus on incorporating hardware directly into the structure of a building. Alternatively, this thesis focuses on the software, the projection, and MR technologies that would allow digital media to become more of an atmospheric quality rather than a piece of hardware used as a façade device or a computer monitoring systemic efficiency. The transience of our current media technologies can make them pervasive to a potentially detrimental degree, but it can also be their benefit. The malleable nature of AR and MR technologies can redefine the static physical environment and show something new or draw connections to past configurations and histories. MR, AR, and projection systems grant the ability to transform any surface

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Time during the COVID-19 Pandemic." Statistics Canada: Canada's National Statistical Agency, Government of Canada, Statistics Canada. July 15, 2020. <https://www150.statcan.gc.ca/n1/pub/82-003-x/2020006/article/00001-eng.htm>.

104 Alexander Wiethoff and Heinrich Hussmann, *Media Architecture* (Walter de Gruyter GmbH & Co KG., 2017), "Chap. From Allopoietic Content to Autopoietic Content for Media Architecture through a Better Understanding of Architectural Typologies, Media Architecture Causality", Perelego.

into a screen or interface, which minimizes difficulties with the installation of extensive hardware and obsolescence. The result is a city constantly evolving with every day, month, or year; a city that becomes a natural extension of its cultural history, past, present, and future. The next chapter will address how visual artifacts and staged perspectives must be organized and connected through spatial and temporal sequences that imbue space with meaning through narrative and history.

## 7.0 Discovering Historic and Narrative Sequences

Incorporating visual artifacts and digital media in a cohesive design that communicates narrative is essential in public space design. Everyone's view of space and the city, in general, is different. Thus, the creation of public space should not be static. This framework has proposed methods of working that make environments immersive and interactive. But this section focuses on how to connect location-specific experiences in disparate locations to create an expanding cultural network. Stemming from ideas of urban storytelling, this thesis looks to develop the entire city as a connected network, not just of infrastructure but of stories and information. Disparate locations can be connected, not through a bus route or an organized city tour, but narrative and historical sequences. People understand the world through narrative. Narrative is firmly embedded in the way people map and navigate the world around them.<sup>105</sup> It is a natural component of the design of architecture and urban space. For centuries before maps were widely available, people understood their city through the relations between objects and places. Harnessing that power will once again allow people to connect to their environments. Unlike Google maps giving directions, the urban dweller can walk through the city based on the networked connections between their experiences in public space. The interactive film in a person's local plaza can lead them to an exhibition across town. That exhibition can subsequently be linked to a historic piece of architecture in the downtown core. Rather than relying on signs, plaques, and online mapping, staging and media augmented environments can embed information and story into the design of a space.



Fig.2.28 Le Corbusier's 1925 Voisin Plan

Every city is a complex and layered palimpsest. Depending on the city, various historical and cultural traces are visible. Some cities, like Rome, have vast amounts of visual triggers of their past interspersed throughout its urban realm; others, like Toronto, have applied a tabula rasa approach to building that has erased the nuance and fragments that hold the connections to the past and a society's cultural history.<sup>106</sup> This ex-nihilo approach to construction has roots in modern architectural and urban design theories that can be seen imposed since Haussmann's redesign of Paris and later Le Corbusier's

105 Nigel Coates, *Narrative Architecture*, (John Wiley & Sons Ltd, 2012), "Chap. 1 The Long Perspective", Perlego.

106 Luis Jacob, *Form Follows Fiction: Art and Artists in Toronto*, (Toronto, Black Dog Press, 2020).



urban plans in the 1920s. Ideas of erasing existing neighborhoods in favor of order and, later on, construction that prioritizes vehicular traffic can be seen in Le Corbusier's 1925 Voisin Plan for Paris.<sup>107</sup> The proposed plan sought to bulldoze a large part of central Paris north of the Seine. The proposal meant to replace the historical city with an orthogonal street grid that organized the sixty-story apartment towers and remaining park space. But by razing entire sections of Paris, the proposal would have erased the city's connection to history and memory, where not even fragments of the past remain. When used liberally, demolition makes cities unrecognizable to existing populations and alienates their inhabitants. It also makes it easy to erode, correct, and rewrite history.<sup>108</sup> Tabula Rasa building has implications for heritage preservation and points to a dangerous trend towards sacrificing uniqueness and individuality of place for the sake of utility. This trend permeates urban design in today's cities most of all. They are designed for utility above all else. Vehicular traffic patterns are analyzed, circulation routes calculated on efficiency, and recent proposals for 'smart-city design' show trends for optimizing the city rather than designing it.<sup>109</sup> They are all examples of greater importance placed on the mechanisms of a city rather than the design for the urban flâneur.

The infrastructural mechanisms of a city are important, and their upgrade does improve city life. Demolition is an inevitable part of an evolving and aging city. This thesis is not arguing against these practices or for the preservation of every building. The argument proposed is that the disproportionate importance placed on utility and ex nihilo construction practices, when applied excessively, create lifeless public spaces. All architecture projects must struggle with the dichotomy between permanence and temporality. Nothing truly stands forever. The lifespan of a building can vary greatly, but the site it sits on is guaranteed to have a long history. People can layer these dimensions in their minds, but spatially enhancing the layered nature is much more difficult. History and stories embedded

107 Lubin, Gus, (2013, August 20). Le Corbusier's Plan Voisin for Paris. *Business Insider*. <https://www.businessinsider.com/le-corbusiers-plan-voisin-for-paris-2013-7>.

108 Staphen Greenberg, "Place, time and memory," in *Museum Making: Narratives, Architectures, Exhibitions*, ed. Suzanne Macleod, Laura Hourston Hanks and Jonathan Hale (New York: Routledge, 2012), 97.

109 Marcella Del Signore and Gernot Riether, *Urban Machines: Public Space in a Digital Culture* (LISTLAB, 2020), 5.



Fig.2.29 Banksy Tag

within a site are not always captured in the collective memory and become buried underneath the reconstructions and iterations that come with the growth and change of any city. Some walk the streets equipped with extensive historical knowledge and a keen eye, but even then, it is up to the imagination to fill in these spaces with the sights and sounds that occupy another dimension of that site. In his book *Civilization and Its Discontents*, Sigmund Freud considers the possibilities of being able to visualize the long and varied history of a place,

*Now let us make the fantastic supposition that Rome were not a human dwelling-place, but a mental entity with just as long and varied a past history: that is, in which nothing once constructed had perished, and all the earlier stages of development had survived alongside the latest. This would mean that in Rome the palaces of the Caesars were still standing on the Palatine and the Septizonium of Septimius Severus was still towering to its old height...And the observer would need merely to shift the focus of his eyes, perhaps, or change his position, in order to call up a view of either the one or the other.<sup>110</sup>*

This description paints an engaging picture of how people interact with history and architecture. But Freud did not extrapolate this thought experiment further, thinking it impossible to represent a historical sequence in spatial terms. Since the technologies to achieve this juxtaposition in space were not yet invented, Freud argued that the same space couldn't hold two contents. But today's modern media technologies allow for the layering of visual and spatial realities. Multiple contents and histories can be represented in the same space. The urban environment has been a canvas for creating an alternate reality throughout history, whether through temporary additions to facades, sculptural works, or displays that animate the space with fireworks, water, or light. The tradition of augmenting space with alternate meanings and histories lasts to this day with light and art festivals and works of graffiti artists like Banksy. Mobile media technologies have prompted explorations into new methods for layering space not only with visual media but interpretive information as well. The practice of on-site curation and the design of 'third space', in particular, explore how to design environments layered with historical and imaginative narratives.

The concept of 'third space' describes combining the viewer's experience in an existing architectural space with an overlay of

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110 Sigmund Freud, *Civilization and Its Discontents*, (Chrysona Associates Limited, 1929), 4.

interpretive information presented through media technologies<sup>4</sup>. Presenting new information within existing space makes it possible for people to rediscover the city through a new lens. ‘Third space’ describes a type of environment most prevalently seen in cultural spaces such as museums, historic sites, and performance spaces. The term is most often employed concerning curating exhibitions, mainly on-site exhibitions. In their paper, Jonathan Hale and Holger Schnadelbach use the word ‘curatorial overlay’ in *Moving city: Curating architecture on-site* to explain how ‘third space’ is created. Their investigations used a hand-held PDA device to augment existing urban environments with information, creating a new architectural exhibition. The curatorial overlay approach provides a sense of immersion that is not possible in the primarily two-dimensional form of presentation currently employed in museum spaces.<sup>5</sup> The creation of ‘third space’ is therefore essential to designing public spaces that are immersive and experiential. Interpretive information is no longer just the description of an artwork or the little information tag beside a historical object in a museum; it can also be the history of a site or a reimagining of what a place could be. It opens up possibilities for new means of interacting with knowledge and connecting and linking information. Finding ways to display ephemeral and visual information that moves past the traditional poster and billboard interventions in public space can create engaging public spaces that entice viewers to visit disparate locations in the city instead of relying on the downtown gallery and theater or the computer at home for entertainment and access to cultural history.

However, designing with narrative and historic sequences should not be considered an exclusively historical act. Using these techniques to communicate historic information simply could lead to an inclination to historicism, so it is essential to promote the telling of new stories and historical facts. Every place can be seen in a new way or add additional meanings to its layered history. The St. Lawrence Park Commission (SLPC) understood that even the historic Fort Henry in Kingston, Ontario, can have a new story to tell. The *Lumina Borealis* installation at Fort Henry by Moment Factory shows how any location can be rediscovered through storytelling and narrative as a design tool. The experience was designed along an outdoor trail between the fort’s walls. Visitors walk through and conjure up the Northern Lights, meet mysterious creatures and play winter games. The story is not of the historic fort but archetypal; the story of winter in the Great White North.<sup>111</sup>

When designing a site, engaging with history and narrative



Fig.2.30 Lumina Borealis



Fig.2.31 Lumina Borealis - Person Singing to Animate the Installation

111 Moment Factory, “Lumina Borealis,” momentfactory.com, Google, 2016, <https://momentfactory.com/work/all/all/lumina-borealis>.



Fig.2.32 Folly for a Flyover

need not only be constricted to the factual history of a location or contained within historic sites. Meaning can be derived from connecting to a location's past and inventing a brand new story. Assemble Studios has employed this design concept with the story to create engaging public space. The project, *Folly for a Flyover*, transformed a highway underpass that can be qualified as a leftover space devoid of meaning into an arts venue and bustling public space. The *Folly's* story is that of a stubborn landlord who refused to make way for the highway, which was subsequently built around the house.<sup>112</sup> The resulting construction visually refers to a traditionally-pitched roof house, which fits perfectly between the highway passes. This intervention infuses the space with an extraordinary atmosphere yet still feels like it belongs to the city's existing fabric.

Narrative is essential for designing public space; whether historical or new narratives, in a seemingly barren location or with a complex and layered history. It is a tool to allow people to connect to a place rather than just passing through. Visualizing these stories is the problematic part. So many of today's seemingly narrative-rich landscapes have become caricatures of times past or plain spectacles devoid of meaning. The theme parks and other entertainment venues are filled with narrative triggers and visual, historic motifs, creating their own enclosed alternate realities. Places like Las Vegas or Disneyworld use tropes and symbols to evoke a story without the authenticity needed to connect to the visitor.<sup>113</sup> Creating pseudo-narratives does not work in the urban landscape or cultural space; there must be a connection between cultural history and the existing landscape.

The previously discussed examples have shown various ways to illustrate narrative in space, from embedding it into the design and physical characteristics of a building to the use of projection to overlay narrative atop an existing landscape. A story or a narrative can take many different forms; it can be the history of a place, the archetypal story of a winter's day, or a fictional story overlaid onto an existing urban space. This thesis argues that every site has one or all of these narratives embedded within it and accumulates them over time. Therefore, it is vital to acknowledge the multi-layered nature of public space and design to visualize and communicate that to the inhabitant. The layering of analog and digital media in space allows narrative and history to be uncovered or added. Experiments that transform an environment into an interactive interface allow for the creation of interactive storytelling environments that can

112 Assemble Studio, "Folly for a Flyover," [assemblestudios.co.uk](https://assemblestudios.co.uk), Google, 2011, <https://assemblestudio.co.uk/projects/folly-for-a-flyover>.

113 Nigel Coates, *Narrative Architecture*, (John Wiley & Sons Ltd, 2012), "Epilogue", Perlego.



Fig.2.33 *Palimpsest*

respond to their viewers.

Thus, physical environments are host to a multitude of stories and connections to cultural histories. This thesis has presented ways to visualize them, but they should also be archived and connected. Digital mapping provides the unique opportunity to create endlessly layered representations environments. By leveraging digital representations stories can be archived so that people can have access to information previously unknown to them. Palimpsest is one such project which leverages digital technology to keep the ephemeral information and stories that populate our environments from being lost.<sup>114</sup> Digital archives, if open-sourced can provide a way for people to store and access information related to their urban realm. Combined with a design process that employs permanent impermanence, varying sets of information can be collaged together in physical installations to not only have access to old content but see new perspectives and new stories.

