

Article

“Cinematic Space and Time in the Age of Neoliberalism”

Mitsuhiro Yoshimoto

Abstract

The cinematic representation of space and time is one of the fundamental issues in critical discourses on film. Since the early years of film history, how cinema represents time and space has drawn the attention of many film theorists, practitioners, and scholars trained in a wide variety of academic fields. Although it was always vital for the purpose of elucidating the so-called medium specificity of film, the spatio-temporality of cinematic images is particularly now reemerging as an urgent issue due to the advancement in digital imaging technologies and the impact of globalization. As is frequently the case when watching contemporary Hollywood cinema, the viewers are routinely challenged to make sense of intricately organized temporal structure and spatial relationships. Where does this spatio-temporal complexity come from? Why is contemporary Hollywood cinema inundated with so many images of complex time and space? How should we approach so-called puzzle films and their treatment of spatio-temporal undecidability? As a preliminary step toward answering these questions, this paper examines the treatment of cinematic space and time in contemporary film theory, especially the works of Noël Burch and Stephen Heath. After the possibilities and limitations of their theoretical intervention are critically discussed, the focus of the discussion will be shifted to the interrelationship among cinema, cities, and architecture in an attempt to further explore the distinctive characteristics of cinematic space and time. The objective of the paper is not to solve narrative enigmas of any concrete films, but to come up with preliminary ideas for a theoretical framework, within which it becomes possible to elucidate what is fundamentally at stake in the recent proliferation of complex storytelling and spatio-temporal puzzles in contemporary Hollywood movies.

I.

The cinematic representation of space and time is one of the fundamental issues in critical discourses on film. Since the early years of film history, how cinema represents time and space has drawn the attention of so many film theorists, practitioners, and scholars trained in a wide variety

of academic fields. Although it was always vital for the purpose of elucidating the so-called medium specificity of film, the spatio-temporality of cinematic images is now reemerging as an urgent issue. For the advancement in digital imaging technologies and the impact of globalization are radically changing the spatio-temporal parameters of the reality effect in film. As is frequently the case when watching the contemporary Hollywood cinema, the viewers are routinely challenged to make sense of intricately organized temporal structure and spatial relationships. The difficulty of clarifying the narrative enigma—especially in Hollywood’s “puzzle films” but not necessarily limited to them—is often directly linked to the complexity of time and space.¹ For example, a hero in the present must fight his older self from the future (*Looper* [2012]); the spatio-temporal status of a scene is undecidable because it is not clear if it belongs to a real world or to characters’ dreams (*Inception* [2010]); the same eight-minute period is repeated again and again with the more or less—but not completely identical—sequence of events culminating in the fatal explosion of a terrorist implanted bomb (*Source Code* [2011]); a supposedly “at-a-distance” analysis of the already finished past turns out to be a voyeuristic, real time intervention in the past at the moment of its actual happening (*Déjà Vu* [2006]); an action sequence is inordinately elongated so that time no longer functions as a narrative’s driving force (*A Good Day to Die Hard* [2013]); multigenerational stories of reincarnation are narrated in a nonlinear, fragmentary fashion (*Cloud Atlas* [2012]); the fate of the earth and mankind is closely linked to the five dimensional spacetime (*Interstellar* [2014]). In these and so many other contemporary Hollywood movies, space and time do not function as a transparent framework within which a narrative unfolds itself; instead, it is precisely the fundamental undecidability of spatio-temporal relationships that appears as the center of the narrative’s own (im-)possibility.

Where does this spatio-temporal complexity come from? Why is contemporary Hollywood cinema inundated with so many images of complex time and space? How should we approach puzzle films and their treatment of spatio-temporal undecidability? To answer these questions, a close textual analysis of individual films is not enough. Before embarking on such endeavor, we need to reexamine the basic principles of cinematic space and time. Therefore, in what follows, instead of trying to disentangle the intricate spatio-temporal relationships in particular puzzle films, we will take another look at the treatment of cinematic space and time in contemporary film theory, particularly the works of Noël Burch and Stephen Heath. After considering in detail the possibilities and limitations of their theoretical intervention, we will shift our attention to the interrelationship among cinema, cities, and architecture in order to further explore the distinctive characteristics of cinematic space and time. The objective of this article is not to “solve” narrative enigmas of individual films, but to come up with a theoretical framework which enables us to see what is fundamentally at stake in the recent proliferation of complex storytelling and spatio-temporal puzzles in contemporary Hollywood.

II.

