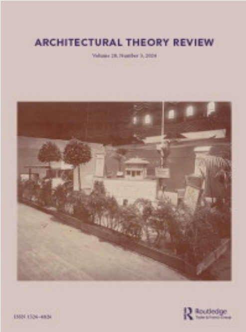

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The Cinema of Béla Tarr: The Architectonics of Time, Movement and Hapticity

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ABSTRACT
The article delves into the architectonic cinema of Hungarian director Béla Tarr, an exemplar of "slow cinema." It constructs a theoretical framework integrating the theories of Gilles Deleuze, Jacques Rancière, Elie During, and Thorsten Botz-Bornstein, alongside discussions by architectural theorists Michael Tawa, Giuliana Bruno, François Penz, and film theorists Sergei Eisenstein, Béla Balázs, André Bazin, and David Bordwell. Supported by original material, including a nine-hour unpublished interview with Tarr and his set designer László Rajk, and an archival study of Sergei Eisenstein's notes at the Gosfilmofond archive, the study addresses contemporary issues in spatial and architectural filmmaking and film-architecture literature. Through a close examination of Tarr's long takes, it explores the intricate interconnectedness of time and spatiality in cinema, the importance of movement in its architectonics and the notion of tactility in Tarr's work. It traces historical cross-disciplinary parallels between "montage" in modernist architectural theories, Eisenstein's ideas, and Tarr's cinema.

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Introduction

From the inception of moving images, the allure of the silver screen attracted architects. In the latter half of the twentieth century, theoretical debates examining the common features of cinema and architecture gained prominence. The evident utility of the animated medium for architectural theory led to the production of substantial scholarship. The post-war period, in particular, witnessed a resurgence of interest in the interplay between moving images and architecture as architects and filmmakers alike grappled with evolving conceptions of modern space and its representation. By the end of the twentieth century, the intersection between film and architecture emerged as a distinct field of academic enquiry, encompassing a diverse array of topics. The breadth of research within this field includes studies on the phenomenological aspects of film and architecture, everyday life practices and evidence and criticism of the occupancy of urban and architectural spaces. Additionally, it encompasses socio-political and geographical subjects related to architecture and cities in film,

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scholarship on gender and space, studies on set design, and the representational capacities of the moving image.[1]

All these perspectives provide an indisputably rich ground for discussion. However, despite its usefulness and significance, this research often limited itself to a familiar selection of case studies and cinematic approaches, leaving certain aspects of the vast territory of cinema unexplored. The tight focus on certain fêted figures and celebrated films has left little room for the recognition and introduction of other cinematic approaches, films and directors in the discourse on architecture and film. The evident repetition of cinematic case studies and conceptual approaches is a notable issue within the field, and its potential effects have yet to be recognised. This recurrence raises questions about the progression of the discussions this field of enquiry can sustain, and hence of the field as a whole. One can hypothesise that the stable selection of filmmakers, cinematic approaches, and conceptual frameworks described above has led to a moment of stagnation in generating novel theoretical material.

The production of theory was not all the medium had to offer. Digital technologies have greatly simplified the production of moving images, leading architectural academia to recognise the narrative and representational power of moving images as a practice. The contemporary moving images produced within the discipline of architecture can be mapped into discernible modes that reflect prevalent practices. The first mode, which can be referred to as "educational documentaries," employs a conventional and standard cinematic language, focusing primarily on documenting architectural knowledge rather than exploring film as a medium of expression. These documentaries fulfil their intended purpose effectively, serving as practical tools for recording design and construction processes, buildings, and urban spaces. The second mode includes walkthrough and fly-through animations, a staple in both academic and commercial visualisation companies. Their primary objective is to create photorealistic animations representing architectural projects, often with minimal cinematic ambition.

A third recognisable mode emerges predominantly within design studios at elite academic institutions, where descriptors such as "filmic" and "cinematic" have become fashionable. The outputs from such studios—primarily at the master's level—include digital animations, abstract video art, essay films, experimental shorts, and what can be described as animated drawing. While these outputs occasionally yield valuable artistic and pedagogical insights, much of the trend seems preoccupied with stylistic experimentation and speculative aesthetics, rather than fostering a cross-disciplinary transfer of knowledge from another discipline. It is likely this publicly inaccessible cinematic language produced in academia, characterised by its emphasis on "formal play" that has prompted architecture theorist Marc Boumeester to critique the studio outputs as "opportunistic," "superficial" and "pompous."[2] The category of documentaries serves its purpose, while the other two—"walkthrough and fly-through animations" and outputs produced in schools of architecture—exhibit common traits. More than a question of pedagogy, this mode persists in an institutional setting wherein architecture is arguably at its most experimental, indeed conceptual, not yet grounded by the constraints of building, or the economic realities of architectural practice.

The list of modes of cinematic practice within the discipline is not exhaustive. There is a line of practice represented by figures such as Alberto Momo (*Casa Cattaneo, Un Canto Lontano*, *Bormida*), Ila Bêka and Louise Lemoine (*Sense of Tuning*, *Rehab from Rehab*, *Moriyama-San*), Tapio Snellman (*Anderby Creek*, *Apila – Municipal Library in Seinäjoki*, *Camino de Playa*), Marianna Bisti (*Wěndìng Fánróng* and *Diagonal House*), Paul Tunge (*Platform*, *Du*, *Bauta*), Miguel C. Tavares (*Floating Stillness*, *Atlas*, *Three Patios for The Sun*) and Cristobal Palma (*Casa Prieto Lopez*, *Piling Up*, *North Facing*) who engage with film not as a supplementary or decorative tool but as a medium that its cinematic form offers spatial and sensory potentials. While the work of these individuals stems from the discourse and academic field of architecture and film, their work does not align with the three main streams outlined above. Their films are characterised by a patient treatment of time in storytelling, space-driven narratives, and a sensory and tactile approach to filmmaking. Indeed, one can observe traces and influences of non-mainstream, independent, and art-house cinema in their work, particularly in their attention to film form as a means of articulating architectural experiences and atmospheres. Their distinct approach sets them apart from the dominant academic and commercial modes outlined above. Nevertheless, it should be noted that their contributions represent only a small fraction of the moving images produced within the discipline of architecture.

The predominant moving image production practices in the academic discipline of architecture were not always received positively. Specifically, the cinematic and narrative language of animations and experimental short films produced in academia faced sustained criticism from key scholars in the field of architecture and film such as François Penz and Marc Boumeester. Penz, a pioneer in systematically introducing film studies to architecture, was among the first to address the films made by architects. He is pointedly critical of the "badly designed virtual camera strategies" and the "jerky," fast-paced camera movements that oblige a viewer to whiz "dizzyingly along spline paths which represent no known or recognisable point of view."[3] He unequivocally stated that "architects should learn from filmmakers how to represent the movement through space."[4] On various occasions, he argued that the communicative "power of moving cinematic images" is not reflected and actualised in the moving images.[5]

Penz implied that pace, camera movement, and haptic qualities are three major cinematic elements problematically articulated in moving images produced by architects. In his view, the rapid pace at which these animations unfold in virtual space prevents viewers from fully absorbing and appreciating spatial nuances, leaving them disoriented and unable to form a coherent mental map. The camera movements, in the majority of digital animations, video art outputs and experimental short films compound this issue with abrupt and jarring shifts in editing, perspective and direction, further disrupting spatial continuity. Penz also commented on how these animations treat spaces and buildings as digital representations devoid of weight, materiality and tactile qualities.

A potential causal relationship is observable between the lack of new theoretical perspectives and the discussed issues in common moving image making practices within the architectural academia. This hypothesis is reinforced by the fact that alternative and non-mainstream cinematic approaches treat the notions of pace, movement and tactility differently from those prevalent in architectural academia. Not surprisingly, the methodologies and theoretical foundations of neglected cinematic movements, such as "slow cinema," directly respond to the critical issues underscored by Penz and other scholars.