Giving people access to the tools and ability to display content which animates their spaces paves the way for the city to become a continually evolving stage augmented with media and story. Designs with visual artifacts, staged perspectives, and historical and narrative sequences allow urban dwellers to transform existing environments and visualize new versions of what a space could look like. A plaza will no longer be simply a thoroughfare but a stage with endlessly changing scenery. A visit to the museum can become a trip around the world, an interactive experience of

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114 Torisu, Takashi, Haavard Tveito, and Russell Beaumont, "Palimpsest," Interactive Architecture Lab, September 27, 2016, <http://www.interactivearchitecture.org/lab-projects/palimpsest>.

a faraway place where artifacts and art can be seen represented in situ rather than in a glass case. With an infinite amount of content and information available at people's fingertips, the experience of the city must be immersive and constantly evolving. People have become accustomed to information at their fingertips and an endless content stream. The city must adapt to become a cultural outlet to connect with its inhabitants. Every citizen must have the agency to transform their environment. As a result, a street can be occupied by a food festival one day and become the forest initially inhabited by the community's Indigenous inhabitants the next. Why must the gallery, theater, or internet hold the monopoly over discovering and interacting with culture? This thesis argues for a framework that allows cultural production to spill out throughout the city, affecting the design of every space. Employing the three proposed principles in architectural designs and public space would create a new way of designing and understanding space, layered and immersive. This way of thinking about architecture has implications for every public space in the city. The city's urban realm, ranging from the streetscape and plaza to the museum and cinema, can be experienced in new ways and find new audiences. This thesis argues that this can only be accomplished if the community has an active role in designing these spaces. Through the combination of visual artifact installation, staged perspectives, and historical and narrative sequences, the streetscape, plaza, or parkette can regain their status as places of communication and expression for the community. For example, the arrangement of artifacts and artwork combined with view-specific projections and animations can transform a regular street into a winter wonderland, as Moment Factory did at the historic Fort Henry. Still, by giving people the tools and techniques to augment their own environments, these experiences would become a pervasive part of urban life, not just an isolated event, with a broad range of backgrounds and stories being told.

This way of working is an alternative to tabula rasa building techniques and bureaucratic urban space design. Instead of demolition or extensive master planning, one can employ scenographic and cinematographic strategies that augment space instead of rebuilding from scratch. The streetscape can adapt based on the event or circumstance while keeping its original character. With mixed reality technologies, people can also begin to see personalized content in addition to a communal physical experience, allowing everyone to discover something new in the same environment. While personalization can become polarizing, this thesis proposes a way of designing that complements it with communal physical experiences that would make AR practices a communal feature rather than a solitary experience, as seen with most current AR

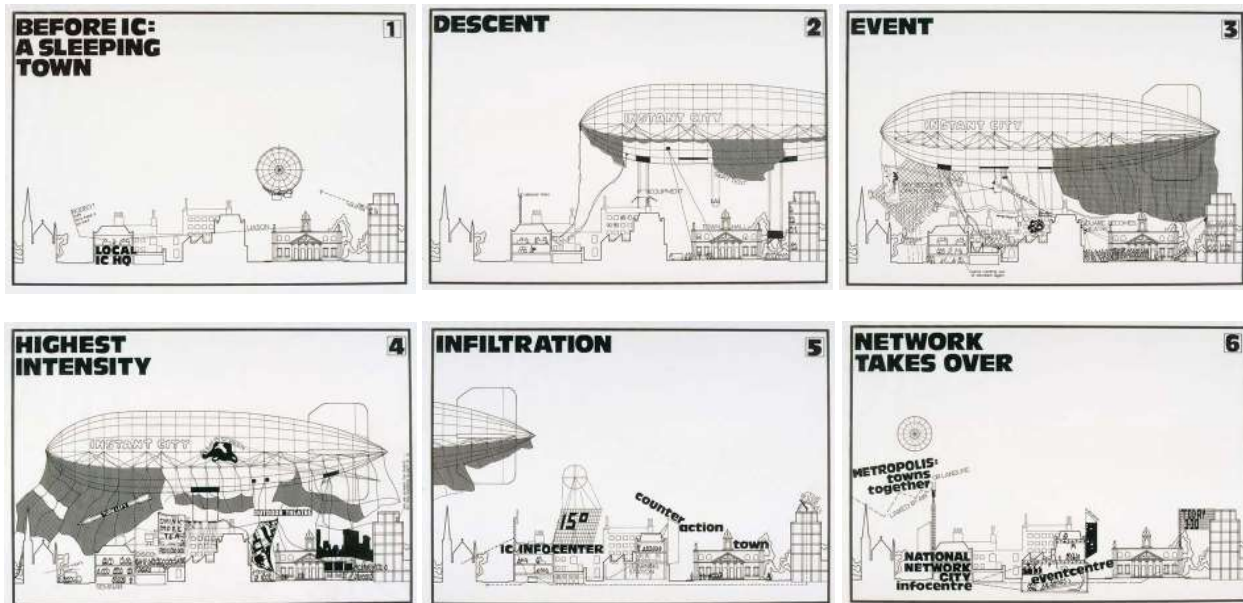


Fig.2.34 The Instant City Diagram

implementations. Every person has a different source of knowledge; the personalization of information viewed in space can help connect people through the visualization of unknown information. When walking down the street, one individual may know a vast amount about the history of City Hall while another may not. The addition of personalized content would thus aid communities to find new connections and new meanings in the spaces they frequent and discover. And the possibilities do not stop at historical content; the open urban areas can become active exhibition spaces for upcoming and established artists and artisans to show their work, for people to express new stories. Streetscapes should not rely solely on street furniture to develop character but instead should provide space for the interactive installation of artwork and artifacts by the community. Providing infrastructure upon which digital projection technologies could be installed in existing public spaces would allow people to animate and program their urban realm. The participatory and interactive nature provided by this way of designing means that every time someone walks through the city, they can experience a space anew and be immersed in a new story. Just as scenography and cinematography construct a scene; object, frame and narrative together build atmospheric architectures.

### Networked Public Space

By making storytelling and image-making tools more accessible, people can augment their environments, not just document



Fig. 2.35 The Grand Tour Project from The National Gallery

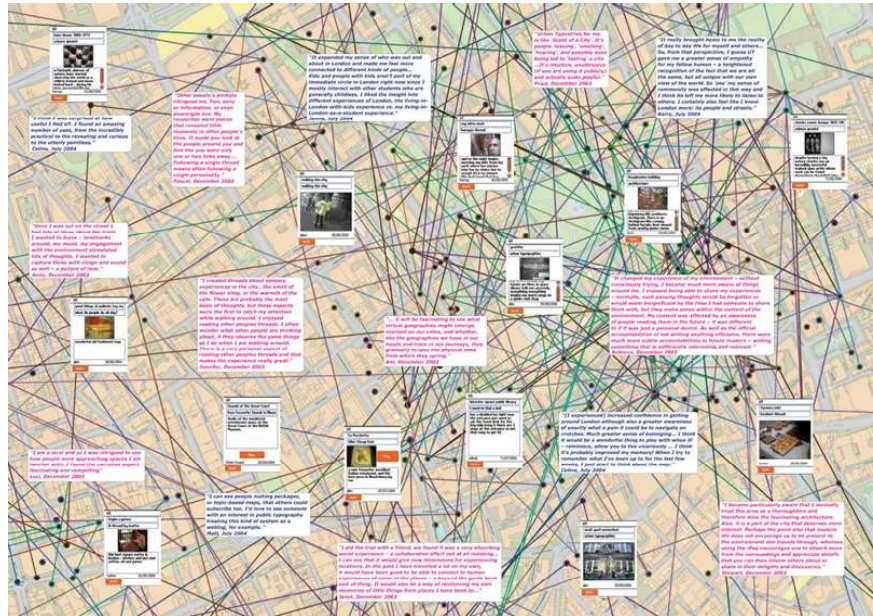


Fig. 2.36 Urban Tapestries by Proboscis

them. While the cinematic city of the twentieth century was primarily a mental exercise, the twenty-first-century city can be staged and animated by visual and sensory information. Digital technologies such as mobile digital screens and projectors as well as developments in networking software are pushing urban space closer to interactive cities similar to those proposed by Archigram in the 1960s. Archigram depicted cities that took advantage of media and networking technologies to create digitally-enhanced and culturally-mediated environments.<sup>115</sup> The Instant City and Plug-In City proposals showed apparatuses that augmented and connected the urban public realm. In the case of Instant City, the urban environment was designed through image-making; the audiovisual spectacles would temporarily animate the city and leave pieces that would permanently connect the site to a broader cultural network.<sup>116</sup> Similar to the festivities and processions of the Baroque, the Instant City infiltrates the city with an event, transforming the city into a technologically-enhanced stage. The event would be complementary to the local community and a reactive environment. With Instant City, Archigram shows a truly ephemeral architecture freed from its physical bounds and solely defined as an event, a situation. The project illustrates a media-enhanced city's narrative and interactive capabilities where ephemeral and cultural content can program

115 "Instant City, 1968-1970," Frac Centre- Val de Loire, Accessed March 20, 2021, [https://www.frac-centre.fr/\\_en/art-and-architecture-collection/rub/rub-317.html?authID=44&ensembleID=113](https://www.frac-centre.fr/_en/art-and-architecture-collection/rub/rub-317.html?authID=44&ensembleID=113).

116 "Instant City, 1968-1970," Frac Centre- Val de Loire,



and animate the city. The project then extends this event through a multitude of spaces, using the powers of networking. Spaces are not only animated but connected through the use of digital technologies.

More recently, projects like Urban Tapestries<sup>117</sup> and the Grand Tour<sup>118</sup> project showed the potentials of networked urban projects. In these projects, urban spaces were connected through the artifacts that adorned the walls and the stories that hung in the air. They are evidence of how connecting spaces through cultural programming can spur new ways of seeing and connecting environments.

Digital screens and the employment of digital media in public space have become a regular part of urban life, as Archigram's proposals had depicted. Facades and urban surfaces are adorned with a host of technologically-enabled signage. Still, the development of interactive technologies such as Mixed Reality (MR) and Augmented Reality (AR) presents possibilities to create spaces that actively engage users and communicate information in novel ways. Like the film before it, interactive digital media can provide new ways to tell stories and look at architecture. As has been stated by the Digital Storytelling Lab at Columbia University, "*digital technologies also create the capacity to bring into view new perceptions, new publics and new assemblages of urban relations.*"<sup>119</sup> By bringing architecture and media together, environments become immersive and atmospheric.

People need new ways to interact with cultural production and connect with their public spaces. Applying the principles outlined in the framework can address the two central issues affecting public space today; commercialization and digitization. The current approaches to urban design are exacerbating these conditions through overdevelopment and an inability to respond to digital forms of communication and cultural consumption and production. This thesis will use the City of Toronto as an example to propose possible ways that this framework can transform the city and how its use in public space design can address the rapidly changing city fabric and the distancing of cultural production from the public realm, as well as the increasing tendency to create hyper-individualized, digital spaces in reaction to the commercialized and foreign landscapes of the city.

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117 "Urban Tapestries | Proboscis," Proboscis, November 3, 2008, <http://proboscis.org.uk/projects/2000-2005/urban-tapestries/>.

118 "The Grand Tour," The National Gallery, June 2007, <https://www.nationalgallery.org.uk/about-us/press-and-media/press-releases/the-grand-tour>.

119 Alexander Wiethoff and Heinrich Hussmann, *Media Architecture* (Walter de Gruyter GmbH & Co KG., 2017), "Media Facades and Narratives for Public Space, Urban Storytelling", Perlego.



# Applying the Framework

## Rediscovering Toronto

The framework proposed in the previous chapters outlines a way of seeing and designing architecture as a layered and interactive environment that is constantly evolving. The mobile technologies that right now are distancing people from their physical spaces can also be used to establish new connections. By actively incorporating cultural production and media technologies into the design of public spaces, from the museum to the city street, urban inhabitants can connect to their cities in more engaging ways. The framework attempts to propose a means of designing environments through a synthesis of arts, media, and staging to address the commodification and digitization of urban public spaces. The City of Toronto will be used as an example of how these two issues are affecting the urban realm and how the implementation of the proposed framework can create public spaces that are more interactive and communicate stories and ideas in new and more immersive ways.

Toronto's rapidly growing real estate market has fueled a construction boom over the past years.<sup>120</sup> As a result, the city fabric has been changing quickly, leading to the erasure of history and narrative as condominium complexes grow across the city. While changes in an urban environment and its evolution are inevitable, the destructive means and fast pace at which these transformations are occurring in Toronto must be acknowledged since they directly impact how people live and interact in the public realm. The increased density is putting a strain on existing public spaces. Additionally, developers' planning and construction permissions are playing a significant role in public art installation and the new additions to the public realm.<sup>121</sup> Whether they are streetscapes or interior cultural spaces, the public domain needs to be more participatory and its design more decentralized to create a diverse and immersive city fabric.

The commercialization of the city surpasses just the urban plazas decorated by flashing billboards; the cultural institutions, such as the museum, have been used as cultural commodities ever since the Creative City developments of the early twenty-first century. With the Creative City planning implementation, Toronto's cultural buildings became monumental structures to gain international

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120 Robertson, Becky. (2020, October 5). Toronto Has Almost a Third of the Construction Cranes in North America Right Now. *BlogTO*. <https://www.blogto.com/real-estate-toronto/2020/10/toronto-construction-cranes-north-america/>.

