

Cinema, Collage and City:  
Re-animating the Street

By

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**Frontispiece:** Cinema, Collage and City: *Re-animating the Street.*

## **Prologue:** Thesis Abstract

Since the early 20<sup>th</sup> century various technological frames have structured our experience of the city. This thesis explores cinema's propensity for the development of visual languages that not only capture such experience, but that also become activated as a means for the analysis and disputation of what we see and how we see it. Beginning with an examination of montage in correlation with the modern industrial city of the early 20<sup>th</sup> century, theorized by Sergei Eisenstein in the 1930s, the thesis then looks at Gene Youngblood's *Expanded Cinema* (1970) in relation to the inter-media networks that would foreshadow our contemporary intermedia environment; which is characterized by the transition from image-sequence to sequence-image.

In culmination, exploring strategic correlations between cinema and city, the notion of the sequence-image is activated as a way of framing the conceptualization of an urban renewal project that will *Re-animate* an underutilized urban site in downtown Ottawa.

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## Act 1: Establishing the Cinematic City

### Scene 1: Introduction

“The visual frontality of the architectural drawing is lost in the real experience of architecture”<sup>1</sup>

- Juhani Pallasmaa

“While transportation and camera technologies do not replace direct encounters with buildings and places, their ubiquity has altered architectural aesthetics.”<sup>2</sup>

- Mitchell Schwarzer

This thesis began with the desire to address the extremely general notion of the dynamic experience of architecture. Traditional modes of site analysis, design conception, and architectural representation seemingly do not correspond to the actual experience of the built environment. This notion in turn led to an interest in authors such as Paul Virilio, Mitchell Schwarzer, and Scott McQuire, among others, who have theorized the experience of cities and landscapes through the mediation of technological frames. Regardless of the terms used to describe the contemporary, technologically framed environments, such as Schwarzer’s ‘Zoomscape’ or McQuire’s ‘Media City’, it is evident that technology, in particular transportation and camera technologies, have altered our experience of urban space. As technological frames, such as the automobile, have restructured the physical form of the city, as well as our spatial and visual relationship toward it, cinema has continuously attempted to develop visual languages that are in correlation with the changing

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<sup>1</sup> Juhani Pallasmaa, *The Eyes of the Skin: Architecture and the Senses* (Chichester: Wiley-Academy, 2005), 44.

<sup>2</sup> Mitchell Schwarzer, *Zoomscape: Architecture in motion and media* (New York: Princeton Architectural), 12.

environment. These cinematic languages in turn inform a certain disposition toward the reading of the city itself, how we relate to, conceive of, analyze, and effectively understand it. As a result, the city began to be regarded through a cinematic lens. The experience of moving through the city became analogous with moving pictures, assembling the city through glimpses, fragments and the fleeting impressions of a mobile observer. The city could then be read as a sort of animated perspectival image, wherein movement and the ephemeral nature of the image-sequence characterizes our reception of the architectural landscape.

Although this perception in motion happens in many forms and at variable speeds, the primary means of experiencing the cinematic city is through the windshield of a vehicle. The automobile has a particularly close relationship with the contemporary city, as the qualities of the automobile and its developments since the early 1900s have both physically and visually structured how we see and inhabit our urban environments; especially in North America. Mass-motorization played a significant role in the development of the modern industrial city, along with mechanized communication and production techniques influenced by Taylorist and Fordist principles. By the 1930s, the proliferation of the automobile allowed for new ways of seeing the city as well as establishing new relationships between urban and rural territories; and it is during this period that film, in particular the technique of montage, had developed into the art form most appropriate for communicating the experience of this new urban space. Imbued with industrial overtones, montage would eventually give way to the City Symphony film genre of the late 1920s, which

depicted the city in its increasingly mechanized movements. One of the greatest proponents of montage, architect-trained filmmaker and theorist Sergei Eisenstein, would write extensively on the technique in the 1930s.

By the late 1950s, *expanded cinema* began to emerge from the underground to become a 'popular avant-garde form.'<sup>3</sup> As Gene Youngblood proclaimed in 1970, "It has taken more than seventy years for global man to come to terms with the cinematic medium, to liberate it from theatre and literature. We had to wait until our consciousness caught up with our technology."<sup>4</sup> According to Youngblood, *expanded cinema* was primarily concerned with technique, and the development of a 'truly cinematic language' that could expand our communicative abilities and awareness. Youngblood was adamant about moving the medium beyond the formulaic nature it had taken on within commercial cinema, and instead, advocating for the exploration of cinema's potential for communication and the development of human consciousness. Similar to the desire to develop a new visual language within cinema, in order to expand on the limits imposed by montage, by the 1970s there also developed a growing disenchantment with the automobile and the freedoms and desires associated with it. The speed, freedom, and new ways of visually engaging the city that were facilitated by the automobile gave way to concerns of congestion, pollution, noise, safety, and expense which undermined the advantages that had made it so successful. However, despite the growing concerns and

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<sup>3</sup> Gene Youngblood, *Expanded Cinema* (New York: Dutton, 1970), 75.

<sup>4</sup> Youngblood, 75.

criticisms, the car had transitioned from luxury to necessity and become an integral part of the rhythm of urban and suburban life.

Today, the act of driving has become habitual, the function of the car becoming more and more utilitarian. We have become used to the vehicular aesthetic and its ability to animate inanimate objects, and the speed and freedom once attributed to the automobile is more often than not replaced with frustration while stuck in traffic or avoiding potholes along deteriorating transportation routes. The automobile's fantastical associations have lost their buoyancy and the vehicular traveler has been submerged behind the narcissistic lens of the windshield. Simultaneously, the formulaic nature of commercial cinema has not significantly changed. Instead, it has become increasingly about the production of audiovisual consumables rather than the development of the medium itself as a visual language. As Mitchell Schwarzer explains, "The familiarity and sameness of perception, repeated again and again, can anesthetize us."<sup>5</sup> Through habituation, the cinematic city has lost some of its potency. However, is it possible to develop an urban architectural strategy that can reinvigorate the street and the fantastical cinematic aesthetic once attributed to the experience of urban space in motion?

This thesis explores the relationship between cinema and the city as experienced through various technological frames. Beginning with the proliferation of the automobile, as a specific example of such a technological frame, *Act 1: Scene 2*:

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<sup>5</sup> Schwarzer, 25.

*Assemblage of the City* looks at how the automobile has structured urban space and our perception of it, creating a cinematic experience of the city. *Act 1: Scene 3: The City Symphony* looks at the changing dynamics of the modern industrial city and how cinematic technique, namely montage, developed into a means of capturing the distinctive experience of modern life, but also became a language for its analysis and disputation. *Act 2: Cinematic Theory: developing a language for urban space*, looks at cinematic theories that emerged as visual languages that were in correlation with the perceptual modes of their contemporary epochs. While *Act 2: Scene 1: Eisenstein and Montage* looks at the theoretical writings of architect-trained filmmaker Sergei Eisenstein in relation to the experience of the modern industrial city, *Act 2: Scene 2: Youngblood and Expanded Cinema* examines the author's advocating of a new cinematic language in correlation with the intermedia environment that was beginning to characterize the 1960s and 70s. *Act 2: Scene 3: Cinema, Collage and City: Expanded Architecture* looks at the contemporary cinema environment and strategic correlations between cinematic language and the framing of urban space, as well as its implications on the reading of the city. Finally, *Act 3: Project: Re-animating the Street* looks at the proposal of an urban renewal strategy that introduces several designed elements to an underutilized site in downtown Ottawa as a means of activating, and re-animating the urban space.

## Scene 2: Assemblage of the City

"We supplement and extend the evidence presented to us by our senses by the use of instruments, so that the very meaning of some of our most important concepts can be defined only in terms of operations with instruments."<sup>6</sup>

- George J. Klima

"How we see is inseparable from what we see. The technologies that structure our vision are inseparable from the built environment that we apprehend."<sup>7</sup>

- Mitchell Schwarzer

By the late 1920s the mass production assembly line had led to the proliferation of the automobile in North America, where in the United States alone there were over seventeen million cars and tens of thousands of miles of paved road<sup>8</sup>. Prior to the mass production of automobiles, North American cities were typically organized around the logic of the train, but increasingly cities became focused on the intrinsic qualities of the automobile as a planning principle. Whereas the train was bound to its tracks and often located on the periphery of the city, the velocity and convenience offered by the automobile would impose a physical form on the city, one stitched together by a series of transportation corridors. The automobile combined the freedom of movement inherent in walking and biking with the ability to reach much higher velocities, this facilitated the assembly of the city through a variety of individualized views and vantages framed by the structure of the vehicle. Author Virginia Woolf expressed the transformative allure of

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<sup>6</sup> George J. Klima, *Multi-media and human perception* (Elnora, NY: Meridian, 1974), 11.

<sup>7</sup> Schwarzer, 20.

<sup>8</sup> Schwarzer, 71.

experiencing the city through the view from an automobile in an excerpt from her 1928 novel entitled *Orlando*, when she wrote:

“Vast blue blocks of building rose into the air; the red cowls of chimneys were spotted irregularly across the sky; the road shone like silver-headed nails; omnibuses bore down upon her with sculptured white-faced drivers; she noticed sponges, bird-cages, boxes of green American cloth. But she did not allow these sights to sink into her mind even the fraction of an inch as she crossed the narrow plank of the present, lest she should fall into the raging torrent beneath.”<sup>9</sup>

This literary abstraction, inspired by the effects of automotive perception, expresses Woolf's view of the automobile as a tool for the creation of a type of abstract art. In this excerpt, she is describing the myriad sensations brought about by the automobile's velocity and how something witnessed in passing, often was not seen finished, but instead would require the scene to be 'completed' in the mind of the viewer (or the reader). The images witnessed through the windshield of a mobile vehicle require, of the attentive viewer, the grasping of objects through these fleeting images. This is why, for Woolf, the automobile allowed for new ways of visually engaging cities; cities which are largely formed by their relationship to the car and which are primarily received through the windshield of a vehicle. The velocity of the automobile and the control of the driver, such as steering, braking, and accelerating results in an abstracted version of the city created by the operator's decisions and his/her points of interest within the field of view. Automotive perception essentially begins to construct a painterly or cinematic understanding of the city, wherein, fragmentation induced by speed, and the grasping of objects through their fleeting image, creates an abstracted assembly of

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<sup>9</sup> Virginia Woolf, *Orlando: a Biography* (Oxford: Oxford University Press, 1992), 285.

the visual field. The automobile invigorated the perception of the city and offered to the driver the ability to both visually and physically escape the confines of the urban environment. Similar to Walter Benjamin's notion of 'film as dynamite', the car was able to explode and reassemble the visual field, but also to redefine the urban dweller's relationship to the city through speed and the freedom afforded by mobility.

As Woolfgang Sachs explains, "Especially in the United States the automobile seemed to offer a way out of the urban crisis, to be a means of "ecologically" reforming cities, which were suffocating in industrial noise, horses, and new rural immigrants, and effecting a reconciliation between city and country."<sup>10</sup> It is the notion of escape and the dominion over time and space that became associated with the automobile and propelled its proliferation and development for many years to come. In these subsequent years, the number of cars and drivers in North America continually grew, as did the desire for higher performance vehicles; in the United States, by 1960 there were approximately 74 million registered vehicles for a population of 180 million people.<sup>11</sup>

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<sup>10</sup> Woolfgang Sachs, *For Love of the Automobile: Looking Back into the History of Our Desires* (Berkeley: University of California, 1992), 155.

<sup>11</sup>Federal Highway Administration, *Highway Statistics 2004 - Licensed Drivers, Vehicle Registrations and Resident Population*, <http://www.fhwa.dot.gov/policy/ohim/hs04/htm/dlchrt.htm> (11 Aug. 11, 2011).

Still increasing, by 1970 the number of registered vehicles was approximately 108 million for a population of 204 million people.<sup>12</sup> However, with the growing number of vehicles on the roads, disenchantment with the automobile began to develop in North American culture. Sachs describes the reason for the change of sentiment toward the car when he writes that, "What most damages the automobile's attractiveness is its success. Mass motorization itself is responsible for bringing experiences in tow that undermine enthusiasm for the automobile."<sup>13</sup> The success of the automobile began to erode the desires that were associated with it throughout the preceding decades. The escape facilitated through speed and the freedom of mobility was diminished by the sheer amount of vehicles and drivers now congesting the roadways; this disenchantment with the automobile was further exacerbated by the increasing energy costs in the late 1970s.

In 1981, John Updike wrote about the 'splendor and misery' of the 1970s in his novel entitled *Rabbit is Rich*, wherein, the novel begins with the protagonist Rabbit Angstrom thinking to himself:

"Running out of gas, Rabbit Angstrom thinks as he stands behind the summer-dusty windows of the Springer Motors display room watching the traffic go by on Route 111, traffic somehow thin and scared compared to what it used to be. The fucking world is running out of gas. But they won't catch him, not yet, because there isn't a piece of junk on the road that gets any better mileage than his Toyotas, with lower service costs. Read Consumer Reports, April Issue. That's all he has to tell people when they come in. And come in they do, the people out there are getting frantic, they know the great American ride is ending."<sup>14</sup>

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<sup>12</sup> <http://www.fhwa.dot.gov/policy/ohim/hs04/htm/dlchrt.htm>

<sup>13</sup> Sachs, 175.

<sup>14</sup> John Updike, *Rabbit is Rich* (New York: Alfred A. Knopf, 1981), 3.

<b>Year</b>	<b>Resident Population (Millions)</b>	<b>Drivers (Millions)</b>	<b>Motor Vehicles</b>
<b>1960</b>	180	87	74
	183	89	76
<b>1962</b>	186	91	79
	188	94	83
	191	95	86
<b>1965</b>	194	99	90
	196	101	94
	197	103	97
<b>1968</b>	199	105	101
	201	108	105
	204	112	108
<b>1971</b>	207	114	113
	209	118	119
	211	122	126
<b>1974</b>	213	125	130
	215	130	133
	218	134	139
<b>1977</b>	220	138	142
	222	141	148
	225	143	152
<b>1980</b>	227	145	156
	230	147	158
	232	150	160
<b>1983</b>	234	154	164
	236	155	166
	239	157	172
<b>1986</b>	241	159	176
	243	161	179
	246	163	184
<b>1989</b>	248	166	187
	248	167	189
	252	169	188
<b>1992</b>	255	173	190
<b>1993</b>	258	173	194
	260	175	198
	263	177	202
<b>1996</b>	265	180	206
	268	183	208
	270	185	211
<b>1999</b>	273	187	216
	281	191	221
	285	191	230
<b>2002</b>	288	195	230
<b>2004</b>	293	199	237

In this excerpt Updike was expressing the growing disillusionment with the automobile in the 1970s, where, among other concerns, the car was turning into a necessity rather than a symbol of liberation, and an expensive necessity at that. The desire for higher performance vehicles was being replaced with the desire for better mileage and lower maintenance costs; essentially the vehicle was taking on an increasingly utilitarian role. Sachs explains that, "In the 1970s there grew, for the first time a discontent with the automobile: fathers had to make household budget cuts to be able to pay the higher price of gasoline,"<sup>15</sup> and that, "The air has leaked out, the dreams have turned stale, and even the hymn of praise of the unwearied has the sound of a spiteful "nevertheless": the love of the automobile has cooled."<sup>16</sup> The degree to which speed and freedom were associated with the automobile had begun to diminish, but the automobile had already nestled itself into the rhythm of everyday life. By 1986, in the United States the number of registered vehicles had grown to 176 million for a population of 241 million people.

Paul Virilio, an urbanist and theorist, began writing about the automobile's visual aesthetic during the 1980s through a term coined 'Dromoscopy'. Dromoscopy is a combination of the Greek words for road and field of view. Virilio relates the vehicular aesthetic to an almost cinematic experience, but simultaneously he is also critical of the effects of velocity and our desire for speed and acceleration. As Virilio points out, automotive perception has the ability to create an artist of the driver: "The object which precipitates itself on the film of the windshield will just as quickly

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<sup>15</sup> Sachs, 173.

<sup>16</sup> Sachs, 174.

be forgotten as perceived; put back into the prop room, it will disappear out the rear window," -- "Let's disabuse ourselves: we are before a veritable 'seventh art', that of the dashboard."<sup>17</sup> For Virilio, the automobile facilitates the relationship between the 'driver as artist' and the landscape by bringing inanimate objects to life; however, while acknowledging the artistic implications of dromoscopic perception, he is simultaneously critical of its 'catastrophic effects':

"To leave is also to leave behind; to leave the dock, the port, to prepare to launch out, but also to lose one's sense of calm, to be swept up in the violence of speed, this unsuspected violence produced by the vehicle, this celerity which tears us away so abruptly from the places travelled through and in which we abandon ourselves in shared transport."<sup>18</sup>

Through vehicular velocity, the urban corridor transforms into an animated perspective, the forward trajectory turning the road into an image-sequence where the ephemeral nature of the object-image is fleeting, fragmented, and often illusory. Virilio argues that this 'violence of speed' creates a perspective in which, "the vanishing point becomes a point of attack sending forth its lines of projection onto the voyeur-voyager, the objective of the continuum becomes a focal point of landscapes."<sup>19</sup> The arrival becomes a point of fixation for the voyeur-voyager, causing the disintegration of the departure and inattentiveness toward the surroundings of the route. The desire for acceleration towards a destination focuses the automotive viewer toward the horizon, as Virilio explains further:

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<sup>17</sup> Schwarzer, 98.

