Screen Space Reconfigured
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Published by Amsterdam University Press

Bull, Synne Tollerud and Susanne Saether.
Screen Space Reconfigured.
Amsterdam University Press, 2020.
Project MUSE. muse.jhu.edu/book/76716.

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10. ‘Nothing Will Have Taken Place – Except Place’: The Unsettling Nature of Camera Movement

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Abstract
In 1897, Stèphane Mallarme threaded this phrase through his culminating work of modern poetry ‘Un Coup de Des’. Michael Snow, commenting on his 1967 film Wavelength, another radical work of modernist vision, invoked Mallarme’s phrase and sets us thinking about how the moving image recreates/explores/questions the nature of place. The radical role of the moving image in providing new modes of our experience of space has been neglected or simply presented as a deviant deconstruction of a dominant commercial narrative cinema. Taking seriously the way the moving image provides new tools for our understanding of our place in a technological world, I will discuss moments of camera movement and the mobile frame in cinema practice, both commercial and avant-garde, historical and contemporary.

Keywords: Cinema, place, space, radical modernism, camera movement, avant-garde

Space and Place
In his classic work of cultural geography, Tuan Yi-Fu distinguished between the categories of space and place. Place, he claimed, is security, while space is freedom. Space is associated with movement, while place appears as a pause, a location we dwell on. Place becomes associated with home, with specificity, while space implies potentiality and possibility. But the relation...
between space and place can be transformative. Tuan’s field of cultural geography studies how humans (and some animals) transform space into a place of significance and habitation. We can settle down or move on. But should we set up an absolute dichotomy between place as rest and space as movement? Patterns of movement exist that align mobility with places (roads, cycles of migration of nomadic tribes, distant horizons). While in our everyday lives we might seek primarily to find a place to settle down, nonetheless the uncanny nature of the human, as is described in the famous chorus in Sophocles’ Antigone, also drives us to pull up stakes and venture forth into the farther reaches of space. Following Russian Formalist Victor Shklovsky’s rooting of the work of art in a drive to renew perception by tearing away layers of habit, we could describe art itself as the process whereby place is transformed back into space and the security of the familiar and domestic opened up to the adventures of unbounded mobility.

Thus the recent film Gravity (Alfonso Cuarón, 2013) does not seem to me primarily to engage its audience in a suspenseful journey of a return to place from literal outer space (although that narrative is certainly there and allows narratively driven viewers to feel satisfied). Rather, the film’s great attraction lies in marshaling the current state of the art of cinematic control of image and sound to create a fusion of the exhilaration and the terror of the feeling of becoming untethered from any place, of floating in space. The buoyant loss of gravity the film creates goes beyond the powerful invocation of the fantasy of flight realized in Avatar (James Cameron, 2009).

We float, profoundly abstracted, in an intensely visual, non-tactile, yet almost overwhelmingly kinesthetic realm of the senses that we rarely, if ever, experience. Pitched between infinite liberation and absolute vulnerability, as viewers we cling to these astronauts in a space that feels paradoxically both intrauterine and utterly unbounded. Even the most elementary orientations of place—up and down—are abolished by a camera and a viewpoint that has no ground, no consistent horizon, only a constantly shifting sensation of the unwilled movement of bodies in space. The freedom of the virtual camera of the digital realm matches director Alfonso Cuarón’s brilliant use of the possibilities of the Atmos sound system, which does not simply surround us but constantly surprises us as sound pulls us upward as well as circling about. The suspense of the heroine’s struggle to find a place within

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1 Tuan, Space and Place.
2 Shklovsky, ‘Art as Technique’.
3 Dolby Atmos is a new audio format for creating and playing back multichannel movie soundtracks. It was developed to give movie sound a more three-dimensional effect.
a homeward-bound vehicle reflects not only the logic of a plot based in space travel but also the viewer’s growing desire to place her own seat within this gravity-less world, to reassure herself she is in a theatre placed before a spectacle rather than becoming lost within it, possibly never to return.