121 McAllister, Mark. (2015, June 3). City of Toronto Relies on Developers to Provide Public Art. *Global News*. <https://globalnews.ca/news/2033406/city-of-toronto-relies-on-developers-to-provide-public-art/>.

attention and drive tourist numbers.<sup>122</sup> The result has been a closed-off cultural network that does not connect to local communities or surrounding city fabric. Recently, efforts have been made on the part of museums and libraries to develop ways to engage the community. Still, their efforts usually stop at the walls of their institutions, and for Toronto museums, that usually doesn't pass the bounds of the downtown core of a city. The need remains for a more immersive and interactive approach to cultural production and its integration into the public realm.

Arenewed methodology for incorporating cultural production in the public realm can address the erasure of cultural programming in public space and the institutionalization and commercialization of culture in institutions such as galleries and museums. A reaction to this condition and subsequent problem running across all urban public spaces is the distancing of people from physical space in favor of hyper-individualized digital spaces. This thesis argues for implementing a framework that merges cultural programming in public space with digital and mobile technologies to address the need for urban public space to once again be a place for the communication of stories, ideas, and immersive experiences.

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122 City of Toronto Economic Development Committee and Toronto City Council, *Creative Capital Gains: An Action Plan for Toronto*, 2011.

## 8.0 The Generic City

One can find parallels between modern-day Toronto with Paris in the nineteenth, leading to the turn of the century. Many of the urban conditions which Paris faced; increased urban reconstruction, rapid technological development, and a distancing from the urban realm, can be seen manifested on the streets of Toronto. Consequently, ideas of flânerie and theoretic works exploring the relationship between architecture and culture that were theorized by the turn of the century French philosophers are becoming relevant again, especially in their efforts to address the breaking down of public space and the public's disengagement from the city.<sup>123</sup> In both cases, fast-paced and widespread construction led to massive upheavals in the public realm. In Toronto, the rapid real estate development, particularly condominium development, has altered large expanses of the city, just as Haussmann's redevelopment uprooted large parts of Paris. Since the beginning of this century, developments have been going up at a tremendous rate, the growth reaching such a degree that in March of 2017, the average selling price of a home rose 33% from the year before.<sup>124</sup> This pattern is being repeated today; in 2021, the city had its second-best October on record with a 19.3% year-over-year increase in home prices, coming close to the 2017 record. These developments have led Toronto to become the second-largest real estate bubble on the 2021 UBS Index, right behind Frankfurt, Germany.<sup>125</sup> And this trend does not seem to be slowing, with 400 proposed high-rise projects in the city's development pipeline.<sup>126</sup> This has substantial economic ramifications, but it also has significant consequences for the urban and public realm. These new constructions mean increased densification and a complete overhaul of the city fabric. Plots of land and existing buildings are either demolished or gutted to make room for the planned condominiums. While many of these developments use language and marketing

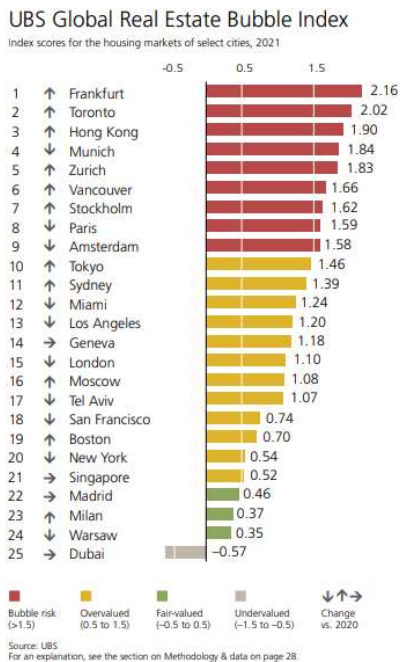


Fig.3.1 2021 UBS Real Estate Bubble Index

123 Stephen, Bijan, "In Praise of the Flâneur," *The Paris Review*, October 17, 2013, <https://www.theparisreview.org/blog/2013/10/17/in-praise-of-the-flaneur/>.

124 Bloomberg News, "Toronto Home Prices Soar a Record 33%, Pushing Average House to \$916,000," *Financial Post*, Postmedia, published April 5, 2017, <https://financialpost.com/personal-finance/mortgages-real-estate/toronto-home-prices-soar-a-record-33-pushing-detached-house-to-almost-1-6-million>.

125 UBS Editorial Team, "UBS Global Real Estate Bubble Index 2021," UBS Global, UBS. Published November 8, 2021, <https://www.ubs.com/global/en/wealth-management/insights/2021/global-real-estate-bubble-index.html>.

126 CREW, "Toronto's Development Boom Continues despite COVID-19," *Canadian Real Estate Wealth: Industry News & Market Trends*, Canadian Real Estate Wealth, published June 24, 2020.



-  Completed Developments
-  Under Construction Developments
-  Pre-Construction Developments

Fig.3.2 Map of Toronto Real Estate Developments

material to paint themselves with the guise of being creative sites or artist sanctuaries, their construction often erodes existing areas of cultural production or the hollowing out of heritage buildings. When a building is stripped to its skin, any real connections to cultural heritage are lost, only filled in by generic lobbies and commercial retailers. As space becomes increasingly commoditized, it simultaneously becomes increasingly generic. This results from the commercialization of public space and the standardized architectural language of condominium developments. Designing efficient and cost-effective structures for large populations inevitably leads to standardization. While this practice benefits the real-estate developers' checkbook, the urban dweller loses any semblance of an engaging public realm or a connection to cultural history.

### **Current Public Space Planning in Toronto**

Over the recent years, the City of Toronto has initiated studying its urban public spaces to respond to the city's rapid growth and redevelopment. The comprehensive planning document: *TOcore: Planning Downtown* is a proposed 25-year vision of the downtown urban landscape.<sup>127</sup> Over the years, Toronto has implemented piecemeal planning updates, this document is the first comprehensive update since the 1976 Central Area Plan.<sup>128</sup> Lake Ontario confines the study area to the south, Bathurst Street to the west, the mid-town rail corridor, Rosedale Valley Road to the north, and Don River to the east. The area defined by these boundaries has seen the greatest concentration of redevelopment and condominium construction. As a result, the site contains a dense congregation of public and cultural amenities and densely-packed residential and office space. The study area accounts for 40% of the non-residential gross floor area and 38% of the residential units in the city.<sup>129</sup>

The subsequent pressures on this increasingly dense section of the public realm required an examination of the city's public spaces and how they could be improved for the growing population. One specific study collaborated with Gehl Studio, Swerhun Associates, and Sam Schwartz Consulting, called the *Public Space Public Life (PSPL) Study*. Beginning with a public discussion, Gehl composed 'A Favorite Places' inquiry, consisting of pop-up events, stakeholder workshops and online mapping, a Public Life Study, Intercept Study, and public lecture series.<sup>130</sup> The PSPL Study identified 20 important

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127 City of Toronto, *TOcore: Planning Downtown* (2019).

128 City of Toronto, *TOcore: Planning Downtown* (2019).

129 City of Toronto, *TOcore: Planning Downtown* (2019).

130 City of Toronto and Gehl Studio, *Downtown Parks and Public Realm Plan: Public*





Fig.3.3 TOcore: Planning Downtown Boundary

public space qualities, including dynamic/changeable, all-season public life, local identity, and places to sit. These qualities were then distilled into 10 Quality Criteria<sup>131</sup>, which are:

1. Places to Sit
2. Lush & Green
3. Food & Drink
4. Safe
5. Dynamic
6. Whimsical
7. All-Season Play
8. Outdoor Relax
9. Spontaneous
10. Fine Grain

The study's findings promoted public spaces that provide a rich mix of activities and social settings in various spaces, from small squares to large plazas. The study also advocated designing urban streets as a place on their own, creating an expanded public realm. The results from these consultations imply the need for public space that is constructed with more than just the generic elements that

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*Space Public Life Study (2018).*

131 City of Toronto and Gehl Studio, *Downtown Parks and Public Realm Plan: Public Space Public Life Study (2018).*



Map showing proposed initiatives for the Great Streets, Toronto, Canada

**INITIATIVES**

- |  |  |  |
|--|--|--|
| <p>1 <i>University Avenue</i><br/>Create Linear Park and Gardens</p> <p>2 <i>King Street</i><br/>Implement Pilot to Enhance 'Transit First' Street</p> <p>3 <i>Jarvis Street Garden Street</i><br/>Revitalize Jarvis Street as a Garden Street</p> <p>4 <i>Parliament Street</i><br/>Create North 'Ravine Portal' Greenway<br/>Create Centre 'Local Street' with Lane Reductions<br/>Create South 'Waterfront Portal' Parkland</p> <p>5 <i>College-Carleton-Gerrard Corridor</i><br/>Implement Cycling and 'Green Street' Improvements</p> | <p>5 <i>College-Carleton-Gerrard Corridor</i><br/>Implement Cycling and 'Green Street' Improvements</p> <p>6 <i>Bloor Street</i><br/>Revitalize Bloor West, Centre and East Segments</p> <p>7 <i>Bayview Avenue</i><br/>Improve and Connect Active Transportation Modes<br/>Create a Linear Riverside Park Along Bayview Ave</p> <p>8 <i>Front Street</i><br/>Implement Union Station Pedestrian Improvements<br/>Create East and West 'Park Bookends'</p> | <p>9 <i>Spadina Avenue</i><br/>Implement North and South Pedestrian Improvements</p> <p>10 <i>Yonge Street Cultural Corridor</i><br/>Revitalize Yonge Street as a Pedestrian Priority Street</p> <p>11 <i>Queen Street</i><br/>Revitalize Queen Street in the Civic Precinct<br/>Investigate Future Pilot Opportunities</p> <p>12 <i>Queens Quay</i><br/>Extend Revitalization to Eastern Waterfront</p> |
|--|--|--|

Fig.3.4 12 Great Streets Plan

compose most public spaces today, a collection of a few benches and spaced-out planters. Language like dynamic, whimsical, and spontaneous implies creating more than just spaces for socializing but the design of an atmosphere that can evolve, whether a couple of hours or days. Although criteria such as spontaneity and dynamism were identified, they rarely affected the subsequent infrastructure strategies proposed to implement these studies into the public realm. The 5 TOcore Infrastructure Strategies spawned from this study centered on Community Services and Facilities, Parks and the Public Realm, Mobility, Energy and Water.<sup>132</sup> This thesis will focus specifically on the Parks and Public Realm Infrastructure Strategy, as it contains the most significant impact of the visual and physical aspects of the urban environment. This strategy is organized through another five subsequent ideas. Those being:

1. **The Core Circle:** a re-imagined park system connecting the valley, bluffs, and islands encircling Downtown
2. **Great Streets:** a renovation enhancing the unique characteristics of Downtown's most emblematic streets
3. **Shoreline Stitch:** re-connecting the east and west city to the waterfront
4. **Park Districts:** re-imagining Downtown's distinct districts with parks at their hearts
5. **Local Places:** redesigning local public space to better support community life

The Great Streets and Local Places strategies mainly address the need to redesign overlooked spaces in Toronto. The Great Streets proposal is a redesign of 12 of Toronto's streets that create what the document calls; '*A network of 12 Great Streets having cultural, historical and civic importance.*'<sup>133</sup> While advocating for creating unique 'places,' the document relies on generic design practices, such as an overreliance on planting, or vague language such as '*enhancing the identity of streets.*' While plantings are essential for creating a beautiful and healthy environment, they are not the primary design elements necessary to create places of cultural or civic importance. Creating genuinely unique public spaces requires connecting to cultural history, production, and performance. Since antiquity, public spaces of cultural and civic importance were defined by their relationship between art and staging. Romans lived an urban life where the street was constantly used for performance and procession. That tradition continued until Baroque times,

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132 City of Toronto, *Downtown Parks and Public Realm Plan*, (2020).

133 City of Toronto, *Downtown Parks and Public Realm Plan*, (2020).

with festivals and urban theater performances being a regular part of urban life. It was only until the turn of the last century where, internationally, the street was redefined primarily as a thoroughfare instead of a destination. Hence theorists like Jane Jacobs and William Whyte began to advocate for the need for well-designed streets. Jane Jacobs argued of the street's importance in *The Death & Life of Great American Cities*,

*Streets and their sidewalks, the main public places of a city, are its most vital organs. Think of a city, and what comes to mind? Its streets. If a city's streets look attractive, the city looks interesting; if they look dull, the city looks dull.*<sup>134</sup>

The design of streets that look interesting is an inherently visual and atmospheric act. A road is defined by more than just the circulation space assigned for motorists and pedestrians or the generic street furniture installation. What makes it interesting is the character of public space, the visual fragments that adorn walls and shops, or the monuments, the temporary media, and atmospheric effects that augment architecture and infrastructure. Many public space design documents have used the terms character and identity. Although, these terms are vague and usually correspond to a singular idea of what these spaces should look like. Not only that, but character and identity are primarily atmospheric conditions that rely heavily on visual composition and temporality. These conditions cannot be designed solely through plantings and bike lanes as is focused on in the King Street portion of the Great Streets proposal.