<sup>18</sup> Paul Virilio, *Negative Horizon: an Essay in Dromoscopy* (London: Continuum, 2007), 40.

<sup>19</sup> Virilio, 101.

“On the screen of the automobile trip, the precipitation of images amounts to an evident telluric movement where the epicenter is situated at the blind spot of the arrival; the vector of transportation is here, therefore, only an implosive, and those truly experiencing this ambulatory catastrophe are less the privileged ones who contemplate the route than those subject to the routing of the surroundings.”<sup>20</sup>

Although, for the less privileged automotive passenger, the cinematic experience of the transportation corridor is relegated to being ‘only an implosive’ in which the surroundings are routed, for the contemplative passenger, like Virginia Woolf, the effect can be quite fantastical. However, where Virilio attributes this dromoscopic catastrophe to ‘the violence of speed’ and “The excessive attraction of the destination,” which, “changes the passenger’s view like the aperture of a camera lens, controlling the exposure”<sup>21</sup>, it is possible that it is not ‘this celerity which tears us away so abruptly from the places travelled through,’ but rather that it is the shift to the increasingly habitual and utilitarian nature of driving which creates a ‘routing of the surroundings’.

By 2004, in the United States, there were 237 million registered vehicles for a population of 293 million people. Today, our desires for the automobile are geared less toward speed and velocity, and increasingly focused on safety, mileage, maintenance costs, convenience and necessity: “What was once a head start has been generalized and incorporated into the rhythm of daily life. In a society whose time regimen is based on the automobile, it is no longer true that people take the car

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<sup>20</sup> Virilio, 105.

<sup>21</sup> Virilio, 105.

to work; rather, it is the latter that puts them to work.”<sup>22</sup> The desire for speed, which was once synonymous with the automobile, remains as a remnant of the fantastical associations produced by earlier epochs. As Sachs explains, “Even today, when cars are driven mostly in city traffic, their design characteristics are oriented to high-speed, long-distance travel; with their powerful engines, their streamlined bodies, and their high-speed suspension systems, they are as suited to the delays of city traffic as a chainsaw is for cutting butter.”<sup>23</sup> Although much of vehicular aesthetic can be attributed to speed, it is also important to acknowledge that automotive perception also occurs during deceleration, or during still vantages at stoplights or intersections.

As Mitchell Schwarzer explains: “City driving supplies us with an uneven rhythm of moving and still images, urban compositions that can seem interminable or tantalizingly brief.”<sup>24</sup> These ‘urban compositions’ are assembled through a field of view that observes the image-sequence of the transportation corridor unfold in variable temporal rhythms, from the accelerated vision of successive frames whizzing past the windshield to the subsequent deceleration and vantage of the still vehicle; similar to the editing techniques employed in cinematic pictures. The relationship between the automotive aesthetic and the cinematic is summarized well by Schwarzer when he writes that:

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<sup>22</sup> Sachs, 184.

<sup>23</sup> Sachs, 124.

<sup>24</sup> Schwarzer, 92.

“The critics of automobile culture make valid points, and yet the automobile offers so many new ways of seeing cities and of moving through landscapes. If we are to understand and appreciate the visual characteristics of our environments, it is crucial to delve deeper into automobile perception. It is immensely insightful to experience the expanding world from a car. The vehicular landscape, like the rail landscape, encourages an understanding of architecture that is almost cinematic – architecture in motion, buildings assembled through shots, cities understood as scenes. Sitting in a cushioned seat, perhaps alone, the radio tuned to a favourite station, the driver watches as individual buildings or streets become like a moving picture, the frames of an architecture of indeterminate length, direction, and content. Buildings reassemble according to the driver’s desires, her arrivals and departures, stops and accelerations.”<sup>25</sup>

Automotive perception simultaneously explodes and reconstructs our landscapes. Both natural and built forms are edited into a cinematic assemblage, created through motion and the grasping of object-image seen in passing. Therefore our experience of the city is closely tied to vehicular mobility; and the aesthetics of automotive perception are seemingly related to the cinematic. Hence, it is important to understand this cinematic reception of the city in order to respond to it, because, despite the criticisms, the primary means of apprehending our built environment is through the windshield of a vehicle.

Although intensified by the automobile in the present urban environment, this relationship between the cinematic and the reception of the city was explored during the early decades of the 20<sup>th</sup> century; namely, through the ‘city symphony’ film.

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<sup>25</sup> Schwarzer, 78.

### Scene 3: The City Symphony

"In a world remade by machine technology, artificial light and rapid movement, embodied perception was increasingly susceptible to sudden switches and abrupt shifts."<sup>26</sup>

- Scott McQuire

"It makes no sense to paint any more. This painting must be set in motion."<sup>27</sup>

- Walther Ruttmann

In reaction to the complex dynamics of the 20<sup>th</sup> century modern industrial city, there developed a desire to explore new ways of expressing man's changing relationship with the metropolitan environment. The industrial city was increasingly defined through a technological frame that deviated from traditional experience of urban environments and became more susceptible to perception in motion, both the motion of the city dweller and the motion of the city itself. Charles Baudelaire, in the late 19<sup>th</sup> century, made observations of these changing dynamics of urban experience when writing about the modernization of the city of Paris. Mitchell Schwarzer explains that, "Instead of a socially cohesive and physically integrated community, Baudelaire diagnosed modern urbanity as a proliferation of views and viewpoints, objects and events – all held together by the fleeting sensations of an individual spectator."<sup>28</sup> Baudelaire witnessed the modernization of the city from public spaces, cafes and squares, or strolling through the arcades, as

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<sup>26</sup> Scott McQuire, *The Media City: Media, Architecture and Urban Space* (Los Angeles: Sage, 2008), 63.

<sup>27</sup> McQuire, 58.

<sup>28</sup> Schwarzer, 17.

well as from the viewpoint of the train. His observations of the changing urban space of Paris, although not yet experienced through vehicular means, was attributed to the multiplication of the image, or “an immense accumulation of spectacles”<sup>29</sup> as Schwarzer describes it. Baudelaire’s insights of the city act as a precursor to the later development of the industrialized modern city of the 20<sup>th</sup> century. Similar to Baudelaire’s diagnosis of the late 19<sup>th</sup> century Paris, George Simmel attributes to urban experience a disjunctive and fleeting reading of the city through event and changing viewpoint:

“The psychological basis of the metropolitan type of individuality consists of the *intensification of nervous stimulation* which results from the swift and uninterrupted change of outer and inner stimuli. Man is a differentiating creature. His mind is stimulated by the difference between a momentary impression and the one which preceded it. Lasting impressions, impressions which differ only slightly from one another, impressions which take a regular and habitual course and show regular and habitual contrasts – all these use up, so to speak, less consciousness than does the rapid crowding of changing images, the sharp discontinuity in the grasp of a single glance, and the unexpectedness of onrushing impressions. These are the psychological conditions which the metropolis creates.”<sup>30</sup>

It is these fleeting impressions of the modern city that align our experience to that of the cinematic. The abrupt shifts of viewpoint, the sudden switches, and unexpected impressions are all realized within a sequence of rapid, changing images, characteristic of, and indeed intrinsic to the cinematic montage. As Scott McQuire explains:

“Walking down a busy street was to experience an overlay of complex sensations tantamount to the alternation of separate ‘shots’. In cities sliced apart by the insertion of railway lines, the incursion of large-scale industry or the sudden impact

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<sup>29</sup> Schwarzer, 17.

<sup>30</sup> Georg Simmel, *Simmel on Culture: Selected Writings* (London: Sage, 1997), 175.

of 'modernization' projects inspired by Haussmannization, montage became a logical technique for new forms of cognitive mapping."<sup>31</sup>

With the disjunctive nature of the metropolitan condition, montage became a medium for the expression and representation of the modern industrialized city in that its technical apparatus of editing techniques were analogous to the experience of urban space. It is because of the similarities between the reception of the city and the cinematic apparatus that McQuire describes film as the most influential means of apprehending the changes in metropolitan experience when he writes that, "cinema was not simply one art form among others, but enjoyed a privileged relation to the emergent space-time of the modern city."<sup>32</sup> Here, McQuire's argument is strongly influenced by that of Walter Benjamin, who shared the opinion that film had a privileged relationship with the reception of the city. This opinion is quite evident in a footnote included in his essay *The Work of Art in the Age of Mechanical Reproduction* where he expresses that:

"Film is the art form that corresponds to the heightened state of mortal peril that modern man must face. The need to expose himself to shock effects is an adaptation by man to the risks that assail him. Film corresponds to deep-rooted changes in the apparatus of perception – changes that at the level of private life are felt by every pedestrian in city traffic, at the level of history by every citizen today."<sup>33</sup>

For Benjamin, the technical apparatus of film acted as a type of training mechanism for dealing with the vast apparatus, that of the modern city. The shock effects inherent in cinema acted on the viewer in much the same way that the shock effects

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<sup>31</sup> McQuire, 63.

<sup>32</sup> McQuire, 57.

<sup>33</sup> Walter Benjamin, *The Work of Art in the Age of Mechanical Reproduction* (London: Penguin, 2008), 49.

of the city acted on the urban traveler. The change in the apparatus of perception resulted in the need for a change of representation; the single frame of the perspective image was replaced by the cinematic sequence as the art form most appropriate for depicting the conditions governing the reception of the world. Walther Ruttmann, who switched occupations from painter to experimental filmmaker in 1918, expressed the need to respond to the changing dynamics of perception when he proclaimed that, "It makes no sense to paint any more. This painting must be set in motion."<sup>34</sup> The reasoning for the switch in Ruttmann's occupation and artistic outlook is most likely analogous to Walter Benjamin's comparison of painter and cameraman, when he wrote that:

"Magician and surgeon behave like painter and cameraman. The painter, while working, observes a natural distance from the subject; the cameraman, on the other hand, penetrates deep into the subject's tissue. The images they both come up with are enormously different. The painter's is an entity, the cameraman's chopped up into a large number of pieces, which find their way back together by following a new law."<sup>35</sup>

It is the surgical camera image that was most closely related to the disjunctive, fragmented, and discontinuous nature of the modern industrial city. However, after 'penetrating deep into this tissue' and 'chopping it into a large number of pieces,' the subsequent concern was how these pieces 'found their way back together' into a new whole. As McQuire explains, "The 'new law' for the assembly of cinematography is the law of montage, according to which the painter's 'total image' can be broken into fragments and then reassembled to form articulated

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<sup>34</sup> McQuire, 58.

<sup>35</sup> Benjamin, 25.

sequences.”<sup>36</sup> It is this new law of montage, as a way of composing the fragmented and re-assembled visual field, which formed the framework for the City Symphony film genre of the late 1920s.

Early films, such as those presented by the Lumiere Brothers in 1895, focused on short sequences that depicted actualities, that is, unedited footage of a particular event typically under a minute in length. The Lumiere films captured events such as: *La Sortie de l'Usine Lumière à Lyon* (Workers Leaving the Lumiere Factory), *Le Débarquement du Congrès de Photographie à Lyon* (The Disembarkment of the Congress of Photographers in Lyon), and *Le Saut à la couverture* (Jumping onto the Blanket). However, as cinema progressed, the filming techniques and capabilities led to more complex cinematic assemblages, as McQuire writes, “in cinema’s second decade the ‘actualities’ gradually gave way to the emergence of multi-shot narratives as films came to be composed by means of the fragmentation and re-assembly of the visual field.”<sup>37</sup> Because of the development of complex cinematic assemblage, for Scott McQuire, film had the potential to become the new art form that could most effectively equate to modern urban experience, and to illustrate this he proffers an excerpt written by Virginia Woolf:

“The most fantastic contrasts could be flashed before us with a speed which the writer can only toil after in vain [...] How all this can be attempted, much less achieved, no one at the moment can tell us. We get intimations only in the chaos of the streets, perhaps when some momentary assembly of colour, sound, movement, suggests that here is a scene waiting a new art to be transfixed.”<sup>38</sup>

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<sup>36</sup> McQuire, 60.

<sup>37</sup> McQuire, 60.

<sup>38</sup> McQuire, 59.

The City Symphony film, with the shooting and subsequent juxtaposition of 'fantastically contrasted' urban scenes, depicted the hectic nature of modern city life. McQuire explains that, "Beginning from the selection and juxtaposition of visible phenomena, the aim of the city-symphony was to reveal the underlying rhythms and patterns of modern urban life."<sup>39</sup> The two films that share a privileged relation with one another for their depictions of urban experience are Walther Ruttmann's 1927 film *Berlin: Symphony of a Great City*, and Dziga Vertov's 1929 film *Man with a Movie Camera*. Both of these films are structured around a 'day in the life' of the modern industrial city, focusing on the effects of mechanized movement, production, and communication, and how these innovations had altered the rhythm of urban life. The predominant discrepancy between the two films was in the structuring of the montage sequences, which was influenced by each director's disposition towards both the city and the medium of film. Konstantin Feldman, who, in 1928, authored an article for *Sovetskii ekran* entitled *Vertov I Rutman*, wrote that:

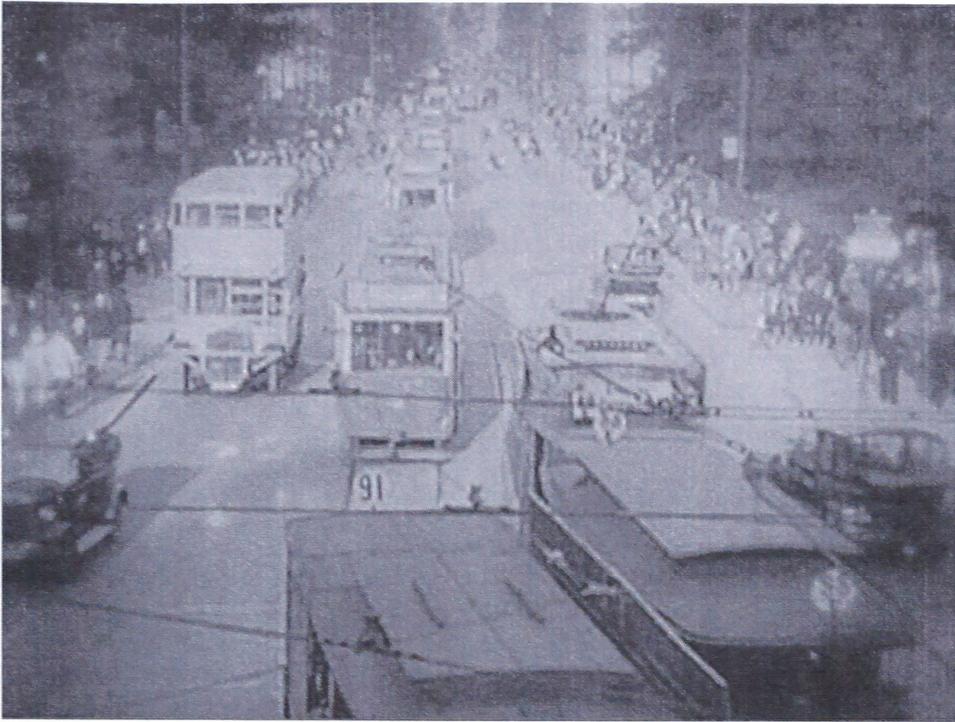
"In his film Ruttmann shows the life of Berlin from morning to evening; he is interested in everything: a sheet of paper carried along a still deserted street, and machines in a factory, and newspaper sellers, and a street crowd, and a wet asphalt pavement. He strolls along the streets of a great city and he notes down with the same degree of interest everything he sees, always expressing his formal relationship to the material, showing the beauty of things, but never expressing his attitude to life as such."<sup>40</sup>

And this was in contrast to *Man with a Movie Camera*, wherein:

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<sup>39</sup> McQuire, 59.

<sup>40</sup> Yuri Tsivian, *Lines of Resistance: Dziga Vertov and the Twenties* (Gemona, Udine: Le Giornate Del Cinema Muto, 2004), 385.



*Berlin, Symphony of a Great City* street scene (top) and *Man with a Movie Camera* filming from automobile scene.

[from *Berlin, Symphony of a Great City*. Dir. Walther Ruttmann. Europa, 1927. Divx, and *Man with a Movie Camera* [motion Picture]. By Dziga Vertov. 1928. Mpeg.]

"Vertov films the things among which we live, which we have walked past without noticing, and suddenly we notice a new beauty in these things. But Vertov is not just an artist, he is also a SOVIET ARTIST. This is expressed, above all, in the mathematics of the things he films. Vertov is not interested in all objects – his attention is drawn to tools of production, the means of communication; he is only stirred by events which have a direct connection with the life and the behaviour of the Soviet State. Secondly it is expressed in the assembly, which is to say the montage, of the material he has shot, where Vertov's attitude to the pieces of filmed life is apparent."<sup>41</sup>

The fact that Vertov was a soviet artist undoubtedly influenced the way his film was conceived and edited as a whole, but just as importantly it also affected his disposition toward the medium of film itself. Vertov was critical of art in general, and he preferred to think of the newsreel film as a utilitarian object, or rather, the penetration into the facts and structures of life itself, effectively denouncing the dramatized film. In August of 1928, Khrisanf Khersonsky, who authored an article for the publication Kino entitled *Is Ruttmann like Vertov?... And how Sovkino is failing Symphony*, explained that Ruttmann "worked to a script. The script hangs over the entire film; it dictates the choice of shots and forces him to do quite a lot of dramatization; it shapes the composition of the film in advance by analogy with a piece of music. Not one single fact is shown fully and in its essence. This is not newsreel, but a kaleidoscope of ephemeral impressions about the external appearance of life in Berlin."<sup>42</sup> For Khersonsky, the fundamental difference between Vertov and Ruttmann's films could be attributed to Vertov's Kino-Eye method which attempted to depict: "by no means somebody's sentimental moods and ephemeral impressions, but the flow of facts themselves in their own organic causal connection.