As Shklovsky was well aware, the means of art are both technical (‘art as technique’ is one translation of his most famous essay) and historical. The canonization of styles dulls the edge of techniques of defamiliarization, which need to be renewed with unfamiliar or forgotten devices. These cycles may even, as art historian Heinrich Wolfflin claimed, alternate between open and closed forms, as harmonic and symmetrical styles replace the baroque emphasis on motion and unbalance and vice versa. But I would claim that aesthetics (understood as an analysis of the devices of art more than its hierarchy of values) has never fully digested the technical novelty of what we can call generically ‘the moving image’. I have tried to stress in recent years the way movement redefines the nature of the image and perhaps even undoes the concept. Images remain placed, whether in a frame, on a wall or ceiling, on a screen, or in our hand. But a moving image, even if it is in some sense still placed on a screen, leads us beyond that placement, exceeds its borders even if only virtually. It has often been assumed that the invention of the moving image (whether in 19th-century philosophical toys, the invention of cinema, or the advent of video or computer screens) was simply the result of the Western thirst for a realist illusion (as if we know what that oxymoron means), a new means of more accurately representing the world. More than its mimetic role, I want to stress the moving image as a device, a means by which we can play with our perceptions and our sense of place and space.

The double nature of cinema as a moving image remains under-theorized, especially in comparison to the dominant syntax of cinema, editing. Instead of the discreet articulation and differentiation of space and time that editing embodies, movement consists of flow, the merging of space and time. The double aspect of movement in cinema includes, first off, the movement contained in the image itself: the depiction of people and things in motion, the actual animation of the image. This production of motion was based on the perceptual paradoxes of the philosophical toys fashioned in the 19th century, which fused the nature of human sight with the possibilities of speed and precision offered by simple mechanics. But the movement

Traditional 5.1- and 7.1-channel surround setups deliver sound using speakers placed all around the auditorium.

4 Wolfflin, *Principles of Art History*. 
of images created by the movie camera/projector is compounded, and perhaps confounded, by the mobility of the camera itself, its ability to change perspective or even location. As my colleague Daniel Morgan has observed, ‘despite their prominence within the history of cinema, camera movements have remained surprisingly marginal and elusive in critical work’.5 This neglect contrasts sharply with the almost foundational role that editing has played, not only in film stylics but even more in film theory. Whether vaunted by theorists from Sergei Eisenstein on as constituting the essence of cinema, or forbidden as a form of cinematic trickery, editing tends to foreground significance over space.6 Editing can abstract details from space, either through framing or through switching to another space. In editing, space is overcome or, in a relative sense, abolished.

Camera movement, on the other hand, seems to make us aware of space itself, its continuity and extension. Furthermore, it seems to place us as viewers within space as if we not only observed it but moved within it, discovering its new aspects and dimensions. This is a tricky claim, since as cinema spectators we always literally remain outside the space of the film. But the role of camera movement often seems to make us approach deeper into the world of the film, to merge into it. We become in some sense immersed. As Morgan put it when describing a camera movement in Hitchcock’s Vertigo: ‘For a moment, we are within the world of the film.’7 We must acknowledge, of course, the gulf between the space of the viewer and that portrayed in a film space. There remains an absolute difference between the three-dimensional space a cinema spectator dwells in and the virtual space portrayed on the screen.

But there are different ways to portray space based on the choices made of both media and stylics, which entail different ways that viewers can experience the space of an image. A flat surface can seem recessive if perspective systems are employed in an image, or less recessive if certain techniques, such as foreshortening, are avoided (as in Persian miniatures). Likewise, varying lenses in photography can create different senses of space (the distortion of a prismatic lens; the collapsing of planes through a telephoto lens). The movement of people or objects within a cinematic image can convey a sense of depth through changes in relative size or the changing

5 Morgan, ‘Max Ophuls’, p. 127.
6 Sergei Eisenstein’s theory of the primacy of montage in film is first articulated in ‘Bela Forgets the Scissors’ (1926) and ‘The Dramaturgy of Film Form (The Dialectical Approach to Film Form)’ (1929). See Eisenstein and Taylor, The Eisenstein Reader.
7 Morgan, ‘Where Are We?’, p. 228.
overlap of figures. The movement of the camera marshals its own spatial cues not only of depth but also of a sense of penetration (or withdrawal) into the virtual space as the frame line bordering the images changes with the movement of the camera. While still maintaining its virtual nature and separation from the viewer's space, nonetheless during camera movement the image and its borders slip in relation to our viewpoint, revealing aspects previously hidden or concealing ones previously seen. Thus a sense of being 'within the world of the film' while never abolishing the ontological gulf between viewer and image comes partly from shifting our orientation within space through the movement of the camera. Our sense of place within the film becomes mobile and shifting rather than fixed; not only does space change, but we seem to move with its shifting viewpoints.