Designated as one of Toronto's great streets, King St. was the site for an urban redesign plan focused on improving the economic vitality and pedestrian experience. The goals identified for the redesign were:

- Improve the streetscape for walking, transit stops, social gatherings, public outdoor seating, cafe seating, and landscaping
- Create a unified streetscape that responds to and enhances King Street's distinct neighborhood character
- Expand the pedestrian realm and create a seamless connection between the significant parks and open spaces along the corridor
- Improve the cycling experience and provide additional bicycle parking

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<sup>134</sup> Jane Jacobs, *The Death & Life of Great American Cities*, (Vintage Books, 1961), 108.

These design principles were the basis for outlining the *Temporary Parklet Design-Build Competition*. The competition aims to explore bold and transformative ideas about how public space can be used in Toronto.<sup>135</sup> The competition uses the curb lane as a site for temporary parkettes to create new types of public space along the streets of Toronto. The brief also explains that these temporary parklets would add new amenities and elements of fun and visual interest to King St.'s limited pedestrian space. The city has chosen a select set of winners every year since 2018. Figures 3.6-3.13 show winners from the 2019 and 2020 Design-Build Competition. As can be seen from the images, most designs are sculptural seating platforms. Although the projects show the possibility for art and temporary constructions to draw attention, ultimately, the projects do not make an impact past their installation period. On the boundary between art and seating, these designs, while eye-catching, cannot make a lasting difference on how public space is used since they work in the bounds of analog urban design and pre-internet ideas of social life. Public space design cannot evolve without incorporating the new means people communicate and inhabit space.

Another street revitalization project was approved as recently as this past year. The Yonge St. revitalization project, *YongeTOmorrow* proposes reducing traffic lanes and expanding sidewalk space to respond to a larger pedestrian population.<sup>136</sup> It is part of the initiative to make streets destinations by increasing bike lanes, patios, benches, parkettes, and public art. While the design favors the pedestrian experience, the King St. project uses the same outdated design tools and techniques. With the case of the City of Toronto, that also means methods closely related to the commercial sector. *YongeTomorrow* follows this trend by advocating that making the street a 21<sup>st</sup>-century urban destination would be achieved by extending restaurant patios and installing more streetscape elements such as information pillars and benches. Both proposals are heavily beneficial towards the city's commercial sector. For example, installing more information pillars is hardly the answer to infusing a streetscape with more character. All it does is help Astral Media, the company the City of Toronto partners with for their installation and maintenance, leaving the city littered with advertisements and few places for people to congregate and participate in the social and cultural realms of the city.<sup>137</sup>

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135 City of Toronto, *Calls for Proposals: Temporary Parklet Design and Build Services*, (2020).

136 City of Toronto, *yongeTOmorrow*, (2019).

137 "About the Street Furniture Program," City of Toronto, November 17, 2017, <https://www.toronto.ca/services-payments/streets-parking-transportation/enhancing-our-streets-and-public-realms/street-furniture/about-the-street-furniture-program/>.



Fig.3.5 King St. Parklette - Plant it Forward



Fig.3.6 King St. Parklette - SUN+MOON



Fig.3.7 King St. Parklette - Re-

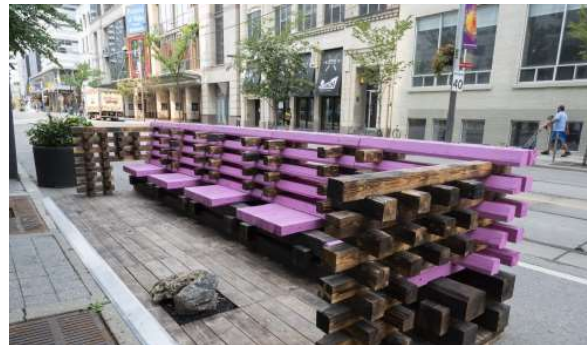


Fig.3.8 King St. Parklette - Peace Bench



Fig.3.9 King St. Parklette - Swing Stage



Fig.3.10 King St. Parklette - Cloud Bench



Fig.3.11 King St. Parklette - FLATPARK



Fig.3.12 King St. Parklette - High Strung

The resulting recommended design concept proposes a street typology comprised of a 6m wide, two-lane roadway, a 2.7m wide furnishing, planting, and cafe zone, and a minimum of 4m for pedestrian clearway space.<sup>138</sup> Great importance is placed on the sidewalk area. Still, other than the increased square footage, the design proposes a relatively generic plan for the streetscape design, particularly the furnishing zones. The proposed interventions emphasize restaurants and seating, evoking an overall café culture reminiscent of the European urban experience. However, the Toronto landscape is entirely different and should be designed with a new approach. The city is currently going in a centralized and heavily master-planned approach to urban design, with the same techniques being applied to every space. Evidence of this attitude can be seen in the Toronto street furniture program. It describes one of its benefits as “replacing several uncoordinated street furniture designs before 2006”.<sup>139</sup> If public space in Toronto should be designed in a way that enhances its unique character, then a more decentralized and culturally-mediated approach is necessary. By creating a program that allows its citizens to have direct agency over public space design, Toronto’s streets can be imbued with new life and truly represent a unique character. This thesis proposes this approach be accomplished through incorporating digital media in future designs and making space for the visual artifacts that create memorable experiences which cannot be recreated elsewhere.

## Future Streets

These studies show how Toronto is beginning to alter its practices regarding public space design. However, more needs to be done in order to overcome the effects of commercialization and generic design practices that are currently dominating Toronto’s urban realm. The city has a wealth of underused sites that could serve as engaging public spaces if designed in this manner. The vast network of streetscapes and POP sites, including the open courtyard and pedestrian walkways, has been largely absent from public space design studies and interventions. Except for projects like *YongeTOMorrow* and the King Street parklets, the streetscape is still thought of and designed as a motorway, with debates centering on vehicular and bike traffic leaving pedestrian uses underdeveloped. The primary design considerations centered around the pedestrian are the placements of benches or the design of monumental temporary seating in the form of parklets. We are seeing sentiment in cities

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138 City of Toronto, *yongeTOMorrow*, (2019).

139 City of Toronto, *Toronto Complete Streets Guidelines ed.1*. Vol. 1, (2017).



Fig.3.13 Street Furniture Locations

● Public Bench Data

● Transit Shelter





Information Pillar

● Billboard Structures

○ Publication Board Structures

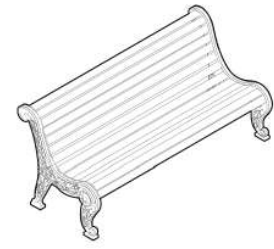


Fig.3.14 Bench



Fig.3.15 Transit Shelter



Fig.3.16 Billboards



Fig.3.17 Information Pillar



Fig.3.18 Publication Structure

beginning to change with more streets reducing space for cars and widening sidewalks or making roads open only to pedestrians.<sup>140</sup> These are steps in the right direction, but once those sidewalks are widened and the street open, what happens there? Arbitrarily placing benches and planters in those spaces does not equate to an active public space. These streets would stay circulation corridors only with more room to move. There needs to be a way to program and design these streetscapes. To achieve that, this thesis is arguing for flexible architectures that support the installation of analog and digital media that can be programmed and staged to exhibit the cultural productions of the local community, whether that is an art piece, interactive film, or theatrical performance. Public urban spaces need to be infused with media, engaging and participatory events, cinematic experiences that catch the eye of a passerby and stay in the neighborhood's collective memory. Cultural production and dynamic visual compositions are necessary for the physical public realm to compete with the flashy and interactive virtual world, where customization and media productions are abundant. The city plans compiled in this section cannot fully address the peoples' need to engage with their city or give enough opportunities for them to have an active role in the design of their public spaces. The case studies showed the urban spaces being revitalized by two main elements; street furniture and landscaping, both of which affect the atmosphere of a space but can easily create designs that are generic and overly dependent on commercial programming, as is the case with the *YongeTOMorrow* plan. Currently, street furniture consists of the same generic and non-modifiable objects. The City of Toronto has classified these elements as; benches, billboards, information pillars, publication structures, and transit shelters. The locations of these elements are then documented in an online GIS map. When looking at the map one can immediately see the domination of the commercial street furnitures, the billboards and publication structures, throughout the city. So not only are these street furnitures generic in their design, providing no variation in relation to local character, but majority of the elements installed are simply advertising structures. This thesis instead advocates for more open-ended architecture that would allow people to customize and fill it in as needed. Supplementing Toronto's existing street furniture system with more infrastructural pieces that could be combined to create a variety of combinations such as seating, exhibition spaces, backdrops or other scenic extensions to existing spaces could provide jumping off points from which people could begin to further

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140 Moore, Oliver. (2021, February 5). Has Toronto Embraced the Need for Bike and Pedestrian-Friendly Streets?. *The Globe and Mail*. <https://www.theglobeandmail.com/canada/toronto/article-has-toronto-embraced-the-need-for-bike-and-pedestrian-friendly-streets/>.



Fig.3.19 Streetscape Intervention



Fig.3.20 Toronto Streetscape

incorporate unique productions and designs.

These infrastructural elements need not be confined to physical elements but can also incorporate digital technology, like digital projection apparatuses. Adding digital media into architectural designs and urban public spaces would allow people to connect to these projection technologies and display their work and augment their environments, making any wall an interactive surface. Imagine everyone having the tools necessary to create a scene like the *Lumina Borealis*. If we created a system that has already installed the hardware, and similar to the GIS mappings that the city already produces, has digitally documented the city's urban environments, all that leaves is for the people to add their content and project it into these spaces. Physical, digital and hybrid interventions can move and pop up across the city, revealing new experiences and information. These experiences could then be digitally archived to be discovered and possibly built upon by other creators, thus creating a growing network of hybrid content animating the physical and digital world. Possibilities after that include the addition of sensors that can then transform this content to also becoming responsive to the movements and local inputs, just as Rafael Lozano-Hemmer's *Body Movies*. Additionally, just as multi-media installations can infiltrate the city, makerspaces and spaces for production can similarly infiltrate used interior spaces of the city. As Figure \_\_ shows, commercial real-estate has been suffering in recent history.<sup>141</sup> Instead of blocked out vitrines, these spaces can support local activity rather than leaving these spaces unoccupied, a situation that doesn't benefit the owners or the local community.

By incorporating cultural production and hybrid content, the urban becomes interactive, not only in the sense that content can change, but also in its ability to change based on people's movement and information input. Thusly, by combining these augmented reality technologies with projection surfaces Toronto's streets can come to embody mixed reality experiences.

141 Doris Kleilein and Friederike Meyer, *Post-Pandemic Urbanism* (Jovis, 2021), 8.



Fig.3.21 POP Site - 225 King Street West



Fig.3.22 POP Site - 1 Bedford Road



Fig.3.23 POP Site - 1155 Queen Street West



Fig.3.24 POP Site - 410 Lakeshore Rd W

## POP Sites

Similar interventions can be inserted into POP sites. POPs, Privately Owned Publicly-Accessible Spaces, are a part of Toronto’s development application and review process.<sup>142</sup> These spaces are meant to offset the shrinking the city’s shrinking public space as real estate developers accumulate a growing amount of land parcels.<sup>143</sup> These sites are frequently smaller-scale hardscapes on the ground plane of new developments. The city is in charge of enforcement of public accessibility, but as was made clear by the event of POP sites being given over as restaurant seating, there is a danger that these spaces can be taken over for commercial purposes. Public engagement is therefore necessary if they are to stay in the public domain. Promoting POPs as potential sites for participatory and culturally-meditated designs could help inject more public engagement. These sites have the added advantage of including spaces that don’t have to double as primary circulation corridors. Therefore, they allow for more heavily programmed spaces with things such as performances and more elaborate staging as well as art or film installations. By incorporating culture and digital media into architectural and urban designs, people can take an active role in the design of their surroundings, whether it is their local street or POP site.

142 “Privately-Owned Publicly Accessible Spaces (POPS),” City of Toronto, September 7, 2017, <https://www.toronto.ca/city-government/planning-development/official-plan-guidelines/design-guidelines/privately-owned-publicly-accessible-spaces-pops/>.

143 Gray, Jeff and John Sopinski. (2017, April 28). Toronto’s Five Decades of Condo Growth, Mapped. *The Globe and Mail*. <https://www.theglobeandmail.com/real-estate/toronto/toronto-condo-growth-by-decade/article34827531/>.