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<sup>41</sup> Tsivian, 385.

<sup>42</sup> Tsivian, 386-87.

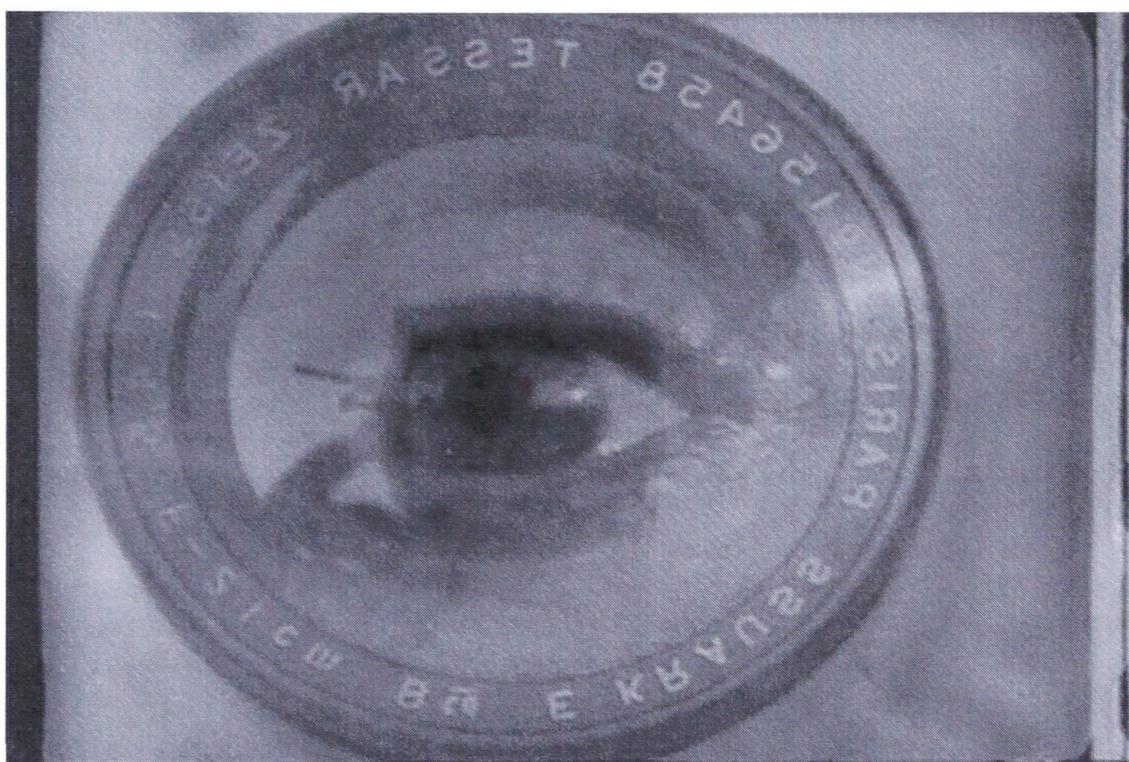
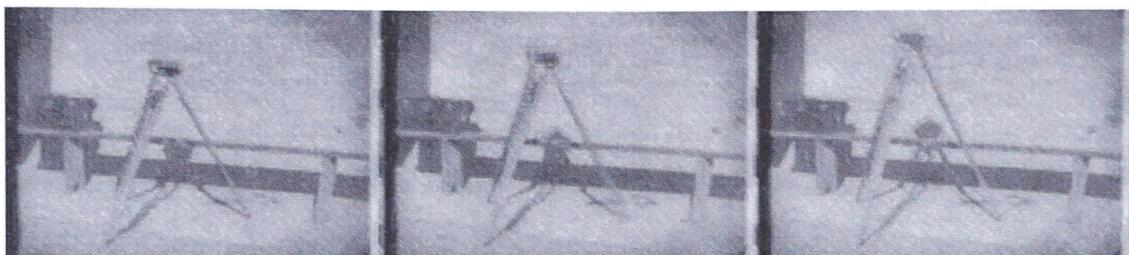
The production process of the events of daily life.”<sup>43</sup> Malcolm Turvey, author of *The Filming of Modern Life* (2011), explained that Vertov’s theory and technique was greatly influenced by “the belief that reality should be transformed using the machine as both tool and blueprint.”<sup>44</sup> In this way, Vertov’s films were as much about the realities, or facts of the world, as the projection of these notions toward the future city and the Soviet collective. For Turvey, in contrast to some of his soviet contemporaries, Vertov was not a proponent of the total mechanization of the human being, or the subserviency of man to machine, despite his exaltation of the machine’s superiority to the human being, particularly the movie camera. Rather, Vertov was more interested in a harmonization between man and machine. Turvey explained that this harmonization is evident in Vertov’s anthropomorphized machines depicted in *Man with a Movie Camera*. Just as Vertov depicted the mechanization of people in his film, he conversely humanized technology. For example, toward the end of the film Vertov utilized stop-motion in order to animate the movie camera, which prompted Turvey to suggest that: “Vertov’s anthropomorphized camera can perhaps be understood as a playful analogy based on morphological similarities between the camera and human beings. Certainly, *Man with a Movie Camera* repeatedly and deliberately underscores such resemblances.”<sup>45</sup> The most famous example being the shot of the human eye superimposed over the camera lens, indicating the harmonization of the human and the mechanical eye. However, despite the differences in disposition towards film

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<sup>43</sup> Tsivian, 387.

<sup>44</sup> Malcolm Turvey, *The Filming of Modern Life: European Avant-garde Film of the 1920s* (Cambridge, MA: MIT, 2011), 135.

<sup>45</sup> Turvey, 152.



Vertov's 'athropomorphized camera' (top) and Camera-eye superimpositon.

[from *Man with a Movie Camera* [motion Picture]. By Dziga Vertov. 1928. Mpeg.]

and city, the commonalities between Vertov and Ruttmann's films indicate their objective to utilize the medium as a way of responding to the dynamics of the modern industrial city.

As McQuire explains, both Ruttmann's and Vertov's films, "stand out in this context not only for the scope and rigour of their attempt to capture the distinctive experience of modern urban life, but because they explicitly sought to pioneer a new visual 'language' adequate to the new urban environment."<sup>46</sup> With technological innovations such as the automobile and the assembly line, essential to the beginnings of mass-motorization, the dynamics of urban life began to change and the type of montage developed in the *City Symphony* film was an attempt to develop a visual language analogous to this changing experience of the city. However, for analysts of the technological image such as Walter Benjamin in Germany and Sergei Eisenstein in the Soviet Union, McQuire explains that:

"Fragmentation is both the alienated condition of modern urban-industrial life, but also a primary technique for its analysis and disputation. However, to be effective, fragmentation must be a way station rather than a final destination. In contrast to the postmodern suspicion that fragmentation might constitute an irreducible condition, these dialecticians insisted that the 'right order' remained to be established."<sup>47</sup>

Trained as an architect, filmmaker and film theorist Sergei Eisenstein believed that the 'right order' could be established within a montage sequence, and that through

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<sup>46</sup> McQuire, 58.

<sup>47</sup> McQuire, 76.

the theorization of montage as a technique, the fragmented parts could find their way into a new 'appropriate' whole.

## Act 2: Cinematic Theory: developing a language for urban space

### Scene 1: Eisenstein and Montage

If montage was considered the language most suitable to the experience of urban space in the early 20<sup>th</sup> century, it was the seminal writings of architect turned filmmaker Sergei Eisenstein that attempted to theorize and understand that language in the 1930s. From the reading of Geoffrey Nowell-Smith's foreword to Eisenstein's collected essays on montage, it is not surprising that the term montage would become associated with the modern industrial period, because, as he explains: "There is nothing mystical about montage. Montage is the ordinary word for film editing in French and in Russian (montzah), Italian (montaggio) and Spanish (montaje). It is a word with strong practical and even industrial overtones. *Chaine de montage* is the French phrase for a factory assembly line..."<sup>48</sup> With urban space becoming characterized by a disrupted and fragmented field of view that can be attributed to new technologies and industrial practices, resulting in changing relationships between the city and its inhabitants, as well as the proliferation of machine metaphors as a means of articulating varied phenomena, it makes perfect sense that a technique with strong practical and industrial overtones would be used in attempting to reassemble these experiences into some sort of logical order. These practical and industrial overtones also made the term montage accessible and applicable to the modern industrial epoch, as Nowell-Smith goes on to explain: "montage exists not only in time but in space, and not only in the object but,

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<sup>48</sup> Geoffrey Nowell-Smith, "Eisenstein on Montage," in Sergei Eisenstein, *Towards a Theory of Montage: Sergei Eisenstein Selected Works* (I B Taurus, 2010), xiii.

crucially, in the perception of it. Montage as a principle is not limited to cinema: it is found in literature, in theatre, in music, in painting, even in architecture.”<sup>49</sup> Even though Eisenstein’s primary occupation was as filmmaker, critic, and theorist, he was not speaking strictly of montage within cinematography, but rather, fittingly, he was communicating a generalized idea about the properties of a work of art, wherein: “A truly realistic work of art, deriving from the fundamental tenets of realism, must contain as an indissoluble whole both the representation of a phenomenon and its image; by ‘image’ is meant a generalized statement about the essence of the particular phenomenon. They are inextricably linked by their presence, their appearance and the way they merge with one another.”<sup>50</sup> Eisenstein was admittedly using his specific knowledge of film as a vehicle to explore a much more general notion of artistic composition, which perhaps can be attributed to his architectural background, where the image is what essentially completes each part, or component of a work of art, and in turn relates all parts with one another; for example, in a film, the shots, the scenes, and the film as a whole are all related through a generalized idea. For Eisenstein, the ‘image’ was of the utmost importance because, “a generalization about an object, as distinct from the object itself, ‘an und für sich’, is a separate entity related to the artist’s individual consciousness and is an expression of his attitudes towards and judgments about the object in question: a self-expression mediated, as it were, through the author’s consciousness and reflecting the context of social relationships in which the artist’s

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<sup>49</sup> Nowell-Smith, xv.

<sup>50</sup> Sergei Eisenstein, *Towards a Theory of Montage: Sergei Eisenstein Selected Works* (I B Taurus, 2010), 4.

personality has been formed.”<sup>51</sup> In this sense, there was something mystical about the technique of montage for Eisenstein, in that it was not merely the process of editing filmed shots, scenes, and fragments into a simply logical and coordinated whole, but rather it was to act as a vehicle for communicating a generalized idea or theme generated by the artist’s consciousness. More specifically, each separate element that combines to create the whole would provide a partial depiction of the overarching theme, and the juxtaposition of these elements within a montage structure evoke, within the spectator’s perception, the generalized image which generated each element and which ties them together as a whole. For Eisenstein it was the ability of the work to evoke the generalized image, which pervaded and formed all of its separate elements, which really distinguished the whole as a genuine work of art, as he explained in his essay *Montage 1938*:

“A work of art, understood dynamically, is also a process of forming images in the mind of the spectator. Herein lies the peculiar quality of every genuinely vital work of art, which distinguishes it from a lifeless piece of work in which the spectator is presented with a depiction of the results of a certain past creative process instead of being drawn into a permanently occurring process.”<sup>52</sup>

Eisenstein attempted to demonstrate his notions about montage structure and the ability of the work to draw the spectator into ‘a permanently occurring process’ by utilizing some of his own films as examples, but perhaps some of his most successful attempts at demonstrating his ideas came through the analysis of the writings of Russian poet Alexander Pushkin of the 19<sup>th</sup> century. Quoting several examples of the poet’s prose, Eisenstein explained how, within the poetry, each line of verse

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<sup>51</sup> Eisenstein, 28-29.

<sup>52</sup> Eisenstein, 302.

acted as a sequence that would evoke an image in the reader's mind. Upon conjuring an image from the first line, the reader would then advance to the next line where a new image would be generated, and subsequently, the juxtaposition of the two images, created from the first two lines of prose, would generate a composite image related to the theme of the poem as a whole. The reader would continue through the poem, and as if frame-by-frame, the lines of text would generate new images to be juxtaposed with the preceding images, resulting in a built up image sequence in the reader's mind by the end of the poem.

Montage was simultaneously about the artist's ability to successfully communicate a generalized image through the coordination of separate objects, and also the spectator's reception of this generalized image, which was at the same time a product of both the artist's and the spectator's consciousness. Essentially, for Eisenstein, the montage structure was not simply about the whole being the sum of the parts, but rather the resultant would be something much more:

"We have already pointed out that montage is not, in essence, made up of details but of numerous general ideas about an object or phenomenon, ideas which by the law of *pars pro toto* arise out of details. Therefore what we have in a montage combination is not merely the sum of the constituent elements, not a static summary of the whole, but something significantly greater. It will not be the sum of, say, five details that form one whole; it will be five wholes, each taken from a different angle of vision and in a different aspect, all of which are interconnected."<sup>53</sup>

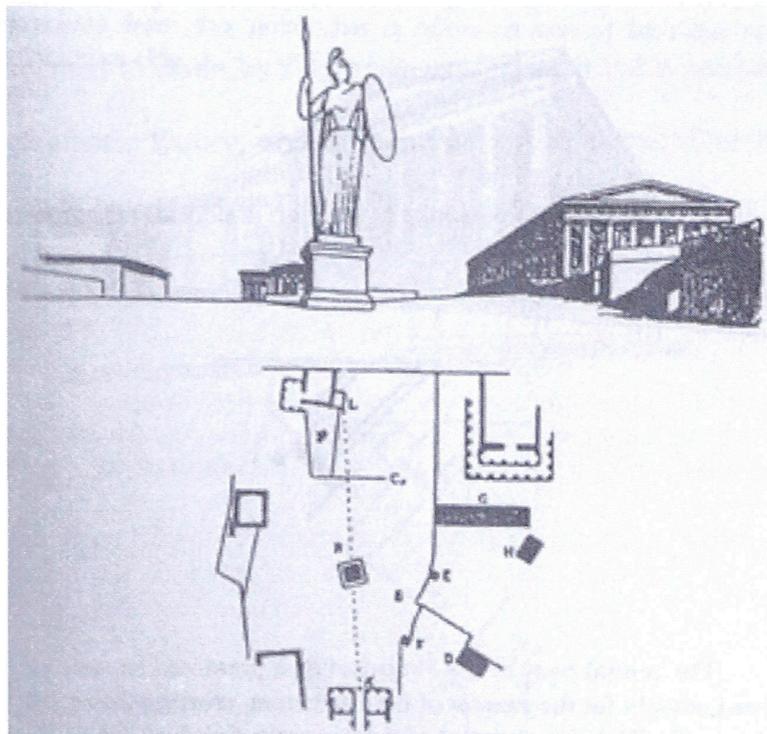
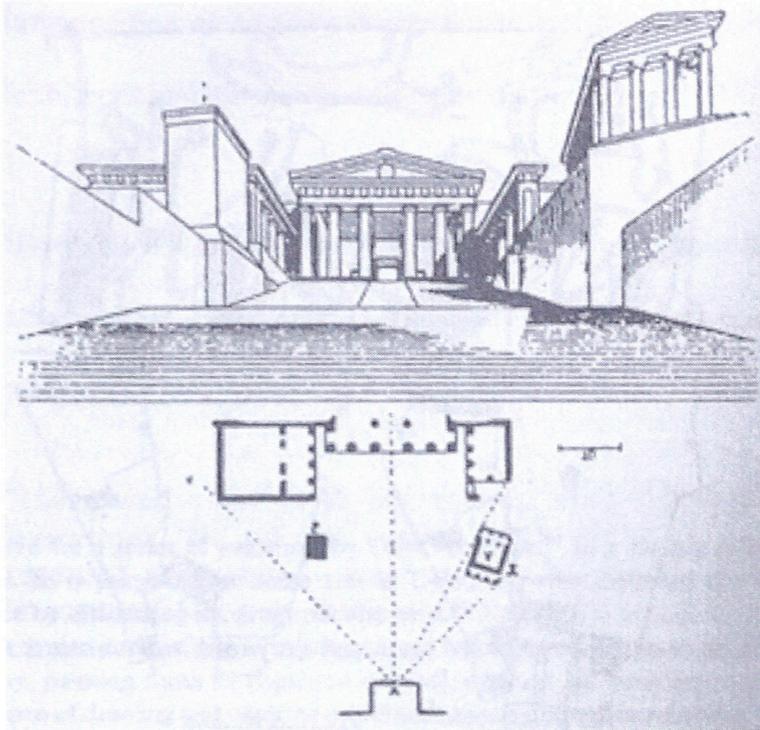
For those with an architectural background, it is quite easy to read the preceding excerpt and imagine he was speaking purely of the design of a building or of an

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<sup>53</sup> Eisenstein, 203.

urban design strategy. Eisenstein's utilization of conspicuously architectural language is not surprising considering his background, but also in recalling his essay entitled *Montage and Architecture*, wherein he explained that the origins of montage, long before film, could be traced back to the ancient Greeks and their architectural planning. Tracing in detail the path of a mobile observer when approaching and subsequently experiencing the Acropolis in Athens, Eisenstein attempted to depict, quite convincingly, how the choreographed architectural path in fact constituted a type of montage sequence. Eisenstein explained that within the sequence that followed an articulated path approaching and continuing through the Acropolis, specific vantages or 'shots' were planned to reveal a specific building, or part thereof, as well as to be juxtaposed with the proceeding vantage; or rather, several 'wholes, each taken from a different angle of vision and in a different aspect, all of which are interconnected.'