First published in France in 1969, and then translated into English in 1973, Noël Burch's *Theory of Film Practice* was a key text for the development and institutionalization of film studies in the US, and still remains one of the most important attempts to analyze spatio-temporality in film. It exemplifies the formalist approach at its best whereby Burch carefully dissects the formal specificity of film without falling into the trap of finicky academicism. In what he regards as the book's seminal chapter, Burch argues that the sequence of two edited shots can give rise to five types of temporal and three types of spatial articulations. The former include: temporal continuity, measurable ellipsis, indefinite ellipsis, measurable time reversal, and indefinite time reversal. Burch explains the first type, a continuous shot transition, as follows: "If shot A shows someone coming up to a door, putting his hand on the doorknob, turning it, then starting to open the door, shot B, perhaps taken from the other side of the door, can pick up the action at the precise point where the previous shot left off and show the rest of the action as it would have 'actually' occurred, with the person coming through the door and so on."² However, even if the action captured in shot A and that in shot B graphically seem to match with each other perfectly, we have no way of knowing, based solely on our observation of what is visible on the screen, the exact temporal relationship between the two shots. It is perfectly possible, for instance, that the action depicted in shot B occurs ten years after that in shot A. Or shot A and shot B may depict two different parallel worlds, so that the idea of temporal continuity itself becomes highly problematic. What in the end guarantees temporal continuity in this example is not any formal components of the edited sequence. It is primarily through the imposition of a particular interpretive assumption that a continuous temporal flow emerges in the transition from shot A to shot B. Put differently, the internal formal characteristics cannot by themselves determine the temporality of an edited sequence; instead, what is far more important is the external temporal model that is used as a framework within which the relationship between shot A and shot B is interpreted.

The significance of the external temporal model becomes further apparent in the case of the second type of shot transition, measurable ellipsis, which does not show a continuous sequence of action in its entirety but cuts out part of the sequence for narrative efficiency. As Burch points out, many conventional films "frequently use this technique as a means of tightening the action, of eliminating the superfluous. In shot A someone might perhaps start up a flight of stairs, and in shot B he might already be on the second or even the fifth floor."³ Significantly, according to Burch, the approximate length of left-out time in such ellipsis is measurable. In the case of either someone walking up stairs or entering at the door, writes Burch, "we become aware of the existence of a temporal discontinuity or gap as a result of the spatial continuity having been forcefully enough maintained to allow the viewer to determine mentally that some portion of a continuous action has been omitted and even enable him to 'measure' the actual extent of the omission."⁴ But, again, what makes measurement possible is not primarily some intrinsic features of film form or visual

cues on the screen. We may be able to “measure” the omitted time and come up with some specific number (e.g., a half second missing in the door opening scene, one minute in the example of the stairs) because we intuitively reconstruct an entire scene relying on a particular—external—model of spatio-temporality which exists independent of the edited sequence’s formal components. What Burch’s discussion makes us see is, therefore, that film is not a self-enclosed autonomous system. The internal formal features alone cannot guarantee the coherence of film’s spatio-temporality; that is, without reference to an external model of space-time relationship, the construction of filmic space and time forever remains incomplete.

The continuity editing is not the only system of filmic space and time which produces and relies on the model of time as a linear progressive flow. We can observe other possibilities in Burch’s discussion on “time reversal,” an example of which is a short overlapping cut: “shot A might have included the entire action up to the moment of going through the door, with shot B going back to the moment when the door was opened, repeating part of the action in a deliberately artificial manner.”⁵ Then, there are much more overt types of overlapping cut frequently found, for instance, in the works of Sergei Eisenstein. In Eisenstein’s *Battleship Potemkin* (1925), we see, in violation of conventional rules of filmic realism, a single sequence of action quickly repeated twice, creating an effect of temporal overlap. Although such temporal repetition is not necessarily an unusual technique in the so-called continuity editing, the objective of repetition in Eisenstein’s editing differs from that of a split-second overlap in conventional films. The continuity editing routinely uses the technique of overlap to make viewers not perceive a temporal gap or discontinuity between two shots, that is, to create the illusion of a smooth linear flow of time despite physical discontinuities produced by shot changes. Even though a repetition of the same action may seem to destroy the illusion of reality, the short overlap is actually a common “means of preserving *apparent* continuity.” As Burch points out, “a few frames of the action may be omitted or repeated in order that the filmed action may seem more smoothly continuous than would have been the case had the shot been picked up *precisely* where the previous one left off.”⁶ Repetition is clearly visible if we examine a shot transition closely, but under normal viewing circumstances, it eludes our perception. In contrast, the temporal repetition in *Battleship Potemkin* draws overtly the viewers’ attention to itself. But this does not necessarily mean that *Battleship Potemkin* is, because of its repetition of the same action and overlapped time, an unnatural or anti-realist film. Eisenstein’s film is certainly different from conventional narrative films, yet the visible marking of temporal repetition in itself does not automatically pose a fundamental challenge to the normative status of linear temporality. The apparent temporal repetition actually functions as a rhetorical device for highlighting the underlying meanings or affect, but what makes this rhetorical intervention possible is precisely a steady flow of linear progressive time imaginarily imposed on the film from the outside. The rhetoricity of repetition becomes recognizable as such when its effect is measured against the external linear temporal flow running parallel to the film’s internal time.