Building on this premise, this article examines the work of prominent Hungarian filmmaker Béla Tarr, whose films are considered exemplars of "slow cinema." Although this cinematic movement has recently begun to attract scholarly attention in architecture, the limited and sparse literature fails to fully explore its spatial and architectural potential.[6] This article posits that the concepts, techniques and cinematic strategies in Tarr's work can enrich architectural discourse and theory, enhance modes of architectural representation, inform cinematic and narrative readings of architectural and urban spaces, and, more importantly, influence the creative processes behind films made by architects. By stimulating theoretical debate and encouraging further enquiry into Tarr's cinema and alternative filmmaking movements, this exploration aims to contribute to the fields of architecture and film studies, as well as to other disciplines interested in the intersection of space and cinematic arts. The article draws on insights from such material as a nine-hour interview with Tarr and his set designer László Rajk. An extensive archival study of Sergei Eisenstein's notes at the Gosfilmofond state archive in Russia, discussed here for the first time, serves as another source of original historical data underpinning this objective.

Tarr is a renowned auteur in contemporary cinema and is often regarded as the paradigmatic example of slow cinema. Over a career spanning 1977 to 2011, he directed nine feature films, which can be categorised into two distinct periods: his early works, such as *Family Nest* (1977), *The Outsider* (1981), and *The Prefab People* (1982), rooted in Hungarian socialist realism; and his later films, including *Damnation* (1988), *Sátántangó* (1994), *Werckmeister Harmonies* (2000), and *The Turin Horse* (2011), which reflect a shift towards slow, contemplative, and hypnotic pacing. The influence of his unconventional treatment of time and space, with an emphasis on spatiality and material experience on prominent arthouse filmmakers such as Gus Van Sant, Apichatpong Weerasethakul, Carlos Reygadas, Bi Gan, László Nemes, and Ruben Östlund is clear.[7] His influence, however, extends to mainstream filmmakers and even other media, such as video games.[8] His work occupies a cornerstone of modern cinematic thought and philosophers, including Jacques Rancière, Paul Virilio, Jean-Luc Nancy, Frederic Jameson, Ágnes Heller, and Thorsten Botz-Bornstein, have referred to his films.

This article is structured around three fundamental features of Tarr's unique filmmaking style that respond to the problematised aspects of architectural moving images. The first section examines the unusually prolonged *time* of his cinema. Tarr privileges space over conventional storytelling through his use of long takes. The rationale behind the long take, its theoretical grounding and its relevance to architecture are the subjects of the following examination. The second section of the paper investigates the notion of *movement* in his cinema and how it serves as a means to underpin the experience of spaces. Finally, the third section addresses the concept of *tactility*, arguing that Tarr's textured images enhance the haptic quality of the cinematic experience.

Long Takes, Time-images and Spatial Experience

The cinema of Tarr is characterised by unprecedented long takes (also known as sequence shots or *plan sequences*) and minimal narratives. According to the Cinemetrics database, the Average Shot Length (ASL) of the second period of Béla Tarr's work is 191.8 seconds, with *The Man from London* (ASL: 248 seconds) and *The Turin Horse* (ASL: 229 seconds) having the longest takes. To compare the duration of Tarr's shots, the ASL of Andrei Tarkovsky's shots is notably lower: *The Sacrifice* (1986) has an ASL of 70 seconds, *Stalker* (1979) 63 seconds, and *Nostalghia* (1983) 61 seconds. Similarly, Michelangelo Antonioni's films *The Adventure* (1960) and *The Passenger* (1975) have ASLs of around 18 seconds. This contrast becomes even more striking when compared with the ASL of contemporary Hollywood films (2010s–present), which typically ranges between two and three seconds.[9]

Some of Tarr's long takes are widely regarded by film theorists as iconic examples of his distinctive cinematic style and the slow cinema movement. For instance, in *Damnation,* there are several striking long takes that show the main character (Karrer) walking through desolate, rain-soaked roads and streets. The minimal narrative information—his mere movement through the space—is overwhelmed by the atmosphere created by the camera's slow, deliberate tracking and the heavy textured surrounding walls. Similar shots exist in *The Man from London* where in an instance an extended shot (around six minutes) of Maloin at the dock, framed against the murky water and distant lights, dwells on his isolation and the weight of the setting. Tarr's focus on the texture of the space—the creaking wood, the dimly glowing lamps—renders the physical environment as a character itself. The ten-minute opening shot of *Werckmeister Harmonies* is another sequence shot that exemplifies Béla Tarr's obsession with dilated time and the experiential quality of space over narrative momentum. The scene follows János as he choreographs a group of drunk villagers in a demonstration of planetary orbits within a dimly lit tavern. The camera's fluid, unbroken movement captures the eerie, dreamlike rhythm of the space, immersing the viewer in the haunting atmosphere of the scene, rather than advancing the story.

It is due to the long takes that theorists customarily associate him with the notion of "time-image." The term "time-image" was coined and conceptualised by French philosopher Gilles Deleuze to explain a paradigm shift sparked by post-Second World War Italian neorealism. As part of the paradigm shift, spaces and spatiality began to play a more critical role in the time images in both cinematic and architectural neorealism.[10] Deleuze contrasted two distinct and somewhat opposing types of cinema: the "movement-image" and the "time-image." He explicated that in the reductive and selective approach of "movement-image" cinema—primarily practised in Hollywood and the Soviet Union, with the latter focusing in particular on montages—the actions of actors were prioritised over the experience of spaces. In contrast, in what he termed "time-image" cinema, which emerged as part of Italian neorealism and the French New Wave, spatial experiences become more important and are not mere "presuppositions added to action;" instead, they "occupy all the room and take the place of action."[11]

Deleuze identified the initial signs of time-image cinema and recognised that the priorities of interwar filmmaking were shifting. An earlier emphasis on storytelling, montage and continuity editing was being replaced by a desire to capture the direct audiovisual experience of time and space. In *Cinema 2: the Time-Image,* Deleuze uses the example of the well-known scene in Vittorio De Sica's *Umberto D.* (1952) to highlight the extension of time and space in time-images. In the scene, a housemaid performs mundane tasks like preparing coffee which stretches out time and detaches the moment from narrative causality. This pure audiovisual situation reveals time as a lived duration, emphasizing the rhythm of everyday life over plot progression. Through other examples from De Sica's *Bicycle Thieves* (1948) and Roberto Rossellini's *Germany Year Zero* (1948), Deleuze demonstrates that the primary aim of the time-image is to prioritise concepts such as affect, experience and atmosphere over the actions of characters.

The theory of the time-image has influenced recent architectural theory scholarship significantly.[12] However, in turning to Tarr and his implications for architecture, it is crucial to revisit this notion for two main reasons. Firstly, the time-image is particularly relevant to architecture's imbrications with film as it represents an unparalleled method of cinematography characterised by an unmanipulated, experience-driven and direct cinematic expression of space and time. Secondly, echoing Jacques Rancière, scholars widely agree that "if there is a cinema of time-image, it exists with Tarr."[13] In Tarr's cinema, the prioritisation of "space" over "action" and "experience" over "narrative" is achieved through the use of long takes. Rancière was among the first theorists to associate the unique treatment of architectural spaces in Tarr's films with Deleuze's notion of the time-image. He discerned that architectural elements such as doors and windows cease with Tarr to no longer serve merely as devices for "introducing actors." Rather, they gain independence and function as "thresholds through which the exterior comes to the interior."[14]

It is important to note that filmmakers such as Lav Diaz, Pedro Costa, Yorgos Lanthimos, Andrei Tarkovsky, Theo Angelopoulos, and Jia Zhangke have employed long takes and slow-paced camera movements, techniques that can also be considered manifestations of the time-image. Several films, including those created by neorealists or French New Wave directors, exhibit characteristics closely aligned with what Deleuze conceptualized as the time-image. Notably, films such as Alexander Sokurov's *Russian Ark* (2002) and Sam Mendes's *1917* (2019) were either shot in a single sequence or designed to give the appearance of one continuous shot. However, it is Tarr's radical and consistently applied use of time-image techniques, along with his emphasis on the experience of space over diegetic information, that establishes him as a particularly relevant and ideal subject for this study.