Admittedly less interested in the very detailed textual description provided by Eisenstein, walking the reader through the experience of the Acropolis as montage sequence, what is of particular interest is the premise of utilizing montage structure as a language for both the analysis and planning of urban space. If architectural and urban design were to be informed by Eisenstein's theorization of montage it would suggest a stratagem wherein the whole would not be the sum of its constituent parts, but rather something more; it would be a design made up of several wholes, both generated by and tied together by a generalized idea or theme, an interconnected urban space which evokes the generalized image through the



Eisenstein's sketches for the Acropolis seen as montage.

[from Sergei Eisenstein, *Towards a Theory of Montage: Sergei Eisenstein Selected Works*, Ed. Michael Glenny and Richard Taylor, ([S.l.]: I B Taurus, 2010), 62-63.]

juxtaposition of its separate elements, and is simultaneously a product of both the architect's and the spectator's consciousness.

However, if montage was considered the most appropriate cinematic language in relation to urban space in the early 20<sup>th</sup> century, by the time Eisenstein began writing the essay *Montage 1938*, it had already lost some of its potency:

"There was a period in our cinema when montage was proclaimed as being 'everything'. We are now coming to the end of a period when montage has been regarded as 'nothing'. Since we consider montage to be neither 'nothing' nor 'everything', we now think it necessary to recall that montage is as essential a component of film-making as all the other affective elements of cinematography."<sup>54</sup>

Even though montage's privileged position as a language and cinematic theory seemed to wane, as Eisenstein suggested, it did however become a seminal work in cinematic theory, and influential in that it would become a foundation for later cinematic theories; namely, *Expanded Cinema* written by Gene Youngblood in 1970.

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<sup>54</sup> Eisenstein, 296.

## Scene 2: Youngblood and Expanded Cinema

"It is a world infinitely more natural and complete than that of commercial cinema or television, which is used to confirm the existing consciousness rather than to expand it. Art is the language through which we perceive new relationships at work in the environment, both physical and metaphysical."

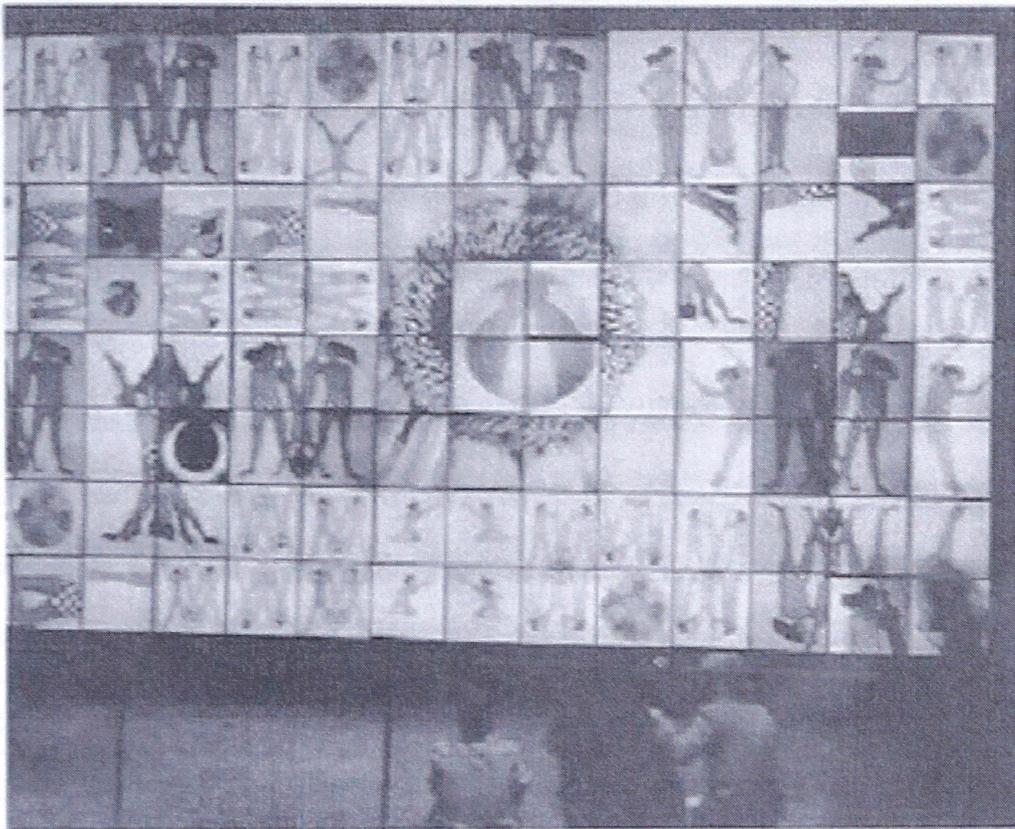
- Gene Youngblood

Gene Youngblood, who wrote *Expanded Cinema* on the heels of Montreal's Expo 67, acquired much inspiration from the world exposition's abundance of audio-visual installations and showcases. Expo 67 was conceived of under the theme: 'Man and his World', where over three thousand films were produced for the event, and several film festivals were involved in its production<sup>55</sup>. Janine Marchessault, co-editor and contributor of *Fluid Screens: Expanded Cinema*, a collection of essays grounded by Youngblood's 1970 publication, wrote that: "Approximately 65 per cent of all the pavilion and complexes presented moving pictures, many of which were dazzling displays of the new flexibility of the screen and the new synesthesia of the visual cultures of the world mediated through technology."<sup>56</sup> The new flexibility, imagination, and technological possibilities being developed in the field of cinema were showcased in the many pavilions and complexes at Expo 67, wherein, a marriage of architectural space with innovative cinematic experience was meant to push the boundaries of existing visual language.

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<sup>55</sup> Janine Marchessault, "Multi-Screens and Future Cinema: The Labyrinth Project at Expo 67," in Susan Lord and Janine Marchessault, eds., *Fluid Screens: Expanded Cinema* (Toronto: University of Toronto, 2007), 29.

<sup>56</sup> Marchessault, 29.



The Diapolyceran Screen at the Czechoslovakian Pavilion at Expo '67.  
[from Gene Youngblood, *Expanded Cinema* (New York: Dutton, 1970), 356.]

It is no wonder that Expo 67, with its theme of 'Man and his World', coupled with the pioneering of new audio-visual technology and cinematic experience, would become so influential for Youngblood in the writing of *Expanded Cinema*.

"We're in transition from the Industrial Age to the Cybernetic Age, characterized by many as the post-Industrial Age. But I've found the term Paleocybernetic valuable as a conceptual tool with which to grasp the significance of our present environment: combining the primitive potential associated with Paleolithic and the transcendental integrities of "practical utopianism" associated with Cybernetic. So I call it the Paleocybernetic Age: an image of a hairy, buckskinned, barefooted atomic physicist with a brain full of mescaline and logarithms, working out the heuristics of computer-generated holograms or krypton laser interferometry. It's the dawn of man: for the first time in history we'll soon be free enough to discover who we are."<sup>57</sup>

For Youngblood, it was the transition to a new age that inherently required the adoption and development of a new visual language. Just as McQuire posited montage as the visual language most suitable to the experience of the modern industrial city, Youngblood asserted that the post-industrial or *Paleocybernetic* period needed a new language more suitable to the epoch: "In a world where change is the only constant, it's obvious we can't afford to rely on traditional cinematic language. The world has changed immeasurably in the seventy years since the birth of cinema: for one thing "world" now includes the microcosm of the atom and the macrocosm of the universe in one spectrum. Still popular films speak a language developed by Griffith, Lumière, Méliès, derived from traditions of vaudeville and literature."<sup>58</sup> *Expanded Cinema*, which was synonymous with expanded

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<sup>57</sup> Youngblood, 41.

<sup>58</sup> Youngblood, 54.

consciousness, served as the argument for, and articulation of, the utopian cinematic language that would allow us to move past the traditional cinematic language.

Youngblood attributed the freeing of the cinematic medium from traditional narrative structures to the widespread adoption of the television, which had the ability to turn the earth into software. As the communication of the human condition was the main focal point of commercial narrative cinema, television's greater suitability to this task would allow cinema to relinquish the binding constraints of narrative structure: "It has taken more than seventy years for global man to come to terms with the cinematic medium, to liberate it from theatre and literature. We had to wait until our consciousness caught up with our technology."<sup>59</sup> The cinematic medium's liberation from theatre and literature offered a way for it to become increasingly autonomous, and break away from the monotony that had come to characterize commercial cinema. One of Youngblood's major points of contention was that commercial cinema, with its formulaic triggering of conditioned responses within the spectator, inherently provided redundant information that results in an increasingly passive reception, ultimately becoming an entropic activity. As Youngblood explained of the commercial entertainer:

"He offers nothing we haven't already conceived, nothing we don't already expect. Art explains; entertainment exploits. Art is freedom from the conditions of memory; entertainment is conditional on a present that is conditioned by the past. Entertainment gives us what we want; art gives us what we don't know we want. To confront a work of art is to confront oneself—but aspects of oneself previously unrecognized."<sup>60</sup>

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<sup>59</sup> Youngblood, 75.

<sup>60</sup> Youngblood, 60.

Youngblood was far more concerned with the present experience of a cinematic work, one that engages the spectator in active participation rather than passive observation. The past-present-future paradigm of the space-time continuum, which is fundamental in commercial narrative cinema, would have to be reconsidered. In order to illustrate a more appropriate paradigm, Youngblood proffers the example of the Hopi Indians whose language only utilizes the present tense; thus, past would be referred to as 'present manifested' and future as 'present manifesting', so that "all experience was synthesized in the present."<sup>61</sup>

The difference between the two space-time paradigms was the major discrepancy between Eisenstein's Montage and what Youngblood would coin Synaesthetic Cinema. Although Synaesthetic Cinema would subsume Eisenstein's theory of montage-as-collision<sup>62</sup>, Youngblood explained that, "There is an important distinction to be made between evocation, the language of synaesthetic cinema, primarily poetic in structure and effect, and exposition, the language of narrative cinema, which chiefly conforms to traditional, literary narrative modes."<sup>63</sup> As a combination of the words 'synergy', meaning an agglomeration of parts resulting in something greater than merely their sum, and 'kinaesthesia', concerning the experience of something through its motion, Synaesthetic Cinema would not rely on traditional literary models but instead would become about the process of

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<sup>61</sup> Youngblood, 81.

<sup>62</sup> Youngblood, 85.

<sup>63</sup> Youngblood, 92.

experiencing the work. Youngblood asserted that, "If montage is the dramatic analysis of action, a film without classic montage thus avoids at least the structural element of drama inherent within the medium. All that remains to avoid drama entirely is to exclude dramatic (i.e., theatrical) content by making content and structure the same."<sup>64</sup> Synaesthetic Cinema would not privilege either content or structure over the other, instead, the content would be the experience of the structure itself; Collage as Montage. However, this did not mean that Youngblood disregarded Eisenstein's theoretical writings on montage, but rather repurposed them to suit the space-time paradigm of the 1970s: "This does not imply that we must relinquish what Eisenstein called "intellectual montage." In fact, the conflict-juxtaposition of intellectual effects is increased when they occur within the same image."<sup>65</sup> This is what Youngblood meant by referring to 'Collage as Montage', where syncretism could be obtained through multiple superimpositions of the sequential image rather than the temporally discrete structure of montage elements.

Synaesthetic Cinema differs from montage because, "Although composed of discrete elements it is conceived and edited as one continuous perceptual experience. A synaesthetic film is, in effect, one image continually transforming into other images: metamorphosis."<sup>66</sup> The traditional narrative montage structure of A,B,C,D would be replaced by the synaesthetic collage structure of A, AB, ABC, BCD et cetera. Youngblood contended that the metamorphosis of the image, or collage as montage,

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<sup>64</sup> Youngblood, 86.

<sup>65</sup> Youngblood, 87.

<sup>66</sup> Youngblood, 86.

was "a physical, structural equivalent of the Hopi "present manifested" and "present manifesting" space-time continuum. It's the only style of cinema that directly corresponds to the theory of general relativity, a concept that has completely transformed all aspects of contemporary existence except traditional Hollywood cinema."<sup>67</sup> For Youngblood, the main protagonists in the bastardization of the cinematic medium and its visual language were commercial entertainers who, for the vast majority, produced not art but rather redundant forms of entertainment. However, the use of narrative theme may not be as prohibitive as Youngblood makes it out to be (particularly today, where the ubiquity of certain technologies offer some malleability to the rigidity of narrative structures; which will be discussed further in the proceeding scene of Act 2); especially when one of the pavilions that was influential to his writings utilized such a generative narrative theme: *Labyrinthe* at Expo 67.

As Janine Marchessault explained in her essay entitled *Multi-Screens and Future Cinema: The Labyrinth Project at Expo 67*, "a future tense city, Expo was said to be itself a cinematic city, filled with structures made of webs and screens that refracted and reflected other images, bodies in movement, and atmospheric variations."<sup>68</sup> It was in fact a utopian vision of the future cinematic city, which concerned itself with the phenomenology of perception in motion: "It is the immaterial, the impermanent, the non-linear, the ephemeral of Expo that gave it its modern futuristic sheen, mirroring the new, dematerialized commodity culture of North America. Thus it

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<sup>67</sup> Youngblood, 86.

<sup>68</sup> Marchessault, 31.

was not the monumentality of 'a disposable imperial city, expressing man's dominance over the earth,' that we find at Expo 67 but the flexibility of the city in movement."<sup>69</sup> Indeed, the design of traffic flow and movement throughout the complex was the key to the coordination of Expo 67. Trains traveling at various speeds and operating at different heights were utilized to connect the vast areas of the exposition, offering varying views and vistas to the riders navigating Expo 67<sup>70</sup>; it was about what we see, but perhaps more importantly how we see it:

"The relation between screen and architecture, the screen as architecture, was endemic to the humanist design of Expo. Whereas classical depictions of dehumanization staged the cinema screen as precisely that which alienates humans from the social fabric of everyday life...Expo's image of the screen [...] was just the opposite."<sup>71</sup>

There was a recurring utopian idea that technology, in particular film technology, had the potential not to alienate us but rather to create a new awareness for the age of simultaneity<sup>72</sup>. Of all the installations and pavilions that put forth the notion that film technology had the ability to create an expanded consciousness, the term Youngblood would utilize three years later, *Labyrinthe* seemed to be one of the most successful.

As Marchessault wrote: "Labyrinthe proved to be one of the most popular highlights of Expo 67 with audiences waiting in line for up to seven hours to get into the forty-

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<sup>69</sup> Marchessault, 31.

<sup>70</sup> Marchessault, 31.

<sup>71</sup> Marchessault, 33.

<sup>72</sup> Marchessault, 34.

five minute screening.”<sup>73</sup> The *Labyrinthe* exhibition was designed by two established documentary filmmakers working for the National Film Board of Canada: Colin Low and Roman Kroitor. The architectural and cinematic installation was designed as a series of three chambers organized around a general narrative theme relating to the Greek myth of Theseus and the Minotaur, wherein Theseus had to navigate the Labyrinth of Crete and slay the Minotaur. The narrative, which was representative of the struggle or task of self-realization, was used in order to lend the project an air of objectivity; seeing as the narrative was common in many religions and cultures, it would be accessible as a part of current knowledge rather than being merely of the designers’ opinion.<sup>74</sup> The architecture that housed the cinematic events was designed itself as a Labyrinth, in which the three chambers: *Chamber 1: Childhood, Confident Youth*, *Chamber 2: The Maze*, and *Chamber 3: Death/Metamorphosis*, represented the journey through life. Marchessault explains that the multi-screen cinema was coupled with specifically designed architectural spaces in order that, “The design for *Labyrinthe* did not simply include multiple screens but, rather, a fluid space for viewing as a transformative ‘artistic’ activity”<sup>75</sup>, wherein, “the spectator is set free in a new cinema architecture to create individualized and personalized views through screens that exceed any one person’s perception.”<sup>76</sup> It was the simultaneity of *Labyrinthe’s* multi-screen cinema that would immerse the spectator in the cinema-architecture environment, and would solicit the participation of them in order to make sense of the excess of stimuli.