Theoretical discussions of camera movement, even including Morgan's insightful essays, have tended to focus on the role that camera movement play within narrative film. In this context, the movement of the camera provides access to the diegetic world through its relation to characters and point of view or its role as a narrating agent, drawing our attention to the significant elements of the fictional world. As crucial and complex as these issues are, I am interested in something less exclusive, which exists not only in narrative but also documentary or lyrical/experimental films. This could be described as the way camera movement places—but also displaces—the viewer within a film. I want to explore less our imagining of fictional worlds than the games that camera movement plays with our sense of virtual motion. I call it 'virtual' to acknowledge the fact that camera movement in cinema does not actually transport us physically; we stay fixed in most circumstances in a single viewing position. However, we also perceive a sensation of motion, both visually and kinesthetically, and even in some cases (as in Gravity) aurally.

Thus, the centre of my discussion lies in exploring the way the moving image—and even more specifically the image of movement given by the mobile camera—transforms our relation to the image. Rather than tracing the narrative possibilities this new form of imagery brings in its wake, I will pursue its affinities with the modernist project to transform the image and our relation to it—not only in cinema but in other visual arts and in poetry. Movement and its relation to the viewer will provide my clue to understanding this transformation. This topic could be an epic undertaking, and luckily a number of fine scholars have already tackled aspects of it. Most recently Christopher Wall-Romana, Pavle Levi, and P. Adams Sitney have all explored the affinity the moving image has with modernist practices
during the 20th century. I will offer here a modest tracing of the way the concepts of space and place can guide us in understanding the horizon opened by the practice of the image in motion.

Taking Place: The Avant-Garde Contemplates the Cinema

My discussion will take the form of a boomerang. First I want to follow how movement, as made available by the cinema, shook up other forms of modernist art. But I also want to return this modernist sense of the radical possibilities of motion to the practice of cinema in order to better grasp the radical possibilities of camera movement.

The title for this talk comes from an essential text in the history of modernism, Mallarmé’s masterpiece, the poem known as *Un coup de dés*. This work revolutionized the visual presentation of modern poetry, using typography to transform the relation between reader and text, including invoking the rocking of a ship in the process of shipwreck through the arrangement of words on page. Christophe Wall-Romana has called this work ‘the first modern visual poem’ and, even more daringly, ‘the first poem mediated by cinema’. Different type sizes not only introduce sudden shifts as we read the text but also link words of identical type size across the poem, in spite of being interrupted by other words and phrases. Thus a large typeface links together the phrase I use in my title: ‘RIEN […] N’AURA EU LIEU […] QUE LE LIEU’ generally translated into English as ‘Nothing will have taken place except place’. I will not attempt here a full exegesis of this amazing work or this ambiguous phrase (and I must confess my discussion of this text remains superficial and formal and limited to my topic). Rather, I will use this phrase as an emblem for the uncanny effect of camera movement: its transformation of space into place and vice versa.

It is the ambiguities, perhaps the ambivalence, of camera movement I wish to stress: its alternation between establishing a place and undoing the stability of place through unpredictable movement. I believe movement’s lack of stability explains why editing—so easily (if often misleadingly) compared to language, syntax, or even grammar—has dominated theories of cinema. Editing tends towards the systematic, while camera movement seems to enact the ungraspable and dynamic aspects of change. Thus the

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9 Stephane Mallarmé, ‘Un Coup de Dés’.
very possibility of a moving image inspired the classic avant-garde movements at the beginning of the 20th century. The responses that modernist artists produced to the possibility of a moving image were by no means restricted to experimental films. Given that the expense and complexity of the technology of the cinema kept it out of the hands of many artists, one might claim that the main contribution that moving images made to the avant-garde lay in the way it influenced works in other media, a process Pavle Levi has called ‘cinema by other means’. Nor is this restricted to the more obvious mimetic imitations of the sweep of motion found in Futurist paintings or Marcel Duchamp's *Nude Descending a Staircase*. The challenge that the moving image of the cinema offered to modernist artists went beyond imitating the depiction of movement. Radical works in poetry, collage, and sculptures invoke, as Levi claims, not only movement but also the complex apparatus of the cinema: camera, projector, and screen and their relation to a viewer. Examples include such central modernist works as Mallarmé’s poem; Duchamp’s *Large Glass* (as Linda Dalrymple Henderson has demonstrated); Picabia’s mecanomorphs (as George Baker has revealed); cubist paintings and collages (as Bernice Rose has claimed); the cine-poems that Wall-Romana analyzes, beginning with *Un coup de dés*; and the range of international avant-gardist works Levi assembles.