Seemingly defying the spatio-temporality of conventional films, the overlapping cut as a rhetorical device actually complements and reinforces the rule of what it allegedly puts into question.

The point of the discussion so far is not at all to claim that Burch has failed to understand the fundamental mechanism of spatio-temporal articulation in film. On the contrary, because of the lucidity of his analysis, we can learn valuable critical insight from his seminal book; that is, he enables us to recognize the existence of an inseparable relationship between filmic space-time and a dominant model of space-time organizing the viewer's experience at a given historical moment. If there is a limitation in his analysis, it is a lack of sufficient discussions on the contingent nature of the external spatio-temporal model which is supposed to guarantee the coherence of the spatio-temporality constructed by the continuity system of film. But as is reflected in the following remark from the new forward he wrote for the 1981 republication of the book, Burch is hardly blind to the weakness of his original analysis.

The source of embarrassment here is simple enough to name: formalism. A formalism of the worst kind, which might also be called "musicalism" or, perhaps most precisely, *flight from meaning*. The book is shot through with a paradox: on the one hand, a neurotic rejection of "content" (a rejection which, autobiographically, may be seen to have stemmed from a studied ignorance and *fear* of the political), and, on the other, an equally neurotic insistence on finding abstract, quasi-musical values in...mainstream cinema.⁷

Formalism underlying his analysis does not necessarily make him blind to meanings produced by particular editing patterns or spatio-temporal relations articulated by formal components. Instead, what is not sufficiently theorized in his original argument is how content fundamentally constrains or opens up the formal possibilities of spatio-temporal articulations.

What exactly is wrong with formalism? Where can we actually discern the blindness of formalism in Burch's discussions on spatio-temporal articulations? The problem with formalism is not its alleged obsession with what is directly observable at the expense of what is interpretable. We cannot overcome the limitations of formalism by stopping our "flight from meaning" and merely start examining form and content at the same time. A simple description of formal components, let alone a close analysis of formal structure, absolutely requires reference to content. Formalist categorization, which is supposedly free from the contingency and impurity of content, in fact always hinges on interpretation of content. Form and content permeate each other so thoroughly that, as we cannot isolate "the exact color of an object" from "the substance of which it is made" (Maurice Merleau-Ponty), it becomes impossible to separate form and content clearly as two autonomous elements.

How could we define the exact color of an object without mentioning the substance of which it is made, without saying, of this blue rug, for example, that it is a “woolly blue”? Cézanne asked how one is to distinguish the color of things from their shape. It is impossible to understand perception as the imputation of a certain significance to certain sensible signs, since the most immediate sensible texture of these signs cannot be described without referring to the object they signify.⁸

What Burch regards as purely formal dimensions are in reality imbued with content. Without interpreting—either consciously or intuitively—pertinent aspects of the edited sequence’s content, it is not possible to have even a rudimentary sense of space-time.

As observed above, the filmic space-time cannot be a self-constituted, autonomous system of its own. On the one hand, the viewers’ perception of filmic spatio-temporality is inescapably influenced by their daily spatio-temporal experience. On the other hand, the construction of spatio-temporal relations in film fully takes advantage of a dominant spatio-temporal relation underlying the everyday of film viewers as its constitutive element. To these characteristics, we need to add another important observation; that is, no clear boundary separates the interior space-time of film from the exterior space-time of reality. The interior and the exterior are mutually permeable with each other.

Take, for instance, the role of so-called off-screen space. Supposedly existing beyond the four sides of a rectangular-shaped screen, off-screen space cannot by definition be directly perceived by audiences. Nonetheless, this imaginary extension of on-screen space beyond the screen’s frame is absolutely necessary for articulation of filmic space and time. The spatio-temporality of film is always constituted by both an imaginary off-screen space and a “real” on-screen space. If nothing can be imagined to exist outside the screen’s four sides and what is visible on the screen is all there is to it, film would be nothing more than an art of two dimensional graphic design with some movement and sound effect. If there is an outer limit of the world, the film’s spatio-temporal system collapses. (Films such as *The Truman Show* [1998], *The Thirteenth Floor* [1999], and *Inception* allegorically portray this fundamental law of film as a spatio-temporal continuum). This is why film is often regarded as a virtual window to the world.¹⁰ This metaphor of film as window seems to work well not primarily because it sums up the film’s special ability to show the difficult-to-perceive aspects of the world satisfactorily but because it captures the fundamental conditions of filmic space and time which can come into existence only as part of the infinitely extending space and time. However, this apparently self-evident relation is easily reversible. Whereas the spatio-temporal reality of on-screen space is transitorily produced by projected images, the space extending beyond the screen’s frame is the actual social space. In this sense, what is real is off-screen space, and on-screen space imaginary. It is precisely because of this reversibility that the popular metaphor of film as window is ultimately unsatisfactory; that