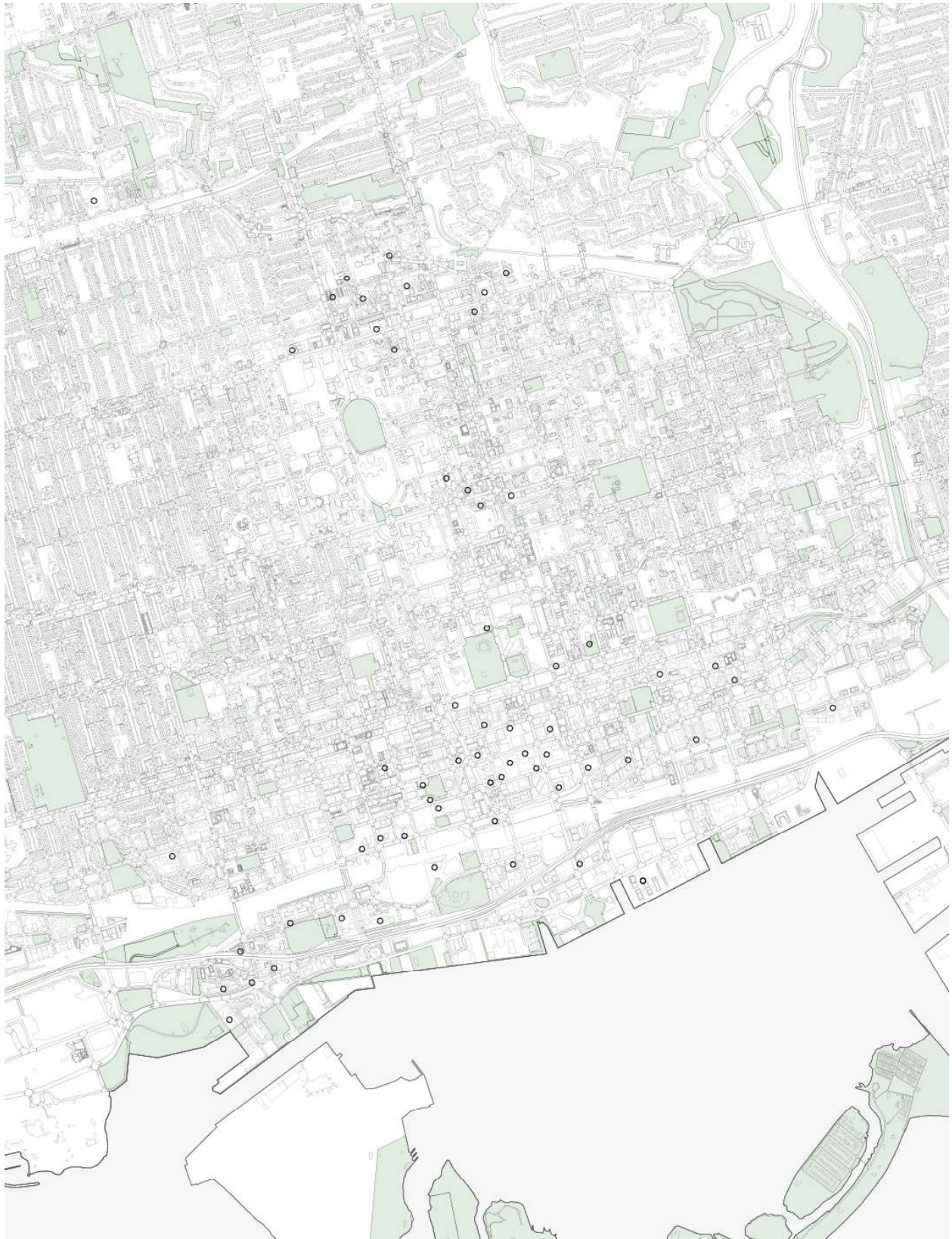


Fig.3.25 POP Locations

○ POP Site

## 8.0 Networks of Cultural Consumption and Production

Cultural projects have been leveraged to promote power and craft a city's brand since ancient times. Ideas relating to contemporary theories on the 'creative city'<sup>144</sup> can be seen in Ancient Greek monuments, Renaissance commissions, and Baroque theatrical festivals. But modern developments completed in pursuit of gaining the title 'creative city' are defined by their increased reliance on reproduction rather than originality and unique character, even though the marketing materials and planning documents want you to believe otherwise. At the beginning of this century, the creative city developments in Toronto invested in tourist destinations and crafted marketing images of a bustling cultural and creative metropolis.<sup>145</sup> However, these developments removed most connections to cultural production in favor of more lucrative commercial and consumptive models.<sup>146</sup> Museums and galleries became defined and subsequently managed to drive economic activity and tourist numbers. Thusly, the city invested in flamboyant facelifts by Starchitects of existing institutions and crafted a set of promotional images to present Toronto as a 'creative city' on the international stage.<sup>147</sup> Yet, while the influx in the capital seemed to boost the city's cultural scene on paper, the local communities and artists suffered, with many artists and institutions becoming displaced.<sup>148</sup> The creative city developments in Toronto, like the Loft Living movement in New York, turned the city's cultural spaces from production places to items of cultural consumption.<sup>149</sup> As a result, the smaller-scale spaces were either displaced by the redevelopments or could not withstand the resulting market forces and disappeared from the landscape. The gentrification and commercialization of the cultural areas in cities like Toronto and worldwide have alienated the public and for culture to increasingly move online. One example is; Downtown Los Angeles' A+D Museum shuttering its doors

144 Richard Florida, *The Rise of the Creative Class—Revisited* (UK: Hachette UK, 2014), 5

145 City of Toronto Economic Development Committee and Toronto City Council, *Creative Capital Gains: An Action Plan for Toronto*, 2011.

146 Nicole Rak, "Counterculture Plan for the Creative City", 27.

147 City of Toronto Economic Development Committee and Toronto City Council, *Creative Capital Gains: An Action Plan for Toronto*, 2011.

148 Catungal, John Paul, Deborah Leslie, and Yvonne Hii. "Geographies of Displacement in the Creative City: The Case of Liberty Village, Toronto." *Urban Studies*, no. 5–6 (2009): 1095–1114. <https://doi.org/10.1177/0042098009103856>.

149 Sharon Zukin, *Loft Living* (Rutgers University Press, 1989), pg#.

and switching to permanent online exhibitions with the promise of temporary pop-up installations in cities across the United States.<sup>150</sup> While the digital transformation can be seen as a progressive move towards decentralization, it disregards the atmospheric and sensual qualities of exhibiting and experiencing art. Online viewing rooms are more extreme abstractions of their physical counterparts; the white-box exhibition room. The move online thoroughly discontents the viewer with any experiential qualities. Sebastian Errazuriz, the artist, known for “vandalizing” the Jeff Koons AR sculpture, identifies this online shift as nothing more than galleries “rephrasing their marketing”.<sup>151</sup> Instead, Errazuriz calls for galleries to invest in cutting-edge technologies that truly bring artworks to life.<sup>152</sup> As a result of digitization, the urban cultural space has become even more generic and disassociated from public life and cultural production.



Fig.3.26 AGO Entrance

### Productive Cultural Spaces

The remaining cultural institutions, post-Creative City, are mainly assembled in the downtown core and do not engage with the rest of the city. Built as monuments, their engagement with the city, and the street, in particular, are somewhat underwhelming. The AGO, for example, has ample courtyard space, which is a barren landscape throughout the year. Its primary function is as a waiting space for visitors on busy days. Like many other museums, the AGO has ample street frontage to engage with the city fabric. This opportunity is wasted since the first-floor space adjacent to the street is programmed with a gift shop and coat check space, and lobby entrance. The exterior city fabric is walled off, physically and visually separate from the landscape. If some of the ground floor real estate was used to incorporate makerspaces, one could imagine having much more local engagement. Rearranging the

150 Hillburg, J. (2020, June 18). Los Angeles's A+D Museum Will Shutter Its Physical Space, Move Online Permanently. *The Architect's Newspaper*. <https://www.facebook.com/archpaper/>. June 18, 2020. <https://www.archpaper.com/2020/06/los-angeless-ad-museum-will-move-online-permanently/>.

151 Hillburg, J. (2020, June 18). Los Angeles's A+D Museum Will Shutter Its Physical Space, Move Online Permanently.

152 Rowe, M. (2021, October 14). Will the Increase of Online Exhibitions Kill the Physical Gallery?. *The Guardian*. <https://www.theguardian.com/artanddesign/2021/oct/14/online-exhibitions-art-galleries>.



Fig.3.27 AGO Makerspace Possibility - Render shows studio space looking out to AGO Courtyard where people can install custom installations



Fig.3.28 AGO Possibility

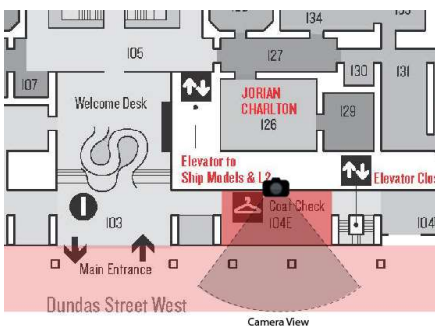


Fig.3.29 AGO Possibility - Camera View

ground floor of high-profile cultural institutions like the AGO to place community-oriented production spaces in a more prominent place with a greater connection to the urban fabric would potentially engage more people to interact. Most galleries have some way for people to interact with behind-the-scenes content, whether that be MoMA's Behind the Scenes section on their Inside/Out blog<sup>153</sup> or the National Gallery's behind the scenes at the gallery videos<sup>154</sup>. People are interested in being involved in the creative process. Incorporating maker-spaces on the ground floor adjacent to the open courtyard could then promote a natural connection between production and exhibition of the work throughout the city, beginning with AGO's courtyard. Incorporating productive spaces that engage visually as well as programmatically with passers-by and visitors would not only spark interest but also possibly entice new creators.

A similar situation exists with the Liebeskind addition to the ROM. The courtyard adjacent to the new extension is sparsely populated, with a few benches and pockets of landscaping. The resulting public space is unusable except as a viewing platform for the new cultural monument. The area remains highly transitory, with little possibility for community engagement and communication.

153 "Behind the Scenes," MoMA. Accessed March 20, 2022. [https://www.moma.org/explore/inside\\_out/category/behind-the-scenes/](https://www.moma.org/explore/inside_out/category/behind-the-scenes/).

154 The National Gallery, London. Go behind the Scenes of the Gallery. The National Gallery. Accessed January 20, 2021. <https://www.nationalgallery.org.uk/behind-the-scenes>.



This approach to designing public space as a bare and open landscape, with the guise of being available to any activity, actually creates a space where no activity occurs. Whether it be the courtyard in front of the AGO or the Dominion Center plaza, the empty fields created remain nothing more than circulation space. Public space needs to provide armatures on which social life can hang onto, ways in which cultural production can inhabit everyday spaces like the plaza, courtyard or streetscape, and the gallery or stage. The courtyards in front of institutions like the AGO or ROM are empty canvases on which new ways of experiencing art and the city can meld together.

As the framework laid out in the previous chapter, people are no longer content with traditional methods of cultural consumption. Content that could previously only be seen on the movie screen, in the exhibition display case or, increasingly in a post-pandemic world, on the computer screen, can be experienced in the physical environments of the city instead of simply viewed on a screen. People crave greater experiential engagement even in visually and culturally rich environments like the museum. In a 2003 study, researchers asked what people want to get out of visiting historic sites and museums. The visitors responded with the desire to escape another time, experience a world different from their own, and feel “the aura” of an environment.<sup>155</sup> An accessible and interactive digital layer is one of multiple elements that can bring increased engagement to existing public and cultural spaces. Exhibitions can then potentially become extendable and personalized. Larger amounts of information can be connected through a hybrid amalgamation of physical artifacts and digital visuals and information. Toronto exhibitions can be digitally connected to exhibitions around the world and vice-versa. People could personalize their experience based on their specialized interest. The same can be said of the reverse, people would be able to non-destructively add their own information and connection to the existing curation. An exhibition-goer thus would become a ‘prosumer’, a viewer actively participating. While certain aspects of this scenario could be accomplished simply through the use of browsing the internet on one’s phone, connecting all of this information, the links between sites as well as supplementary content, would allow more people to find and access place-specific information while also creating a networked city.