The advent of cinema at the turn of the century encouraged the avant-garde to crash through seemingly solid barriers and gave birth to new ways of thinking about and making art based on the mobile perception that cinema offered. The early 20th-century fascination with movement as an aspect of our perception and understanding of the world is perhaps clearest not only in the writings of Henri Bergson but also in their rather surprisingly widespread reception and popularity. But a new awareness of the mobility of perception goes beyond the interest in Bergson’s concepts of intuition shown by the cubists and other visual artists, extending even to artists antipathetic to Bergson, such as Duchamp. Not only artists but also theorists such as the linguists Roman Jakobson and Victor Shklovsky explored new dynamic concepts inspired by the cinema. Jakobson, speaking retrospectively of his youthful avant-gardist impulses, declared he saw the ‘overcoming of statics’ as ‘the essential turn for the new era’. In his field

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11 Levi, *Cinema by Other Means*.
13 Bergson, *Creative Evolution*. See also Antliff, *Inventing Bergson*.
14 Jakobson, *Verbal Art*, p. 11.
of linguistics, Jakobson saw such static conceptions as a flaw in Ferdinand Saussure’s understanding of the synchronic system of language.

In criticizing this conception I referred, by no means accidentally, to the example of cinematographic perception. If a spectator is asked a question of synchronic order (for example, ‘What do you see at this instant on the movie screen?’) he will inevitably give a synchronic answer, but not a static one, for at that instant he sees horses running, a clown turning a somersault, a bandit hit by bullets.¹⁵

Unlike words, cinematic images moved and in this respect reflected a dynamic interrelation with the world in time and space. Thus, Mallarmé and the modern poets who followed him sought to give even the signifiers of their work—the arrangement of letters on the page—the impulse of dynamic movement and to convey this sensation to the reader. The new modern environment of cinema provided constant examples of this transcription and perception of motion. Besides the teeming motions of modern life, new modes of transportation awakened new modes of perception, such as the panoramic vision that Wolfgang Schivelbusch describes. According to Schivelbusch, 19th-century passenger trains seated passengers in upholstered comfort that resembled a secure bourgeois living room, while from the window they observed a rapidly changing visual perspective of the moving landscape, recalling the painted panoramas of landscape offered as visual entertainment.¹⁶ Not only did the things of the world move but also our viewpoint. Mallarmé was keenly aware of these new possibilities of perception and somewhat mischievously entered into a discussion of automobile design with a journalist.

The coach, with its team of horses requires the inconvenience of a driver blocking the view [...] Something entirely different will have to come about. A bow window opening unto the space that one moves through magically, with nothing in front: the mechanic is placed in the rear, with his upper body above the roof, to steer like a helmsman. Thus the monster advances in an innovative fashion. This is the vision of a passing man of taste, putting things back in perspective.¹⁷

¹⁵ Ibid., p. 12.
¹⁶ Schivelbusch, The Railway Journey, pp. 52–68.
¹⁷ Mallarmé quoted in Kittler, Gramophone, Film, Typewriter, p. 287, fn. 121.
The forward-moving view through an unobstructed windshield functioned like a movie screen. The moving viewpoint that Mallarmé claimed allowed the man of taste to put things back into perspective became even more dynamic as the mechanic/chauffeur gave way to the driver who united vision with control of the motive impulse. Thus Henderson and Baker have both analyzed the automobile trip that Duchamp, Guillaume Apollinaire, and Francis Picabia took from the Jura Mountains to Paris in 1912. The vision of the automobile’s headlights cutting through a dark and stormy night gave Duchamp the image of the ‘headlight child’, the ‘divine blossoming of this machine-mother’ and thus planted the seed for *The Large Glass*, which Baker describes as ‘a work of art that would not longer represent but embody motion and transformation’.18

‘The Monster Advances in an Innovative Fashion’: The Mobile Spectator

While cinematic movement most obviously and universally consists of action occurring on the screen, it was the effect of this movement on the viewer that most fascinated the avant-garde. Although André Breton’s fascination with cinema may have been somewhat short-lived, it clearly helped him articulate an understanding of the central experience of surrealism as *dépaysement*.19 This term can be translated as disorientation, or more literally as ‘change of scene’, ‘change of venue’ in the legal sense, or even expatriation. Within my context, I think we could translate it as ‘displacement’ especially in the sense I have been developing: moving from the security of place into the uncertainties of space.