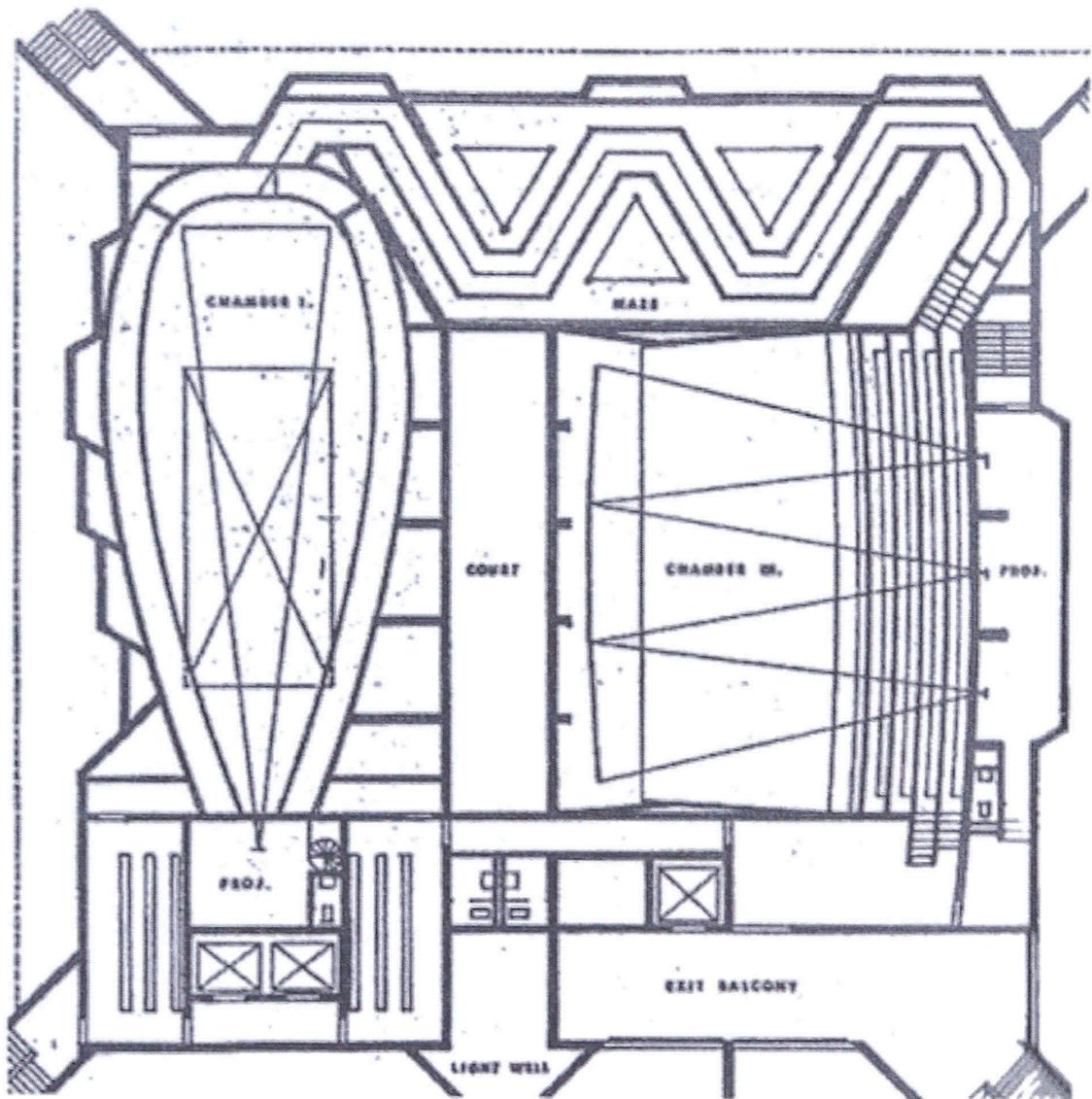
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<sup>73</sup> Marchessault, 43.

<sup>74</sup> Marchessault, 40-41.

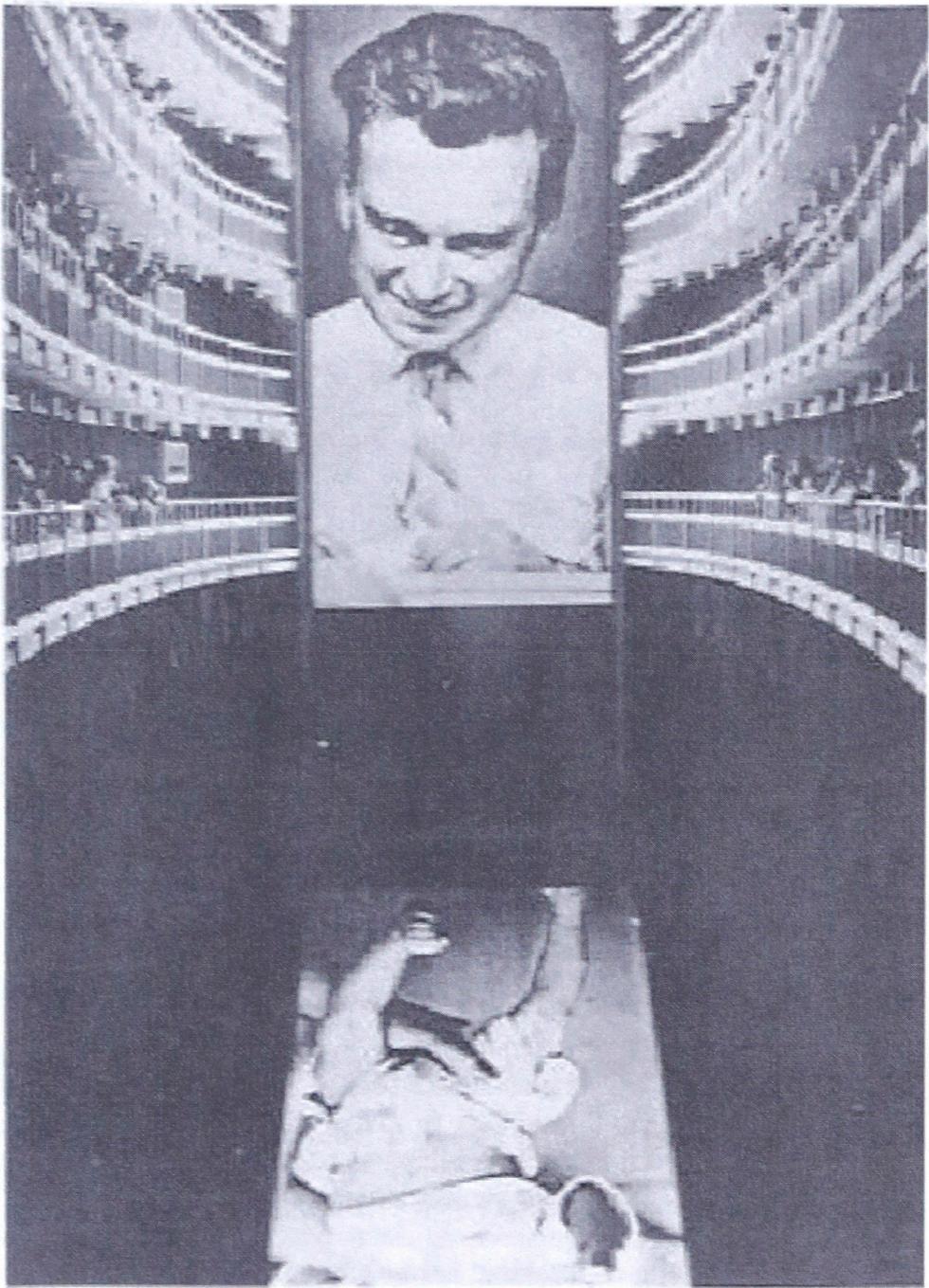
<sup>75</sup> Marchessault, 47.

<sup>76</sup> Marchessault, 39.



The plan for the Labyrinth pavilion at Expo '67.

[from Janine Marchessault, "Multi-Screens and Future Cinema: The Labyrinth Project at Expo 67," in Susan Lord and Janine Marchessault, eds., *Fluid Screens: Expanded Cinema* (Toronto: University of Toronto, 2007), 42.]



*Chamber 1: Childhood, Confident Youth, of the Labyrinth pavilion at Expo '67.*

[from Gene Youngblood, *Expanded Cinema* (New York: Dutton, 1970), 353.]

However, it was the third and final chamber of the pavilion where the most simplistic and perhaps elegant of their multi-screen projections was demonstrated.

*Chamber 3: Death/Metamorphosis* was the final chamber in the *Labyrinthe* pavilion. Subsequent to the spectators making their way through the maze chamber, they would find themselves entering a much more traditional theatre setting with seats facing a projection screen. However, it was not a traditional projection but rather five synchronized projections confronting the spectators. Marchessault explained that, "For the *Labyrinthe* project the NFB developed a synchronous multi-screen shooting apparatus made out of five Arriflexes mounted in a cruciform shape [...]. The cameras could operate all together or in combinations. The films were projected using five synchronized projectors set out in a similar shape."<sup>77</sup> With the use of this apparatus the designers and filmmakers were able to shoot and project their films in such a way that the visual information was outside of the capacity of any one person's perceptual range. Instead, the multi-screen projection would require the spectator to create along with the films, using their imagination to make sense of the multiple projections as one event. By presenting the simultaneous cruciform projections within a traditional cinema setting, it seems as if Low and Kroitor were not merely concluding the life journey narrative that structured the three chambers, but rather were commenting on the *Death/Metamorphosis* of traditional cinema and proffering the simultaneity of synesthetic multi-screen cinema as the cinema of the present as well as of the future. As Marchessault pointed out: "both Low and Kroitor

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<sup>77</sup> Marchessault, 38.



*Chamber 3: Death/Metamorphosis*, cruciform screen setup in the Labyrinth pavilion at Expo '67.

[from Gene Youngblood, *Expanded Cinema* (New York: Dutton, 1970), 354.]

believed that the synesthetic cinema they were designing for Expo was a new medium that could well revolutionize visual culture."<sup>78</sup> It is evident that Colin Low in particular saw this new cinema as allowing considerable flexibility in both the way cinema was conceived as well as presented, when he wrote in his production notes that the cruciform apparatus and projection configuration offered:

(1) flexibility in alteration of image composition;

(2) simultaneous representation of events:

(a) different events occurring at different times or in different locations,

(b) different time segments of the same event, and

(c) the same event seen from different positions and points of view;

(3) enrichment of image by juxtaposition of several elements of the same event or location;

(4) possibility of a kind of visual metaphor or simile; and

(5) representation of two or more events converging and merging into a single event or a single event fragmented into several images.<sup>79</sup>

Even though the synesthetic multi-screen cinema displayed in the *Labyrinthe* pavilion offered many new possibilities for both presentation and composition, as well as its apparent popularity at Expo 67, it did not become the new medium that Low and Koiter both believed could 'revolutionize visual culture.' However, as Marchessault concluded in her essay: "one can see in the expanded-screen experiments at Expo a foreshadowing of the intermedia networks, the mobility of images, the cultures of the Internet, and the concomitant multiplication of screens in

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<sup>78</sup> Marchessault, 40.

<sup>79</sup> Marchessault, 45-46.

everyday life around the world."<sup>80</sup> Just as the expanded-screen experiments at Expo 67 foreshadowed our contemporary intermedia environment, *Expanded Cinema* (1970) prophetically proffered a means of expanding our communication capacity through the adoption of a new visual language more suited to our current epoch. Even though synaesthetic cinema did not become a revolutionary new visual language, and commercial entertainment still utilizes formulaic narrative structures motivated by capitalistic priorities, perhaps it can act as a foundation or generating agent for understanding and responding to the cinematic city and our experience of architecture within an urban setting; something I imagine Youngblood might call *Expanded Architecture*.

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<sup>80</sup> Marchessault, 48.

### Scene 3: Cinema, Collage and City: *Expanded Architecture*

“The American city seems to have stepped right out of the movies. To grasp its secret, you should not then begin with the city and move inwards toward a screen; you should begin with the screen and move outwards towards the city.”

- Jean Baudrillard<sup>81</sup>

Gene Youngblood's *Expanded Cinema* (1970) was, at the most basic level, simply about communication. Synaesthetic Cinema was the new visual language that would allow us to expand our capacity for communication within the intermedia environment that constituted (and still constitutes) our everyday lives. As Youngblood expressed, his explanation of the intermedia environment “begins with the word itself: I might have used mixed media, certainly a more common and identifiable term; but an environment in which the organisms are merely mixed is not the same as an environment whose elements are suffused in metamorphosis.”<sup>82</sup> Indeed, Youngblood's notion of the relationships between media within a given environment differed from Eisenstein's, wherein the synergy generated through collage subsumed the collision-juxtaposition generated through montage. There is no doubt there was a maturity of the medium during the thirty years that separated Eisenstein's theory of montage and Youngblood's synaesthetic cinema, but despite the significant technological advances there are many similarities between the two cinematic theories. In fact, apart from the shift in the space-time paradigm from the

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<sup>81</sup> Jean Baudrillard, as quoted in Michael J. Dear, *The Postmodern Urban Condition* (Oxford: Blackwell, 2000), 184.

<sup>82</sup> Youngblood, 347.

early to the latter 20<sup>th</sup> century, both of these theories were purporting generalized ideas pertaining to the 'art' of communication.

Eisenstein's intellectual montage and Youngblood's synaesthetic cinema were both attempts at theorizing the communication of the artist's consciousness to a participative spectator. Both Eisenstein and Youngblood asserted that a work of art must solicit the active participation of the spectator, involving them in the ongoing creative process. For Eisenstein, the genuine work of art would transcend mere representation by also communicating a generalized image about the object or phenomenon, to be actively deciphered by the spectator through the juxtaposition of images within the work; resulting in a process which is a product of both the artist's and spectator's consciousness. For Youngblood, art was the antithesis to entertainment. While entertainment provided redundant information about the human condition, art would offer more or different information to the spectator, which in turn would create energy with which the spectator can change or grow; art could then counter the entropic activity that was entertainment. While Eisenstein's notion of consciousness was related to a socially and culturally formed idea generated by the artist's background, and Youngblood's notion of consciousness was more akin to an emotional response or feeling, they both were primarily concerned with creating, within the work of art, the conditions for participatory reception rather than passive spectatorship. In this sense, they were both proponents of a type of synergy produced by the interaction of constituent parts that would provide

the conditions required for artistic experience, ultimately advocating for a more dialogic environment.

However, in the contemporary intermedia environment, technologies have not only freed cinema from narrative structure, but they have in fact liberated narrative itself from its own rigidity. Cinema today has progressively shifted from the projection of rigid narrative ensembles within fixed and communal space, to a more malleable, unfixed, and personalized experience. The proliferation of home video equipment, accessible digital editing software, and internet culture are what now characterize, to a greater extent, the cinema environment. The juxtaposition of discontinuous narrative fragments, which was once an avant-garde exercise attributed to Andre Breton and Jacques Vache's 'cinema-hopping' in early cinematic history<sup>83</sup>, is now a commonplace cultural practice. With the advent of technologies such as Netflix, Youtube, iPhones, consumer video editing software, and numerous similar alternatives, the notion of narrative fragmentation inherent in 'cinema-hopping' is not only an everyday occurrence but its potential is amplified. Today, what Youngblood deemed a restrictive and entropic situation where the narrative structure did not allow for an active engagement or multiple viewings, technology has allowed for the personal dismantling of linear narrative structure that results in the juxtaposition of scenes, images, and contexts, where the particular narrative order is not important, but rather the relationship between the images seen as such. Victor Burgin, author of *The Remembered Film* (2004), relates this shift in cinematic

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<sup>83</sup> Victor Burgin, *The Remembered Film* (London: Reaktion, 2006), 8.

experience to a shift from image-sequence to sequence-image, wherein the “characteristic attribute of the sequence-image: [is] the folding of the diachronic into the synchronic.”<sup>84</sup> Within the sequence-image, the various elements “emerge successively but not teleologically. The order in which they appear is insignificant (as in a rebus) and they present a configuration – ‘lexical, sporadic’ – that is more ‘object’ than narrative.”<sup>85</sup> In essence, rather than a diachronic unfolding of narrative, the sequence-image creates a synchronic relational field between the elements within the configuration, this shifts the narrative structure from classical montage towards a type of collage. The sequence-image then becomes a sort of framing mechanism or apparatus that agglomerates images and brings them into relation with one another within a syncretistic field. The propensity of the field, as Michael Tawa, author of *Agencies of the Frame* (2010), explains, is that the “Characteristic of the field is that the elements contained by it also constitute it and integrally determine it by way of their interactions. The field is an intensive condition with the capacity to produce energetic effects once something is introduced into it. It is laid out like a network or web, a schema that is a plurality of “rich correlations between different and distinct terms.””<sup>86</sup> In such an environment, what Youngblood deemed the restrictive nature of classical montage, is dismantled and repurposed towards a schema that purports simultaneity, multiplicity, syncretism, and the solicitation of engagement inherent in synaesthetic cinema. The

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<sup>84</sup> Burgin, 26.

<sup>85</sup> Burgin, 21.

<sup>86</sup> Michael Tawa, *Agencies of the Frame: Tectonic Strategies in Cinema and Architecture* (Newcastle: Cambridge Scholars, 2010), 263.

sequence-image then makes possible a conjugation between the cinematic theories of montage and synaesthetic cinema.



*Man with a Movie Camera*, Dziga Vertov 1928, recomposed as sequence-image.

[original source: *Man with a Movie Camera* [motion Picture]. By Dziga Vertov. 1928. Mpeg.]