Fig.3.30 ROM Courtyard Renovation

155 Steven Lubar, *Inside the Lost Museum: Curating, Past and Present*, (Harvard University Press, 2017), 122.

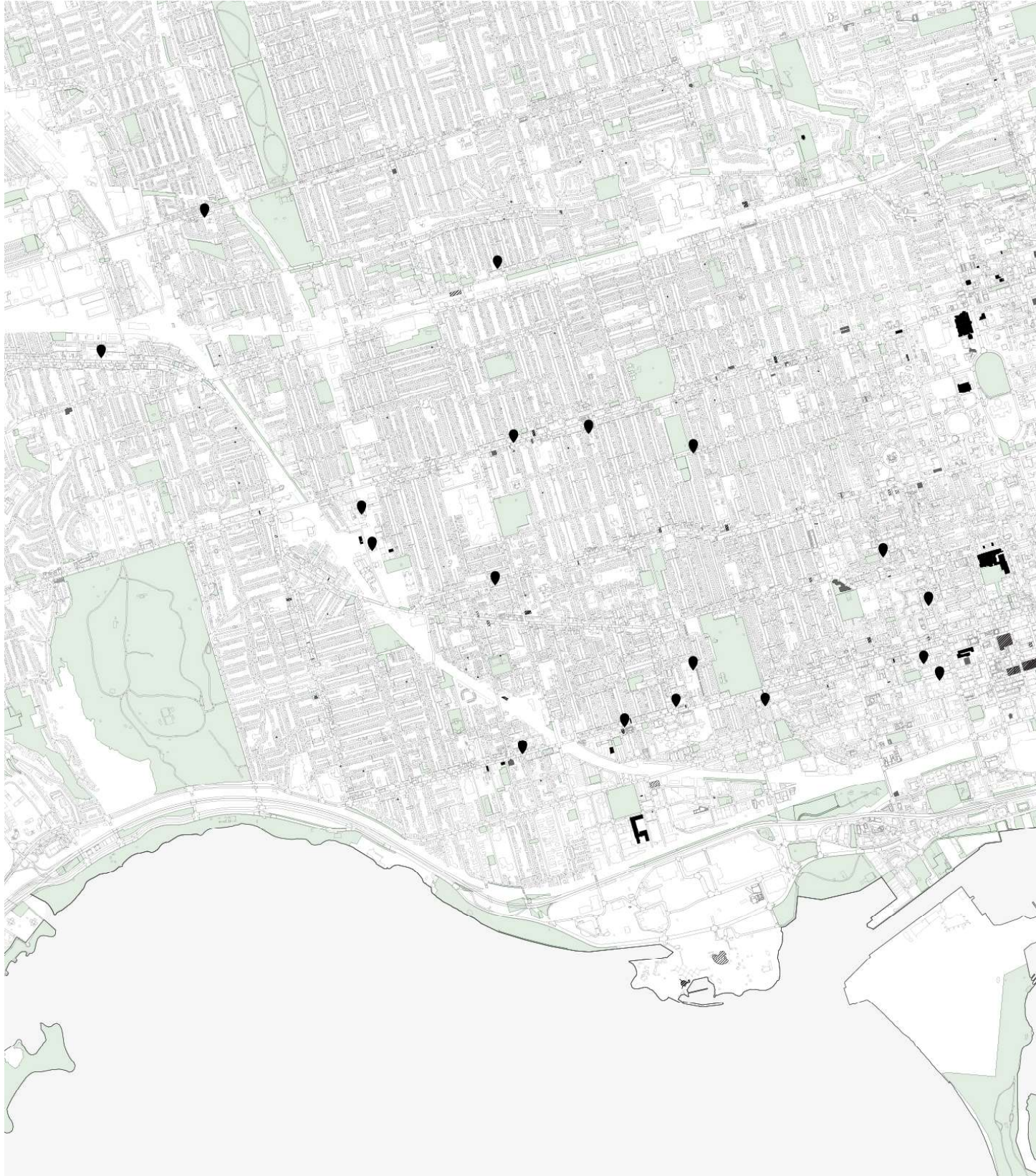







Fig.3.31 Cultural Institutions and Maker-space Locations



-  *Arts Building (Museums and Galleries)*
-  *Libraries and Bookstores*
-  *Theaters and Cinemas*
-  *Music Buildings*
-  *Maker-space*

## A Culturally-Mediated, Participatory Urban Realm

Cultural institutions such as museums and libraries are examples of spaces that provide a link to a city's cultural history. In addition to these institutions, the city is also comprised of historic sites and public spaces that are also heritage sites that contain traces of the city's collective history. These kinds of spaces converse between the history of a site and its present reality. Aleida Assman defines these types of areas as 'Sensorial Auratic Places':

*An auratic place is somewhere where the insurmountable distance and concealment of the past is made perceptible to the senses. The memory site is in fact a special web of space and time which interweaves presence and absence, and the tangible present with the historical past.*<sup>156</sup>

Public space does not have to be defined by a dichotomy between modern and historic. Through media technologies, an evolving relationship can exist between the history of a site and its present-day reality. Toronto's relationship with its cultural history is overseen by the city agency Heritage Toronto. The governmental agency promotes historical awareness and sponsors activities like walking, bus, cycling tours, and a plaque and marker program commemorates historic buildings and events. As a result of the increased redevelopment of the city's urban fabric, Heritage Toronto tours and interventions occupy a handful of small sections.<sup>157</sup> The most prominent areas are Old Toronto and the area surrounding Dundas Square. This disproportionate focus on the narrow corridors that flank Yonge Street exemplifies the lack of engagement with the historical and cultural aspects of the city apart from those that can be monetized. The Distillery District and Liberty Village successes are outlier hubs of preservation and activity that were only made possible by the cultural capital infused for branding the new commercial and office space developments in surrounding areas.<sup>158</sup> But there is much more to Toronto's cultural and historic fabric than the downtown core. The memory of the unrecognized historical fragments that have not been leveraged by developments for branding or deemed necessary enough for a historical tour by Heritage Toronto lives on an online map on Heritage Toronto's website.<sup>159</sup> These fragments

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156 Tom Duncan and Noel McCauley, "A narrative journey: creating storytelling environments with architecture and digital media," in *Museum Making: Narratives, Architectures, Exhibitions*, ed. Suzanne Macleod, Laura Hourston Hanks and Jonathan Hale (New York: Routledge, 2012), 295.

157 City of Toronto, "Heritage Register," (2017),

158 Catungal, John Paul, Deborah Leslie, and Yvonne Hii. "Geographies of Displacement in the Creative City: The Case of Liberty Village, Toronto." *Urban Studies*, no. 5–6 (2009): 1095–1114. <https://doi.org/10.1177/0042098009103856>.

159 Heritage Planning. Heritage Register Search. City of Toronto. Accessed

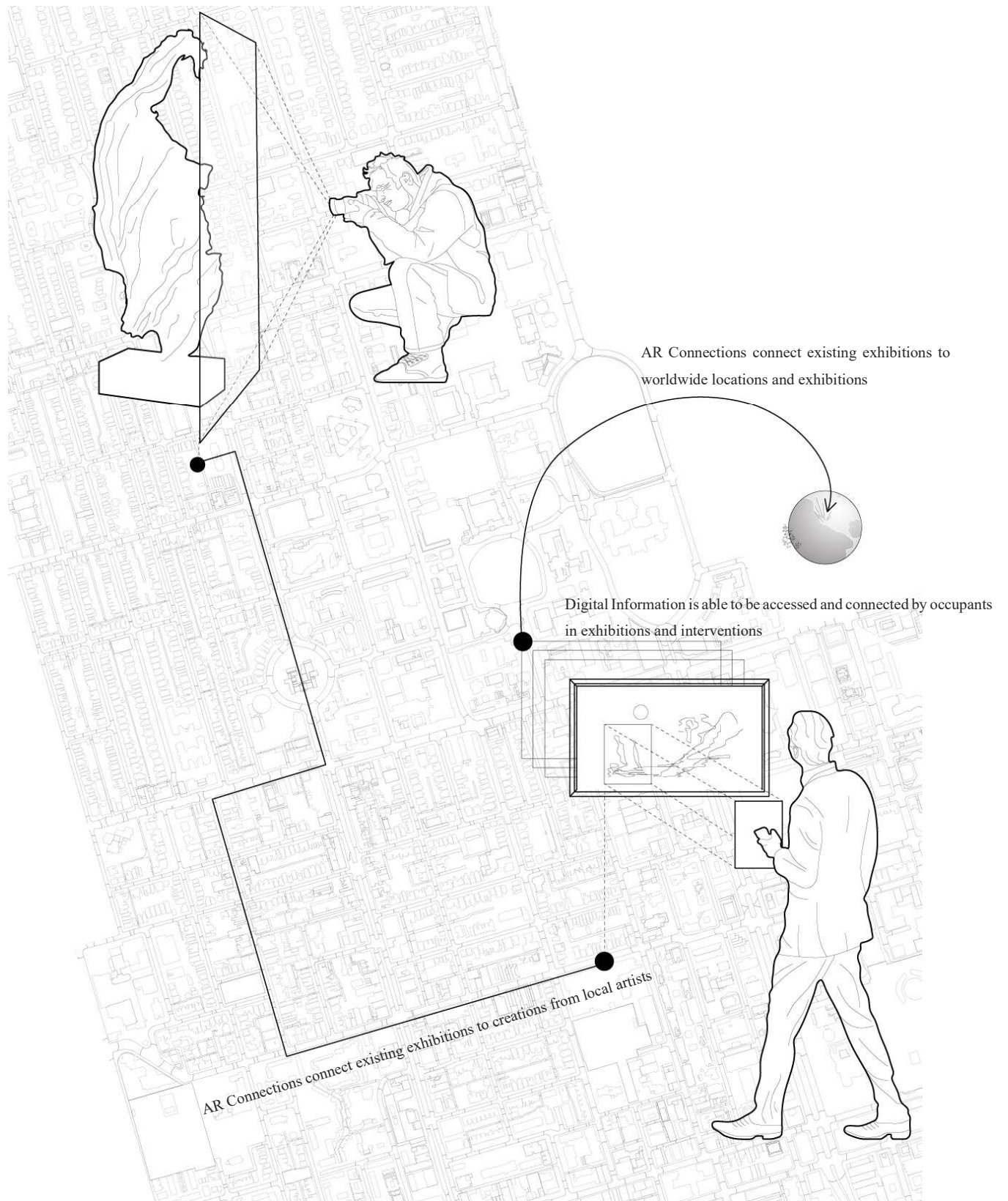


Fig.3.32 Connecting Exhibitions to Local Installations and Beyond

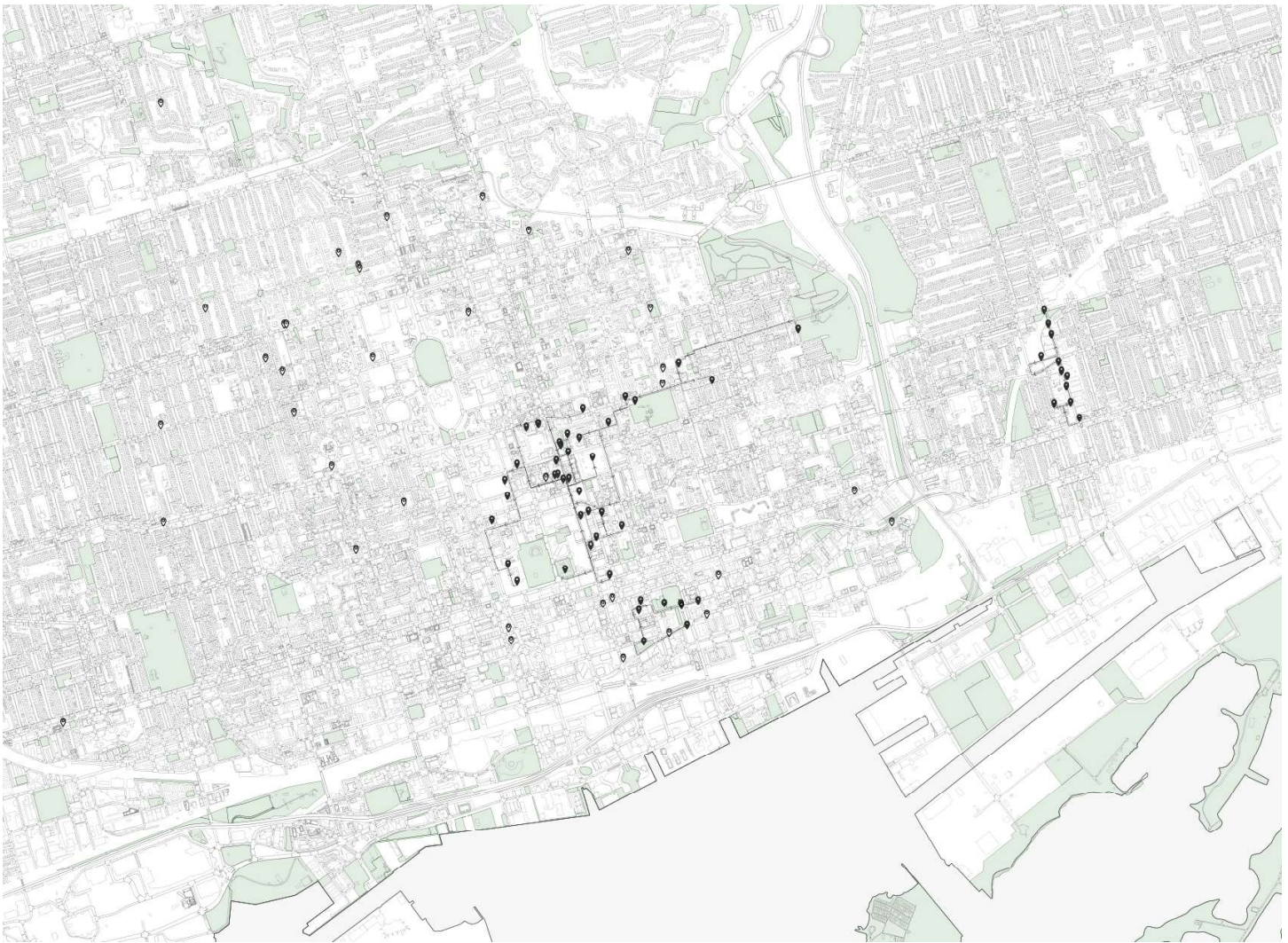





Fig.3.33 Heritage Tour and Plaque Locations

-  Heritage Plaque
-  Heritage Tour Site
-  Heritage Tour Route

are categorized as ‘listed’ heritage sites. Due to this status, many of these locations hold the risk of demolition with a 30 days’ notice.<sup>160</sup> While this thesis is not arguing for the complete preservation of every historic site or artifact in the city, it is looking for a different approach that can draw attention to past spaces and narratives while simultaneously responding to current and future developments in the community. A decentralized system that gives people the tools to transform their environments and illuminate objects or histories that might otherwise be overlooked, like listed heritage sites. This could be accomplished by elaborating on existing systems like the Heritage Register and existing GIS digital mapping developments but instead of keeping the information gathering confined to the city officials, making the mapping and the information open-sourced. Developments of twin cities are growing.<sup>161</sup> An open-sourced digital

February 20, 2021. <https://cot-planning.maps.arcgis.com/apps/PanelsLegend/index.html?appid=a90bf1e72b694db5a4892dc6b170688d>.