Time Images, Long Takes and Sense of Place

In addition to Tarr's relevance to the time-image and associated theories, as claimed by Rancière, the extended and slow temporality of his films is notably rare and unparalleled. The cinematic endurance he demands from the audience and his long take marathons distinguish him as a unique case unlike any other filmmaker. His extensive long takes, the prolonged duration of his shots and films, the long periods of *temps mort* and the absence of traditional narrative elements such as climax or conflict in their conventional sense constitute a temporal construct which results in an emphasis on space in particular. Put simply, the prolonged duration of the long takes allows the spectator ample time to engage with the spaces and atmospheres of the scenes.

The tenet that long takes bring about a more realistic and immersive cinematic representation of physical spaces finds its enduring foothold in the writings of the French *Nouvelle Vague cinéaste* and critic André Bazin. He laid a theoretical foundation for the belief that unedited "temporal realism" engenders a kind of "spatial realism."[15] Captivated by the sequence shots of Orson Welles, Bazin was one of the first film theorists to assert that "to anybody with eyes in the head, it is quite evident that the one-shot sequences" are more effective and realistic than scenes subdivided by cuts.[16] For Bazin and his disciples, the outcome of the "refusal to break up the action" is "far superior to anything that could be achieved by the classical cut."[17] Film theorist Andrew Horton traces the roots of slow cinema to Bazin's ideas and suggests that the fragmentation of time in editing "breaks up our sense of PLACE and SPACE" (his capitalisation), whereas the slowness of long takes "helps us experience and better appreciate a sense of space and place that the characters and thus audiences inhabit."[18] Architectural theorists, too, have also proposed that long takes enhance the sense of place and space in moving images. Igea Troiani, Hugh Campbell and Douglas Smith have variously described the use of long takes to be "an act of faith" and a "reaffirmation of the existence of real physical space."[19] Similarly, François Penz and Janina Schupp suggest that long takes are "ideal" for studying the experience of everyday spaces. Along the same lines, Stavros Alifragkis finds long takes to be the "eloquent" glueing material for "constructing seamless cinematic spaces."[20]

Tarr believed that long takes create a sort of cinema of "space, feeling and atmosphere."[21] He deploys the notion of the cinema of atmosphere as a counterforce to challenge the core principles of mainstream cinema, which he refers to as the "cinema of information."[22] He criticises the "hegemonic" storytelling methods of contemporary cinema, which rely on the mechanism of "information-cut, information-cut and information-cut" that operates differently from "the logic of life."[23] According to Tarr, the logic of the "cinema of information" is founded on the assumption that every shot in a film or scene should give a new piece of information regarding the story of a film. Tarr proposes that adhering to the logic of the cinema of information and using the movie camera as an "information-collecting" machine causes us to lose the "pleasure of time, landscapes, buildings and meta-communications."[24]

Tarr's challenge to the "cinema of information" and "logic of information," though, is an attempt to theorise what he designates as the cinema of atmosphere. He sketches a dichotomy between "information" and "atmosphere," viewing the latter as superior.[25] Tarr insists that an efficient formulation of story and narrative does not necessarily lead to the successful creation of an atmosphere. For him, story and information are positioned on one side of this opposition, and atmosphere and affect on the other.

A similar polarity of "atmosphere" and "form" has been central to the debates of architectural phenomenologists. For instance, the celebrated architect Peter Zumthor advocated that "architecture is not about form" but about "atmosphere."[26] The geometric and mathematicised approach to architectural form has been historically associated with the dominant Cartesian and Euclidean paradigms. These paradigms, rooted in the principles of objectivity, linearity and quantification, fall short in their capacity to adequately capture and represent the dynamic, subjective and qualitative nature of atmospheric conditions and the nuanced and ephemeral qualities of atmospheric phenomena.

Zumthor's privileging of "atmosphere" over "form" is akin to Tarr's prioritising of "atmosphere" over "information" (or story) in the medium of film. Like Zumthor, Tarr finds atmosphere more difficult to articulate and sees long takes as the only means to craft it. In my interview with Tarr and Rajk (Tarr's set designer), Rajk attempted to shed light on what Tarr means by the term "information," construing it as referring precisely to the form and physical attributes of spaces: "You almost know its dimension, form, size, arrangement … something is here, something is there, and you can draw a rough floor plan for it."[27] In this sense, what Tarr means by information can be provided by a five-second shot of a room. A well-crafted spatial experience of that same room, moving around and within its volume and spatial elements, requires more time and, accordingly, a long, unbroken take.

The augmented time of the long take lays a foundation for generating atmosphere. Atmosphere, as a non-Euclidean and non-Cartesian attribute of both real and cinematic spaces, is not limited to, and not necessarily—as Zumthor articulated it—fully "conveyable" by a short shot.[28] While story-related information pertains more to the geometric form of a space, atmosphere, in both cinema and architecture, concerns how a space is felt and experienced. Long takes are well-suited for creating atmospheric cinematic images due to their ability to capture the nuances and subtleties of a setting. By allowing the camera to dwell on a scene for an extended period, a filmmaker can effectively immerse the viewer in the sensory details and ambient qualities of a location, fostering a deeper sense of place and atmosphere. Long takes stand in striking contrast to the rapid editing and camerawork often associated with mainstream Hollywood productions, or, in Tarr's words, the cinema of information (alone). The tenacious, uninterrupted presence of Tarr's camera in a scene resembles the uncut and seamless human experience of architectural spaces. The experience of space in Tarr's cinema is not "derived formally, geometrically with an accentuation on lineaments, edges and borderlines." Rather, it tends toward fabricating a "sensed atmosphere" through the "uncut, unmanipulated and direct" experience of space and time.[29]

Tarr's camera makes the audience spend a notable amount of time observing spatial elements. His camera lingers in front of a door or window, wanders through a room, or follows a character on an endless road, thus generating a stronger sense of spatiality. This temporal tactic, which results in a purely spatial outcome, transforms architectural spaces from passive heuristic backdrops into the main element of a shot to be viewed patiently. This kind of spatio-temporality turns cinematic images into "tectonic" entities that are intended to be "read" slowly and unhurriedly.[30]

Tarr, Eisenstein and the Modernist Montage

Movement might be considered the essence of cinema. Moving images are fundamentally the result of three underlying types of movement: the motion of objects or characters, the movement of the camera, and a combination of both. Analogously, movement is instrumental to our experience of architectural spaces. The comparison between experiencing the moving images of cinema and experiencing architecture through bodily movement has already been drawn and extensively discussed in various architectural sources.[31]

The resemblance between camera movement and the bodily movement of a viewer in space makes camera movement a fundamental spatial feature of filmmaking. In Bazin's view, the paramount aim of camera movement is to create a sense of "spatial unity" and seamlessness.[32] Nevertheless, as film theorist Raymond Durgnat suggested, camera movement is a method of editing *per se*, and alongside the production of spatial unity, it "fragments the space as incisively as bold cuts."[33] The dynamic long takes, in parallel with the smooth continuity they generate, fulfil the task that editing historically undertook: shifting the attention and gaze of the viewer. Camera movement in a long take does not result in a fragmented cinematic sequence as classical editing does. Rather, the sequentiality of camera movement creates a continuous assemblage of myriad perspectival views stitched together by the smooth motion of the camera.

Sergei Eisenstein, the pioneer of the theory and practice of montage and staunch advocate of "bold cuts," is surprisingly a key figure to hypothesise that a long camera movement is inherently a kind of montage. He was among the first film theorists to explicitly suggest the unorthodox idea of replacing classical montage with a long camera movement. In the last decade of his life, in at least two documented instances, Eisenstein took evident interest in defining a species of montage implemented through the uninterrupted physical motion of a viewer or camera in space. In his influential essay "Architecture and Montage" (c. 1938), Eisenstein seems to deviate from his own theoretical itinerary to incubate a counterargument. He therein appears fixated on notions such as "pilgrim" and "peripatetic vision" and directly praises a montage that is subtle, seamless, gradual and less formalist.[34]

It is not only in "Architecture and Montage" that Eisenstein implies his tendency toward montage created through a "subtly composed" movement in space that is akin to the sequence that "our legs create by walking."[35] In another short essay, "Montage, Thinking, Technique" ("Монтаж, Мышление, Техника"), originally written around 1940 for the influential magazine Art of Cinema (*Искусство кино)* but never published there, Eisenstein explicitly seeks to achieve montage through movement in space. In the essay, first published in 1989, he speaks of the "dream" of filming a long "plan sequence […] while recording from one location to another." He regretfully laments the hefty filmmaking equipment that does not allow for a "long walk" and wishfully states: "Only if I could record some more seconds as I move."[36] Both of these roughly contemporaneous essays demonstrate that an aging Eisenstein had started to develop the idea of "movement as montage" or, more precisely, montage as the act of "orchestration of a continuous long movement in space."