However, with the development of these cinematic theories that were responsive to epochal space-time paradigms, technologies, and visual regimes which structured what and how we see, experience, and conceive of urban space (among other things), how then can cinematic language become a generative agent for the design of architecture within an urban context? As Tawa explains:

“Much of current architectural theory and practice declares an urgency for engaging with contemporary realities in which certainty and stasis no longer hold, where universals have no purchase, where fluctuation and interminable variation condition experience and where the disconnected and fragmented are commonplace. In response, architects look to formal systems and modes of working which privilege the dynamic and the ambiguous. Attracted to so-called non-Euclidean geometries and rhizomatic networks, embedding design in the diagramming of fluctuations in global markets, political deterritorialisations or other kinds of statistical analyses and parametric modeling, architects look for relevance in the conditions, needs and demands of a contemporary world in a state of crisis. As a result architecture becomes a mimetic and formal representation of the dynamic, fluctuating, unsettled, unpredictable and catastrophic lineaments of that crisis. But doing so it merely trades one form of mimesis – the imitation of transcendent permanent realities – for another: the imitation of immanent impermanent fluxion.”<sup>87</sup>

Jean Nouvel addresses these contemporary realities, which are fundamentally the realities which cinematic theory also attempted to address, in precisely this representational manner in the design of the ING offices in Smichov, Prague 5 (2000). The architect designed a curving glass exterior in which representational cinematic images are spliced between the sheets of glass. Located near the Anđel metro station, which in Czech means angel, the prominent filmic image depicts an angel spanning the height of the building. The angel figure overlooks the intersection, and can be read as overlooking the redevelopment and revitalization of

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<sup>87</sup> Tawa, 7.



Jean Nouvel's design for the ING offices in Smichov, Prague 5 (2000).

(Images self-shot)

the once industrial district of Prague. However, the symbolic filmic images are of less interest here. On the north façade of the building there are less prominent images spliced into the glass panels that depict a streetscape elevation of historical buildings. During the day, the reflectivity of the glass façade also collects the images of the buildings on the north side of the street, as well as registering street life and everyday activity. The concatenate effect is that of literally transforming the tectonic materiality of the façade into a cinematic screen, that depicts, through the superimposition of image and reflection, as well as the degree of curvature of the assembly, a space-time paradigm akin to the Hopi Indian's 'present-manifest' and present-manifesting'. The cinematic projection, that doubles as the building's envelope, is a composite image that is in continual metamorphosis, turning the site itself into image-sequence.

Bernard Tschumi explains that: "There are two meanings of the word design in French: dessin and dessein. The pronunciation is identical: one means drawing; the other, a strategy or intention. As it happens, the way architects generally use the term is not design as strategy (which is dynamic), but design as composition (which is static)."<sup>88</sup> Jean Nouvel's Angel of Smichov is a design as composition, one that mimetically represents dynamism, both through its form and its cinematic projections. However, if the built environment is experienced cinematically, I have greater interest in how architecture can be responsive to contemporary reception rather than being representative of it; that is to say, a favouring of 'design as

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<sup>88</sup> Enrique Walker, Bernard Tschumi, *Tschumi on Architecture: Conversations with Enrique Walker* (New York: Monacelli, 2006), 117.

strategy' rather than 'design as composition'. In *Agencies of the Frame (2010)*, Michael Tawa suggests that cinema and architecture are essentially parallel trajectories, never explicitly intersecting but nevertheless susceptible to conjugational vibrations between them. That is, although architecture is fundamentally space-based, and cinema is fundamentally time-based, they share commonalities within their framing of place. For Tawa: "Cinema and architecture construct worlds by establishing and installing ways of looking and ways of being. These constructions frame place, space and time by the manner in which the materials of film and architecture are organized and coordinated. Such assemblages constitute spatial, temporal and material fields of potential and agency that can be mobilized to various ends."<sup>89</sup> These strategic frameworks organize and coordinate space in such a way that its latent potentiality to develop place becomes manifest. Tawa explains that the notion of place often has two segregated registers where: "To take place can mean two things. Firstly, to take up a place or location, to appropriate a position in spatial extension – that is, to be somewhere and not nowhere, here and not there. Secondly, to take place, to happen, to come to be – that is, to be an event that occurs at some times not anytime, now and not then."<sup>90</sup> The objective of the assemblages or frameworks is the conjoining of these two meanings through the framing of space in order to both 'take up a place or location' and also 'to take place, to happen, to come to be'. As an example, Tawa proffers Deleuze's notion of 'whatever space', which constitutes:

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<sup>89</sup> Tawa, 286.

<sup>90</sup> Tawa, 56.

“this very space of situational capacity, of multiple relational possibilities that can be made available and enabled through design. Design – in particular the design of space in architecture – then becomes a question of how unplanned, unpredictable and unprogrammed yet highly specific conditions might be accounted for and incorporated into setups and frameworks, which have the capacity to solicit and incite the emergent latent potential of fields, milieux and settings.”<sup>91</sup>

What Deleuze calls ‘whatever space’ is synonymous with what Tschumi refers to as ‘event space’. For Tschumi, architectural design is more *dessein* (strategy) than *dessin* (drawing) in that what concerns him most “is not what it looks like but what it does.”<sup>92</sup> *Dessein* then becomes about designing a strategy to activate space, it becomes a framework for soliciting the manifestation of the event. Tschumi’s design strategies are geared not toward the conditioning of design, but rather the designing of conditions in which unpredictability, multivalency, and the potentialities inherent in the space can be realized in the taking place of event.<sup>93</sup>

An example of such an architectural strategy was the basis of Tschumi’s Le Fresnoy, Center for Art and Media, in Tourcoing, France, 1991. The site in which Le Fresnoy was to be situated had several existing buildings in which the new *dessein* would either need to subsume or reject. Tschumi, being “generally interested in the idea of playing against an existing condition,”<sup>94</sup> preferences acting on the *objet trouve* rather than the taking of a *tabula rasa* approach; the decision obviously being influenced by budgetary as well as ideological concerns. However, exercising *dessein* within the existing context of several discrete buildings provides Tschumi

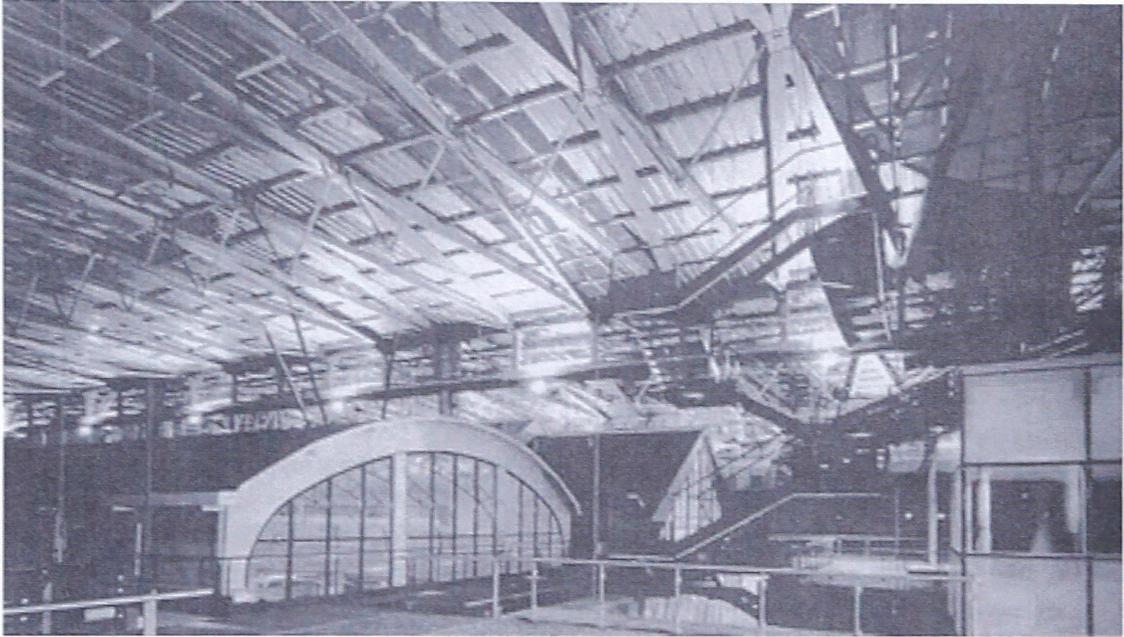
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<sup>91</sup> Tawa, 116.

<sup>92</sup> Walker and Tschumi, 26.

<sup>93</sup> Walker and Tschumi, 110.

<sup>94</sup> Walker and Tschumi, 89.



Bernard Tschumi's Le Fresnoy, Center for Art and Media, Tourcoing, France, 1991-94.

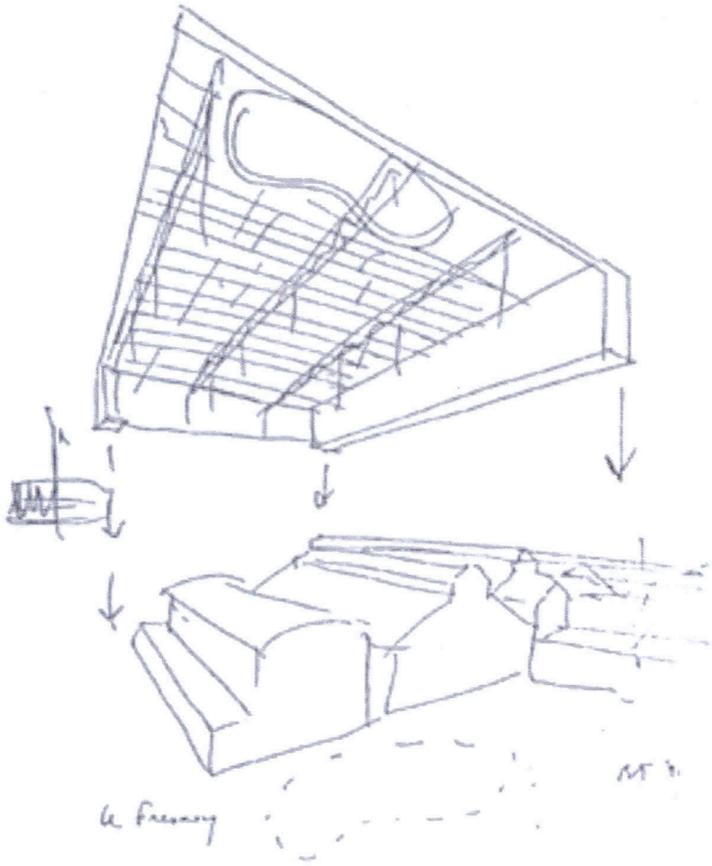
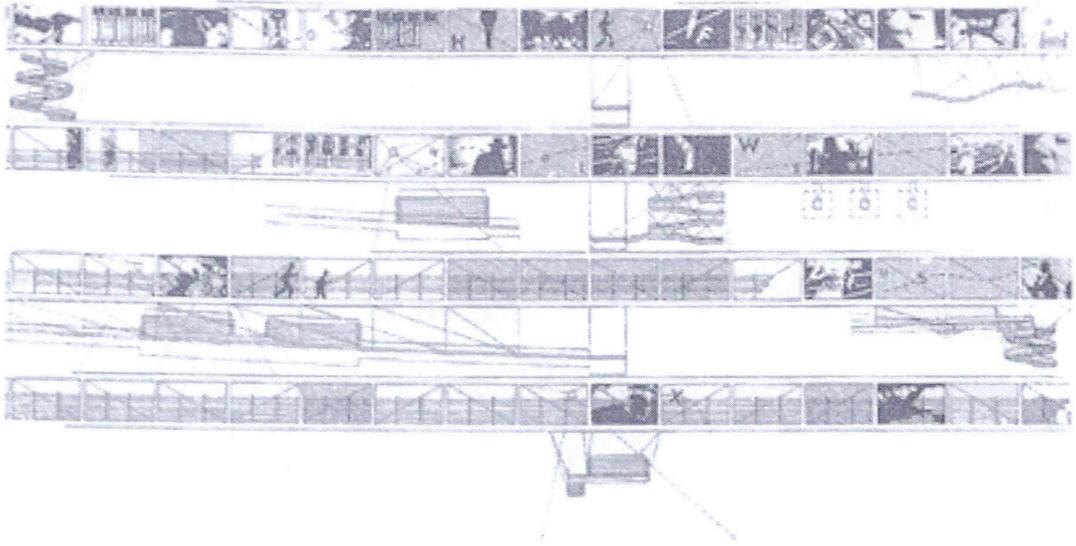
[from Bernard Tschumi. *Tschumi on Architecture: Conversations with Enrique Walker* (New York, NY: Monacelli, 2006), 118.]

with a smaller scale urban condition in which to operate. As Tschumi explains: "What I see as the "multiplicity" of the city includes not only buildings but also what happens inside them, as well as what happens in the interstitial spaces that are defined by buildings. Events contain their own unpredictability. Architecture ought to generate or, rather, encourage or trigger unpredictability."<sup>95</sup> Thus, the application of a strategy to the existing, essentially urban condition that was the site of Le Fresnoy, could be approached as a microcosm of the city. This would mean the reading of the existing objects as defined in space, but also the space that these objects generate in conjunction and juxtaposition. Tschumi's response to this condition was essentially a framing of this interstitial space generated by the existing architecture. He designed a roof structure which would encapsulate the interstitial space generated by the existing condition, and, through the use of ramps and walkways within this now enclosed urban space, attempted to activate the in-between through movement vectors. This essentially amounted to the bottling of urban space as to amplify the in-between generated by the existing structures. The interstitial spaces connected by ramps and walkways, and enclosed by the large roof structure, would remain largely unprogrammed and indeterminate in order to allow the taking place of event; event space.

Tawa explains that: "The unprogrammable represents a dimension of potentiality within buildings. To enable it to take place architecture must first acknowledge then build adaptive and transformative capacity within programmatic, spatial and

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<sup>95</sup> Walker and Tschumi, 83.



Bernard Tschumi's conceptual sketches for Le Fresnoy, Center for Art and Media, Tourcoing, France, 1991.

[from Bernard Tschumi. *Tschumi on Architecture: Conversations with Enrique Walker* (New York, NY: Monacelli, 2006), 114 and 116.]

temporal structures that it fields. The simple trope for achieving this is multivalency – that nothing in a building (a space, a ledge, a column, a window, a threshold, a shelf, a garden, a public square, a wood and so forth) should ever have a single register or a single use.”<sup>96</sup> By approaching design as *dessein*, a strategic framing of space in order that the taking place of event can occur in its multiplicity and varied potentiality, or a designing of conditions rather than the conditioning of design, architecture then becomes a framework or field of potential open to what comes. Design can then proffer forth a type of ‘whatever space’, because, as Tawa writes: “Frames, assemblages and setups always comprise of actual and potential components and capacities. In conjugation these can promote multiple readings, multiple tectonic effects and multiple spatial narratives.”<sup>97</sup> It is in the resonant similarities between cinema and architecture in regards to the framing of place, space, and time, where a correlation of strategic potentialities becomes evident. Tawa explains that: “Spatial frames which contribute to cinematic and architectural setups are therefore never merely static, closed structures and grids but assemblages, ensembles and systems consisting of fields of potential that can be mobilized precisely because they are charged and in flux.”<sup>98</sup> It is precisely in this correlation of the spatial frame that cinematic theories can offer strategic potential for the design of architecture and urban space.

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<sup>96</sup> Tawa, 189.

<sup>97</sup> Tawa, 130.

<sup>98</sup> Tawa, 94.

Whereas montage was considered the language most suitable to the analysis and disputation of urban experience in the early 20<sup>th</sup> century, and synaesthetic cinema developed as a visual language that corresponds to our experience of the intermedia environment in the latter part of the 20<sup>th</sup> century, today the most appropriate language for the analysis of our perceptual experience is something akin to the sequence-image. The sequence-image, acting as a framing mechanism that agglomerates discrete elements into a syncretistic relational field, proffers a particular disposition towards the reading of the city and its urban spaces. As Burgin suggested, the sequence-image assemblage is more 'object' than 'narrative,' which aligns its perceptual experience with collage rather than montage. By approaching the experience of the contemporary city through the frame of the sequence-image, the city can then be read as a type of urban collage.

Collage offers a reading of the city that references not simply a collection of discrete objects, but rather the relationship between the heterogeneous elements that form the city as a whole. As Colin Rowe and Fred Koetter express in *Collage City* (1978):

"[...] neither object nor space fixation are, in themselves, any longer re-presentative of valuable attitudes. The one may, indeed, characterize the 'new' city and the other the old; but, if these are situations which must be transcended rather than emulated, the situation to be hoped for should be recognized as one in which both buildings and spaces exist in an equality of sustained debate. A debate in which victory consists in each component emerging undefeated, the imagined condition is a type of solid-void dialectic which might allow for the joint existence of the overtly planned and the genuinely unplanned, of the set-piece and the accident, of the public and the private, of the state and the individual."<sup>99</sup>

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<sup>99</sup> Colin Rowe and Fred Koetter, *Collage City* (Cambridge, MA: MIT, 1978), 83.

Rowe and Koetter advocate for a dialogic relationship between the discrete components that constitute our urban environments as a means of activating space, while simultaneously advocating for architects to adopt the disposition of the bricoleur. In the perception of a collage setup, the relationships between the parts are articulated in correlation with the frame of reference of the viewer. The objects which combine to complete an assemblage are no longer designed to be seen from a single vantage or perspective, but rather multiple perspectives which are unveiled by movement; the movement of the viewer's eye, as well as the physical displacement of the viewer's body, altering the perspective and the inherent relationships within the setup. As the reception of the contemporary city is largely cinematic, so too is the perception of the urban collage.

The cinematic refers to the experience of the moving image in the same capacity that Youngblood proffers in his essay entitled *Cinema and the Code* (1989), where he writes: "when we refer to the phenomenology of the moving image, we call it cinema. For us it is important to separate cinema from its medium, just as we separate music from particular instruments."<sup>100</sup> By doing so, the cinematic can be discussed as independent of the mediums in which it encapsulates, whether that be film, television, or video. In this sense, the structure of the sequence-image has the capacity to subsume the theories of montage and synaesthetic cinema, in that the object of discussion is not that of the particular theories in relation to their contemporary medium, but rather the phenomenology of their totalizing effects.