is, the metaphor fails to capture a dialectic of real and imaginary, inside and outside. Although it is absolutely necessary, the idea of off-screen space still needs to be treated carefully because by transforming the externality of space into a formal aspect of film it can easily end up reifying the screen's frame as a physical boundary and the filmic articulation of space as an autonomous system.

III.

The theory of the cinematographic apparatus or so-called apparatus theory, whose main proponent is Jean-Louis Baudry, is at first glance very attentive to the importance of cinematic space.¹⁰ But very quickly, it becomes clear that the filmic construction of space is in fact the least of its concerns. By focusing on very specific models of physical and imaginary space, the apparatus theory claims that cinema as an ideological apparatus transforms the spectator into a transcendental subject. According to the apparatus theory, cinema inevitably produces a transcendental subject because of the optical properties of the camera and a highly rigid spatial configuration characterizing the viewing experience at a movie theater. Like prisoners in Plato's cave, the cinematic viewers are trapped inside the darkened space. While a film is being projected, they all sit in their chairs quietly and gaze at the screen in front. Although not completely deprived of the freedom of movement (they are not, after all, strapped to their chairs), the viewers are nonetheless expected to remain seated in a virtually immobile state during a screening, and not supposed to look at the source of projected images, i.e., the projector set in the very back of the theater. By identifying with the camera, the viewers become an omniscient, all-seeing eye without body. Because of the spatial configuration consisting of the screen, the viewers, and the projector/camera on the one hand, and the perspectival space produced by the camera lens on the other, the viewers become the transcendental center, on which all the knowledge of the world converges, and from which omniscient power emanates. But in reality, again like Plato's prisoners, the viewers remain totally blind to the real conditions of their own existence, mistaking omniscience as their own faculty rather than as an ideological effect of the cinematographic apparatus.

I have no intention of giving a full-scale criticism of the apparatus theory since there exist a number of excellent critical responses to it already.¹¹ Here I will just discuss aspects of the theory relevant to our examination of cinematic space and time briefly. The most obvious problem with the apparatus theory is its technological determinism. The transcendental subject, which is allegedly constructed by the cinematographic apparatus, has no connection to history or culture. The perspectival space is uniformly constructed by the cinematographic apparatus, and regardless of what film they are watching, where and when they are watching it, how they are reacting to it, etc., the viewers have no choice but to occupy a predetermined imaginary position within this space while mistakenly believing that they can respond to the film in any way they want as free

individuals. Furthermore, since the construction of the transcendental subject is all technologically determined, a type of spatio-temporal analysis Burch performs in *Theory of Film Practice* is also irrelevant from the perspective of the apparatus theory. What Burch regards as material form would be, according to the apparatus theory, nothing more than imaginary content, which may generate various interpretations but is in the end subsumed under the general ideological effect of the cinematographic apparatus.

Ultimately, the apparatus theory's conceptualization of the movie theater is too simplistic. Unlike Plato's prisoners, the movie audiences are not trapped inside. As they freely come and go, the theater is only a transitory place for them. It is therefore completely arbitrary to posit the walls of the movie theater as some kind of absolute boundary separating the ideological space constructed by the cinematic apparatus and the social space existing outside the cinematic space. The walls cannot absolutely cut off the outside social space's effect on the viewers' cinematic experience inside the movie theater, and the effect of the cinematic space in turn cannot be contained within the interior space of the theater absolutely. The apparatus theory ends up perpetuating the problematic images of mass somnambulism and political awakening, which, as Jonathan Crary explains, have long been used as a figurative representation of the difficulty of the political in modern society. Crary writes:

Images of a society of sleepers come from the left and right, from high culture and low, and have been a constant feature of cinema from *Caligari* to *The Matrix*. Common to these evocations of mass somnambulism is the suggestion of impaired or diminished *perceptual* capabilities combined with routinized, habitual, or trance-like behavior.... At the same time, most notions of political awakenings are considered equally disturbing, in that they imply a sudden and irrational conversion-like process. One has only to remember the main election slogan of the Nazi Party in the early 1930s: "Deutschland Erwache!" Germany awake!¹²

According to the apparatus theory, the physical property of a camera lens and the spatial configuration of a movie theater together contribute to the deterministic regime of perspectivalism. In his ground-breaking article titled "Narrative Space," Stephen Heath, however, tries to show that perspectivalism may work very well as ideology but has little to do with the actual construction of cinematic space.¹³ According to Heath, cinematic perspectivalism is essentially about the paramount importance of the camera as an apparatus of vision scientifically producing—based on optics and geometry—the reality effect of represented space. It argues that the artificially constructed space of cinematic perspectivalism looks so real and transparent because of the similarity between camera and human eye. But as is persuasively pointed out by Heath, this analogy simply does not hold.