160 City of Toronto, “Heritage Register,” (2017).

161 Digital Twins. Unreal Engine. Accessed January 20, 2022. <https://www.unrealengine.com/en-US/digital-twins>.

twin of Toronto could create a living archive of the city as well as a tool to help collect digital content to be projected and accessed by the public. Investing in open-source tools such as a digital twin can affect the urban public spaces of the city but it can also aid in drawing new audiences to cultural institutions as well as disparate public spaces throughout the city and provide a more participatory experience. This network would be a crucial tool to connect spaces and allow people to find new locations not just based on commercial spaces and amenities but through cultural production and intervention. It would provide a new way for people to move through the city. So, through this networking not only will people discover new places and information but would empower creators to install interventions throughout the city due to the naturally expanding network that the digital map would provide. The ability for anyone to access and add to this network would then contribute to the decentralized approach to the installation of public art and cultural production.

Urban arts interventions and event-making in the city of Toronto currently consist of the city's three public arts programs and a handful of annual festivals, such as *TIFF* and *Nuit Blanche*. Both of these festivals are major international advertising opportunities for Toronto. They are currently designed as spectacles geared towards international audiences rather than local participation. The closest relative to the types of experiences this thesis proposes is Toronto's annual *Nuit Blanche* festival. *Nuit Blanche* takes cultural production to the city streets for a few nights of the year.<sup>162</sup> Large swaths of the population walk through the city, excited to explore it with new eyes. The various installations, performances, and creative programs allow the city residents to take a break from normal urban functions and conceive of their spaces as something completely different and extraordinary. The urban arts festivals reinvigorate the public's relationship with the arts. When set free from the boundaries of large institutions, performances and art installations gain a new connection to society and architecture. These types of events begin to recapture the relationship between arts and architecture. *Nuit Blanche* invigorates the city through event-making and art installations. The city becomes the art gallery for a few days in the year. These events, increasingly populated by media art installations, serve a dual purpose; they reconnect people to their public spaces and the artwork. In *Media City*, Scott McQuire argues the need for more opportunities for media, art, and the public realm to interact. McQuire explains,

*A crucial role for new media art in public space is the*

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162 Event History. Scotiabank Nuit Blanche. Scotiabank. Accessed February 11, 2021. <http://www.scotiabanknuitblanche.ca/>.



Fig.3.34 Nuit Blanche 2018



Fig.3.35 Nuit Blanche 2018

*potential to avoid the filter of sites such as the art gallery, and thereby engage audiences who might never cross that threshold. This indicates the new function of art in the contemporary media city: not as the belated response to an already existing social world, but as an integral part of the construction of social relationships.<sup>7</sup>*

Interventions such as those exhibited at *Nuit Blanche* should play an active role in the city's daily life. The possibilities of combining cultural production and new means of knowledge creation have significant implications for the relationship between a city-dweller, content, and the city.

Creating a system that encourages people to install artifacts and program spaces requires existing public art measures expanding to include these participatory practices. In Toronto, the street art programs dictate how art is seen and distributed in the city. Over the years these programs have left an uneven landscape in relation to the arts and culture sphere, as a result of partnerships with developers and inconsistencies in master planning.<sup>163</sup> Recognizing the need for a change in its approach to the arts and culture sector, the City of Toronto has released the *Toronto Public Art Strategy 2020-2030*. The document outlines the imbalances and inconsistencies in the city's art landscape. The strategy builds upon the city's existing public art programs, the *Percent for Public Art Program*, *Public Art & Monuments Collection*, and *StreetARToronto* (StART).<sup>164</sup> The Percent is disproportionately impacting the public art installation for *Public Art Program*. This program is administered by the government's City Planning's Urban Design department and embedded in the development approvals process.<sup>165</sup> The exchange of building allowances for investment in public art has led to the majority of the public art in the city being centered in the downtown core, with the creation of public art in Toronto being closely tied to real-estate development. As the *Toronto Public Art Strategy* describes,

*Permanent public art in Toronto tends to follow the pattern of development, and as such, is most concentrated in the downtown core and other major hubs of development*

163 City of Toronto, *Toronto Public Art Strategy 2020/2030* (2019).

164 "StreetARToronto ." City of Toronto. November 17, 2017. [https://www.toronto.ca/services-payments/streets-parking-transportation/enhancing-our-streets-and-public-realm/streetartoronto/#:~:text=StreetARToronto%20\(StART\)%20is%20a%20suite,%2C%20community%2Dengaged%20street%20art.](https://www.toronto.ca/services-payments/streets-parking-transportation/enhancing-our-streets-and-public-realm/streetartoronto/#:~:text=StreetARToronto%20(StART)%20is%20a%20suite,%2C%20community%2Dengaged%20street%20art.)

165 "Percent for Public Art Program." City of Toronto. September 7, 2017. [https://www.toronto.ca/city-government/planning-development/official-plan-guidelines/design-guidelines/percent-for-public-art-inventory/.](https://www.toronto.ca/city-government/planning-development/official-plan-guidelines/design-guidelines/percent-for-public-art-inventory/)



*activity.*<sup>166</sup>

This condition describes a public realm whose design is heavily influenced by the market forces driving Canada's real-estate sector. Hence the need for a decentralized and interactive approach to public space designs. The existing proposals in Toronto's most recent public art strategy do not address this; instead, plans endorse a heavier reliance on master planning and online databases. The Toronto Public Art Strategy 2020-2030 calls for "consistently applying the Percent for Public Art policy throughout the city and producing public art master plans on a city-wide basis." By applying a more centralized approach to the design and implementation of public art and other forms of cultural production, the city runs the risk of becoming more generic instead of making the city more engaging and dynamic. A wide array of ideas and approaches are necessary to create distinct atmospheres and character identities. Digital and media technologies provide opportunities for public space's participatory and immersive design.

The existing public art installation also favor the installation of monumental art pieces, the sculpture in an open plaza or the painting or mural hung on an obscure wall. As a consequence, most pieces cannot gain an abundance of attention from passers-by. It shows a need for a new approach to public art installation. This thesis has explored methods of creating immersive installations that take inspiration from staging and theatrical urban interventions of the Baroque which employ multiple elements to transform the entire atmosphere of a space, rather than the object-in-a-field approach that is currently favored. This approach not only allows for deeper engagement on the part of the viewer but also allows for a greater range on content and art to infiltrate the urban realm. Instead of being confined to the traditional works of art like sculpture and painting, people can begin to display immersive films, simulating in-situ environmental exhibitions, and multi-sensory experiences. Only, instead of using VR headsets people can use projection technologies and digital displays mixed with analog visual set pieces, like sculpture, to create multi-media, immersive environments. Creating these kinds of installations, or staged perspectives, will not only transform the whole atmosphere of a space but also give creators to opportunity to guide people's focus through visual cues. An installation can transform the existing straight path of a sidewalk into a meandering forest, mixing projections with real life vegetation. Then guiding viewers through the angles at which the views are angled or through visual cues embedded in the stage sets.

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166 City of Toronto, *Toronto Public Art Strategy 2020/2030* (2019).

Urban inhabitants can then be directly engaged in the experience of walking through the city.

As outlined in the proposed framework, media such as digital projection, AR, and MR technologies can animate and connect public spaces in the city. It is easy for people to inhabit the same circles, walk through the same route, and regularly go to the same places. Routine is built into our nature. The question is how to design spaces that encourage people to find new routes, discover recent locations, or even see the same areas they inhabit every day differently? After all, it is usually the places we know the best that we pay the slightest attention to. This condition is exacerbated even further by the personal devices with which our attention is hijacked and which cause a loss in our sense of place. Today, people rely heavily on these screens to gather information and navigate the city. Their use often leads to a separation of the inhabitant from their environment, but that does not always have to be the case. Instead of building virtual worlds, we can augment existing spaces. Mobile and media technologies are now an innate part of how people interact with the world around them. They are an essential part of creating a new way to experience space.

The *Toronto Public Art Strategy 2020-2030* provides an idea of some preliminary steps to blend physical and digital spaces. Proposals include calls to install QR codes that accompany artwork and provide additional information.<sup>167</sup> Although, that solution is not much more than a technologically-mediated exhibition tag and relies on static design techniques. Without incorporating media technologies and participatory design techniques into public space, people will grow increasingly distant from the city's physical areas. This thesis proposes incorporating digital technologies in conjunction with cultural programming and atmospheric design. Without connecting these three components, one is left with solutions resembling current streetscape designs that create generic, open spaces, or we see proposals on the other side of the spectrum, with hyper-specific smart city designs. While smart cities attempt to incorporate and embrace technology in design, their plans solely use digital devices and information for efficiency and practical purposes. As shown in the framework, technologies such as projection and MR surpass the idea of the computer as a calculating machine. Digital technologies have power that can be harnessed to create an interactive and immersive public realm. They not only can animate and augment space but also connect it. As mentioned, digital devices play a significant role in navigating and understanding a city spatially. Applications like Google Maps send people on the most efficient routes to get to their destination. But as the cliché goes, it's about the

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167 City of Toronto, *Toronto Public Art Strategy 2020/2030* (2019).

journey, not the destination. How do we use networking and digital technologies to navigate space and connect it in ways that are about more than just convenience and efficiency? Instead of using media technologies for their efficiency or advertising potential, they should be incorporated into public space design as available tools that their citizens can program to create unique immersive environments rather than smart ones. Combining the technologies people use daily with cultural production can create a genuinely culturally-mediated and connected city.

People desire deep engagement, awe and interaction in public spaces, whether in the streetscape, museum, or cinema. By incorporating a multimedia approach to designing public space, people can see the city as a place for creation and expression. Applying a framework focused on experiential and atmospheric qualities of space will thus allow new ways to communicate stories and visual production, more immersive than just an image on a wall or screen.

Applying the proposed framework to Toronto would transform Toronto into an ever evolving palimpsest. Immersive physical interventions could infiltrate any location in the city and be either a stand-alone creation or a part of a bigger narrative or event connected set of interactive and immersive interventions.

This diagram shows how the proposed framework would create a layered urban realm, both digitally and physically. Physical interventions with visual projections can then also connect to digital information and create a hybrid cultural network.

### Animating With Visual Artifacts

- 1 Maker spaces provide local communities with access to productive cultural spaces and tools and techniques necessary to create cultural productions that can then populate and augment the city.
- 2 These cultural productions, or staged perspectives, create immersive and interactive environments that transform an existing space into something new and overlay new or old information that was previously unseen.

### Creating Staged Perspectives

- 3 A digital twin, unlike virtual reality which disconnects a person from the physical environment, provides the digital information which people need to create immersive interventions such as digital projections or spatial films in the physical realm. Spatial information of a building or city block can be accessed and augmented digitally - the subsequent visual imagery, animation or multi-media installation can then be displayed in the physical space. Projects like those referenced in the framework, such as Moment Factory's Lumina Borealis need 3D scans of the spaces they are projecting onto, a 3d base upon which they can add to and augment. This