Movement in the cinema—especially camera movement that literally uproots our position—can be unsettling, as it displaces us. Of course, the context of the movement—where it goes and where it ends up, and especially its relation to narrative expectations—can also settle us down. But I find it instructive as a historian of cinema that camera movement not only appeared early in cinema history (with the Lumiére productions in the 1890s) but could claim to have had an early period of great popularity (around 1906) followed by a relative stagnation through the 1910s after cinema became more involved with storytelling and narrative editing (as seen in the films of D.W. Griffith or Louis Feuillade) and then a later

19 Breton, ‘As in a Wood’, pp. 72-77. Hammond translates *dépaysement* as ‘disorientation’.
rediscovery or re-invention during the 1920s from Lupu Pick’s *Sylvester* (1923), Murnau’s *The Last Laugh* (1924), and through Marcel L’Herbier’s *L’Argent* (1928). Therefore, the early blossoming of camera movement corresponded to an early period of relatively un-narrativized films (which I have called the cinema of attractions), gradually diminishing after 1906, and its relative stagnation came with the growing dominance of narrative film.

During the era of the cinema of attractions, camera movement created a popular genre of non-narrative cinema, the Phantom Ride. These early films displayed camera movement as their chief attraction. The camera was mounted on the front (less often the rear or side) of moving vehicles: trains most frequently but also trams, automobiles, boats, and even airplanes. The films simply presented this moving voyage through a landscape and the sensations and views it engendered. In 1905 and for a few years thereafter, such films were shown in specialized theatres (originally known as Hale’s Tours) that were made to look like railway carriages and in some cases included actual movement or its simulation by sound and other effects. Such exhibition contexts presented the films as ‘ersatz tourism’ and simulated journeys. This theatricalization of the auditorium may have also served to contextualize the *dépaysement* of the moving image itself. However, the genre frequently emphasized effects of speed and possible danger, aligning them with amusement park thrill rides. *Dépaysement* remained an attraction in itself for early film viewers of the Phantom Rides.

The succeeding decades of film history witnessed a process by which camera movement became adapted for narrative effects through a variety of key works These include *Cabiria* (Giovanni Pastrone 1914); the prerevolutionary films of Yevgeni Bauer such as *Daydreams* or *After Death* from 1915 and later *Sylvester* and *The Last Laugh*; followed by an embrace of camera movement in the late twenties: Murnau’s *Sunrise* (1927) and *L’Argent* (1928), Jean Epstein’s *La Chute de Maison Usher* (1929). In these films, the pure sensation of movement of the earlier films blended with narrative tasks, such as generating excitement or suspense to make cinema stories more dynamic and visceral.

After the dominance of narrative forms that crystallized in the early teens, camera movement either migrated to the less narrativized genre of actualities or travel films or it began to find codified narrative roles within fictional films. Without aspiring to a complete inventory, we could highlight such uses as pans following action or establishing a locale; tracking shots that perform more extensive but similar roles (especially following people walking or riding; movement through environments as a way of setting a scene); cameras mounted on means of transportation to film
characters riding within them. In these cases, camera movement serves primarily to follow or reveal actions rather than convey the sensation of movement—although it would be impossible to separate these two aspects absolutely. Sometimes such camera movement plays a syntactical role within the narrative, linking characters or actions, or revealing or emphasizing a detail. Camera movement can also convey subjective states of characters, as in the hand-held unsteady filming of the porter’s drunken dance in Friedrich W. Murnau’s *The Last Laugh* (1924). However, by the later 1920s, the avant-garde films of the French Impressionists and the Soviets thematized the pure kinesthesia of camera movement self-consciously. Friedrich Murnau’s panegyric on ‘a camera that can move freely in space’ that Lotte Eisner quotes beautifully conveys this new aesthetic excitement over the possibilities of camera movement:

> [...] the interplay of lines, rising, falling, disappearing; the encounter of surfaces, stimulation and its opposite, calm; construction and collapse; the formation and destruction of a hitherto almost unsuspected life; all this adds up to a symphony made up of the harmony of bodies and the rhythm of space; the play of pure movement, vigorous and abundant. All this we shall be able to create when the camera has at last become de-materialized. ²⁰

This and other declarations of the possibilities of the cinematic movement in the 1920s by Jean Epstein, Germaine Dulac, or Dziga Vertov indicate a fascination with the vertiginous sensations of camera mobility that ran parallel to filmmakers’ emerging mastery of narrative tasks. Murnau expresses precisely the ambivalent nature of the moving camera’s relation to space and place: ‘construction and collapse, formation and destruction’. With camera movement, the edge of the frame slices through space rather than serving simply to contain the image, revealing new perspectives, while it erases from view the already-seen. Thus we no longer simply depict a place or imagine space. We see enacted before us this energy of revealing and surpassing, the pulse of a previously unsuspected life.