In fact, of course, any modern scientific description of the eye will go on to indicate the limits of the comparison. Our eye is never seized by some static spectacle, is never some motionless recorder; not only is our vision anyway binocular, but one eye alone sees in time: constant scanning movements to bring the different parts of whatever is observed to the fovea, movements necessary in order that the receptive cells produce fresh neuro-electric impulses, immediate activity of memory inasmuch as there is no brute vision to be isolated from the visual experience of the individual inevitably engaged in a specific socio-historical situation.¹⁴

In addition to these differences, cinema poses an insurmountable challenge, i.e., movement. Cinema is a medium of radically decentered and unstable images. For instance, the camera never remains stationary; the appearance of image never stay the same due to change (in lens's focal length, camera angle, distance, focus), mobility (of camera, figures, objects), and fragmentation (shot transition, montage). A long-take is one of the common techniques used to overcome the inherently fragmentary and unstable nature of cinematic image. But it is not intrinsically superior to montage as a method of creating a perceptually coherent space of representation, because no matter how realistic it may appear, an extended long take still cannot escape from the conundrums of the frame, mobility, and temporal change. Perspectivalism may appear to be a compelling explanation for cinema's capacity to create the effect of spatial transparency. At the concrete level of film work, however, perspectivalism essentially does not play any role. Then, what does actually contribute the articulation of cinematic space?

According to Heath, so-called illusionism or transparency is achieved by positioning narrative—not perspectival images—as a center of spatio-temporal coherency of represented scenes. It is not the optical property of a lens but the logic of narrative or the operation called “narrativization” that plays a fundamental role in the construction of filmic space and time. Heath defines narrativization as “the proposal of a discourse that disavows its operations and positions in the name of a signified that it proposes as its pre-existent justification.”¹⁵ And one of the indispensable means of constructing such a discourse is the character's eyes. “Within this narrativization of film,” writes Heath, “the role of the character-look has been fundamental for the welding of a spatial unity of narrative implication.”¹⁶ However, the fact that the articulation of space and time is narratively motivated does not imply the subordination of filmic space and time to a narrative logic. Even though the intelligibility of space and time is intimately connected to narrative, this has nothing to do with the establishment of a hierarchy between the two. The terms of relationship are neither unidirectional nor permanently fixed, and the spatio-temporal continuum is narratively motivated but not necessarily controlled. It is important to note that the narrative emerges—not preexists—as a coherent structure through spatio-temporalization of audio-visual cues; that is to say, narrativization

does not always succeed in reifying “a signified...as its pre-existent justification.” Another problem with Heath’s overall compelling argument is that narrativation is said to disavow its own conditions of existence. This formulation opens up a possibility of political critique in the form of formal reflexivity, but, as will be discussed shortly, the effectivity of such reflexivity is rather limited. Finally, even though the character’s look plays a central role in the construction of filmic space, there is no iron-clad set of rules that needs to be followed in order to weave a “veritable drama of vision” seamlessly into narrative space. (As Heath argues, the baseball game scene in Ozu Yasujiro’s *An Autumn Afternoon* [1962], which is mentioned by Kristin Thompson and David Bordwell as a radical transgression of the continuity system, is not at all a convincing example; however, there are other Ozu examples which work against Heath’s own argument on the effect of the character-look).¹⁷

What is missing in Burch’s theorization of cinematic space and time is precisely an attention to the role of narrative. As we already observed, his “neurotic rejection of content” originated from his “fear of the political.” What would happen then if we pay attention to the political in our analysis of the spatio-temporality of film? In the concluding part of “Narrative Space,” Stephen Heath points to “Oshima’s cat” in *Death by Hanging* (1968) as an image of exteriority.¹⁸ What is the cat looking at? The look of the cat is not directed toward off-screen space in a conventional sense. It is an impossible space, a space not part of the narrative space. The look of Oshima’s cat in this sense is a signifier without signified, or a signifier of the outside. For Heath, it is a radical critique of the system underlying the spatio-temporality of continuity editing and by implication the ideology of this system. Yet to articulate radical exteriority is not as easy as it may seem at first. For example, it is often said that a reflexive film, by drawing attention to its constructedness (i.e., film as a product of reality effect rather than a reflection of directly captured reality) or the formal and material conditions of its own possibility (i.e., narration as a process in which its structural effect appears as its preexisting cause), serves for progressive political purposes. Yet the actual effect of a so-called reflexive or deconstructive strategy is much more indeterminate. While reflexive motifs and techniques can be used as a means of criticizing a capitalist ideology, it is not at all difficult to exploit them as a tool for markedly different purposes, e.g., for propagating reactionary political views or enhancing the commodity value of spectacle. Reflexivity, in other words, has no intrinsic value, and therefore cannot be automatically equated with demystification. Formal awakening is one thing, political awakening is another. Formal or medium-specific reflexivity may be able to bare its own devices and create an estrangement effect; however, it does not have any immanent power to engender political awakening. Cinema is not a site where ideological battles are fought formalistically. Political battles should be fought somewhere else with different means.