Montage as the exercise of arranging continuous movement in space stands in stark contrast to the five original categories of montage that Eisenstein and Vsevolod Pudovkin theorised in the 1920s: metric, rhythmic, tonal, over-tonal and intellectual. While

Eisenstein's later conception of "montage as a movement" emphasised seamless and uninterrupted visual flow, this earlier theoretical system aimed at eliciting emotional and intellectual reactions through strategic cuts between the cinematic fragments (shots). Montage through movement in space did not seek to create an intellectual and emotional response through the management of "cuts." Instead, it was conceived as a "pre-established movement" or simply "a precise order to follow" for the spatial reading of the work.[37]

The "montage principle," which emerged as a "key theme" of modern design, aligns well with Eisenstein's concept of "montage as a movement." It was an approach to spatial organisation that emphasised a planned path with fixed points of pause, creating a curated set of interconnected spatial moments linked by uninterrupted movement.[38] The sequential and continuous movement through space, where the viewer's attention is seamlessly guided to various points of view, was translated by modern architects from a cinematic idea into spatial terms. The development of such parallel concepts as *promenade architecturale* testifies to the impact of montage, as the choreography of movement, on the thinking of modern architects. The architectural promenade that "has become a part of the language of modern architecture" was used to explain the sequential narrative of buildings such as Villa Savoye (1929) designed by Le Corbusier, where the curated sequence of progression of a user was carefully designed to perform akin to a continuous cinematic unfolding.[39] Indeed, montage as the orchestration of movement and gaze, is identified as an underlying strategy in the work and theories of such modernists as Adolf Loos, Frank Lloyd Wright and Robert Mallet-stevens as they attempted to experiment with the montage by creating "continuities," spatial promenades, architectural walks, "choreographed views," and "sequences" of spaces and images "in motion."[40] David Leatherbarrow argues that it was the "montagist" attitude of modernists that turned the notion of free movement *in* space into a sort of framed movement *through* space, making a user approach "the front door head-on, but indirectly, sometimes tortuously."[41]

The montage through camera movement may have been first conceived by Eisenstein, but he never managed to achieve it due to technological constraints. Tarr's camera movements can be seen as cinematic transplantations of the montage that modernist architects experimented with, a montage based on the curation of movement and gaze. Leveraging the spatial narrativity offered by long takes, he substitutes conventional editing with a montage that is informed by the continuity in which a camera passes through various thresholds, frames, and voids. In the same way as continuity editing and classical montage, Tarr's long camera movements determine the sequence and order of spaces, shift the audience's attention from one point to another, and define what should and should not be seen along the path. A continuous camera movement in Tarr's long take builds a complex yet organic uniform space, reminiscent of spatial experiments of modernists in choreographing movement and views by employing architectural promenades through space.

Movement: Volume-Image

Tarr's spatial montage through *plan sequences* is centred around the camera movements that aim to expose the volume of spaces and the play of light within them.

He approaches interior and exterior spaces as masses and volumes around, through, within, under, over or in parallel with which his camera moves. In contrast with such filmmakers as Tarkovsky and Greenaway, whose cameras stare at spaces from the "frontal perspective," "never rush[ing] into the depicted space" and keeping the viewer on the "edge of the painterly image," Tarr's camera seems to repeatedly infiltrate spaces.[42]

French philosopher Elie During posits that the combination of dilated time and camera movement transmutes the two-dimensional shapes on the flat screen into virtual volumes. According to During, while a camera moves around or through a volumetric mass, "space gently unfolds, raises and turns itself on and awakens voluminosity of the cinematic image around which, it seems that we could *walk*." During postulates that when a camera moves, the flattened forms of the picture shape their volumetric body. Something "peels off," the edges of the screen become soft and somewhat invisible, off-screen spaces become active, and edges transform to be the agents "revealing nascent facets." A camera movement in a long take turns the moving image into what he designates a "volume-image."[43] A dynamic long-take is an endeavour to capture and reflect protruded and recessed parts of space from the point of view of a mobile subject walking through space.

Within the oeuvre of Tarr, numerous examples demonstrate his attempts to achieve "volume-images" through the montage of movement. For example, in *Werckmeister Harmonies* (2000), Tarr takes his camera with János Valuska, the young newspaper delivery man, for a long seven-minute, tortuous walk. The camera follows Valuska as he heads to his next delivery in a two-minute walk. While he is framed in the foreground, the camera accompanies him in every single step; the camera cuts every corner he cuts and strolls with him through all the laneways he traverses (fig. 1). While the body of the camera clings to Valuska, following his exact path, the gaze of the lens modulates. The camera captures the spaces in the background through Valuska's over-the-shoulder shot. The direction of the journey is evident and predictable, while the angle of viewing the spaces is purposefully choreographed—or, more precisely, montaged. Valuska is sometimes placed on the right side of the frame and, at other times, on the left; sometimes the camera gets closer to him, and at other moments, it shows his entire body. At certain points, the camera strictly follows his movement, while in other instances, it falls behind his pace. Through the alteration of compositions during the long take, he serves as an instrument that facilitates the reading of space, which is observed in the peripheral portions of the image in the background.

By keeping the camera close to the surfaces of the walls, corners and edges in the *plan sequence*, Tarr accentuates the massing of the physical space. Edges and corners emerge, sharply permeate our view, and then vanish; contours, lines, and lineaments of the volumes of spaces are set in motion, entering from the depth of the cinematic image, approaching the camera and leaving the frame; the continuous motion, with its striking emphasis on the *volumetricity* of spaces and the dynamic cinematic articulation of edges, volumes, surfaces, and lines, convinces viewers that, through the mediation of the camera, we are in motion within the same enveloping volume that Valuska occupies. This type of tracking shot is paradigmatic of Tarr and is exercised

Figure 1. Screenshot. *Werckmeister Harmonies*. © Béla Tarr. A two-minute shot follows the character walking in the laneways, emphasising the corners around which he turns.

in several scenes, including the long walks in *The Man from London* (2007) and *Sátántangó* (1994) (figs 2 & 3).

A similar type of montage of viewing and motion choreography is present within the interior spaces. An example of this is the well-known hospital scene in *Werckmeister Harmonies*, where Tarr's camera performs the montage through motion in an interior setting. His camera places the usual stress on the volume of spaces by regularly infiltrating them. It repeatedly passes through door frames and voids, permeates the darkness of wards, and returns to the glowing phosphorescent corridor along which all the wards are arranged. As part of its montage, the camera tracks characters for some moments, catches a view for a while, and suddenly diverts to look elsewhere, peeking into a ward through its doorframe where one of the patients is being beaten up (fig. 4). The camera takes advantage of looking at a scene through the holes and openings in walls to represent the depth and volume of spaces: "We can never see the scene in its entirety, only some parts, and even then the action is sometimes covered by different parts of the wall and the door."[44] This sort of peeping through the openings while moving, apart from its dramaturgical function, could be seen to

Figure 2. Screenshot. *Werckmeister Harmonies*. © Béla Tarr. A long walk in which the camera strictly follows the characters taking the corners and turns.

draw the viewers' attention to the deep and voluminous spaces that are implied to exist just out of the shot. It also distances the viewer from the action by introducing various spatial layers, placing the camera on one side and locating the main action on the other (fig. 5).

Figure 3. Screenshot. *Werckmeister Harmonies*. © Béla Tarr. A tracking shot of the camera strictly following the protagonist of the film in which the view is carefully montaged and the accentuation on the corners and edges contributes to the creation of a volume-image.