But, with a few possible exceptions, camera movement even in these films of the 1920s appears as a sort of ‘special effect’, a moment lifted out of the narrative by its high degree of kinesis to create either an intensified dramatic effect (the racing between the race car and the locomotive in *Intolerance*, 1916) or a moment of descriptive lyricism (such the camera movement along

²⁰ Eisner, *Murnau*, p. 84.
city streets in *Asphalt*, 1929). After the coming of sound, the frequent practice of reframing a shot slightly as actors shift position naturalized the narrative role of camera movement by rendering it almost imperceptible in contrast to its earlier ‘special effect’ quality of more noticeable camera movements. In the 1940s, technical developments in the construction of the mechanics of moving the camera, especially smaller dollies and towering cranes, and increased depth of field encouraged the use of camera movement as a way to shape *mise-en-scène* continuously and subtly in a manner that was different from, but as effective as, editing. This later *mise-en-scène* style of longer takes integrates narrative gestures of emphasis or interrelation into the very texture of space.

Thus, as camera movement became integrated into narrative style, its effects of dépaysement became secondary, except in moments where the narrative itself evokes the chaotic or disorienting. The turn to extensive kinesis in the cinema of effects since the 1970s is too complex to discuss here, although it does seem to indicate an increased interest in the affect of camera movement on the viewer, possibly overwhelming (although not necessarily opposed to) its narrative roles. The recent possibility of constructing camera movement digitally (not at all limited to literal ‘animated’ film, as *Gravity* shows) marks a new era of camera movement no longer determined by the actual physical movement of equipment or human bodies, subject only to the algorithms of the digital process. But clearly the need for more thorough theoretical and historical grounding in defining its nature goes beyond the confines of this essay. In digital cinema, the dialectic of space and place becomes as much a technical issue as a stylistic or narrative one.

**Events Take Place: Towards Snow**

Avant-garde cinema has often foregrounded the contradictions of camera movement and its relation to the placing and displacing of the cinematic viewer. I believe the high point of this exploration took place almost fifty years ago in a series of films made by Michael Snow at the end of the 1960s, especially *Wavelength* (1967), *<--->* (Back and Forth, 1969), and *La Region Centrale* (1971). In an early essay, I compared these films to the use of camera movement I had discovered in early cinema, based on their shared focus on the kinesis processes of the camera. I still find this comparison worth making, in spite of its historical leap. But I want in the final section of this

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essay to explore more fully the way Snow took up the challenge that cinema had posed to the avant-garde at the beginning of the century.

Although *La Region Centrale* with its tour de force exploration of the relation between camera movement and location (almost three hours of images filmed with a universally pivoting camera mount, revolving at a variety of speeds, placed on a mountain in Northern Quebec) may offer the ultimate engagement with space and place in the history of cinema, I will focus on Snow’s shorter film *Wavelength* due partly to the dialectical and contradictory nature of its camera movement.

*Wavelength* immediately makes us confront the technical nature of camera movement and its contradictory perceptual address to our bodily sense by using a zoom. Is a zoom a form of camera movement? The zoom lens allows a change of the focal length without losing focus, so that the angle of vision (and therefore the space of the image) seems to either enlarge or shrink. Unlike the standard methods of changing to a different lens, the zoom allows this transition between focal length to be seen, to occur gradually on the screen. Thus, a zoom involves no literal change in the position of the camera. The camera neither physically approaches nor retreats from the filmed object. Instead, the optical qualities of the lens change, thereby changing the scene viewed through it. Because the relative size of an object is a principal perceptual indication of movement towards or away, the zoom seems in this sense to move, or rather to move the viewer through space. However—and here enters the contradiction—other visual perceptual cues of movement, such as the shift of objects in relation to each other known as motion parallax, do not occur. We could claim, then, that the zoom gives us a mixed message: are we moving within a world, or is the image simply being transformed through enlargement? This introduces a new ambiguous optical dynamic into the moving image, a contradictory sense of space in relation to place.