IV.

We cannot fully understand the structural mechanism of space-time construction in cinema when film is regarded as a self-enclosed autonomous text. Film remains a crucial medium not because of its autonomy guaranteed by some putative medium specificity but precisely because of the fluid permeability of boundaries separating the screen and its surroundings. It is therefore not at all surprising that film has often been discussed in comparison to cities, urban space, and architecture by scholars in a variety of fields. One of the most flamboyant examples of such attempt can be seen in the work of Paul Virilio. While Erwin Panofsky once declared that the dynamization of space and the spatialization of time were the two fundamental features of film as a medium, Virilio points to the central role Hollywood plays in the virtualization of reality and the actualization of the virtual.

From the esthetics of the appearance of a *stable* image—present as an aspect of its static nature—to the esthetics of the *disappearance* of an *unstable* image—present in its cinematic and cinematographic flight of escape—we have witnessed a transmutation of representation. The emergence of forms as volumes destined to persist as long as their materials would allow has given way to images whose duration is purely retinal. So, more than Venturi's Las Vegas, it is Hollywood that merits urbanist scholarship, for, after the theater-cities of Antiquity and of the Italian Renaissance, it was Hollywood that was the first Cinecittà, the city of living cinema where stage-sets and reality, tax-plans and scripts, the living and the living dead, mix and merge deliriously.

Here more than anywhere else advanced technologies combined to form a synthetic space-time.¹⁹

But this synthetic space-time is not purely retinal or virtual. The emergence of a synthetic space-time does not replace the space-time created by stable images and objects. On the contrary, the possibility of the former depends on the persistence of the latter. Far from being superficial ephemerality, unstable images have a substantial impact on stable objects, which, as a result, go through a process of radical transformation. The synthetic space-time is precisely a product of this feedback loop, which makes it impossible to separate unequivocally the real from the virtual, stable from unstable images.

Besides Virilio, so many scholars have produced works where they try to explore the relationships between cinema and urban space/architecture.²⁰ Some are very thought-provoking and insightful, while some lack clear objectives or solid theoretical grounds. To focus on a mimetic relationship between architectural structures existing in an actual urban landscape and those as represented images in a cinematic landscape is not probably the most productive way of thinking

about cinematic space and social space together. We need to search for different approaches to the question of cinema, cities, and architecture. For instance, Richard Koeck points out that “theories related to film, film editing and cinema have permeated the process and articulation of architectural and urban design.”²¹ Scott McQuire sees the city as a “*media-architecture complex* resulting from the proliferation of spatialized media platforms and the production of hybrid spatial ensembles.”²² These are compelling and much more promising observations, and yet it is still difficult to know the specific nature of the film-city-architecture complex from them. We therefore need to look for a more concrete interface between filmic articulation of space and spatial articulation of cities and built environment. For this purpose, David Harvey’s classification of spatial types is highly pertinent. Harvey argues that there are “three distinctive ways of understanding space and time: absolute, relative, and relational.”²³ Absolute space is empty, preexisting, fixed, and independent of time. It is a space of coordinate axes allowing—through mathematical calculation and measurement—unequivocal identification of individual persons, objects, and places “in terms of the unique location they occupy.” “Socially,” writes Harvey, “absolute space is the exclusionary space of private property in land and other bounded entities (such as states, administrative units, city plans, and urban grids).”²⁴ In contrast, relative space is inseparable from movement, process, change, and time. Relative to the position of observation and the speed of movement, differently configured spaces emerge. The absence of a universal point of reference makes it impossible to unify these spaces into a coherent totality. Any totalized map of relative spaces may be accurate in one aspect but inevitably produces distortions in others. Like absolute space, relative space is also measurable, but the mathematical calculation of relative space must always take into account temporal variables. Different spatio-temporal frameworks become necessary for understanding different types of phenomena such as global financial flows, movement of people, cultural dissemination, etc. Finally, relational space is neither measurable nor quantifiable. “The idea that processes produce their own space and time is fundamental to the relational conception.”²⁵ Relational space is a space of dreams, memories, and fantasies, in which space and time are fused into one (i.e. no longer space-time but spacetime).