As theorist András Bálint Kovács posits, Tarr's camera movements travelling "through various spaces and passing by objects" have the critical task of revealing the volume and depth of a scene.[45] Tarr's prowling camera wanders through corridors,

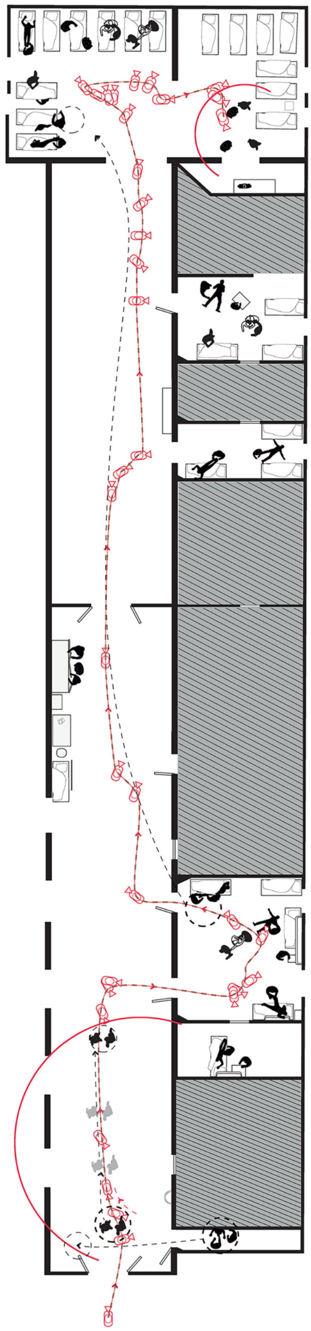

Figure 4. The cinematic plan of the plan sequence in the corridor of the hospital in *Werckmeister Harmonies*. Drawn by author. The floor plan depicts how the camera enters and leaves the wards constantly. The direction of the camera shows how the gaze of the audience is choreographed and montaged, and the two large circles visualise the two circular movements that the camera performs in two instances at the beginning and end of the long take.

Figure 5. Screenshots from *Werckmeister Harmonies*. © Béla Tarr. The movement from the long take show how Tarr accentuates the voluminosity and depth of spaces.

furtively scanning through openings with the camera's view repeatedly blocked by thick walls. His conscious use of openings and obstructing elements such as walls, constitutes a sense of depth enhanced by a dexterous play of light and darkness. The orchestration of motion in his films expands the realm of the framed architecture to the off-screen space. It brings about continuity between framed and unframed spaces, leading to the "collapse of frame" with which the "very existence of the frame becomes shaky."[46]

Tarr's camera does not tire of walking. The montaged motions of his steady-cam marathons subvert the flatness of the screen and grant it volume, mass, and architecture. His oeuvre abounds with scenes where the montage of movement makes the camera move not only *through* and *around* spaces on the ground, but *over* (in crane shots) spaces, objects, masses, volumes and voids (fig. 6). His camera passes through various thresholds, material and immaterial frames, corridors, laneways and roads in both direct and tortuous ways. The tenacious, uninterrupted presence of the walking camera in the scenes makes the illusionary space of the film real and haptic for spectators, allowing them to experience a peripatetic, multi-scalar and continuous presence in space. The infusion of choreographed, uncut movement with prolonged time amplifies the effect of spatial identification. As the prominent film theorist Béla Balázs articulated, the long dynamic shots convince spectators that they are seeing the scene "from the inside" and not on a made-up stage.[47]

Textured Images

The major agenda for architectural phenomenologists was to bring attention to the importance of the haptic. For such figures as Steven Holl, Pallasmaa and Alberto Pérez-Gómez, the reinforcement of the sense of touch (*tactus*) enhances "the sensory experience" and endows architectural images with additional "psychological dimensions."[48] Heavily textured images in films can have a haptic function and hint at the "veracity of matters" and embodied quotidian experiences.[49] By giving rise to a frictional engagement with the screen, these textures unearth "the material world" and bridge the gap between the visual and the tactile, the optic and the haptic, and the virtual and the physical.[50] For instance, the "dense textures" of Andrei Tarkovsky's cinematic imagery are emblematic of his fervent belief, rooted in his cinematic materialism, that "texture is always richer than anything."[51] Slavoj Žižek discussed that in the case of filmmakers like Andrei Tarkovsky and Krzysztof Kieślowski, it is the

Figure 6. A crane shot in *Damnation. Damnation* © Béla Tarr, György Fehér, Joachim von Vietinghoff.

capacity of textures that turns the true feeling of spaces "into flesh" and makes the spaces and their atmospheres "corporeal."[52]

Tarr is much more radical than Tarkovsky and Kieślowski in his attitude towards textures and the haptic qualities of spaces. His cinema is often described as one of "architextures" fixated on the "haptic" and "physicality."[53] He regards this deliberate emphasis on haptic as an act of opposition to the reductive aesthetics of conventional cinema and its "texture-less" spaces.[54] Tarr's work does not hold tactility and visuality as two contradictory forces. His cinema showcases how the eye can fulfil the "non-optical function" of touching and that within the act of "spectating," one begins to feel into (*Einfühlung*) "the texture of an image."[55] Similarly, as Alvar Aalto observes, materials and textures communicate at a different pace and "speak slowly."[56] Botz-Bornstein underscores that the "haptic visuality" of Tarr's material-obsessed camera is made possible only through the slowness provided by the contemplative long takes.[57] The long duration of the shots enables a spectator to savour the slow language of the material, its vocabulary, textures and details.

Furthermore, the movement itself has a reciprocal relationship with sensing the tactility, "reaching out," and "touching."[58] Moving to closer scales of a singular space brings the textures of materials to attention and intensifies the tactile quality of the shots. Giuliana Bruno observes a strong affinity between the "haptic" and "mobility," explaining that the haptic refers to the sense of touch, and its Greek etymological root connotes an ability "to come into contact with" something.[59] She also discusses that the haptic is related to "kinaesthesis" and "the ability of our bodies to sense their own movement in space."[60]

The purposeful activation of the haptic is the subject matter of other crucial architectural debates that are highly applicable to cinematic imagery. For example, Kenneth Frampton's discussions in "Towards a Critical Regionalism" are not centred around the image of architecture in cinema. However, in Frampton's treatise, the tactile-scenographic schism appears to conform to the critical position that Tarr takes against what he designates the "texture-less" and purely scenographic cinema. In the same vein as Frampton, Tarr is concerned about the veils that the scenographic drew "over the surface of" the tactile reality.[61] Like Frampton, he lambasts the "loss of nearness" and rails against the "new filmmakers who do not know how to use the settings and put their cameras and characters too far from the walls."[62]

For Tarr, the tactile encounter between spectators and images is not restricted to the act of accentuating the heavy textures and materials of dilapidated rooms, abandoned huts, and old houses and streets of Budapest, Pécs, or an unknown city in Eastern Europe. The exercise of emphasising the haptic can be seen as a strategic choice for the appearance of his films as well. Tarr lived in the era of color motion pictures, but all of his films after *Almanac of Fall* (1984)—from *Damnation* (1988) to *The Turin Horse* (2011)—are shot in black and white. By filming in black and white, Tarr subordinates the colours, contests their dominance, and constructs his cinematic images around the architectonics of the haptic.[63]

Tarr has been outspoken about his decision to reject digital formats and colour film. He stated that "they don't satisfy me" and caustically remarked: "colour is invented for directors who don't know how to use space and light to create mood."[64]

In relation to digital cameras, he said: "I do not use digital cameras; I do not like the perfection of their images. They don't give the same sense of texture and the same grainy images as I get from a 35mm analogue camera."[65] Tarr's remark encapsulates the fact that, for him, the textures of spaces, and even the noises and film grains swirling on the very surface of the image, have a crucial impact on the spatial experience of the audience. As film critic David Bordwell notes, Tarr's camera values the "rediscovery" and "scrutiny" of the "ripples of woodgrain and wrinkling walls."[66] His attention to infinitesimal details of wood, brick, stone and concrete, as well as the complexion, solidness, coarseness, porosity, density, imperfection, corrosion and rustiness of material, bestows his images with a strong haptic quality (fig. 7). He persistently shifts our attention from the actions and "gestures" of actors to the textures, "touch" and "smell" of spaces.[67] Within his oeuvre, there are several instances in which his camera stares at microscopic details of a wall from an uncannily close distance, forcing his spectators to see nothing other than the small textures (fig. 8).