The speed of the transition that the zoom lens makes can vary enormously. Most often (perhaps because of its name), the zoom is associated with rapid transitions, sudden enlargements of the image, frequently used in the 1960s to generate an exciting dynamic intensification. But zooms can also be slow and gradual (as in Roberto Rossellini’s *Rise to Power of Louis the XIV*, 1966, or even as nearly unnoticeable, the zoom in *Wavelength* which slowly moves from widest angle to most telephoto over the course of approximately 45 minutes). As Snow claims, this zoom defined or determined the shape of the film which has led both to its key role in defining the genre of avant-garde film known as structural film and to some oversimplified descriptions of the film itself. Snow himself describes the zoom as ‘continuous’, which is
true in a sense, but not literally, since the film stutters and backtracks a bit through its use of superimpositions and even seems to readjust itself subtly at one point. Further, even if the zoom moves fairly continuously, time seems compressed as we jump at one point abruptly to nightfall. But unquestionably, the dominant impression the film makes is of a relentless zoom crossing the space of an 80-foot loft from a fixed position.

Snow described his film as a ‘room and a zoom’, a phrase I might relate to my dialectic between space and place. He claims that ‘the setting and the action that takes place there are cosmically equivalent’.22 I will not try to define the metaphysical implications of this statement but rather would stress that Snow sees Wavelength as an encounter between the place of the room and the action of the zoom, and that the film for him engages the modernist teeter-totter between an illusionist presentation of place (the loft we see in the film and the events that take place there) and a different, more abstract dynamic of the movement of the camera redefining this place into a space. He asserts: ‘the room is shot as realism. It is shot the way you would see a room as much as there is a consensus about how you see a room’.23 In other words, the room provides the familiar, the realm of common-sense appearance—very much a place. The zoom—the action of the lens in ever creeping forward towards its final encounter with the far wall and the photograph of the waves that is placed there—undoes this familiarity or at least transforms with it. It makes us aware not only of the film’s materiality (as light reflected on the screen) but also its role as a moving image mediated by the cinematic apparatus and its relentlessly narrowing visual field. As the film unreels, the recessive space of perspective becomes increasingly shallow and ultimately flattens as it ambiguously arrives at the space of a fixed image, the photograph of seemingly endless ocean waves pinned to the wall.

The complexity of the film exceeds the context I am placing it in, and its play with time and sound are as important as its engagement with space that I am focusing on. But Wavelength’s redefinition of cinematic space through a particularly ambiguous form of camera movement makes it a revelatory work. Snow could have treated his 45-minute zoom simply as a gradual release from the confines of place, as our view of the loft becomes eliminated by the progressive zoom, yielding a simple movement towards abstraction. But as Annette Michelson pointed out decades ago, Wavelength

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invokes narrative even as it avoids it.\textsuperscript{24} Neither simply a story nor exclusively an abstract work, *Wavelength*, like Mallarmé’s poem, explores the tension between the two forms as a cinematic dialectic of place and space. The indifference with which the trajectory of the camera moves in relation to the events that take place undoes the long history of the subjection of camera movement to narrative tasks. Of the four ‘human events’ (Snow’s phrase) that occur in the film, two are mundane (the delivery of a case of shelving and two women listening to the radio), while the other two—the invasion of the loft by a man who falls dead and the discovery of his body by a young woman who telephones someone to come and help her—are potentially dramatic.\textsuperscript{25}

But the zoom treats all the events equivalently, moving towards and past them without pause or deviation. As the zoom passes over the body towards the far wall, no culminating of escape or summoning of the outside world takes place. Compare this to another film confined to a single urban interior and crisscrossed by relentless camera movement—Alfred Hitchcock’s *Rope* (1948). Hitchcock’s continuously moving camera pokes its nose endlessly into narrative details, building suspense and curiosity. *Rope* ends with a summons to the outside world through diegetic sound as Rupert fires a revolver out the window. The zoom in *Wavelength* expresses, as Annette Michelson stressed, a relentless sense of destination and intention,\textsuperscript{26} yet its relation to the events remains suspended rather than suspenseful. Instead of heading out of the windows seen at the end of the loft, *Wavelength* ends with the camera fixed on the photograph and the image’s absolute fusion of flatness and recession—the space of an image as much as an image of space. What exactly has taken place here?