Cinematic images are fundamentally relational. We do not have to subscribe to psychoanalytic film theory to come to this conclusion. Yet unlike dreams and memories, cinematic images can also articulate without any difficulty relative space-time and absolute space and time. If it lacked this capacity, cinema would not be able to generate even something as common as the melodramatic at all. Melodramatic time, which is characterized by a dialectic of the nick-of-time rescue and the failed rescue attempt at the last moment, depends on a sense of simultaneity. There are basically two methods of presenting the simultaneous unfolding of two different but related events on the screen. One is to split the screen into two or more parts and show two series of actions concurrently happening in different physical locations. Another more common method is to show alternating scenes of two concurrent events in parallel montage or its variants. While in

the case of the former the viewers literally see the simultaneous development of two events on the screen, in the latter it is only virtually simultaneous, or it is the work of imagination that creates a sense of simultaneity. Neither method is inherently superior to the other, but we can speculate on the reason why parallel montage in a broad sense has been an overwhelmingly preferred device of cinematic rhetoric. Obviously, there is no melodramatic time without absolute time. The suspense created by the uncertain outcome of a last-minute rescue requires the inexorable progression of linear, measurable time. If time is not measurable or calculable, the idea of a nick-of-time rescue simply does not make any sense. But absolute time alone is not sufficient for creating a sense of suspense. What is crucial is a relationship between two different temporal flows or the relative speed of one flow in relation to the other. The critical element for the articulation of melodramatic time is therefore not simultaneity but relativity. Melodramatic suspense is not possible without the simultaneous occurrence of two related but separate events. However, when the two events are shown simultaneously on the split screen, the relative speed of each unfolding event becomes less evident. This is one of the reasons why a split-screen method is used far less frequently than parallel montage.

Cinematic images of space and time are simultaneously relational, relative and absolute. But the filmic articulation of absolute and relative space/time is deeply dependent on and constrained by relational space and, as pointed out earlier, also by the spatio-temporal relations underlying the external world. If no relationship is established between film and the world, filmic space and time would mostly remain unmeasurable, and relational spacetime absorb any remnants of absolute and relative elements. It is its spatio-temporal connection to the world that makes cinema a unique interface between real and virtual, stable and unstable. Thus, the notion of reflection cannot adequately explain, for instance, the relationship between Hollywood cinema and the contemporary world. The spatio-temporal continuum articulated by Hollywood movies is usually in synch with the spatio-temporal experiences of contemporary audiences. If entertainment movies seem to be a window to the outside world, it is not because they establish a direct perceptual link to the world but because they function as an imaginary map of the invisible reality underlying people's everyday experiences. Perceptual illusion—created by special effects and digital imaging—can play an important role in the articulation of filmic space and time. However, hardly a monopoly of cinema, such illusion is a constitutive element of our everyday experience, particularly everyday life in increasingly mediatized urban landscape or the “cinematic city.” If certain types of spatio-temporal articulation look outdated or old-fashioned, it is because they do not match our own experience of spatio-temporal continuum constituting the world where we live now. Cinema is in this sense neither a window or a mirror; it is instead an apparatus of (cognitive) mapping. Melodramatic time is inseparable from the formation of the world where relative space-time plays increasingly a dominant role; that is, parallel montage in this case functions as a formal device through which capitalist space-time becomes visible. Similarly, reflexivity is less about

demystification or a form of political critique. It probably makes more sense to see reflexivity as a representational analogue of reflexivity of modernity,²⁶ which cinema as an apparatus of cognitive mapping enables us to perceive.

Slavoj Žižek points out that contemporary Hollywood movies are inundated with images of capitalist exploitation, class antagonism, and neoliberal violence, which have hardly become common issues for public debates by politicians, media pundits, and others in the US.

If class warfare is still anathema in American public discourse, this repressed topic is returning with a vengeance in Hollywood. One doesn't have to look far for class struggle there—like it or not, we encounter it quickly and unexpectedly. Just think about post-apocalyptic blockbusters (and even video games) such as Neil Blomkamp's *Elysium* (2013)....²⁷

Elysium is one of many contemporary Hollywood movies thematically depicting class warfare in a globalized world, whereas some of the films already mentioned and many others transcode the underlying logic and mechanism of global capitalism to the complex formal system of filmic space and time. The spatio-temporality of puzzle films is highly complex and cannot be fully deciphered due to its inbuilt undecidability. Yet if the spatio-temporal complexity of Hollywood blockbusters is nonetheless not rejected as incomprehensible or pretentious by many audiences, it is because, no matter how preposterous they may appear, these entertainment movies somehow succeed in translating repressed topics and the everyday experience of the neoliberal present into sensible signs.