In a shot from *Damnation*, the extremely close and coarse texture of the wall occupies the same amount of time and space as human faces. The shot, which is regarded by Tarr as the "manifesto" of his cinema, fluctuates between the wall and human faces in a cyclical manner. The wall gains an equal position to the characters' faces. The cracks and wrinkles on the wall are treated as if they are as significant as the facial expressions on a human face in a close-up. Due to this attention to textures and tactile details in the cinema of Tarr, space starts to develop a face and "man and space become one."[68] In his cinema, the walls that typically serve as mere backgrounds in mainstream cinema develop their own identity and "receive attention in their own right through long, almost obsessive camera shots of their decrepit textures and plasters."[69] Tarr's blunt answer to questions about his fondness for textures and small details of physical spaces may function as an ideal concluding segment for this argument:

> [C]an you ignore the beautiful textures of the brick walls when you are walking in the street? So, my camera cannot ignore them either. Texture is the lost element in the shitty contemporary cinema. We are surrounded by powerful small things, but, unfortunately, in the films, they are put very far from the camera. Camera and screen are the best mediums that help us magnify, glorify and appreciate small things that we are forgetting like textures and their beauty … texture is what gives identity to materials and it does the same thing to images.[70]

Concluding Remarks

Tarr's filmmaking method suggests valuable lessons for the theory and practice of spatial filmmaking within and beyond the built environment disciplines. The way that camera choreography and time are understood within the context of architectural and urban filmmaking and cinema studies can particularly benefit from Tarr's method of thinking and praxis. Meticulously choreographed *camera movements*, the *prolonged temporality* of shots and his emphasis on the *tactility of images* have been examined in this article. These characteristics are, it argues, the antidotes to what ails the

Figure 7. Screenshot *Damnation*. © Béla Tarr, György Fehér, Joachim von Vietinghoff.

practice of the production of digital narrative media in the fields of architecture and spatial design—and in the academic environments, especially, that are the site of their freest experimentation.

Figure 8. Screenshot *Damnation*. © Béla Tarr, György Fehér, Joachim von Vietinghoff.

This article is meant to function only as an introductory foray into this relatively neglected style of filmmaking and into Tarr as a representative of it. I suggest that further research into alternative filmmakers with distinctive spatial tendencies, like Tarr, will provide novel grounds and new horizons for discussion and investigation in the studies of cinema and space. At the intersection of philosophy, media and the built environment, some scholars have begun to recognise the utility of his cinema, and slow cinema in general. Michael Tawa, for instance, finds in the work of Tarr an "accessible and instructive" cinematic instance for "engaging with the atmosphere through a properly tectonic practice."[71] However, what Tarr and similar cases can offer the theory and practice of filmic storytelling in space-oriented disciplines has not yet been fully realised, and slow cinema remains an uncharted territory for film and architecture studies. As a future direction of research within the field of architecture and film, further in-depth analysis of Tarr's spatial and cinematic strategies will undoubtedly reveal more of the remarkable extent of the instructiveness of his work to the field.

Film is a time-based medium and converts the "performance of a specific materiality to a specific temporality."[72] Unlike filmmakers, architects are accustomed to working with tangible geometric forms and visual parameters, and are generally not trained to deal with the vague and abstract phenomena of time.[73] Tarr and other figures of "slow cinema" offer architects a prompt to slow down and grasp the effect of time on their audience. While it is not necessary to imitate the exact aesthetics of slow films, slow cinema teaches us that the filmic representation of space requires a strategic and patient temporal design. Engagement with slow cinema can counteract what Pallasmaa describes as the negative effect of the "accelerated stimulation of action cinema" on the field.[74]

In striking contrast with mainstream cinema, in which architecture is a backdrop to the ping-pong of dialogues and actions filmed in medium shots, slow cinema gives an audience more time to observe and a filmmaker more time to articulate. To open the topic of slow cinema for architecture will benefit the discipline in two ways. First, slow cinema, through slow-paced editing and camera movements, represents architectural spaces and the way they are used in everyday life more accurately. By capturing a more accurate image of space and time, slow cinema provides a reliable visual source for the study of architecture. Secondly, slow cinema advances an aesthetic regime and representational method that can be adopted not only in architectural filmmaking but also in other modes of architectural image-making and storytelling. The spatial experience driven nature of slow films can function as a rich aesthetic source for spatial and narrative ideas, techniques and inspirations.

The nonconformist and radical visual and representational culture presented by filmmakers like Tarr can decisively impact how the discipline of architecture deals with the tasks of observing, documenting and communicating. These films might not contain extraordinary spaces from a conventional architectural design point of view. Nonetheless, the contemplative nature of slow movies offers authentic and unprecedented aesthetic, socio-political and experiential perspectives on architecture. Slow films visualise spatial experiences that are not common in the mainstream. The obvious emphasis on spatiality turns the films into an untapped source of novel spatial techniques and experiences.

This article has attempted to shed light on the spatial and architectural relevance of Béla Tarr's cinema in a way that is useful to disciplines such as media and film studies, as well as architecture. The spatial aspects of Tarr's cinema hold immense significance for disciplines beyond architecture, such as media and film studies, where the question of space is not traditionally a central focus. His unique approach to space and time challenges the conventional narrative preoccupations of cinema and instead privileges the embodied experience of space and movement. His radical challenge to genre conventions puts forward novel representational and media politics of space. Tarr resists the denial of the body in contemporary screen culture, foregrounds spatial dimensions of cinema that are often overlooked and expands the framework of the representation of space, time, and embodied experience.

Notes on Contributor

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Notes

1. For examples of phenomenological body of work on film and architecture see Michael Tawa, *Atmosphere, Architecture, Cinema: Thematic Reflections on Ambiance and Place* (London: Palgrave Macmillan, 2022); Juhani Pallasmaa, *The Architecture of Image: Existential Space in Cinema* (Helsinki: Rakennustieto, 2007). For scholarship on post-occupancy and everyday life see François Penz and Andong Lu, *Urban Cinematics: Understanding Urban Phenomena through the Moving Image* (Bristol: Intellect, 2011); François Penz, *Cinematic Aided Design: An Everyday Life Approach to Architecture* (New York: Routledge, 2017). For instances of socio-political studies into film and architecture or cities see Giuliana Bruno, *Atlas of Emotion: Journeys in Art, Architecture, and Film* (New York: Verso, 2002); Nezar AlSayyad, *Cinematic Urbanism: A History of the Modern from Reel to Real* (New York: Routledge, 2006); Les Roberts, *Film, Mobility and Urban Space* (Liverpool: Liverpool University Press, 2012).
2. Marc Boumeester, "'Camera Eye': Cinematic Studio Research into Architectural Practice," *Architecture and Culture* 3, no. 1 (2015), 88.
3. François Penz, "Foreword," in *The Architecture of the Screen: Essays in Cinematographic Space*, ed. Graham Cairns (Chicago: Illinois Intellect, 2013), ix; François Penz, "Cinema and Architecture: Overlaps and Counterpoints of the Studio-made Features in the Film Industry and Studio-based Experiments in Architectural Education," *Profile: Architecture and Film*, ed. Maggie Toy, *Architectural Design* 64, nos 11–12 (1994), 41; François Penz, "Architecture and the Screen from Photography to Synthetic Imaging Capturing and Building Space, Time and Motion," in *Architectures of Illusion: from Motion Pictures to Navigable Interactive Environments*, ed. Maureen Thomas and François Penz (Bristol: Intellect, 2003), 135.
4. Penz, "Foreword," ix.
5. Penz, "Foreword," ix; Penz, "Cinema and Architecture," 41; Penz, "Architecture and the Screen," 135.
6. Beyond Tawa, *Atmosphere, Architecture, Cinema* and Penz, *Cinematic Aided Design*, see also Michael Tawa, "Consilient Discrepancy: Porosity and Atmosphere in Cinema and

Architecture," *Architecture_MPS* 11, no. 3 (2017): 1–17; Thorsten Botz-Bornstein, *Organic Cinema: Film, Architecture, and the Work of Béla Tarr* (Oxford: Breghahn, 2017).