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<sup>100</sup> Gene Youngblood, "Cinema and the Code," in *Computer Art in Context Supplemental Issue* (1989), 27.

The conceptualization of urban space through the frame of the sequence-image proffers a strategic framework for approaching an urban design project. To consider urban space as akin to the structure of the sequence-image is to consider its architectural landscape as being contained within a syncretistic relational field; wherein, recalling Tawa: "The field is an intensive condition with the capacity to produce energetic effects once something is introduced into it. It is laid out like a network or web, a schema that is a plurality of 'rich correlations between different distinct terms.'"<sup>101</sup> The objective is to introduce designed elements within the field in order not simply to compliment its constituent parts, but rather to activate them through the production of 'energetic effects'. Successively doing so would produce syncretism between the constituent elements, resulting in a synaesthetic whole rather than merely a composition that is the sum of its parts.

In *Act 3: Project: Re-animating the Street*, an urban renewal strategy is proposed that introduces several designed components, as well as potential capacities, in order to activate an underutilized urban corridor in downtown Ottawa. The result is an urban design project that re-animates the street.

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<sup>101</sup> Tawa, 263.

### **Act 3: Project: Re-animating the Street**

#### **Scene 1: Site and Program (Synaesthetic Festival Site)**

“Collage and the architect’s conscience, collage as technique and collage as state of mind...”<sup>102</sup>

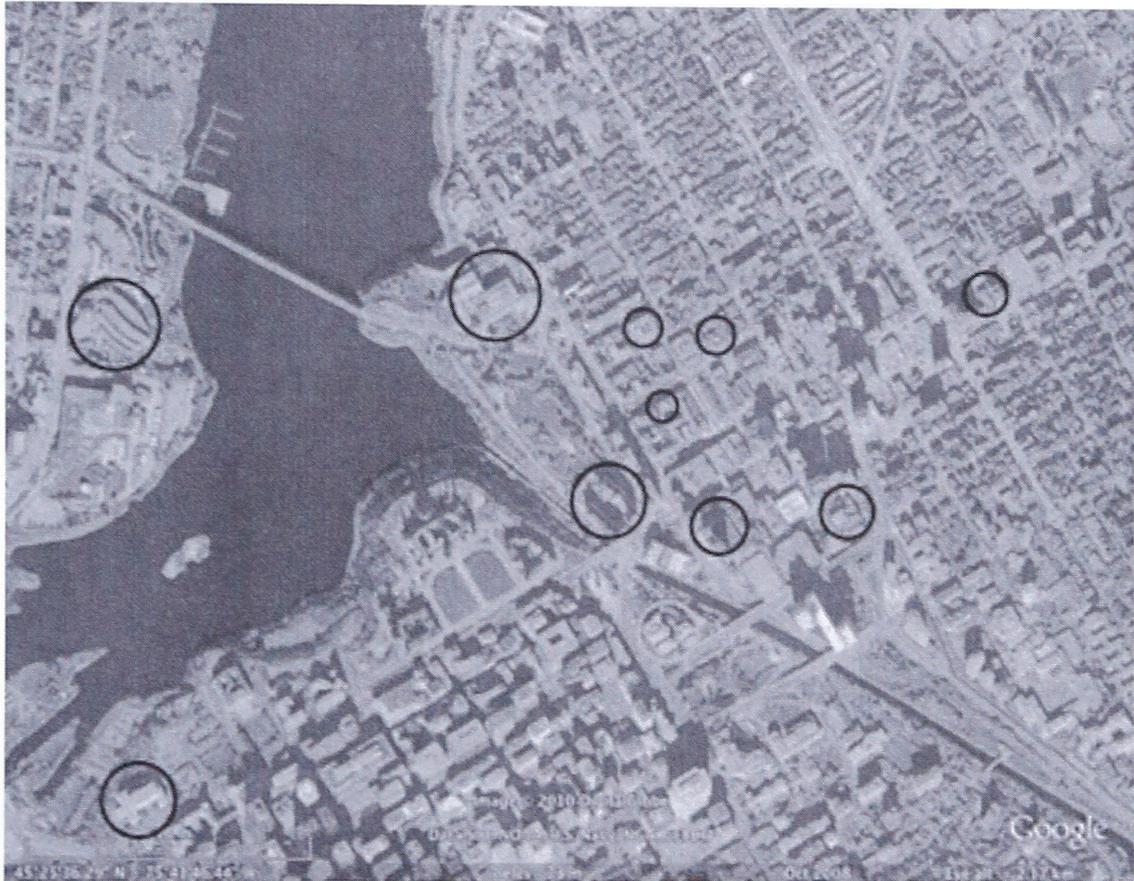
- Colin Rowe and Fred Koetter

The project of architecture developed for this thesis, consists of the conjoining of two existing conditions that occur within Ottawa’s downtown core. The first of these existing conditions is the fragmented series of venues used by the Ottawa International Animation Festival (OIAF), due in large part to the loss of its previous venue, the National Arts Centre (NAC). The last year that the OIAF was able to host their event at the NAC was 2008. Conflicts with the NAC’s internal programming and the OIAF’s schedule have made it impossible to bring the festival back to this central location. According to Kelly Neall, the managing director for the OIAF, even though the NAC’s in-house projection team allegedly destroyed several thousand dollars worth of films at the last event, the OIAF would like to move back to the NAC for the benefit of having all of the required facilities in one centralized location. Being forced to leave the NAC in 2009 has fragmented the festival and dispersed its events throughout the downtown core. In 2010, this dispersion made it necessary to setup a series of shuttle buses in order to link the various locations. However, it was not as convenient as planned. Late buses due to traffic or weather conditions caused problems for event coordinators in trying to accommodate late arrivals without disturbing the screening for viewers already inside the venue. For

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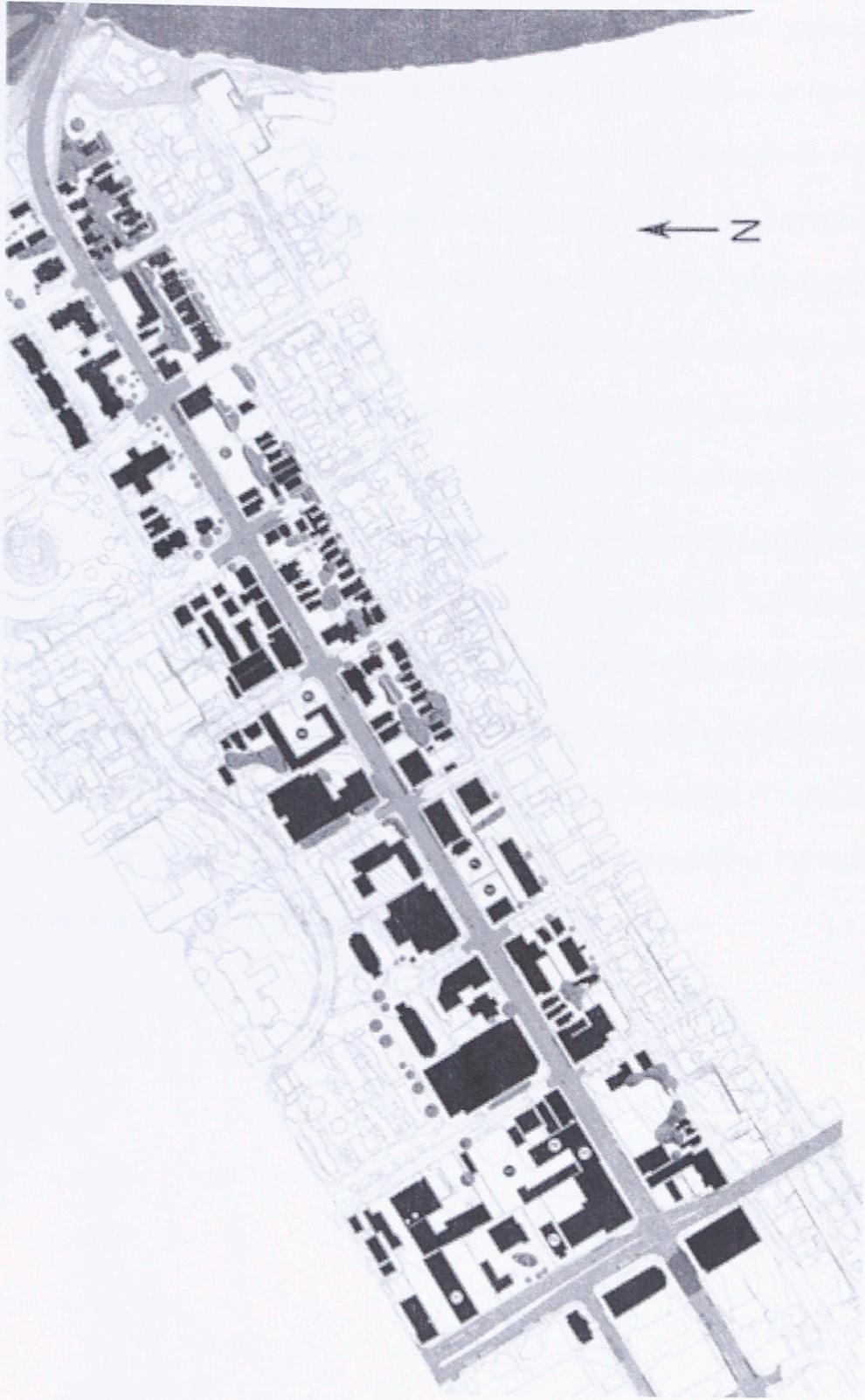
<sup>102</sup> Rowe and Koetter, 139.

those who chose to walk between venues, the distance between locations meant that if someone by chance arrived at the wrong venue, they would not have adequate time to reach their desired location in time for the screening they wished to attend. The venues used in 2010 include: The Chateau Laurier as the most central location, the National Archives to the southwest, the Museum of Civilization in Gatineau to the northwest, the National Gallery of Canada, Empire Theatres in the Rideau center to the east, the Arts Court still further east (also the location of the OIAF offices), the Bytowne Cinema to the northeast, as well as various social venues located in the Byward Market to the north. The Bytowne cinema, located at the intersection of Rideau and King Edward, is the largest venue utilized by the festival and acts as the host location for the gala events, despite being far removed from the other venues. Neall explained that the OIAF feels it is important to reach out to the general public and to try to generate interest in the festival outside of the animation profession. It stands to reason that a significant detriment to this cause is the helter-skelter nature of the festival venues. If the festival could be centralized in a particular location, it would be more open to those of modest interest who, when immersed in the festival environment, may stumble upon events or screenings rather than needing to plan out their itinerary before hand.



Dispersion of venues used for the Ottawa International Animation Festival in 2010.

The second existing condition is that of Rideau Street between King Edward and the Rideau River. This section of Rideau Street is particularly underutilized and would benefit greatly from an urban renewal strategy. The site is located a short distance to the northeast of prominent Ottawa locations such as Downtown Rideau and the Byward Market areas. To the south of the site is the Sandy Hill neighbourhood and the Ottawa University campus and student housing areas. Despite being surrounded by these landmarks, the urban corridor running along Rideau Street between King Edward and the Rideau River lacks an identity of its own. The site however does provide certain conditions that could accommodate an urban festival site. As a site for the OIAF, there are existing venues that can be used, including the Bytowne Cinema, which anchors the site at the King Edward intersection, as well as two other possible venues on the same block, the Seventh Day Adventist Church and the small French theater, Nouvelle Scene, on King Edward. Located in the central area of the site are a variety of ethnic and fast food restaurants, as well as smaller businesses that would benefit greatly from an annual urban festival. The urban fabric contains suitable interstitial spaces that could also accommodate temporary event structures. Situated in the most northeastern section of the site is an existing catering company, which could be employed for social functions, as well as several suitable locations for the development of permanent structures. The proposal presents a design for a permanent Festival Building, temporary/adaptable event structures, as well as possible condominium development in order to finance the Festival Building and urban strategy as a whole.



Proposed Site: Rideau Street from King Edward to the Rideau River.

The proposal operates as an urban renewal strategy that appropriates and reorganizes the OIAF program around the inherent qualities of the existing urban corridor of Rideau Street between King Edward and the Rideau River. By doing this, the resulting urban festival site will create a new synergetic whole between the now fragmented OIAF event and the east Rideau Street, benefiting both the OIAF and the city. This urban strategy is designed specifically to accommodate the programmatic requirements of the OIAF, but ultimately the project proposes an open and adaptable framework that will be able to accommodate various types of festivals. The intent is not to restructure the urban space simply for the OIAF, but rather to turn the urban space itself into a synaesthetic event that will be transformed regularly in order to accommodate various festivals throughout the year. The proposal capitalizes on its close proximity to Downtown Rideau, the Byward Market, and communities such as Ottawa University. The development of a fixed urban festival site will also benefit the capital's various festivals in that a prominent urban setting will inevitably open the festivals to a wider audience.

## Scene 2: Festival Building and Temporary Event Structures

"Thinking of films and buildings as metastable systems of potential available for indefinite transductive conjugation leaves them open to emergence, to genuinely participative encounter and to indefinitely creative engagement."<sup>103</sup>

- Michael Tawa

The project consists of two main elements: a permanent Festival Building to be located on a vacant lot defined by Rideau and Charlotte Streets at the northeast end of the site, and a series of temporary structures to be erected in the central portion of the site. The Festival Building is multi-purpose, and while it has some fixed programming, it is comprised primarily of spaces that are easily adapted to accommodate the many different types of festivals that occur in Ottawa. Fixed programs include: office space, meeting rooms, and kitchen space for the various festivals that will utilize the site. It has a large multi-purpose space that can be acclimated to multiple functions such as conferences, art exhibits, social events, or workshops etc. On the second storey overlooking the street, there are segregated spaces that can operate individually as meeting spaces, workshop rooms, galleries or myriad other uses, or conversely, they can be linked together for uses that do not require a large unified space but interconnected modular spaces. The northeast volume of the building houses a multi-purpose theater that can host cinematic, theatrical or musical events, offering backstage access through an entrance off of Besserer Street. All of these spaces pivot around a central atrium space, which

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<sup>103</sup> Tawa, 40.

serves as the primary entrance for theatrical, cinematic, and musical events as well as accessing the large multi-purpose space. The second storey cantilevers toward the street, resulting in a large cavernous space that meets the street with a grand staircase leading up to the atrium and the large multi-purpose space. This disposition towards the street relinquishes the hard edge that typically confronts it by many buildings, and instead frames the street in such a way that it itself becomes an event space. The grand stairs double as potential event seating, foreseeing the street itself becoming the site of a temporary concert venue, cinema screen, or theatrical stage. In this sense, the multi-purpose Festival Building becomes not only a design conditioned by the restrictions of the site in which it is situated, but instead it generates its own spatial conditions in correlation with the street. The Festival Building of course will need plenty of storage space to accommodate the equipment required for various conference and social event setups, as well as props and stage equipment. The basement level will be dedicated to the storage of equipment and furnishings that can be accessed by passenger and service elevators located off of the main atrium space. The lower level storage space can also be accessed by a large loading and unloading area available off of Besserer Street; also providing direct access to the backstage of the enclosed performance theater. As well as storing equipment for use with the Festival Building itself, the storage space will be utilized to house the parts of the temporary event structures that will be erected and dismantled depending on the requirements of the varying festivals to be held on the site. This will reduce transportation and erection costs and also allow for the gradual accumulation of temporary structural elements, over time increasing the



Festival Building site (top) and Festival Building as seen from Rideau Street (still from accompanying video).

flexibility of the urban festival site's potential permutations.

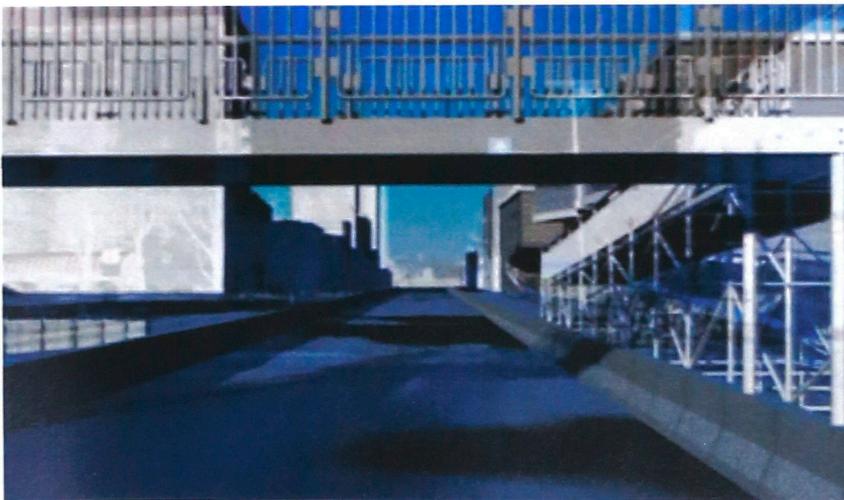
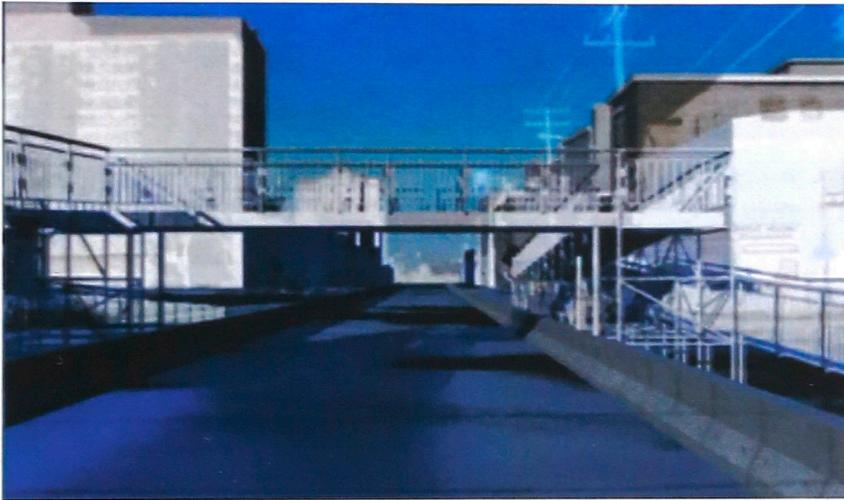
The temporary event structures in this project proposal are designed specifically for the OIAF, in order to accommodate the screening capacities that are not met by the existing venues on the site or the permanent Festival Building. The utilization of two high capacity screening venues in the Bytowne Cinema, and the Festival Building, as well as potential smaller capacity venues in the 7<sup>th</sup> Day Adventist or Nouvelle Scene, means that the supplementary temporary screening venue can be of modest size to meet the OIAF's needs. The temporary screening structure is to be located on the block defined by Rideau and Friel Streets, which is the largest available interstitial space on the site. The site, which is normally utilized as a parking lot, will be repurposed as a site for the temporary structure, as traffic will be removed and diverted from the site for the duration of the OIAF. The site steps up to the northeast, creating a tiered grade level as well as being defined to the south by a large retaining wall. The conditions of the site make it suitable to being adapted into a tiered seating theater that can utilize the stepped quality of the site. Several smaller scale temporary structures will be erected to the northeast of the temporary screening structure at Rideau and Friel in order to accommodate installations, boutiques and social event space.