Notes

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- 1 See Warren Buckland, ed., *Hollywood Puzzle Films* (New York: Routledge, 2014), and Warren Buckland, ed., *Puzzle Films: Complex Storytelling in Contemporary Cinema* (Malden, MA: Wiley-Blackwell, 2009). Although the following book is not about puzzle films, it focuses on the temporal complexity of contemporary cinema: Todd McGowan, *Out of Time: Desire in Atemporal Cinema* (Minneapolis: University of Minnesota Press, 2011).
- 2 Noël Burch, *Theory of Film Practice*, trans. Helen R. Lane (Princeton: Princeton University Press, 1981), p. 5.
- 3 Burch, *Theory of Film Practice*, p. 5.
- 4 Burch, *Theory of Film Practice*, p. 6.
- 5 Burch, *Theory of Film Practice*, p. 7.

- 6 Burch, *Theory of Film Practice*, pp. 7-8.
- 7 Burch, *Theory of Film Practice*, p. vi.
- 8 Maurice Merleau-Ponty, *Sense and Non-Sense*, trans. Hubert L. Dreyfus and Patricia Allen Dreyfus (Evanston: Northwestern University Press, 1964), p. 51.
- 9 Cf. Anne Friedberg, *The Virtual Window: From Alberti to Microsoft* (Cambridge: MIT Press, 2006).
- 10 Jean-Louis Baudry, "Ideological Effects of the Basic Cinematographic Apparatus," trans. Alan Williams, in Timothy Corrigan, Patricia White, and Meta Mazaj, eds., *Critical Visions in Film Theory: Classic and Contemporary Readings* (Boston: Bedford/St. Martin's, 2011), pp. 34-45.
- 11 See, for instance, Richard Allen, *Projected Illusion: Film Spectatorship and the Impression of Reality* (Cambridge: Cambridge University Press, 1997); Noël Carroll, *Mystifying Movies: Fads and Fallacies in Contemporary Film Theory* (New York: Columbia University Press, 1991).
- 12 Jonathan Crary, *24/7: Late Capitalism and the Ends of Sleep* (London: Verso, 2013), pp. 22-23.
- 13 Stephen Heath, "Narrative Space," in *Questions of Cinema* (Bloomington: Indiana University Press, 1981), pp. 19-75.
- 14 Heath, *Questions of Cinema*, pp. 30-31.
- 15 Heath, *Questions of Cinema*, p. 44.
- 16 Heath, *Questions of Cinema*, p. 44.
- 17 Heath, *Questions of Cinema*, pp. 61-62.
- 18 Heath, *Questions of Cinema*, pp. 64-69.
- 19 Paul Virilio, *The Lost Dimension*, trans. Daniel Moshenberg (New York: Semiotext(e), 1991), pp. 25-26.
- 20 There are numerous books and articles dealing with film's relationship to cities and architecture. The followings are just a few examples of such works: Nezar AlSayyad, *Cinematic Urbanism: A History of the Modern from Reel to Real* (New York: Routledge, 2006); Linda Krause and Patrice Petro, eds., *Global Cities: Cinema, Architecture, and Urbanism in a Digital Age* (New Brunswick: Rutgers University Press, 2003); Mark Shiels and Tony Fitzmaurice, eds., *Cinema and the City: Film and Urban Societies in a Global Context* (Oxford: Blackwell, 2001); Andrew Webber and Emma Wilson, eds., *Cities in Transition: The Moving Image and the Modern Metropolis* (London: Wallflower Press, 2008).
- 21 Richard Koeck, *Cine-Scapes: Cinematic Spaces in Architecture and Cities* (New York: Routledge, 2013), p. 13.
- 22 Scott McQuire, *The Media City: Media, Architecture and Urban Space* (Los Angeles: Sage, 2008), p. vii.
- 23 David Harvey, *Cosmopolitanism and the Geographies of Freedom* (New York: Columbia University Press, 2009), p. 133.
- 24 Harvey, *Cosmopolitanism and the Geographies of Freedom*, p. 134.
- 25 Harvey, *Cosmopolitanism and the Geographies of Freedom*, p. 136.
- 26 Cf. Anthony Giddens, *The Consequences of Modernity* (Stanford: Stanford University Press, 1990). Needless to say, there are literally numerous books which discuss reflexivity as a fundamental aspect of what is called modernity.
- 27 Slavoj Žižek, *Trouble in Paradise: From the End of History to the End of Capitalism* (New York: Allen Lane, 2014), p. 61.