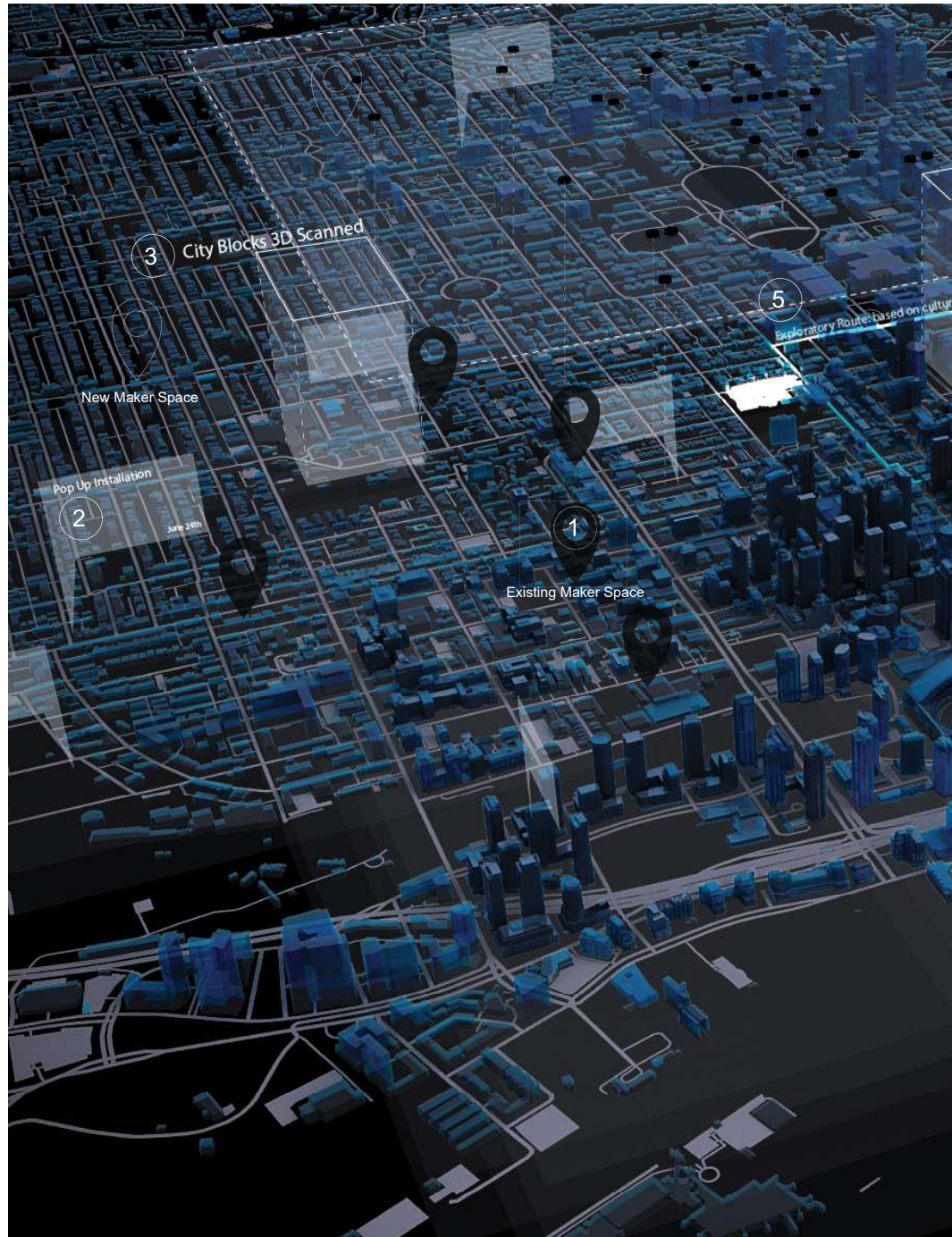


Fig.3.36 Hybrid Cultural Network



type of digital twin would provide that, making the barrier of entry lower than if one was to begin from scratch. Additionally, the base 3D Toronto scene would allow for creators to experiment with their ideas of how to stage their interventions to create view-specific and interactive imagery and animations.

#### ***Discovering Historic and Narrative Sequences***

4 The framework also advocates for people to have access to historic information and cultural history as well as new temporary interventions installed by citizens. Thus, making this information open-sourced. For example, someone could pull up the Old Toronto map in relation to the historic forest information and combine that information to create a new piece of art or installation. Or, someone could pull up information on the previous year's Nuit Blanche sites to possibly build a new installation on a site from that previous year, building on or connecting to an event which previously occurred.

5 The framework then outlined the need for an urban network that connects sites through history and narrative. Separate locations can be connected based on a story, programmed route or specific information (like a specific time period) that a person is interested in, instead of Google maps sending someone on the most efficient route or a person taking the same well-worn path. In addition to encountering these interventions by chance, people can use digital notifications or guides to jump start people's exploration to new locations they might not have thought about exploring in the first place. On a smaller scale, the addition of staged perspectives would allow creators to design choreography that not only allows people to see a space in a new way but also move through and therefore understand it.

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## Conclusion

The city's urban spaces have historically been spaces for performance and theatricality. Evidence of festivities and theatrical performances can be seen since the birth of cities.<sup>168</sup> Architecture and public space have a long history of supporting and being augmented by various media. This thesis has looked at historical examples of the scenographic qualities of urban space created by storytelling through ornamentation, later through ephemeral and festival architectures, and subsequently, the cinematographic methods that impacted architectural and urban space design after the invention of photography and the development of film. The research into these techniques showed how storytelling and image-making are inherent parts of engaging public space and architecture. By compiling these ideas into a framework, this thesis proposed a way of designing public space as an experience. A design method that can connect the city, encourage community interaction, and make cultural production an active part of the urban environment.

The framework proposed designing interventions composed of object, frame and narrative in order to augment public spaces without demolition or reconstruction. The methodology consisted of:

**Animating with Visual Artifacts:** This principle entailed; giving citizens access to maker-spaces where people can create and learn new technologies and hybrid techniques for environment design and urban staging. Secondly, allowing people to create multi-media stage sets that can be placed in existing spaces to transform the look and feel, the atmosphere, of a space.

**Creating Staged Perspectives:** This principle specifically focused on how to arrange the visual artifacts, or stagings, in view-specific configurations that immerse viewers in three-dimensions and show view specific information that changes how people see and move through space.

**Connecting Historic and Narrative Sequences:** The final principle discussed how to tie the proposed elements in the framework in sequences that tell a story, reveal historic and brand new information. These sequences either being physical, created through the viewpoint

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<sup>168</sup> Yoffee, Norman, "Early Cities as Arenas of Performance," in *The Cambridge World History*, (Cambridge, UK: Cambridge University Press), 25–110.

created by the stagings, or through AR and GPS systems that connect separate interventions in locations throughout the city through story and specific information sets.

It is a methodology targeted to redefine the public and cultural realms in a more immersive and participatory fashion.

When applied to Toronto specifically, this thesis aimed to show how the framework could aid in creating a public realm that is connected to the historic fabric of a city while still being able to create spaces for people to express new ideas and narratives. The application of this kind of framework thus can counteract the alienating effects of rapid construction and redevelopment. The research also looked to address the need for new ways for cities to engage with their cultural networks. Like other prominent international cities, Toronto focused on creating monumental structures that would attract tourists and international attention but has done little to connect with local communities and occupants. The framework proposes embracing a decentralized and participatory way of designing urban space with arts and creative production, allowing the city to expand its cultural network past the bounds of the downtown core and its usual visitors. Moreover, the research suggested actively incorporating media and interactive technologies to design public spaces. The resulting urban areas would engage with the city's occupants by creating unique experiences in physical space that would otherwise be confined to a static display or screen.

Public space should be designed as a theatrical and cinematic creation. The material and immaterial elements that construct space and its atmosphere must be open to being edited and designed by the community. Public space is constantly described as needing to display its character and identity. Those two characteristics can be most effectively communicated when people augment their spaces with cultural production and temporary interventions. Incorporating digital and analog media that can alter the look and feel of a space in a participatory and interactive manner is essential to public space design. This way of working does not provide concrete design interventions or prescriptive designs, such as new urban furniture or planter designs, but instead advocates creating more flexible architecture without resorting to empty hardscapes.

## Challenges Faced

This thesis has advocated for a decentralized and open approach to the design of public space. Such open systems come with challenges as well as benefits for the people and their environments. The integration of the systems proposed by this thesis would thus have to address particular challenges as well. Since anyone would have access to change the look and feel of the public realm that inevitably would lead to challenges associated with coordination and what kind of content would be appropriate to be displayed.

Implementation would require fine tuning of the mechanism needed for coordinating and dismantling of such interventions. Programming of sites would need to be coordinated in the cases where multiple parties would want to install interventions on the same site. Such administrative considerations would have to be elaborated on if this research is to be implemented by a physical case study or incorporated into existing city programs.

As with any open system, the possibility remains for bad actors to take advantage of these systems and contribute to their misuse. The systems proposed by this thesis allow for the free use of media and technologies that can reshape space and visualize any kinds of content. That does open up possibilities for these systems being used for hate speech and inappropriate content. But that possibility has been ingrained in public space without the incorporation of these systems. Today, it is impossible to shield our spaces from graffiti and hateful messages plastered on our city walls. One person with a spray can has the power to communicate their message throughout the city and in a much more permanent fashion compared to any projection or multi-media installation. One of the key ideas this thesis has explored is the power that temporary architectures can provide a population over their surroundings. Creating a public realm defined by a permanent impermanence, with the possibility to evolve over time and with its population means that no one authority has the final say on how space or the city should look. It is a mechanism against a monolithic and singular view of architecture.

The perils of a singular view being imposed through architecture and the urban realm are actually made more likely if we are to stick to the current methods of designing public space. Historically, we have seen more evidence of public space oppressing people when its creation was available to a handful of people and when those architectures were permanent, unable to be changed but by the governing authority. By giving agency and responsibility to the people of a city over their environments means that the power to shape a space rests with everyone. A space showing one view



today, can be reimagined the next. No single view or narrative can be prioritized or shape a space permanently.

Yet, there remains the need to address those instances when these systems are used for inappropriate and sometimes hateful acts if this type of public space design is to spread throughout the urban realm. There will need to be further analysis and careful study into what kind of control systems need to be in place, whether they are governmental or citizen-based or something in between. But given how important decentralized systems have been shown through this thesis research, it is clear that the citizens would have a large role to play in the protection of these systems, just as their creation. This thesis has proposed ways that the urban realm can become truly democratized, and with this power put in the hands of everyone comes the responsibility to care for and design public space.

### **Building Future Public Space**

This thesis has focused on examining the possibilities of using arts and media to redesign existing public spaces, by incorporating cultural production and a participatory way of interacting with one's environments. But these changes need not stop at retrofitting existing spaces. These methods, like other tactical approaches to architecture and urban design, can begin to inspire changes in the way that future urban spaces and public architectures are designed and constructed.

The presented analysis has focused on augmenting the city's existing conditions, but this framework also has implications for the design of newly built public spaces. Just as the Renaissance and Baroque festival architectures influenced the design of new-build public interiors and urban environments, this thesis advocates for ephemeral interventions that would inspire the creation of more flexible architectures. Once environments become increasingly participatory and immersive, public spaces that support the installation of cultural production can be promoted from the outset rather than solely relying on retrofitting. Instead of building monumental public plazas like Dundas Square, more human-scale public spaces can be prioritized. Smaller-scale public space allows for easier access for people to augment an environment. Unlike the daunting plazas with large expanses and monumental billboards, smaller-scale spaces like most POP sites provide more surface area and accessible opportunities to stage environments with imagery and artifact.

Digital media has become a pervasive and inseparable part of

daily life.<sup>169</sup> As such, it should become an active design component in future public architecture. Up until now, it has been hard to incorporate digital media in new-build projects as the technology has been evolving at a rapid pace; making it obsolete by the time the project is entirely constructed. But that has been because most projects focus on incorporating hardware directly into the structure of a building. Alternatively, this thesis advocates for future designs which provide spaces where these technologies and their eventual upgrades can be slotted in and replaced if necessary. Design must focus on providing spaces for the installation of possible projection technologies that can transform the environment through image, animation and mixed reality content rather than focusing on hardware and data collection. That would mean creating flexible architectures that can also act as scaffolding, supporting physical and ephemeral interventions. Once more temporary interventions begin infiltrating the public realm people can redefine their idea of public space as an immersive experience. Every space will have the possibility to be transformed into something new or shown its historic roots. The malleable nature of AR and MR technologies can redefine the static physical environment and show something new or draw connections to past configurations and histories. MR, AR, and projection systems grant the ability to transform any surface into a screen or interface, which minimizes difficulties with the installation of extensive hardware and obsolescence. The result is a city constantly evolving with every day, month, or year; a city that becomes a natural extension of its cultural history; past, present, and future.

### **A New Type of Urban Realm**

The city is a visual and narrative palimpsest. By giving people the opportunity for the arrangement of visual artifacts (multi-media stage sets) in place-specific viewpoints and sequences, the public can design the atmosphere and experience of their existing spaces. The city thus becomes not only a palimpsest in the abstract, theoretical sense, but a palimpsest in the physical world as well, where people can visualize the existing and unrealized layers of information and story that make up the city. This thesis has looked to address two key issues affecting architecture and the urban realm today; how digital media has embedded itself in all aspects of people's lives, particularly how they view the world around them, as well as the need for people to have agency over the look and feel of their public

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<sup>169</sup> Marcella Del Signore and Gernot Riether, *Urban Machines: Public Space in a Digital Culture* (LISTLAB, 2020), 3.

spaces. The application of the systems outlined in the framework would address both of these issues. Combining traditional arts and media with digital technologies gives people the ability to express themselves and have agency over their environments. Traditional public spaces become hybrid environments, connecting physical space, cultural production and digital information. The research presented in this thesis explores how we can design architecture in a digitally-mediated world because digital has become a part of our everyday lives and will only continue to gain importance. If we do not address this and create ways for architecture and public space to work with, instead of against, digital technology our physical and digital worlds will continue to grow apart, with digital spaces like social media platforms and the Metaverse gaining dominance as the people's public squares. Incorporating these principles can once again make the public spaces of the city and the urban realm a central place for people to discover, create and communicate. Whether they are cities prone to historic preservation, or cities affected by tabula rasa approaches to urban design, this approach to architecture allows the physical realm to evolve, to visualize histories as well as new narratives. It is a non-destructive workflow that gives agency back to everyday citizens to express themselves and change the look of their surroundings without damage, demolition or the extensive resources needed to design and rebuild. By outlining a culturally-mediated framework for a dynamic and participatory urban realm, this thesis looked to propose a vision of the city as a living canvas upon which art and story can be staged and information discovered.





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