7. See for instance Scott Macaulay, "Three Interviews with Gus Van Sant About his Long-Take, Béla Tarr-Influenced 'Death Trilogy'," *Filmmaker Magazine*, July 5, 2018, https://filmmakermagazine.com/105606-three-interviews-with-gus-van-sant-about-his-long-take-bela-tarr-influenced-death-trilogy/; Nick Newman, "Watch Discussions Between Apichatpong Weerasethakul, Carlos Reygadas, and Béla Tarr," December 2, 2016, https://thefilmstage.com/watch-discussions-between-apichatpong-weerasethakul-carlos-reygadas/.
8. On Tarr's influence on other filmmakers and media, see SamWigley, "Robert Eggers: 5 Influences that Shaped The Lighthouse," British Film Institute, January 30, 2020, https://www.bfi.org.uk/interviews/robert-eggers-lighthouse-influences.
9. ASL (Average Shot Length) is the average duration of shots in a film, calculated by dividing the total runtime of all shots by the number of shots, and is used to analyse a film's editing rhythm. The Cinemetrics is a research initiative based at the Forum of Digital Culture (University of Chicago) that collects ASL data for quantitative analysis of cinematic styles. See https://cinemetrics.uchicago.edu/database.
10. See David Escudero, "Personalising Architecture: The Contribution of Neorealism to Italian Architecture through the INA-Casa Programme (1949–56)," *Architectural Theory Review* 24, no. 1 (2020): 86–109; David Escudero, "Beyond Filmmaking: Searching for a Neorealist Architecture in Italy, 194X-195X," *Journal of Architecture* 24, no 4 (2019): 441–68. In the introduction, he further explains the tie between neorealism and Deleuze and how it affected Italian architecture in the *dopoguerra* period.
11. Gilles Deleuze, *Cinema 2: the Time-image*, trans. Hugh Tomlinson and Robert Galeta (London: Continuum, 2005), 129–30; also 15–24.
12. See, for example, Simone Brott, *Architecture for a Free Subjectivity: Deleuze and Guattari at the Horizon of the Real* (Farnham: Ashgate, 2013), 53; Jakub Zdebik, *Deleuze and the Diagram: Aesthetic Threads in Visual Organization* (London: Bloomsbury, 2014), 101; Brian McGrath, Cheng-Leun Hsueh, Paul Cho Hoi Shan, José De Jesús Zamoa, and Victoria Marshall, "Club Cinemetrics: New Post-Perspectival Design Methodologies," *Architectural Design* 79, no. 1 (2009), 67; AnnMarie Brennan, "Life at the Periphery: The Urban Politics of Neorealism in Post-War Rome," *Interstices: Journal of Architecture and Related Arts* 12 (2011): 59–61; Robert Somol, "Dummy Text, or The Diagrammatic Basis of Contemporary Architecture," in *Diagram Diaries*, ed. Peter Eisenman (New York: Universe Publishing, 1999).
13. Jacques Rancière, *Béla Tarr, the Time After*, trans. Erik Beranek (Minneapolis, MN: Univocal, 2013), 34.
14. Jacques Rancière, "Conférence de Jacques Rancière sur Béla Tarr," lecture, Cinémathèque Suisse, January 13, 2012, https://www.youtube.com/watch?v=WMwHjXx52zk&t=253s.
15. Brian Henderson, "The Long Take," *Film Comment* 7, no. 2 (1971), 1; André Bazin, *What is Cinema?*, trans. Hugh Gray (Berkeley: University of California Press, 2005), 34.
16. Bazin, *What is Cinema?*, 34.
17. Bazin, *What is Cinema?*, 34.
18. Andrew Horton, "Theo Angelopoulos and the Cinema of Contemplation," *Modern Greek Studies* 16-17 (2014), 14.
19. Igea Troiani and Hugh Campbell, "Orchestrating Spatial Continuity in the Urban Realm," *Architecture and Culture* 3, no. 1 (2015), 8; Douglas Smith, "Paris Plays Itself: Widescreen and the City," *Architecture and Culture* 3, no. 1 (2015), 21.
20. Stavros Alifragkis, "Constructing the Urban Cinematic Landscape: Theo Angelopoulos's Thessaloniki," in *Contemporary Greek Film Cultures from 1990 to the Present*, ed. Tonia Kazakopoulou and Mikela Fotiou (Oxford: Peterlang, 2017), 61; Janina Schupp and François Penz, "Cinematic Rhythmanalysis of Architecture: Mining Moving Images for Post-occupancy Studies," *Journal of Architecture* 26, no. 7 (2021), 1060. See also Francois Penz, "Film, Space, Architecture (part 2/3)," symposium recording, Architectural

Association School of Architecture, April 27, 2018, YouTube, 2:09:21, https://www.youtube.com/watch?v=pjL51GibT5A.

21. Béla Tarr, unpublished interview with Hamid Khalili, 2018.
22. Béla Tarr, "Gary Pollard Interviews the Great Hungarian Director Bela Tarr for RTHK's *The Works*," interview, January 4, 2011, by *GaryRTHK*, 9:28, https://www.youtube.com/watch?v=HPpJoTmIeuc&t=55s.
23. Tarr, unpublished interview; Tarr, "Gary Pollard interviews the great Hungarian Director."
24. Tarr, unpublished interview.
25. Tarr, unpublished interview.
26. Peter Zumthor, "Peter Zumthor at the Royal Gold Medal Lecture 2013," *Dezeen*, February 6, 2013, https://www.dezeen.com/2013/02/06/peter-zumthor-at-the-royal-gold-medal-lecture-2013/.
27. Tarr, unpublished interview; Hamid Amouzad Khalili, "The Architecture of Film: Tarr, Angelopoulos and How to Ride a Wild Horse" (PhD diss., Univerity of Melbourne, 2020), 99.
28. Peter Zumthor, *Atmospheres: Architectural Environments; Surrounding Objects* (Berlin: Birkhäuser, 2006), 53.
29. Tawa, "Consilient Discrepancy," 3; Rancière, "Conférence de Jacques Rancière sur Béla Tarr"; Jacques Rancière, *La Fable Cinématographique* (Paris: Seuil, 2001), 18.
30. In the conclusion of *Cinema 2*, Deleuze introduces two new conceptions: "tectonic image" and the act of "reading an image." He argued that the rejection of a sensory-motor schema and action-image, the presence of any-whatever-spaces, empty spaces, along with other temporal and spatial features of time-image cinema, transformed the audio-visual image of cinema to a "tectonic" image with many layers to be explored.—Deleuze, *Cinema 2*, 257.
31. Giuliana Bruno prominently tackles the notion of movement in cinema and architecture, particularly in her book *Atlas of Emotion: Journeys in Art, Architecture, and Film* (New York: Verso, 2002). The book draws a complex map connecting various theoretical sources discussing the relationship between architecture and movement. Amongst numerous scholarly works published on the topic, another significant text is Peter Blundell Jones and Mark Meagher, *Architecture and Movement: the Dynamic Experience of Buildings and Landscapes* (London: Routledge, 2015).
32. Bazin, *What is Cinema?*, 40–55.
33. Raymond Durgnat, "Angelopoulos: The Long Take in Voyage to Cythera: Brecht and Marx vs. Bazin and God," *Film Comment* 26, no. 6 (1990), 43.
34. Sergei Eisenstein, *Selected Works*, ed. Michael Glenny and Richard Taylor (London: BFI Publishing, 1991), 2:60; Sergei Eisenstein, "Montage and Architecture," trans. Michael Glenny, *Assemblage* 10 (1989), 121; Davide Deriu, "Montage and Modern Architecture: Giedion's Implicit Manifesto," *Architectural Theory Review* 12, no. 1 (2007), 38.
35. Eisenstein, *Selected Works*, 2:60.
36. Sergei Eisenstein, "Монтаж, Мышление, Техника," *Kinovedcheskie zapisk* (1989), 4.
37. Carla Molinari, "Sequences in Architecture: Sergei Ejzenštejn and Luigi Moretti, from Images to Spaces," *Journal of Architecture* 26, no. 6 (2021), 893.
38. Molinari, "Sequences in Architecture," 897; Deriu, "Montage and Modern Architecture," 38.
39. Le Corbusier, *Le Corbusier Talks with Students* (New York: Princeton Architectural Press, 1999), 45; Flora Samuel and Peter Blundell Jones. "The Making of Architectural Promenade: Villa Savoye and Schminke House," *Architectural Research Quarterly* 16, no. 2 (2012), 109; Manfredo Tafuri and Francesco Dal Co, *Modern Architecture*, trans. Robert Erich Wolf (London: Faber, 1980), 1:112, 1:121–30.
40. Le Corbusier, *Le Corbusier Talks with Students*, 45; Robert Mallet-Stevens, "Le Cinéma Et Les Arts: L'architecture," *Les Cahiers du Mois* 16–17 (1925): 95–98; David Leatherbarrow, *Architecture Oriented Otherwise* (New York: Princeton Architectural Press, 2009), 248. Beatriz Colomina, "The Split Wall: Domestic Voyeurism," in *Sexuality & Space*, ed. Beatriz Colomina (New York: Princeton Architectural Press, 2000), 117.