Temporary event structures (stills from accompanying video).

The site will be closed off to vehicular traffic except for a throughway delineated by temporary roadside barriers, while the two sides of the street will be connected by a series of ramps and bridges in order to accommodate pedestrian foot traffic. The orchestration of vehicular and pedestrian traffic flows will allow for different vantages of the site, where the vehicular view will offer a reading of the site as a continuous flow, and through the pedestrian view the site will be experienced with a peripatetic rhythm. As with the other temporary structures being erected specifically for the animation festival, the structures used to control traffic and pedestrian flows will be dismantled and re-appropriated for use based on the requirements of the varying subsequent festivals.

In conjunction, the multi-purpose Festival Building, the temporary event structures, and temporary ramps and walkways, will offer much flexibility to the design of the urban festival site. The result is an urban design strategy that is specifically tailored to the programmatic requirements of the OIAF, but remains open and adaptable to other programs, types of event spaces, and varying pedestrian and vehicular traffic flows. The site in essence becomes a 'metastable system of potential'. The urban space is framed through the generalized theme of a festival site, where the physical form that the site takes on is in correlation with the specific programmatic requirements of each festival that takes place within it. By designing the conditions for the adaptability of the urban space, rather than conditioning the design for the specificity of a singular event the site becomes engendered with the conjugational potential for continual metamorphosis.



Temporary structures to facilitate vehicular and pedestrian traffic flows (stills from accompanying videos).

### Scene 3: Reception and Representation

“Frames, assemblages and setups always comprise of actual and potential components and capacities. In conjugation these can promote multiple readings, multiple tectonic effects and multiple spatial narratives.”<sup>104</sup>

- Michael Tawa

The city read as collage, that is an assembly of heterogeneous objects whose relationships are revealed through the changing frame of reference of a voyeur-voyager, creates the potential for multiple-viewings and various readings of urban space. Tawa explains that architecture is:

“experienced by individuals and collectives whose engagement is largely kinaesthetic and multi-sensory. The sequencing of experience in architecture, or the spatial sequences and narratives it makes available – although evidently limited in many ways – are open to multiple possibilities of trajectory, rhythm and infiltration. Architectural experience will generally be of self-consistent subject whose ultimately unknowable subjectivity conditions the visual regime they deploy, the equally unknowable and unpredictable points of view they take up, the circuits they trace and the tempo of their movement. They will be engaged to a greater or lesser extent in the milieu depending on their functional, recreational, commercial or other disposition towards it.”<sup>105</sup>

In this sense, the cinematic reception of the city is more akin to the multi-screen installations seen at the *Labyrinthe* pavilion at Expo 67 than the single frame videos and films that predominate commercial cinema. In such an environment, the excess of stimuli requires participation on the part of the viewer in order to make sense of the phenomenon as a whole. The cinematic city inherently exceeds any one

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<sup>104</sup> Tawa, 130.

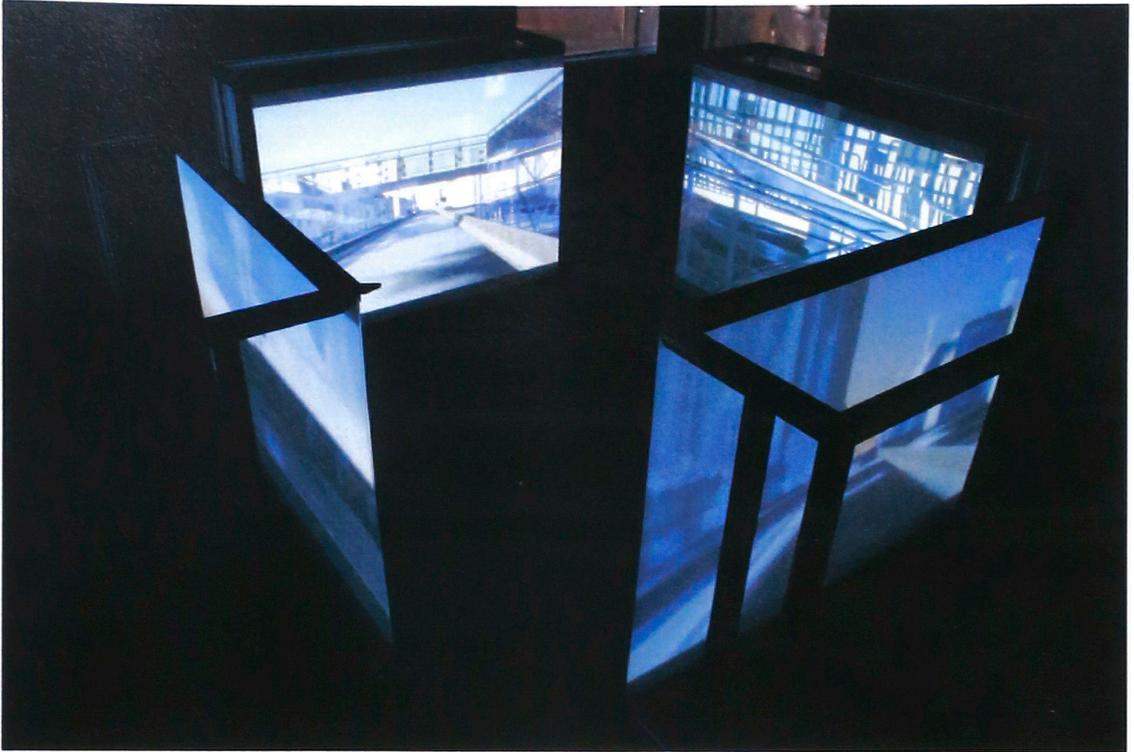
<sup>105</sup> Tawa, 2.

person's perceptual capacity due to the multiplicity and simultaneity that characterizes urban spaces.

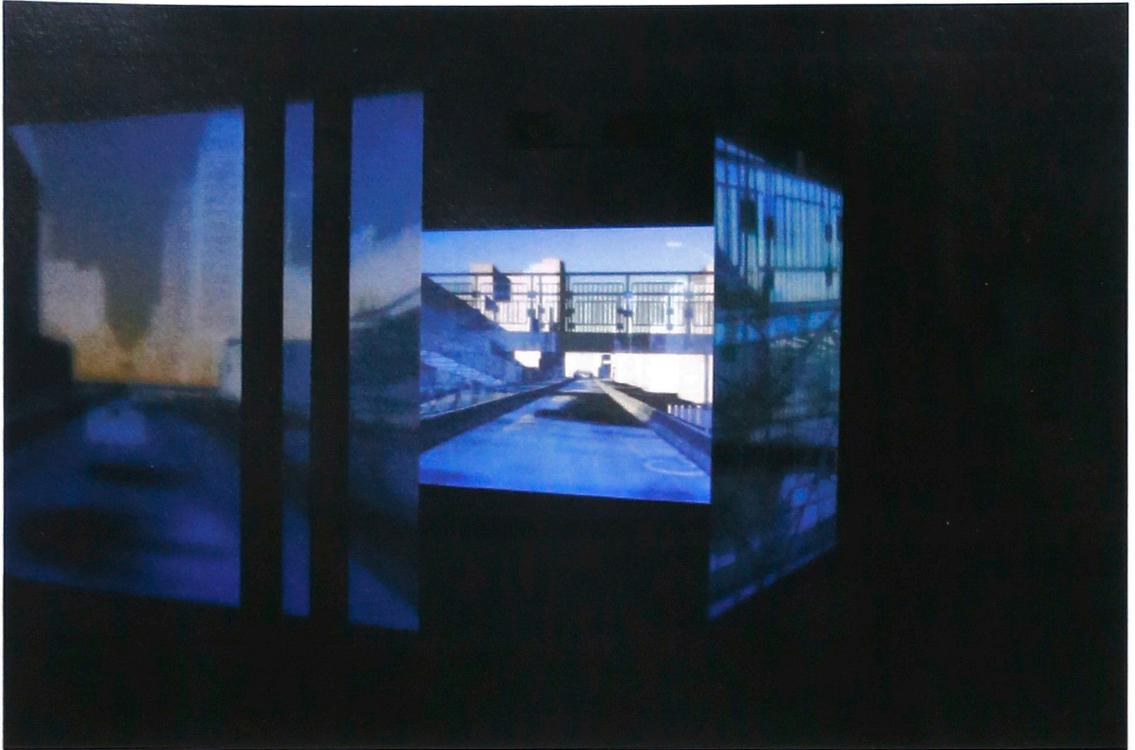
The representational techniques used for this project are based on the described qualities of simultaneity and multiplicity inherent in the cinematic reception of the city. The first setup is related to the potential frame of reference of the viewer's eye. It is akin to the cruciform screens utilized at *Labyrinthe*, however it is organized as a field of potential frames of reference similar to the notion of the sequence-image. The setup facilitates multiple viewings, in that the movements of the varying frames, within a frame, are outside of the perceptual capacity of any one person; this creates the potential for each viewing to accumulate a different built-up image-sequence in concert with the disposition of the viewer. The second setup is related to the position of the viewer's body in relation to the object. The shooting of the video footage required to create this setup utilized a similar apparatus to that created for the *Labyrinthe* cruciform screens, with four cameras as opposed to five. The immersive setup is akin to perceiving the site through the automotive lens, where each movement through the site offers a different reading depending on the screens in which the viewer is engaged. Both of the representational setups visually communicate the cinematic experience of the urban collage as assembled through its motion.



Project composed as sequence-image (stills from accompanying video).



Multi-screen projection setup.



Multi-screen projection setup.

## Epilogue

As this thesis progressed and became increasingly pointed and focused, it also developed into a much more generalized idea for an approach to architectural design. This eventual trajectory is not overly surprising considering that the cinematic theories explored in this thesis are themselves explicitly concerned with the development of generalized visual languages that frame a certain way of looking. For Eisenstein, his theorization of montage not only affected his approach to filmmaking and film critique, but it also became activated as a means of reading and analyzing such things as poetry, painting and architecture. Likewise, Youngblood's notion of synaesthetic cinema became useful for the analysis and articulation of the cinema-architecture environments that were developed for Expo 67, as well as the developing intermedia environments that the exposition would foreshadow. Similarly, the notion of the sequence-image was approached in much the same way, where it became a means of framing a particular disposition towards the analysis and conceptualization of an urban design project.

As a result, the project of architecture developed in this thesis shifted its focus towards the representation of the generalized idea as opposed to the specificity of traditional architectural representation; that is, it became more concerned with structure over content, where what was seen was perhaps less important than how it was seen. Despite the significant time and consideration that was put into the design of the numerous elements within the project as a whole, the ideas developed

in the thesis would seemingly have been lost if it had been represented through traditional means. The methods used for the representation of this thesis project also contain a latent potential for more specific architectural design and further research. Particularly, the layering of video footage and digital space amounts to a marriage between structure and content that could be explored further as a means of articulating architectural facades or spatial sequences that are experienced cinematically through movement.

By approaching the thesis itself as a frame that intuits a particular disposition towards the analysis and conceptualization of architecture and urban space, it intrinsically contains a latent potential for approaching design at various scales. Like Eisenstein and Youngblood's theoretical writings, this thesis purports a descriptive rather than a prescriptive strategy for approaching architectural design.

## Bibliography

Agamben, Giorgio. *What Is an Apparatus?: and Other Essays*. Stanford, CA: Stanford UP, 2009. Print.

Benjamin, Walter. *The Work of Art in the Age of Mechanical Reproduction*. London: Penguin, 2008. Print.

*Berlin, Symphony of a Great City*. Dir. Walther Ruttmann. Europa, 1927. Divx.

Burgin, Victor. *The Remembered Film*. London: Reaktion, 2006. Print.

Dear, Michael J. *The Postmodern Urban Condition*. Oxford: Blackwell, 2000. Print.

Eisenstein, Sergei. *Towards a Theory of Montage: Sergei Eisenstein Selected Works*. Ed. Michael Glenny and Richard Taylor. [S.l.]: I B Taurus, 2010. Print.

"Highway Statistics 2004 - Licensed Drivers, Vehicle Registrations and Resident Population - Chart." *Federal Highway Administration*. Web. 11 Aug. 2011.  
<<http://www.fhwa.dot.gov/policy/ohim/hs04/htm/dlchrt.htm>>.

Klima, George J. *Multi-media and Human Perception*. Elnora, NY: Meridian, 1974. Print.

Lord, Susan, and Janine Marchessault, eds. *Fluid Screens, Expanded Cinema*. Toronto: University of Toronto, 2007. Print.

*The Lumiere Brothers' First Films*. Dir. Louis Lumiere and Auguste Lumiere. Kino International, 1996. MPEG.

*Man with a Movie Camera [motion Picture]*. By Dziga Vertov. 1928. Mpeg.

McQuire, Scott. *The Media City: Media, Architecture and Urban Space*. Los Angeles (Calif.): Sage, 2008. PDF.

*Ottawa International Animation Festival*. Web. 11 Aug. 2011.  
<<http://www.animationfestival.ca>>.

Pallasmaa, Juhani. *The Eyes of the Skin: Architecture and the Senses*. Chichester: Wiley-Academy, 2005. Print.

Rowe, Colin, and Fred Koetter. *Collage City*. Cambridge, MA: MIT, 1978. Print.

Sachs, Wolfgang. *For Love of the Automobile: Looking Back into the History of Our Desires*. Berkeley: University of California, 1992. Print.

Schmalenbach, Werner. *Kurt Schwitters*. New York: H.N. Abrams, 1970. Print.

Schwarzer, Mitchell. *Zoomscape: Architecture in Motion and Media*. New York: Princeton Architectural, 2004. Print.

Simmel, Georg. *Simmel on Culture: Selected Writings*. Ed. David Frisby and Mike Featherstone. London: Sage Publications, 1997. Print.

Tawa, Michael. *Agencies of the Frame: Tectonic Strategies in Cinema and Architecture*. Newcastle: Cambridge Scholars Publ, 2010. Print.

Temelova, Jana. *Flagship Developments as the Physical Upgrading of Post-Socialist Inner City: The Golden Angel Project in Prague*. Rep. Prague: Department of Social Geography and Regional Development, Faculty of Science, Charles University of Prague, 2005. PDF.

Tschumi, Bernard, and Irene Cheng. *The State of Architecture at the Beginning of the 21st Century*. New York: Monacelli, 2003. Print.

Tschumi, Bernard. *Architecture and Disjunction*. Cambridge, MA: MIT, 1996. Print.

Tschumi, Bernard. *Event-cities: Praxis*. Cambridge, MA: MIT, 1994. Print.

Tsivian, Yuri. *Lines of Resistance: Dziga Vertov and the Twenties*. Gemona, Udine: Le Giornate Del Cinema Muto, 2004. Print.

Turvey, Malcolm. *The Filming of Modern Life: European Avant-garde Film of the 1920s*. Cambridge, MA: MIT, 2011. Print.

Updike, John. *Rabbit Is Rich*. New York: Knopf, 1981. Print.

Virilio, Paul, and Michael Degener. *Negative Horizon: an Essay in Dromoscopy*. London: Continuum, 2007. Print.

Virilio, Paul. *War and Cinema: the Logistics of Perception*. London: Verso, 1989. Print.

Walker, Enrique, and Bernard Tschumi. *Tschumi on Architecture: Conversations with Enrique Walker*. New York, NY: Monacelli, 2006. Print.

Wolf, Virginia, and Rachel Bowlby. *Orlando: a Biography*. Oxford: Oxford UP, 1992. Print.

Youngblood, Gene. "Cinema and the Code." *Computer Art in Context Supplemental Issue* (1989): 27-30. PDF.

Youngblood, Gene. *Expanded Cinema*. New York: Dutton, 1970. PDF.