The technical nature of the zoom—its contradictory relation to movement through space—penetrates *Wavelength* to its core. Stylistically, the zoom has been condemned as an unnatural technique, creating an almost queasy uncertainty about how it relates to our perception and experience of space. It performs a purely optical transformation of space. While a tracking or dolly shot cannot be said to correspond exactly to the perception of a person moving through space, nonetheless such actual camera movements include more of the perceptual cues of spatial movement than does the zoom, which eliminates the motion parallax. The zoom feels strangely disembodied: as if our eyes moved forward without the orientations of our body following. Some critics and viewers have objected to this disembodied aspect of the

\begin{itemize}
  \item \textsuperscript{24} Michelson, ‘Towards Snow’, pp. 30-37.
  \item \textsuperscript{25} Snow, ‘A Statement on Wavelength’, p. 1.
  \item \textsuperscript{26} Michelson, ‘Towards Snow’, p. 33.
\end{itemize}
zoom, feeling that it violates an essential cinematic realism. However, modernists such as Snow are involved in complicating and even contradicting the familiarity that such realism relies on. We return to one of the great paradoxes of camera movement, its relation to our body. On the one hand, due to its kinesthetic affects, camera movement seems to root the viewing experience in the body by invoking the sensations of passing through space. The recurrent use of scenes filmed from roller coasters, whether from an avant-garde film like René Clair and Picabia’s *Entr’acte* (1924), a narrative film like Maurice Elvey’s *Hindle Wakes* (1918), or the wrap-around spectacle of *This is Cinerama* (1952), demonstrates the physical thrill such camera movement can deliver to viewers in a variety of contexts.

But while this sort of affect, basic as well to *Gravity*, returns us to the sensory realism possible in cinema, we must remember that this remains a virtual affect. Such scenes fascinate us partly because we know we are not really seated in a roller coaster but remain in a theatre seat. The motion we experience is both physically tangible and in some sense imaginary, the effect of the unique moving image that cinema manages. The truly avant-garde impulse in cinema, like the modernist works in other media inspired by the moving image, seem to me never to simply deny or destroy the impression of ‘illusion’ or ‘realism’ that cinema is capable of engineering. Rather, the game consists of engaging with this impression, playing with it, complicating and even contradicting it. Recall that Murnau described the play between destruction and construction that he felt camera movement could accomplish as dependent on a ‘de-materialized camera’. While the phrase may smack of idealism to some critical ears, I think in fact it returns us to the central transformation the moving image and especially camera movement carries out. We seem to enter the world of the film and yet we know we remain outside it. We are torn in orientations between the familiarity of place and the unsettling potential of space.

The zoom invites us to inhabit an impossible body, stretched between a position in space and an almost violent ability to surpass it. Thus, in one of the most experimental explorations of camera movements in film history, Hitchcock decided to fuse these contradictory forms of camera movement, the disembodied zoom and the all-too-bodily dolly-in. To convey what? The experience, precisely, of vertigo. At the climactic moment of the eponymous film, Hitchcock, at great expense, constructed a shot in

27 See the discussion of the zoom by Belton, ‘The Bionic Eye’, pp. 20-27 and the controversy about its original publication in *Film Comment* (Oct. 1980).
which these contradictory visual sensations would occur simultaneously, to convey Scottie’s experience as his acrophobia prevents him from saving the life of his true love. Hitchcock filmed the staircase of the bell tower in a shot that zooms out as it dollies in and vice versa. As these contradictory optics cause the spiraling space of the staircase to stretch and collapse, any consensus about how we see a place is torn to pieces before our eyes—as Hitchcock knew it would be. Amazingly to mark this moment of mental and narrative breakdown, Hitchcock pushes camera movement to its breaking point.

So does Snow in Wavelength. As the zoom reaches the crescendo of its narrowest angle of view and the abstract sound attains the highest point of its glissando, the frozen image of waves blurs and disappears. We witness less the denouement of a story than the final unreeling of a film, a demonstration of cinema’s relation to space and place. As Snow says concerning his film: ‘Events take place’.28 Or as Mallarmé wrote, ‘Nothing will have taken place but place’.

Bibliography


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Tom Gunning is Edwin A. and Betty L. Bergman Distinguished Service Professor at the Department of Cinema and Media Studies and Department of Art History at the University of Chicago. He works on problems of film style and interpretation, film history, and film culture. His published work has concentrated on early cinema, from its origins to the First World War, as well as on the culture of modernity from which cinema arose (relating it to still photography, stage melodrama, magic lantern shows, as well as wider cultural concerns such as the tracking of criminals, the World Expositions, and Spiritualism). His concept of the ‘cinema of attractions’ has tried to relate the development of cinema to other forces than storytelling, such as new experiences of space and time in modernity, and an emerging modern visual culture.