41. Leatherbarrow, *Architecture Oriented Otherwise*, 248.
42. Juhani Pallasmaa, "Space and Image in Andrei Tarkovsky's Nostalgia: Notes on a Phenomenology of Architecture," in *Chora: Intervals in the Philosophy of Architecture,* ed. Alberto Pérez-Gómez and Stephen Parcell (London: McGill-Queens University Press, 1994), 151.
43. Elie During, "Materiality of the Image," lecture, European Graduate School, March 27, 2016, https://www.youtube.com/watch?v=Vf5J-l4DMcI.
44. András Bálint Kovács, *The Cinema of Béla Tarr: The Circle Closes* (New York: Columbia University Press, 2013), 54.
45. Kovács, *The Cinema of Béla Tarr*, 59.
46. Alifragkis, "Constructing the Urban Cinematic Landscape," 49. Tawa, "Consilient Discrepancy," 3.
47. Béla Balázs, *Theory of the Film: Character and Growth of a New Art* (London: Dobson, 1952), 46.
48. Steven Holl, Juhani Pallasmaa and Alberto Pérez Gómez, *Questions of Perception: Phenomenology of Architecture* (San Francisco, CA: William Stout, 2006), 90, 92. The work of the group of phenomenologists can be traced to Gaston Bachelard's discussion about what he calls "material imagination" in *L'eau et les Rêves: Essai sur l'imagination de la matière* (Paris: Corti, 1942), 5. See also See Michael Tawa, *Theorising the Project: a Thematic Approach to Architectural Design* (Newcastle upon Tyne: Cambridge Scholars Publishing, 2011), 16. See also Christian Norberg-Schulz, *Genius Loci: Towards a Phenomenology of Architecture* (London: Academy Editions, 1980), 15; Juhani Pallasmaa, *The Embodied Image: Imagination and Imagery in Architecture* (Chichester: John Wiley & Sons, 2011), 75.
49. Juhani Pallasmaa, *The Eyes of The Skin: Architecture and The Senses* (Chichester: John Wiley & Sons, 2005), 13.
50. Vlada Petric, "Tarkovsky's Dream Imagery," *Film Quarterly* 43, no. 2 (1989), 28.
51. Andrei Tarkovsky, *Sculpting in Time: Reflections on the Cinema* (Austin: University of Texas Press, 1987), 216.
52. Slavoj Žižek, *The Fright of Real Tears: Krzysztof Kieślowski Between Theory and Post-theory* (London: BFI Publishing, 2001), 102.
53. Steven Marchant, "Nothing Counts: Shot and Event in Werckmeister Harmonies," *New Cinemas: Journal of Contemporary Film* 7, no. 2 (2009), 143; Elzbieta Buslowska, "Cinema as Art and Philosophy in Béla Tarr's Creative Exploration of Reality," *Acta Universitatis Sapientiae, Film and Media Studies* 1 (2009): 108; David Bordwell, "The Sarcastic Laments of Béla Tarr," *David Bordwell's Website on Cinema: Observations on Film Art*, September 19, 2007, http://www.davidbordwell.net/blog/2007/09/19/the-sarcastic-laments-of-bela-tarr/. See also David Bordwell, "Splashy and Spare, Vengeance and Regrets," *David Bordwell's Website on Cinema*, March 28, 2011, http://www.davidbordwell.net/blog/2011/03/28/splashy-and-spare-vengeance-and-regrets/.
54. Tarr, unpublished interview.
55. Gilles Deleuze and Félix Guattari, *A Thousand Plateaus: Capitalism and Schizophrenia*, trans. Brian Massumi (London: Bloomsbury Academic, 2013), 492; Giuliana Bruno, *Surface: Matters of Aesthetics, Materiality, and Media* (Chicago: University of Chicago Press, 2014), 189.
56. Alvar Aalto, *Synopsis: Painting, Architecture, Sculpture* (Basel: Birkhauser 1970), 267.
57. Botz-Bornstein, *Organic Cinema*, 7; Buslowska, "Cinema as Art and Philosophy in Béla Tarr's Creative Exploration of Reality," 110.
58. Stephen Parcell, "The Momentary Modern Magic of the Panorama," in *Chora*, ed. Pérez-Gómez and Parcell, 174.
59. Giuliana Bruno, *Visualizing the City*, ed. Alan R. Marcus and Dietrich Neumann (London: Routledge, 2007), 13; Bruno, *Atlas of Emotion*, 16.
60. Bruno, *Visualizing the City*, 13; Bruno, *Atlas of Emotion*, 16.

61. Kenneth Frampton, “Towards a Critical Regionalism: Six Points for an Architecture of Resistance,” in *The Anti-aesthetic: Essays on Postmodern Culture*, ed. Hal Foster (Seattle, WA: Bay Press, 1983), 29.
62. Tarr, unpublished interview; Amouzad Khalili, “The Architecture of Film,” 125; Frampton, “Towards a Critical Regionalism,” 29.
63. *Damnation* (1988) is a film in which Tarr abandoned the neorealist style, established his distinctive filmmaking style and started to shoot in black and white.
64. Tarr, unpublished interview.
65. Tarr, unpublished interview; Amouzad Khalili, “The Architecture of Film,” 124. See also Eric Kohn, “An Interview with Bela Tarr: Why He says *The Turin Horse* is his Final Film,” *Indie Wire*, February 9, 2012, http://www.indiewire.com/2012/02/an-interview-with-bela-tarr-why-he-says-the-turin-horse-is-his-final-film-242518/.
66. Bordwell, “The Sarcastic Laments of Béla Tarr.” See also Bordwell, “Splashy and Spare, Vengeance and Regrets”; Botz-Bornstein, *Organic Cinema*, 7.
67. Bordwell, “The Sarcastic Laments of Béla Tarr.”
68. Buslowska, “Cinema as Art and Philosophy in Béla Tarr’s Creative Exploration of Reality,” 110.
69. Botz-Bornstein, *Organic Cinema*, 25.
70. Tarr, unpublished interview.
71. Tawa, “Consilient Discrepancy,” 1.
72. Felicity Colman, *Film Theory: Creating a Cinematic Grammar* (London: Wallflower, 2014), 39.
73. Elsewhere I have talked about the lack of temporal design skills/training in architecture schools. See Hamid Khalili, “A Design Studio Experiment: Pedagogy, Digital Storytelling, and Atmosphere in Architectural Education,” *International Journal of Design Education* 17, no. 1 (2023), 223–24.
74. Juhani Pallasmaa, *The Thinking Hand: Existential and Embodied Wisdom in Architecture* (Chichester: Wiley, 2009).